

**Site Specific Health and Safety Plan**  
**For**

**Underground Storage Tank Removal Activities  
L&D Scaffold Facility  
1420 162nd Avenue  
San Leandro, California**

**Prepared By:**

**Reese Construction  
18275 Bollinger Canyon Road  
San Ramon, CA 94583**

**1. Project to be Performed By:**

Reese Construction  
18275 Bollinger Canyon Road  
San Ramon, CA 94583

**2. Project Site Location:**

L & D Scaffold, Inc.  
1420 162<sup>nd</sup> Avenue  
San Leandro, CA 94578

**3. Description Of Project:**

Reese Construction ("RC") will remove one underground storage tank (UST) system formerly used to store gasoline for use in company vehicles.

**4. Organizational Structure and Responsibilities:**

The following individuals are assigned specific responsibilities and lines of communication for the duration of this project. **All RC employees and workers on this project and all other individuals at the work site are expected to maintain vigilance at all times to ensure that the work is conducted in a safe and efficient manner.**

**Site Health And Safety Officer:** Mr. Tom Reese of RC is the designated Site Health and Safety Officer for this project. Mr. Reese will be on site throughout the project and will also function as Field Supervisor. He is responsible for verification and overall compliance with this Health and Safety Plan. His duties include, but are not limited to:

- on site monitoring to determine appropriate levels of PPE
- site surveillance, hazard identification, and health risk analysis
- implementation of procedures and programs to assess and reduce risks to persons at the site
- implementation of site control measures
- conducting daily Health and Safety meetings
- instructing all site personnel in the terms and conditions of this Health and Safety Plan

From time to time, the Site Safety Officer may delegate all or part of his responsibilities to an alternate Site Health and Safety Officer who has equivalent training and experience.

## 5. Work Plan

The objective of the field activities is to remove one UST, piping, and dispenser in compliance with applicable agency regulations covering health and safety, hazardous wastes/hazardous materials, and tank regulations. The tasks to be performed will include some or all of the following:

- Acquire UST Removal Permits
- Prepare a Site-Specific Health and Safety Plan
- Mobilize and Prepare the Site
- Remove and Dispose of UST Contents
- Clean the UST Interior
- Perform Excavation and Removal of the UST, Piping, and Dispenser
- Dispose of the UST, Piping, and Dispenser
- Collect and Analyze Soil and Groundwater Samples
- Backfill and Resurface the Excavation
- Clean Up the Work Area
- Prepare a Letter Report

Details regarding the tasks to be performed are included in the proposal by RC titled *Proposal and Cost Estimate for Underground Storage Tank Removal Services, L&D Scaffold Facility, San Leandro, California*, dated May 18, 1999.

## 6. Summary of Hazards

**All RC and other personnel at the site will be made aware of the nature, level, and degree of exposure likely as a result of participation in this Hazardous Waste Operation. All personnel shall be advised of these conditions before entering the project site.**

The project will take place at the L&D Scaffold facility, an active warehouse and operations facility for a scaffold contractor. Trucks and automobiles drive in and out of the facility daily, including the area where the work is to be performed. The major health and safety hazards on this project will include the following categories:

- fire and explosion
- physical hazards associated with the operation of heavy machinery, working in areas near moving trucks, and working in areas near excavations
- chemicals hazards: the chemical of greatest health concern that workers are most likely to be exposed to is benzene, a constituent of gasoline.

## 7. Site Control Measures

If appropriate, the work area(s) will be divided into an exclusion zone, a contaminant reduction zone, and a clean zone. The exclusion zone includes the activities and materials that may pose a hazard to workers. The contaminant reduction zone is where hazardous substances are removed from site personnel and their equipment. The clean zone is a non-contaminated area where support services, storage of non-hazardous materials, and administrative activities may occur.

Access to the contamination reduction zone from the clean zone is through control point(s). All personnel entering the exclusion zone shall wear the prescribed PPE for the tasks they are to perform.

All personnel and equipment must pass through the contaminant reduction zone when exiting the exclusion zone. Decontamination of personnel and equipment will be accomplished as described in Section 12 below. PPE must be removed in the contaminant reduction zone before entering the clean zone.

All personnel within the exclusion and contaminant reduction zones will use the "buddy system" to maintain vigilance over each other. Communications within the exclusion zone will be by ~~radio~~ In the event of an emergency, an alert will be sounded with an air horn as described in Section 13 below.

**There will be no smoking or eating within the exclusion or contaminant reduction zones.**

## **8. Training**

**All employees and site personnel entering the exclusion zone shall be trained in compliance with 29 CFR 1910.120 as follows:**

A) Workers engaged in this hazardous waste operation within the exclusion and contaminant reduction zones shall have a minimum of 40 hours of off site instruction (or its equivalent) and three days of actual field experience under the supervision of a trained, experienced supervisor. In addition, they shall have annual 8 hour refresher training.

B) Supervisors and managers engaged in this hazardous waste operation shall have received the equivalent training to the workers they supervise plus an additional 8 hours of specialized training.

C) Equipment and transport vehicle operators, engaged in this hazardous waste operation within the exclusion and contaminant reductions zones shall have a minimum of 40 hours of off site training and three days actual experience under the supervision of a trained, experienced supervisor. Truck drivers have a C class DOT license or higher with a hazardous waste transporter endorsement.

D) Workers occasionally on site for certain limited tasks within the exclusion or contaminant reduction zones, who are unlikely to be exposed to hazardous substances over published permissible exposure limits, shall have a minimum of 24 hours of off site training and one day of actual field experience under the direction of a trained and experienced supervisor.

E) Workers who are on site regularly but remain within areas that have been monitored and characterized as being free of contamination or the potential thereof, shall have a minimum of 24 hours of training and one day actual field experience under the direction of an experienced and trained supervisor.

F) Workers who have 24 hour training as specified in (D) and (E) and become general site workers or are required to wear respirators, shall have their training increased to the equivalent of those workers specified in (A) above.

Before work on this site begins, all involved personnel will be briefed on this site specific Health and Safety Plan. This briefing will be conducted by the Site Health and Safety Officer or a qualified Field Supervisor. This training will focus on the potential hazards present at the site and the safety and health procedures specific to this project. The training will include, but not be limited to, the following:

- Project Introduction and Orientation
- Characteristics and Potential Hazards of Chemical and Physical Dangers on Site
- Personal Protective Equipment- function, care, and limitations
- Air Monitoring- purpose, methods, interpretation, and notifications
- Decontamination Procedures
- Emergency Response
- General Safety Concepts

## **9. Medical Surveillance**

All site personnel who may be exposed to hazardous substances or health and safety hazards are required to participate in the RC Medical Surveillance program or its equivalent. This program requires a complete pre-employment physical and associated laboratory tests. All site personnel must have passed this examination to detect any medical condition that would place an individual at increased risk of impairment as a result of his or her participation in this project or use of a respirator. An annual update exam or closure physical is also required for all personnel participating in this program.

## **10. Engineering Controls, Work Practices, And PPE**

### *Engineering Controls:*

Air Compressor Systems: All compressed air systems used to power tools or equipment shall be inspected on a daily basis. Hoses and fittings will be checked for cracks or wear and replaced as necessary. Air powered tools will be equipped with a safety lanyard between the tool and air supply hose to prevent uncontrolled whipping of the hose in the event of a break in the line or connection. All air compressors will also be equipped with an OSHA approved air restrictor valve to shut off the flow of air in the event of a sudden loss of pressure.

Air hoses will be carefully laid out and taped to the floor if necessary to minimize the possibility of tripping.

Compressed air for respirators will be supplied by cylinders or compressors certified for breathing air use.

Enclosed Cabs: Operator driven equipment will be equipped with enclosed or pressurized cabs or control booths when site monitoring has indicated that dust or fumes might reach levels in excess of personnel exposure limits (PEL) for hazardous substances. Where such cabs are not feasible, equipment operators shall wear PPE at Level C or higher to maintain potential exposure to less than PEL.

Energy Systems Lockout: All energized systems (electrical, pneumatic, hydraulic, mechanical, etc.) will be locked out, tagged, and tried whether the energy source is cut off or not. Electrical breaker boxes will be locked out, tagged, and tried by a certified electrician. Should entry be required into a space where power cannot be permanently be disconnected, the breaker boxes will be locked out with a keyed lock out device, tagged, and tried.

Equipment: All moving equipment will be equipped with backup warning devices.

**Illumination:** Supplemental lighting shall be supplied to provide not less than 3 foot-candles of illumination in all work areas. Higher levels may be required as prescribed by 29 CFR 1910.120 (m).

**Harness:** All personnel working on manlifts, scaffolding, or platforms will be equipped with a safety harness appropriate to the job. The type of harness will be determined by the Site Health and Safety Officer.

**Machinery:** All exposed moving parts on operating machinery shall be screened to prevent accidental contact with personnel, clothing, or other equipment.

**Sanitation:** An adequate supply of potable water will be provided on the site in enclosed containers. Toilet facilities will be supplied in accordance with 29 CFR 1910.120 (n). Adequate washing facilities and change rooms will be available for all site workers as specified in 29 CFR 1910.120 (n)(6) and (7).

#### *Work Practices*

**Combustible Liquids and Solids:** All combustible liquids and solids shall be handled in accordance with local fire codes and regulations. Liquids shall be stored and transported in "bung" type (17E) drums or containers. Spill prevention and control measures shall be implemented whenever liquids are being handled or stored. Fire extinguishers will be immediately available for use in the area of combustible materials.

**Confined Space Entry:** Any entry into a confined space not normally occupied by workers will be done under a Confined Space Entry Permit in Level B supplied air.

**Drum Handling:** Drums and Containers will be handled in a manner consistent with 20 CFR 1910.120 (j). All non-essential personnel shall be removed from the area of drum operations during opening procedures.

**Dust Control:** A dust suppression and control program will be implemented to minimize the generation of airborne particulates. This program may include watering the site with water trucks, sprinklers, and hoses or installing wind breaks around the site.

**Equipment:** All workers will be advised of the hazards of working around heavy equipment. This will be emphasized in daily Health and Safety meetings. All moving equipment will have warning devices such as back up bells, horns, and lights.

**Housekeeping:** All employees will practice good housekeeping. Litter and debris will be removed from the work area. Slippery floor surfaces will be wiped and sprinkled with adsorbents. Hoses, wires, pipes, and other equipment will be kept in control so as not to be a tripping hazard.

**Hot Work:** No spark producing hot work will be done on surfaces or in spaces without completion of a hot work permit. All combustible materials, coatings or residues shall be removed from the surface before cutting. All combustible material shall be removed from the area or else wet down. At least one dry chemical fire extinguisher shall be manned at the site during cutting operations. Personnel conducting hot work operations shall wear leather coverings to protect them from sparks and hot metal.

**Line Breaking:** Disconnecting any line, flange or seal from a piping system shall be done in accordance with established procedures. The line will be depressurized or emptied under the supervision of the project supervisor or other competent person. Workers will be attired in appropriate PPE and make the initial disconnection slowly so that any residual material can be

released into containers in a controlled manner. A line breaking permit is required for all unbroken lines or vessels too small to be entered.

### **Personal Protective Equipment (PPE)**

Personal protective equipment shall be selected and used which will protect employees from hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis. The level of PPE protection shall be increased should additional information or site conditions indicate that increased protection is necessary to reduce worker exposure below. The level of PPE may be reduced by the site Health and Safety Officer when site monitoring and all other information indicates that the potential level of worker exposure in a lower level of PPE is below.

The designated PPE for all personnel in the exclusion and contaminant reduction zones is Level D and will include at a minimum the following items:

- Hard hat
- Work boots with steel toe
- Eye and hearing protection

### **11. Work Site Monitoring**

Breathing zone air monitoring will be conducted on a regular basis to measure concentrations of gases and vapors in the work spaces and adjacent areas. The air monitoring results will be used to determine the appropriate level of PPE and to advise site workers of any changes in the levels of exposure likely as a result of their activities.

Environmental sampling will be conducted to determine the levels of hazardous material concentration for the purposes of assigning appropriate PPE. Samples will also be taken to determine the extent of contamination, verify clean up, and provide data for disposal profiles. Air monitoring equipment will be field calibrated on a daily basis. Documentation of calibration will accompany the daily notes.

### **12. Decontamination**

Decontamination of personnel and equipment will be done in the contaminant reduction zone. Personnel leaving the exclusion zone will proceed to the decontamination stations prior to entering the clean zone or leaving the site. All equipment, tools, and supplies that have been inside the exclusion zone or in contact with contaminated materials will be decontaminated. Coveralls, gloves, boot covers, respirator cartridges, and other disposable PPE will be drummed for disposal if they cannot adequately be cleaned.

All personnel in the contaminant reduction zone shall be wearing the same level of PPE as those in the exclusion zone. Scrub brushes, tubs, water sprayers, and wipe cloths will be set up to effectively manage the decontamination process.

Where risk of personnel exposure to hazardous materials exists, an emergency eye wash and shower (either portable or fixed) will be located within 50 feet of the work area.

Step 1 - Equipment Decontamination All equipment that is to leave the site will be decontaminated first. The equipment will be placed on plastic sheets, in supplied containers, or in a wash tub. These items will be washed and scrubbed in soapy water to remove gross contamination. They will then be sprayed or wiped with a suitable solvent to remove residual contamination then rinsed in clean water and wiped dry with a clean cloth. Decontaminated items will be placed in a separate container for transfer into the clean zone.

Step 2 - Boot and outer Glove Wash: Boots and outer gloves will be scrubbed in a tub of soapy water to remove gross contamination. They will then be washed in a decontamination solution followed by a clean water rinse.

Step 3 - Suit Wash: Scrub outer suit with soapy water to remove gross contamination. Wash with decontamination solution and rinse with clean water spray.

Step 4 - Tape Removal: Remove tape from around boots and gloves. Place tape in disposal drum. Outer gloves and boot covers may be directly drummed for disposal if unfit for reuse.

Step 5 - Glove, Suit and Boot Removal: Remove outer gloves, suit and boots. Hang to dry for reuse if the articles are completely decontaminated and undamaged. Remove inner gloves and place in disposal drum. Inner gloves are not to be reused.

Step 6 - Field Wash: At a minimum, washing of the face and hands with soap and water is required for skin decontamination. If highly toxic, corrosive, or skin absorbable materials are present, a complete shower is required.

Step 7 - Redress: Street clothes or clean coveralls may be worn following decontamination.

The site safety officer will monitor all decontamination procedures. Any permeable clothing contaminated with hazardous materials or substances will be immediately removed for disposal and the individual wearing the clothing decontaminated.

All contaminated PPE, clothing, decontamination solutions and rise water will be contained in properly labeled drums and disposed of in accordance with applicable regulations.

### **13. Emergency Response**

#### ***Pre-Emergency Planning***

A daily Health and Safety (or "Tailgate") meeting will be conducted by the site Health and Safety Officer. The topics discussed and the names of personnel in attendance will be recorded on a form designed for this purpose.

All site personnel will be instructed in the site topography, layout, and points of ingress or egress. Weather and wind directions will be noted daily to identify safe routes of evacuation in case of an emergency. The locations of communications equipment such as cellular phones and radios will be noted. Specific hazards or conditions that may affect the Health and Safety of workers, and the procedures for mitigating personnel exposure will be reviewed and discussed. Special emphasis will be placed on any changes in site characteristics or procedures that are a result of project activities.

Specific conditions that may lead to an IDLH (Immediate Danger to Life and Health) emergency condition on this project include the following:

- 1) Fire
- 2) Explosion
- 3) Physical hazards associated with the operation of heavy machinery
- 4) Physical hazards associated with working close to moving trucks and automobiles
- 5) Physical hazards associated with working close to or in an excavation



## ***PPE and Emergency Equipment***

At a minimum, the following equipment shall be at the work site and available for use:

- Dry Chemical Fire Extinguisher (A-B-C Rated)
- First Aid Kit
- Pressurized Emergency Shower and Eye Wash Station(s)
- Spill Clean Up Materials
- Cellular telephone
- LEL Meters
- Hand Tools- shovels, saws, etc.

## ***Emergency Recognition and Prevention***

All site personnel will be trained in the site characteristics, procedures, work plan, and project tasks. They will maintain surveillance over the work that is being done around them as well as their own assigned task and to report any anomalous or unexpected conditions to their supervisor immediately. All personnel will observe safe working practices and procedures to protect themselves and fellow workers.

## ***Emergency Alarm System***

Warning systems will be used to sound the alarm in an emergency situation. The type of system used depends on the nature of the emergency. The following types of systems will be used:

**Verbal Communications:** Used to convey specific instructions. May be amplified by use of a Bull Horn or Public Address system.

**Radio Communications:** Used to give instructions and directions. Also used for communications between on site and off site personnel. Emergency radio communications are identified as such and have priority over normal operational messages.

**Vehicle and Portable Compressed Air Horns:** Horn signals are used to signify an emergency situation or to attract attention when other forms of communication are not available or practicable. Standard horn signals are:

**One Short Blast-** to signify that communication is required. Personnel should report immediately to their supervisor.

**One Long Blast-** to signify an IDLH emergency evacuation of the work area. Personnel should evacuate to a pre-determined site upwind. A head count will be taken and further instructions given.

**Repeated Short Blasts-** to signify an IDLH emergency evacuation of all site personnel through pre-determined egress routes. A head count will be taken and further instructions given at the meeting point outside the evacuated area.

## ***Emergency Evacuation***

The project team will be briefed to the signals to be used at the site. In the event that the area must be evacuated due to the release of airborne hazards, site personnel will move off site via the nearest up-wind route. Safe distances and places of refuge will be determined by air monitoring. Emergency response teams will be notified by phoning 911 on cellular or installed telephones. No one will re-enter the site without approval from the Site Safety Officer.

Emergency evacuation for confined space consist of self-rescue and non-entry rescue only. Training to accommodate these two forms of rescue are promoted.

## ***Emergency Response Procedures***

In case of emergency or hazardous situation, the individual or individuals who observe the situation shall immediately give the alarm. Upon hearing the alarm, all non-essential communication shall cease. The individual(s) who sounded the alarm shall notify his supervisor of the situation. Immediate actions that will be taken to correct the situation shall be dictated by the emergency. These actions may be one or more of the following:

Spills of Hazardous Substances: Contain the spill as soon as possible. Remove contaminated material and place in drums.

Fires: Extinguish fire with fire extinguishers or blankets if possible. Evacuate the area and notify the fire department if uncontrolled.

Gas or Vapor Release: Evacuate the area until the gases have dispersed. Notify appropriate authorities if gases threaten to escape the exclusion zone.

Personnel Injury: Administer first aid as appropriate.

### ***Hazardous Substance Release***

Should a hazardous substance be released in a quantity that requires notification of any regulatory agency, RC will notify the most senior manager present at the L&D Scaffold facility at the time and advise him or her to notify appropriate regulatory agencies and/or hazardous spill responders. If no one is available or accessible at the L&D facility, RC will perform such notifications. If necessary, all personnel not in the appropriate PPE will immediately evacuate the area to a safe area up wind.

### ***Injury or Exposure***

In the event of overt personal injury, exposure, fire, or explosion, notification will be made **immediately** to the RC Site Health and Safety Officer or Field Supervisor.

If an injury should occur, stabilize the injured person and administer first aid. If the person is in the exclusion zone, they must be decontaminated or contained in uncontaminated materials prior to removal from the zone. Medical aid may be summoned by dialing 911 on cellular or installed telephones. Be sure and describe the nature of the injury and location of the victim to the emergency response team.

If the injury is minor or not life threatening, and the victim can be safely moved, the victim can be taken to San Leandro Hospital located at 13855 East 14<sup>th</sup> Street in San Leandro, California. The phone number for the Emergency Room at San Leandro Hospital is (510) 667-4545.

### ***Emergency Medical Treatment and First Aid***

Adequate facilities and personnel will be provided to assure prompt and efficient first aid in the event of injury or exposure. Each first aid kit will be inspected and fully equipped before being deployed to the project. Any expended items will be replaced as soon as used.

General first aid practices that may be employed in the event of personal injury or exposure are

Eyes Irrigate immediately with pressurized eye/face wash unit

Skin Wash with soap and water

Breathing Move victim to fresh air at once and begin CPR. Phone 911 to obtain medical attention as soon as possible

Swallowing Identify the item swallowed. Follow appropriate first aid procedures and obtain medical attention as soon as possible

***Emergency Telephone Numbers***

The following telephone numbers will be conspicuously posted at each installed or cellular telephone location on site:

<u>FIRE</u>	911
<u>AMBULANCE</u>	911
<u>POLICE</u>	911
<u>HOSPITAL</u>	911



**Appendix A**  
**Employee Certifications**