



Department of Toxic Substances Control

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ENVIRONMENTAL
PROTECTION

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Pete Wilson
Governor

June 29, 1998

Peter M. Rooney
Secretary for
Environmental
Protection

Mr. Paul H. King
RGA Environmental, Inc.
4701 Doyle Street, Suite 14
Emeryville, California 94608

Dear Mr. King:

WOODFIN SUITE HOTEL/EMERY BAY MARKETPLACE , POWELL STREET AND SHELLMOUND STREET, EMERYVILLE, CALIFORNIA

As specified in section A.2.3 of the Covenant to Restrict Use of Property (recorded August 7, 1995) signed by Christie Avenue Partners (Covenantor) and the Department of Toxic Substances Control (DTSC), Covenantor is required to submit a Health and Safety (HSP) for DTSC's review and approval for any subsurface excavation work at the Emery Bay Marketplace (the property). Covenantor's consultants submitted a HSP (dated June 17, 1998) for a hotel foundation project at the eastern portion of the property at the corner of Powell and Shellmound Streets (the Site). DTSC has reviewed the HSP and the following are DTSC's comments.

In general, some sections of the HSP require revision as incomplete and/or irrelevant information is provided. The HSP should be tailored to specific activities proposed for the Site. Field staff must be able to obtain sufficient information from the HSP to compile an accurate assessment of the site safety issues associated with the site activities. Specific comments on the HSP are as follows.

1. Page 1, Introduction: 8 CCR 5192 should be referenced as the basis for the HSP preparation.
2. Page 1, Background: Previous soil and groundwater investigations and results should be discussed. The area and site maps (Appendices E and F) should be referenced and the groundwater monitoring well locations should be identified/marked in the site map.
3. Page 3, Airborne Contaminants: The procedures/protocols for vapor and dust monitoring and the criteria for using respirators should be discussed.

- 4.2 Please evaluate the project relevance of the discussions in the following sections: Inclement Weather; Electric Shock/Item 6; Cold Stress; Insects; Poisonous Plants; Ladders/Items 5 and 6; Fire Control/Items 4 and 6; and Static Electricity.
- 4.3 Noise: Noise monitoring procedures, action levels, local noise ordinance and hearing protection program should be discussed.
- 4.4 Heat Stress: The following should be discussed in this section: anticipated temperatures; worker acclimatization; atmospheric and personal monitoring procedures; signs and symptoms; and first aid. Work/rest cycles should be established which consider the personnel work load, degree of acclimatization and type of protective clothing.
5. Page 10, Required Protection: The criteria for using respirators and for upgrading from PPE Level D to C and C to B for metal and organic contaminants should be discussed. The PEL table in section 5.2 does not discuss PPE upgrade or downgrade. The standard operating procedures for fit testing and donning respirators should be discussed.
6. Page 12, Dust Suppression: This section states "... if testing reveals the airborne dust concentrations exceed levels specified in 29 CFR or 8 CCR documents." The testing procedure is not discussed here or elsewhere (see comment #3). Dust monitoring procedures should be discussed and the action levels or standards should be identified.
7. Page 12, Chemicals of Concern: Information regarding chemical concentrations detected in site soil and groundwater, their onsite location and routes of exposures should be provided.
8. Page 18, Confined Space: Confined space conditions and testing procedures should be discussed. Excavation deeper than five feet may require shoring and/or sloping. Health safety procedures for such activities should be discussed.
9. Page 19, WSH Hazard Control Program: This section states All subcontractors working on this job will comply with "... Hazard Communications." Hazard communication procedures should be discussed.
10. Page 19, Training: Training requirements should also include Health Hazard Recognition (not just confined space entry). At least one personnel with a valid CPR/First Aid certification should be identified.

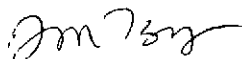
Mr. Paul H. King
June 29, 1998
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11. Page 20, Work Zones: The site control/security measures should be defined (i.e., fencing, locked gates, flagging, etc.).
12. Page 22, Project Personnel. The roles and responsibilities of the Health and Safety Hygienist and Project Engineer should be discussed or clarified. Section 6.1, page 18, states that increased monitoring will be performed at the direction of the "engineer"; however, the "hygienist" will provide data and reports to the HS Manager. The reporting relationships of key personnel should be clarified. The discussion in Section 8.4 (technicians performing system maintenance) is irrelevant to the proposed work at the Site.
13. Page 24, Regulatory Agency Contacts should be included (i.e., Alameda County Health Department and DTSC).
14. Page 27, Emergency Treatment: The discussions in section 9.4.1 (Ingestion-Transport person to nearest hospital immediately) and section 9.4.5 (Skin Contact/Corrosive Contaminant-Acids, Hydrogen Peroxide) are unclear and irrelevant to the proposed work at the Site.
15. Appendices
 - 15.1 Appendix D: This appendix is missing.
 - 15.2 Appendices C (Definition of Hazard Evaluation Guidelines) and G (Hospital Locations): These appendices were not referenced in the text of the HSP.
 - 15.3 Appendix E (Area Map) and Appendix F (Site Map) - North orientation is inconsistent with Exhibit A of the Covenant. Please verify and revise maps if appropriate.
 - 15.4 Appendix G (Hospital Locations): The routes to the hospitals should be shown or clearly marked.

Mr. Paul H. King
June 29, 1998
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Please submit a revised HSP or amendments/modifications to the HSP addressing the above comments. If you have any questions or comments, please contact Remedios Sunga at (510) 540-3840.

Sincerely,



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SITE SAFETY PLAN

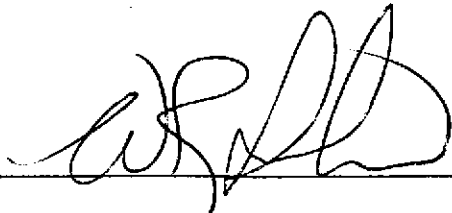
WOODFIN SUITE HOTELS
INTERSECTION OF POWELL AND SHELLMOUND STREET
EMERYVILLE, CALIFORNIA

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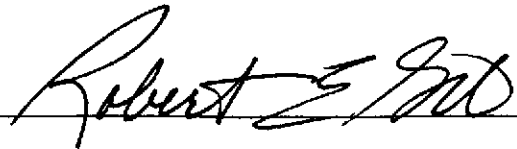
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June 17, 1998



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APPENDICES

- A. Agreement and Acknowledgment Statement
- B. Site Safety Plan Amendment Sheet
- C. Definition of Hazard Evaluation Guidelines
- D. Woodfin Suite Hotels Injury and Illness Prevention Program
- E. Area Map
- F. Site Map
- G. Hospital Map

1. INTRODUCTION

In general, the work scope consists of limited excavation of both fill and native soils and site grading. It is expected that the upper three to four feet of soils will be excavated as part of the building construction. Other general construction will also take place.

The site has been determined by others to contain soils which are expected to be contaminated with various metals and oil and grease. Limited concentrations of diesel fuel may also be encountered if groundwater is exposed during construction. The contaminated soil has reportedly been previously classified, with approval by Alameda County Health Services Agency, and can be managed as non-hazardous waste¹.

Additional special attention will be made to monitor and control worker and general public exposure to naturally-occurring serpentine asbestos, petroleum hydrocarbons (fuels), and Polynuclear Aromatic Hydrocarbons (PAH's) that may be present as a discoverable condition during excavation activities.

Disturbed soil may be sampled and tested prior to handling. The decision to sample will be based on discoverable conditions, i.e.: discoloration, oily residues, odor, etc, and on the need for possible further waste characterization. Sampling results will be reviewed by the Project Manager and the Health and Safety Manager and then included into this Site Safety Plan (SSP). Further action may be required based on the review. Any additional procedures will be documented, included into the SSP, and then reviewed with all workers. Any discovered contaminated soils which are found to constitute a hazardous waste will be stockpiled on site pending being loaded and transported off-site to the proper disposal facility.

This SSP is applicable to all locations of this Project. The starting and sequence of each location of work will depend on the needs of the project and the general contractor.

1.1 BACKGROUND

Woodfin Suite Hotels, Inc. (WSH) contracted RGA Environmental, Inc. to develop a Site Safety Plan (SSP) for the property at the intersection of Powell and Shellmound Streets in Emeryville, California. The purpose of the SSP will be to provide WSH field personnel and subcontractors with an understanding of the potential chemical/substance and physical hazards that exist or may arise while the tasks of this project are performed.

This SSP describes the procedures to be followed to reduce employee and public exposure to potential health hazards that may be present on the project site. The emergency response procedures necessary to respond to such hazards are also

¹ EMG letter dated April 12, 1996 titled, "Another Tree Development"

described within this SSP. The SSP is primarily designed to guide project personnel on how to respond to normal and extreme conditions that may arise during the project execution.

1.2 OBJECTIVE

The primary objective is to ensure the well being of observers, field personnel and the community surrounding the subject property. To do this, project staff, client personnel and approved subcontractors shall acknowledge and adhere to the policies and procedures established herein. Accordingly, all personnel assigned to this project shall read this SSP and sign the Agreements and Acknowledgment Statement (Appendix A) to certify that they have read, understood and agreed to abide by this SSP and its provisions, including the "Woodfin Suite Hotels Injury and Illness Prevention Program" (Appendix D).

Information contained in the SSP will be presented to all personnel and visitors at a pre-entry safety briefing. Additional safety information which becomes pertinent over the course of the project will be conveyed to WSH and subcontractor personnel through "tool-box safety meetings" and, if necessary, addenda to the SSP will be transmitted to pertinent subcontractors. In addition, project personnel listed in Section 8 will continuously exercise daily supervision and control of site activities as a part of their everyday practice. Safety issues will be addressed immediately and discussed with involved WSH or subcontractor personnel on a one-to-one basis.

WSH personnel have the authority to stop work activities and evacuate the area. The chart in Section 8 showing the "chain of command" shows who has the authority to stop work activities based on safety issues, beginning with the Project Manager.

1.3 AMENDMENTS

Any changes in the scope of work of this project and/or site conditions must be amended in writing on the Site Safety Plan Amendment Sheet (Appendix B) and approved by the Health and Safety Manager.

2. HAZARD EVALUATION

2.1 SITE CONDITIONS

General site conditions may include soils containing various Metals and Oil & Grease, groundwater contaminated with Diesel fuel, and other potential contaminants (see Section 5 of this Plan and Site Investigation Reports Appendix). It is currently not anticipated that the levels of exposure will reach PEL or TLV limits. Should a "Change In Conditions" occur, as perceived by project personnel (see section 8), WSH will notify the engineer and await further direction. If the nature of materials changes

(i.e. irritating odors, soil discoloration), protective clothing, including gloves, respiratory protective devices and boots, may be needed and will be made available to those persons working in or around these specific areas.

2.2 SITE TASKS

The field tasks at this site may include:

- Excavation of classified non-hazardous and discovered hazardous waste soils
- Handling and loading of these soils
- Trucking activities
- Sampling for testing purposes

2.3 PROJECT TASK HAZARDS

All field task hazards are site specific. The following hazards may be encountered:

Contamination: Contact with contaminated surface or surfaces suspected of being contaminated should be avoided. This includes working through, kneeling or placing equipment in puddles, mud, discolored surfaces or on drums and other containers. Eating, smoking, drinking and/or the application of cosmetics is prohibited on this site in the immediate work area.

Falling Objects: Hard hats must be worn by all project staff and observers whenever construction activity is taking place.

Vehicle Traffic: Project staff and observers will be required to wear a fluorescent safety vest at all times when their work encroaches on active nearby roadways. In addition, use flags, tapes, barricades and cones to designate restricted areas and control traffic flow.

Explosion Protection: Explosion-proof equipment will be used in areas where the Site Safety Manager determines there is a potential for explosion.

Excavation or Other Work in Contaminated Areas: Skin and eye contact with contaminated soil may occur during work. Heavy-duty work gloves or butyl nitrile gloves, as appropriate, and approved safety goggles should be worn when contact with chemicals, contaminated soils and/or splash is possible.

2.3.1 Airborne Contaminants

Inhalation of potentially hazardous dusts may occur during this work. Hazard evaluation will be completed by project personnel (Section 8). Hazard reduction

includes the use of engineering controls (i.e. wetting methods) and personal protection equipment as necessary. For instance, workers may need personal protective equipment including respirators and Tyvek® suits during work, depending on the severity of hazardous operations.

2.3.2 Decontamination of Equipment

Skin and eye contact with Alconox detergent, methanol or other cleaning substances can occur while cleaning equipment. This hazard can be reduced with the use of butyl nitrile rubber or neoprene gloves and the use of safety goggles.

2.4 GENERAL CONSTRUCTION HAZARDS

General construction hazards, along with ways of identifying, handling, and preventing such hazards, are included in the "WSH Injury and Illness Prevention Program" (Appendix D). It should be noted that the CAL-OSHA construction safety orders are the basis for much of what is in this Injury and Illness Prevention Program, and the CAL-OSHA construction safety orders will be adhered to at all times on this project by WSH and all subcontractors. The following is a list of typical potential hazards and their control. Other controls may be developed as the situation(s) arise and the SSP shall be amended to include updates.

Potential Hazards and Control

2.4.1 Exposure to Metals

1. Stand up-wind of dust generating operations whenever possible.
2. Wear gloves when in contact with soil or contaminated surfaces.
3. Do not eat, drink, smoke and/or apply cosmetics on the construction site.
4. Utilize appropriate dust suppression techniques.
5. Decontaminate clothing and wash face, hands and exposed skin before leaving the site, eating or drinking.
6. If the airborne concentration of any metal exceeds its OSHA Permissible Exposure Limit (PEL), as identified in Section 5.2, utilize appropriate respiratory protective devices (respirators) to protect against the measured concentrations; alter or increase dust suppression activities; and increase the frequency of airborne dust monitoring.
7. If unknown materials are encountered, call the Project Manager or the Health and Safety Officer.

2.4.2 Exposure to Petroleum Products

1. Stand up-wind of petroleum products whenever possible.
2. Minimize contact and contact time with petroleum products.
3. Avoid walking through discolored areas, puddles, leaning on drums, or contacting anything that is likely to be contaminated.
4. Do not eat, drink, smoke, and/or apply cosmetics on the construction site.
5. Wear gloves when in contact with contaminated surfaces.
6. Safety glasses must be worn at a minimum.
7. Splash goggles must be worn when working with liquids.
8. >50 ppm organic vapors in breathing zone requires upgrade to Level C.
9. >750 ppm organic vapors in breathing zone requires upgrade from Level C to Level B.
10. If unknown materials are encountered, call the Project Manager or the Health and Safety Officer.

2.4.3 Vehicular Traffic

1. Wear traffic safety vest when vehicle hazard exists.
2. Use cones, flags, barricades, and caution tape to define work area.
3. Use vehicle to block work area.
4. Engage police detail for high-traffic situations.

2.4.4 Inclement Weather

1. Stop outdoor work during electrical storms and other extreme weather conditions such as extreme heat or cold temperature.
2. Take cover indoors or in vehicles.
3. Listen to local forecasts for warnings about specific weather hazards such as tornadoes, hurricanes and flash floods.

2.4.5 Noise

1. Wear hearing protection when equipment such as a drill rig, jackhammer, cut saw, air compressor, blower, or other heavy equipment is operating on site.
2. Wear hearing protection whenever you need to raise your voice above normal conversational speech due to loud noise sources; this much noise indicates the need for protection.

2.4.6 Electric Shock

1. Maintain appropriate distance from overhead utilities; 20 foot minimum clearance from power lines required; 10 feet minimum clearance from shielded power lines.
2. Use ground-fault circuit interrupts as required.
3. Perform lockout/tagout procedures.
4. Use three-pronged plugs and extension cords.
5. Contact your local underground utility-locating service prior to conducting subsurface excavation or drilling activities.
6. Follow code requirements for electrical installations in hazardous locations.

2.4.7 Physical Injury

1. Wear hard hats and safety glasses when on site.
2. Maintain visual contact with the equipment operator and wear orange, safety vest when heavy equipment is used on site.
3. Avoid loose-fitting clothing or hanging or unfastened straps which may get caught in rotating machinery.
4. Prevent slips, trips, and falls; keep work area uncluttered.
5. Use the buddy system when lifting heavy or awkward objects.
6. Do not twist your body while lifting.

2.4.8 Heat Stress

1. Increase water intake while working.
2. Increase number of rest breaks and/or rotate workers in shorter work shifts.

3. Watch for signs and symptoms of heat exhaustion and fatigue.
4. Plan work for early morning or evening during hot months.
5. Use ice vests when necessary.
6. Rest in cool, dry areas.
7. In the event of heat stroke, bring the victim to a cool environment and initiate first aid procedures.

2.4.9 Cold Stress

1. Take breaks in heated shelters when working in extremely cold temperatures.
2. Remove the outer layer of clothing and loosen other layers to promote evaporation of perspiration upon entering the shelter.
3. Drink warm liquids to reduce the susceptibility to cold stress.
4. Wear appropriate hand protection and avoid prolonged hand contact with cold objects.

2.4.10 High Crime Areas

1. Be aware of surroundings.
2. Use the buddy system.
3. Request police detail when appropriate.

2.4.11 Insects

1. Tuck pants into socks.
2. Wear long sleeves.
3. Use insect repellent.

2.4.12 Poisonous Plants (such as poison ivy, oak or sumac)

1. Do not enter areas infected with poisonous plants.
2. Immediately wash any area that comes into contact with poisonous plants.

2.4.13 Ladders

1. Make sure ladder rungs are sturdy and free of cracks.
2. Use ladders with secure safety feet.
3. Pitch ladders at a 4:1 ratio.
4. Secure ladders at the top when possible.
5. Do not use ladders for access to air stripper towers.
6. Use non-conductive ladders near electrical wires.

2.4.14 Fire Control

1. Smoke only in designated areas.
2. Keep flammable liquids in closed containers.
3. Keep site clean; avoid accumulating combustible debris such as paper.
4. Follow Hot Work Safety Procedures when welding or performing other activities requiring an open flame.
5. Isolate flammable and combustible materials from ignition sources.
6. Ensure fire safety integrity of equipment installations according to Hazard Classification Diagram.

2.4.15 Static Electricity

1. Do not create static discharge in flammable atmosphere.
2. Electrically bond and ground pumps, transfer vessels, tanks, drums, bailers, and probes when moving liquids.
3. Electrically bond and ground vacuum trucks and the tanks they are emptying

3. PERSONAL PROTECTIVE EQUIPMENT

3.1 INTRODUCTION

It is important that personal protective equipment and safety requirements be appropriate to protect against the potential hazards at the site. Protective equipment will be selected based on the contaminant type(s), concentrations(s), and routes of

entry. In situations where the type of materials and possibilities of contact are unknown or the hazards are not clearly identifiable, a more subjective determination must be made of the personal protective equipment needed.

Field personnel and visitors are required to wear the following clothing and equipment, as a minimum, while on the project.

- Hard Hat (required)
- Work boots (required)
- Safety Glasses (required)
- Long Sleeved Shirt (as appropriate)
- Fluorescent vest (as appropriate)
- Hearing protection (as appropriate)

3.2 LEVELS OF PROTECTION - GENERAL

Level A: Should be worn when the highest level of respiratory, skin, and eye protection is needed.

- SCBA
- Fully Encapsulating Suit

Level B: Should be selected when the highest level of respiratory protection is needed, but a lesser level of skin protection is required.

- Air supplied respirator
- Coated Tyvek[®] suit, such as Saranex
- Butyl nitrile rubber or neoprene gloves
- Inner latex or vinyl gloves
- Work boots
- Outer boots/chemical resistant
- Hard hat
- Fluorescent vest (as appropriate)
- Hearing protection (as appropriate)
- Inner Disposable Gloves (2 pairs recommended)

Level C: Should be selected when the types of airborne substances are known, the concentration is measured, and the criteria for using air-purifying respirators are met.

- Air purifying respirator, NIOSH approved, with HEPA filter or organic vapor cartridges, as appropriate
- Tyvek® suits (if splash hazard is possible, a coated suit must be worn)
- Butyl nitrile rubber or neoprene gloves
- Splash goggles/safety glasses if potential for splash (as appropriate)
- Work boots
- Outer boots/chemical resistant
- Inner disposable gloves (two pairs recommended)
- Hard hat
- Fluorescent vest (as appropriate)
- Hearing protection (as appropriate)

Level D : General work clothing is applicable for most work on this project. Changes in the nature of materials may require the use of additional protective equipment.

- Hard hat (required)
- Work boots (required)
- Heavy-duty work gloves, butyl nitrile rubber or neoprene gloves (as appropriate)
- Splash goggles/safety glasses if potential for splash (as appropriate)
- Fluorescent vest (as appropriate)
- Tyvek suit (as appropriate)
- Hearing protection (as appropriate)
- Fall protection (as appropriate)

3.3 REQUIRED PROTECTION

It is not anticipated that protective equipment beyond level D will be required for this project. The level of protection required will be based upon observations and measurements by Project Personnel (Section 8). Should a change in the nature of material be detected, WSH will perform additional analyses. Section 5.2 provides the OSHA PELs to be used to determine the appropriate respiratory protection level.

WSH will provide its employees with appropriate personal protective equipment as required. If respirators are deemed necessary, only NIOSH/MSHA certified respiratory protective equipment will be utilized.

3.4 REQUIRED PERSONAL HYGIENE

As a minimum, all jobsite personnel will be instructed to and be required to perform the following tasks before leaving the worksite or eating and drinking. For more detail see Appendix E.

- Clean work clothes and boots of native material;
- Remove and/or discard protective equipment as necessary and in a safe manner.
- Perform more extensive cleaning of, or remove, general work clothes if necessary.
- Thoroughly wash hands, face, and other exposed skin;

On-site facilities will be made available for these tasks to take place.

4. WORK ZONES AND SECURITY MEASURES

4.1 GENERAL

The work site will be controlled to reduce the possibility of exposure to any contaminants present and their transport by personnel or equipment from the site.

The possibility of exposure or translocation of contaminants can be reduced or eliminated utilizing the following control methods:

- Setting up security or physical barriers to exclude unnecessary personnel from areas of suspected contaminated soils.
- Minimizing the number of personnel and equipment on-site consistent with effective operations.
- Establishing work zones, decontamination and storage areas within the site.
- Establishing control points to regulate access to work zones.
- Minimizing the airborne dispersion of contaminants offsite.
- Implementing the appropriate personnel and equipment decontamination procedures.

A detailed map with designated areas will be developed by the Project Manager and the Health and Safety Manager to encompass the entire work zone.

Specific site preparations to best ensure the safety of the general public may change depending on the actual environmental conditions and the work procedures to be performed. These specific procedures are to be described in detail, on a daily basis if

necessary, by the Project Manager and the Health and Safety Manager and included into the SSP as addenda. These changes will be reviewed with all affected personnel as they occur.

4.2 DUST SUPPRESSION

WSH shall use dust suppression methods including water misting of excavation and soil handling areas to control airborne dusts. Alternative dust suppression techniques may be used in other areas if testing reveals the airborne dust concentrations exceed levels specified in 29 CFR or 8 CCR documents. Storage for potentially hazardous materials will be covered by polyethylene sheeting. Sheeting will be secured to control dislocation by wind.

5. CHEMICALS OF CONCERN

5.1 HEALTH EFFECTS

Potential health effects from an exposure to hazardous substances are dependent on several exposure factors such as toxicity of substances, duration of exposure, concentration during exposure and the overall health of the person exposed.

The potentially hazardous substances found at this site are carbon monoxide (mechanical equipment), metals (soil), diesel fuel (groundwater), PNA's, asbestos-containing serpentine rock, and oil and grease (soil). The only known hazardous substances that have been identified are metals and oil & grease in the soil and trace amounts of diesel fuel in the groundwater. The metals content in the soil is below the normally established level for hazardous waste. The levels of each metal and the potential associated hazard is low enough to have had the soil reclassified as non-hazardous waste. None of the other substances are expected to produce high exposure levels.

The following is a health analysis of potential hazardous substances that may be encountered on the work site:

5.1.1 Carbon Monoxide

Carbon monoxide is formed as the result of the combustion of fuels. The gas powered vehicles to be used in this project will create carbon monoxide. Symptoms of exposure include headache, nausea and vomiting.

5.1.2 Petroleum Related compounds

Gasoline powered vehicles will be used on this project. Gasoline constituents can be divided into five major groups: alkanes, alkenes, cycloalkanes, aromatics and

additives. The aromatics are the constituents generally regarded to be of the greatest toxic concern. The major aromatics in gasoline are benzene, toluene, ethyl benzene and xylene. Of these, benzene is considered the most toxic. One characteristic effect of gasoline and its aromatic constituents is their ability to irritate the skin when repeated or prolonged exposure occurs.

5.1.3 Diesel

Diesel powered vehicles will be used on this project. Limited concentrations of diesel have also been identified in the groundwater at this site. Diesel fuel components are less volatile than gasoline. Aliphatic hydrocarbons may be saturated or unsaturated open chain, branched or unbranched molecule. Health precautions include ventilation for confined spaces. Symptoms of over exposure include nausea, vomiting, lung irritation and headache.

5.1.4 Oil and Grease

Oil and grease has been identified in the soil at this site. Oil and greases typically have a low order of toxicity. However, additives are frequently found in oils and greases which are significantly more toxic than the base oil itself. Prolonged skin contact with oil and grease can lead to skin disorders, the most common of which is dermatitis. In areas of elevated concentrations of oil and grease personal protection including respirators, chemical resistant suits and gloves, and protective glasses should be worn.

5.1.5 Antimony

Antimony has been identified at low concentrations in the soil at this site. Antimony is a brittle, silver-white metallic element. The metal is used chiefly in alloys with lead, notably in storage batteries and type metal. Antimony is also used in textiles, plastics, pigments, ceramics, rubber, matches, and camouflage paints. Signs of acute antimony poisoning include marked weight loss, loss of hair, dry, scaly appearance of the skin, and acute congestion of the heart, liver, and kidneys.

5.1.6 Arsenic

Arsenic has been identified at low concentrations in the soil at this site. Arsenic metal is found widely in nature. Arsenic is utilized in alloys to increase metal hardness and heat resistance. Arsenic has a toxic effect on the nervous system. Occupational exposure to inorganic arsenic compounds is usually through inhalation, ingestion or skin contact. Acute effects at the point of entry may occur if exposure is excessive. Dermatitis may occur as an acute symptom but is more often the result of sensitization.

5.1.7 Chromium

Chromium has been identified at low concentrations in the soil at this site. Occupational exposure to chromium has been found to cause skin and mucus membrane irritation and corrosion. Chrome has also been related to an increase in lung cancer.

5.1.8 Copper

Copper has been identified at low concentrations in the soil at this site. Exposure to excessive amounts of copper fumes can result in fever, muscle ache, irritation of the eyes, cough upper respiratory tract irritation.

5.1.9 Barium

Barium has been identified at low concentrations in the soil at this site. Barium is a dense alkaline-earth metal. This element occurs naturally in ore deposits and makes up 0.05% of the earth's crust. Barium and its compounds may be found in nature and are produced industrially for various uses such as in automotive paints, stabilizers for plastics, case hardening steels, bricks, tiles, lubricating oils, jet fuel and various types of pesticides. The barium ion is a muscle poison causing stimulation and then paralysis. Initial symptoms are gastrointestinal, including nausea, vomiting, colic, and diarrhea, followed by myocardial and general muscular stimulation with tingling in the extremities. Severe cases continue to include loss of tendon reflexes, general muscular paralysis, and death from respiratory arrest or ventricular fibrillation.

5.1.10 Beryllium

One soil sample from this site contained trace concentrations of beryllium. Beryllium is a hard, brittle, gray-white metal. Beryllium is employed as a structural material in space technology; as a moderator and reflector of neutrons in nuclear reactors; as X-ray tube windows; in computer parts; and as an additive in solid propellant rocket fuels. Early animal studies indicated that beryllium was not a highly toxic element. When the commercial production of beryllium and its compounds expanded, however, workers engaged in the extraction of the element from its ores suffered from a number of ailments, including dermatitis, tracheobronchitis, and pneumonitis. Most of these workers were exposed to soluble beryllium salts, but some cases of acute pneumonitis resulted from handling beryllium oxide.

5.1.11 Cadmium

Cadmium has been identified at low concentrations in the soil at this site. Cadmium is a soft, blue-white, malleable metal. Cadmium is used as a coating for other metals, in bearings, in brazing and low-melting alloys, in nickel-cadmium storage batteries,

welding rods, and reactor control rods. Chronic exposure to cadmium has been associated with gastrointestinal symptoms, anemia, eosinophilia, anosmia, rhinitis, discoloration of teeth, microfractures, pulmonary emphysema, and kidney disease.

5.1.12 Cobalt

Cobalt has been identified at low concentrations in the soil at this site. Cobalt is a silver-white metal with a bluish-grey cast. It is hard, magnetic, ductile, and somewhat malleable. Cobalt is an essential element for humans. It forms part of the molecule cyanocobalamin (vitamin B₁₂). The absence of cyanocobalamin is associated with a variety of deficiency-disease states notably dealing with proper erythropoiesis. Chronic overexposure to cobalt has been observed to cause bronchitis, and impaired ventilatory function among cobalt production workers.

5.1.13 Lead

Lead has been identified at moderate concentrations below hazardous waste levels in the soil at this site. Lead is a heavy, ductile, soft gray metal. Intake of excessive amounts of lead into the body can result in adverse blood effects, including central nervous system depression, abdominal pain, cholic and anemia.

5.1.14 Nickel

Nickel has been identified at low concentrations in the soil at this site. Nickel is a lustrous silvery solid. Symptoms of exposure include headache, vertigo, nausea, gastrointestinal pain and general weakness. Target organs include the lungs, paranasal sinus and central nervous system.

5.1.15 Mercury

Mercury has been identified at low concentrations in the soil at this site. Exposure to excessive amounts of Mercury can result in chest pain, gastrointestinal disorders and eye irritation.

5.1.16 Molybdenum

Molybdenum has been identified at low concentrations in the soil at this site. Molybdenum is a silver-white metal or a dark-gray or black powder. Metallic molybdenum is used in high-temperature and tool steel alloys, in missile and aircraft parts, and in reactor vessels and metal-ceramic composites. Molybdenum is an essential mineral in human nutrition where it functions in xanthine oxidase and aldehyde oxidase. Chronic overexposure to molybdenum compounds has been shown to cause weakness, fatigue, headache, anorexia, eye, nose, and skin irritation and joint and muscle pains among mining and metallurgy workers.

5.1.17 Vanadium

Vanadium has been identified at low concentrations in the soil at this site. Vanadium pentoxide is a yellow to rust-brown, noncombustible crystalline compound. Vanadium pentoxide is used as a catalyst in the oxidation of sulfur dioxide, oxides of nitrogen, and other substances. It is also used in the manufacture of yellow glass, as a photographic developer, and as a coating for welding electrodes. In addition, vanadium is found in fuel oils at 250 to 400 ppm. Vanadium compounds act chiefly as irritants to the conjunctivae and respiratory tract. Prolonged exposures may lead to pulmonary involvement. Responses are acute, never chronic.

5.1.18 Zinc

Zinc has been identified at low concentrations in the soil at this site. Zinc oxide is an odorless, nonflammable, white or yellowish-white powder. Zinc oxide is widely used in pigments, rubber, cosmetics and ointments, and electronic devices. The toxicity of zinc compounds by mouth is low. Metal fume fever (zinc chills, brass founder's ague, etc.) may result from the inhalation of zinc oxide fume. The symptoms include cough, dyspnea, fever, chills, substernal chest pain, nausea, and vomiting.

5.2 CAL-OSHA PERMISSIBLE EXPOSURE LIMITS

The following table presents the Cal-OSHA permissible exposure limits. These concentrations represent the maximum allowable concentrations to which workers may be exposed during the work shift, expressed as an 8-hour time weighted average.

Contaminant	Cal-OSHA PEL Concentration
Antimony	0.5 milligrams per cubic meter (mg/M ³)
Arsenic	0.01 mg/M ³
Barium	0.5 mg/M ³
Beryllium	0.002 mg/M ³
Cadmium	0.005 mg/M ³
Carbon Monoxide	25 parts per million (ppm)
Chromium	0.5 mg/M ³
Cobalt	0.05 mg/M ³

Contaminant	Cal-OSHA PEL Concentration
Copper	1.0 mg/M ³
Dust, Total	10.0 mg/M ³
Dust, Respirable	5.0 mg/M ³
<u>Gasoline Constituents</u>	
Benzene	1.0 ppm
Toluene	50 ppm
Ethylbenzene	100 ppm
Xylene	100 ppm
Lead	0.05 mg/M ³
Molybdenum	10.0 mg/M ³
Nickel	1.0 mg/M ³
Oil (particulate or mist)	5.0 mg/M ³
Polynuclear Aromatic Hydrocarbons	0.2 mg/M ³
Vanadium (respirable)	0.05 mg/M ³
Zinc	10.0 mg/M ³

6. GAS/VAPOR MONITORING PROCEDURES

6.1 THE GREATEST POTENTIAL HAZARDS TO SAFETY AND HEALTH CAUSED BY CHEMICAL EXPOSURE AT THIS SITE ARE:

1. Exposure to potentially hazardous substances through skin contact and ingestion.
2. Exposure to potentially hazardous substances through inhalation.

Air monitoring (photoionization detector, Dräger tubes, CO meter, combustible gas meter, O₂ meter, personal sampling pump, as appropriate) will be performed by WSH. Representative sampling of personnel exposure to potentially hazardous substances shall be conducted on individuals working in contaminated areas. Personal sampling will continue until a pattern develops that characterizes the exposure. If exposures are

less than the OSHA action levels (or PELs, where applicable) for these contaminants, sampling will be reduced to once a week. When new operations or phases begin, additional sampling will resume and recharacterization will begin. New operations or phases include breaking new ground, initiating new types of activities, and encountering unexpected conditions. Personnel to be sampled will include those with the highest potential for exposure. The hygienist will provide data to ensure that dust and vapor concentrations and combustible gas levels are within acceptable ranges and will provide selection criteria for increased levels of protection if needed.

Organic vapor respirator cartridges will be changed twice per day at a minimum. This can be done at a scheduled time or during respirator decontamination. If odor breakthrough is detected while wearing the respirator or breathing becomes difficult, change cartridges immediately. Filter cartridges will be changed whenever filter loading causes an unacceptable increase in breathing resistance, as determined by the worker.

Should a "change" in conditions occur, as compared to the baseline conditions and as determined by project personnel (listed in Section 8) (i.e., pungent odors, visible discoloration of soil, visibly contaminated ground water), increased monitoring will be performed at the direction of the engineer. The engineer will be notified immediately so that he can take any necessary precautions to protect the general public.

6.2 TASKS PERFORMED WITHIN A CONFINED SPACE

The scope of work for this project does not include confined space entry such as tanks, but may entail work within excavated areas (greater than 4'), which for the purposes of this plan, are considered confined areas. Prior to worker entry into a confined area all appropriate testing must be conducted by WSH. The level of protective equipment needed will be determined on the basis of this testing and applicable regulations {29 CFR 1910.120, CCR Title-8 and GISO 5159}.

All monitoring equipment must be calibrated and maintained in accordance with the manufacturer's recommendations.

7. HEALTH AND SAFETY REQUIREMENTS

7.1 MEDICAL MONITORING PROGRAM

All WSH and subcontract field personnel must have annual medical evaluations in accordance with the company's Health and Safety Program policy. Additional reevaluation will be considered in the event of chemical over-exposure while working on this project.

The oil and grease and heavy metals known to exist on this project can affect specific organ systems, producing characteristic health effects. The medical evaluation will, therefore, focus on the liver, kidney, nervous system, blood systems, and skin and lung function. Laboratory testing will include complete blood count, and applicable kidney and liver-function tests. Other tests include skin examinations and blood analyses for metal concentrations.

7.2 WSH HAZARD CONTROL PROGRAMS

The following WSH hazard control programs are in effect and included in Appendix D. All subcontractors working on this job will comply with all aspects of these programs.

- Excavation and Trenching
- Hazard Communications
- Confined Spaces Injury
- Illness Prevention
- Respiratory Programs

7.3 TRAINING

All personnel working at this site should receive initial hazardous waste activity instruction and field experience as required under CCR Title-8 and GISO 5192 (Hazardous Waste Operations and Emergency Response). On-site managers and supervisors directly responsible for employees engaged in hazardous waste operations shall have had an additional eight hours of supervisory training as required under 29 CFR 1910.120, CCR Title-8 and GISO 5192.

The initial training and the 8 hour annual refresher training includes specific details on the following:

- Regulatory Requirements
- First Aid/CPR
- Confined Space Entry
- Respiratory Protection
- Air Monitoring
- Decontamination Procedures
- Hazard Communication
- Toxicology

These specifics are then complimented with actual hands-on experience with use of personal protective equipment and air monitoring equipment.

7.4 WORK ZONES ACCESS

Access within a 10 foot radius of any on-site operation is prohibited to all but WSH, subcontract field personnel and designated personnel. The work site shall be secured against unauthorized access by the public.

7.5 EMERGENCY EQUIPMENT

Vehicles used for site work will be equipped with a first aid kit and safety equipment including:

- fluorescent vests
- cones
- flags (as needed)
- barricades (as needed)
- fire extinguisher-dry chemical ABC-type extinguisher
- flashlight
- water, suitable for drinking
- portable eye wash
- appropriate emergency bandage material

7.6 ELECTRICAL EQUIPMENT AND GROUND-FAULT CIRCUIT INTERRUPTERS

All electrical equipment and power cables in and around wells or structures suspected of containing hazardous substance contamination must be intrinsically safe and equipped with a three-wire ground lead, rated explosion-proof for hazardous atmospheres. According to OSHA 29 CFR 1926.404, approved ground fault circuit interrupters (GFCI) must be used for all 120 volt, single phase, 15 and 20 ampere receptacle outlets on the site that are not in use by employees. Receptacles on the ends of extension cords are not part of the permanent wiring and, therefore, must be protected by GFCIs whether or not the extension cord is plugged into permanent wiring.

The GFCI is a fast-acting circuit breaker that senses small imbalances in the circuit caused by current leakage to ground, and in a fraction of a second shuts off the electricity. However, the GFCI will not protect the employee from line-to-line contact hazards (such as a person holding two "hot" wires or a hot and neutral wire in each

hand). The GFCI does provide protection against the most common form of electrical shock hazard, the ground fault. It also provides protection against fires, overheating, and destruction of insulation on wiring.

GFCIs can be used successfully to reduce electrical hazards on construction sites. Tripping of GFCIs - interruption of current flow - can be caused by wet connectors and tools. It is good practice to limit exposure of connectors and tools to excessive moisture by using watertight or sealable connectors. Providing more GFCIs or shorter circuits can prevent tripping caused by the cumulative leakage from several tools or by leakage from extremely long circuits (Adapted from OSHA 3007; Ground-Fault Protection on Construction Sites, 1987).

7.7 FIRE PREVENTION

During confined space entry or whenever the potential exists for the buildup of a flammable atmosphere, periodic vapor concentration measurements should be taken with an explosimeter or combustimeter. If at any time the vapor concentrations exceed 20% of the Lower Explosive Limit (LEL), then the Site Safety Manager or designated field worker should immediately shut down all operations.

Only Factory Mutual (FM) approved fire safety cans will be used to transport and store flammable liquids.

All gasoline and diesel-driven engines requiring refueling must be shut down and allowed to cool before filling.

Smoking is not allowed during any operations within the work area.

No open flame or spark is allowed in any area containing petroleum products or other flammable liquids.

7.8 GENERAL HEALTH

Medicine and alcohol can increase the effects of exposure to toxic chemicals. Unless specifically approved by a qualified physician, prescription drugs should not be taken by personnel assigned to operations where the potential for absorption, inhalation, or ingestion of toxic substances exists. No persons are allowed on-site while under the influence of drugs or alcohol or under any diminished capacity, whatsoever.

Drinking alcoholic beverages is prohibited on the work site. Drinking alcoholic beverages and driving is prohibited at any time. Driving at excessive speeds is always prohibited.

Skin abrasions must be thoroughly protected to prevent chemicals from penetrating the abrasion.

It is recommended that contact lenses not be worn by persons working on the site.

7.9 ON-GOING TRAINING

In addition to the initial hazardous waste training, the health hazards posed by the primary contaminants on this project will be discussed over the course of the project at weekly "tool box safety meetings" to serve as a refresher to this instruction.

8. PROJECT PERSONNEL

The Health & Safety Hygienist will report to the WSH Designated Site Safety Manager relating to hazardous conditions and remedial measures. WSH will oversee conditions and act accordingly during all phases of the project. The following management structure will be instituted to successfully and safely complete this project. In addition, the following personnel including the Site Safety Manager have the authority to stop any construction activity or to modify work practices based on safety requirements. This authority is in effect during working and non-working hours.

8.1 PROJECT MANAGER

The project manager will be responsible for implementing the project and obtaining any necessary personnel or resources for the completion of the project.

8.2 HEALTH & SAFETY MANAGER

The Health and Safety Manager shall be responsible for the coordination and oversight of the following aspects of the Site Safety Plan: vapor, combustion gas, particulate, dermal exposure, and ventilation, and for the implementation of this Site Safety Plan on-site and assuring that all other applicable local, state and federal regulations are complied with.

8.3 PROJECT ENGINEER, SUPERVISOR & FOREMAN

In the event that the Project Manager and the Site Safety Manager are not on site, the Project Engineer or On-Site Supervisor will assume the responsibilities of the Site Safety Manager. If neither the Engineer or On-Site Supervisor are available, the Foreman will assume all responsibilities of the Site Safety Manager.

Project Engineer: _____

On-Site Supervisor: _____

General Foreman: _____

Foreman Area I: _____

Foreman Area II: _____

8.4 OTHER FIELD PERSONNEL

The technical staff is responsible for system maintenance, calibration, and system operation. Records of site visits documenting system conditions are maintained by the technicians. All field personnel shall be responsible for acting in compliance with all safety procedures outlined in the Site Safety Plan. Any hazardous work situations or procedures should be reported to the Site Safety Manager so that corrective steps can be taken.

9. EMERGENCY RESPONSE

In the event of an accident or emergency, immediate action must be taken by the first person to recognize the event. First aid equipment is located on site inside all WSH vehicles. Notify (1) the Site Safety Manager and (2) the Project Manager and the Foreman about the situation immediately after emergency procedures are implemented.

Jobsite telephones are located in the contractor's trailer. Nearest public telephones are located at the Emeryville Public Market.

Emergency Equipment is located at the job trailer.

9.1 EMERGENCY TELEPHONE NUMBERS:

<u>Emergency:</u>	<u>Phone</u>
Local Police	911
Fire	911
State Police	911
Ambulance	911
Underground Service Alert (U.S.A.)	(800) 642-2444
Telephone Company	(800) 642-2444

Maps to hospital are also located in the office and in Appendices.

Primary Hospital:

Alta Bates Hospital
3001 Colby Plaza, Berkeley

(510) 540-0337

From the site: Shellmound north, right onto 65th Street, left onto Hollis. Follow Hollis to Ashby Avenue. Go right on Ashby. Continue on Ashby just past Telegraph and turn right onto Colby.

Secondary Hospital:

Herrick Memorial Hospital
2001 Dwight Way, Berkeley
(510) 845-0130

From the site: Shellmound north, right onto 65th Street, left onto Hollis. Follow Hollis to Dwight Way. Go right on Dwight. Continue on Dwight to Milvia.

Emergency Telephone Numbers:

Environmental Emergency:	Phone
Poison Control Center	(800) 523-2222
RGA Environmental, Inc. (Robert Gils)	(510) 547-7771
National Response Center (NRC)	(800) 424-8802
U.S. EPA (24 hour hotline)	(800) 424-9346
Regional Water Quality Control	(510) 286-1255
Emergency Services Agency	(510) 820-8468
_____ , Project Manager	Job Site - Home - Mobile -
_____ , Health and Safety Manager	Home - Mobile -

9.2 ENCOUNTERING HAZARDOUS SITUATIONS (REQUIRING EVACUATION)

In the event of an emergency, i.e. fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or

surface water at the facility, the team member that observes this condition shall give an emergency alarm.

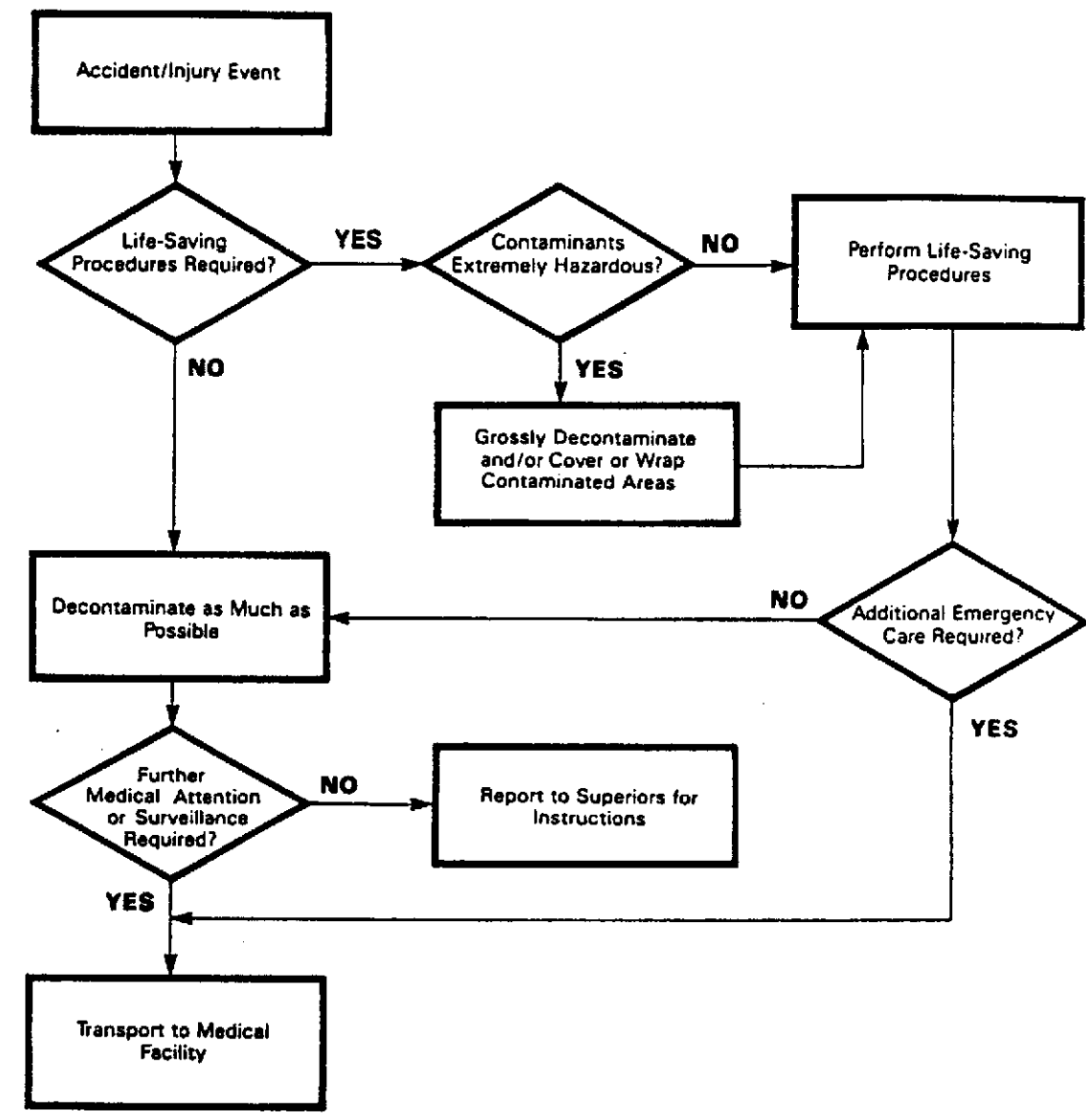
Actions taken will be dictated by the emergency. All appropriate local emergency response agencies shall be notified immediately. The police, fire department, emergency response teams and ambulance may be reached via telephone by dialing 911.

The nearest hospital and additional emergency contacts are listed above.

Personnel encountering a hazardous situation shall instruct others on site to evacuate the vicinity immediately and call the (1) Site Safety Manager, (2) the Project Manager, and (3) the Health & Safety Hygienist for instructions.

The site must not be re-entered until back-up help, monitoring equipment, and personal protective equipment are on hand.

Should an off-site hazardous spill occur, the safety and emergency procedures will be governed by those of the carrier, hauler, etc.



Occupational Safety and Health Guidance Manual for Hazardous Waste site Activities; Prepared by NIOSH, OSHA, USCG, EPA

9.3 USUAL PROCEDURES FOR INJURY

1. If the injury is minor, proceed to administer first aid.
2. Notify the Site Safety Manager, Project Manager, and the Health & Safety Hygienist of all accidents.
3. If the injury requires medical attention, notify the Site Safety Manager, Project Manager, and the Health & Safety Hygienist.

4. Telephone for ambulance/medical assistance if necessary. Whenever possible, notify the receiving hospital of the nature of physical injury or chemical overexposure. If no phone is available, transport the person to the nearest hospital.
5. Send/take this SSP with the MSDSs to the medical facility with injured person. Worker Compensation Insurance Information Packets are in the site office.
6. Notify the Site Safety Manager, Project Manager, and the Health & Safety Hygienists of all accidents, incidents and near-miss situations.
7. Complete Accident/Incident/Near-Miss Form as needed.
8. Notify and provide necessary information to the engineer for all accidents, incidents, and near-miss situations.

9.4 EMERGENCY TREATMENT

When transporting an injured person to a hospital, bring this Site Safety Plan to assist medical personnel with diagnosis and treatment. In all cases of chemical overexposure, follow standard procedures as outlined below for poison management, first aid, and, if applicable, cardiopulmonary resuscitation. Four different routes of exposure and their respective first aid/poison management procedures are outlined below.

9.4.1 Ingestion

Transport person to nearest hospital immediately.

9.4.2 Inhalation/Confined Space

DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED WITH A SELF-CONTAINED BREATHING APPARATUS AND HAVE A STANDBY PERSON.

9.4.3 Inhalation/Other

Remove the person from the contaminated environment. Initiate CPR if necessary. Call or have someone call for medical assistance. Refer to MSDS for additional specific information. If necessary, transport the victim to the nearest hospital as soon as possible.

9.4.4 Skin Contact/Non-Caustic Contaminant (Petroleum, Gasoline, Oil, Grease, etc.)

Wash off skin with a large amount of water immediately. Remove any contaminated clothing and rewash skin using soap, if available. Transport person to a medical facility if necessary.

9.4.5 Skin contact/Corrosive Contaminant (Acids, Hydrogen Peroxide, etc.)

Wash off skin with a large amount of water immediately. Remove any contaminated clothing and rewash skin with water. Transport person to a medical facility if necessary.

9.4.6 Eyes

Hold eyelids open and rinse the eyes immediately with large amounts of water for 15 minutes. If possible, have the person remove his/her contact lenses (if worn). Never permit the eyes to be rubbed. Transport person to a medical facility as soon as possible.

APPENDIX A

AGREEMENT AND ACKNOWLEDGMENT STATEMENT

Site Safety Plan Agreement

WSH personnel have the authority to stop work performed by their subcontractors at this site if any work is not performed in accordance with the requirements of this Site Safety Plan.

All project personnel, observers and subcontractor personnel are required to sign the following agreement prior to conducting work at the site.

I have read and fully understand the Site Safety Plan and my individual responsibilities.

I agree to abide by the provisions of the Site Safety Plan.

Name/Company: _____

Signature: _____

Date: _____

APPENDIX B

SITE SAFETY PLAN AMENDMENT SHEET

Project Name: _____

Project Number: _____

Location: _____

Changes in field activities or hazards: _____

Proposed Amendment:

Proposed By: _____

Date: _____

Approved By (Project Manager): _____

Date: _____

Approved By (Health & Safety Manager): _____

Date: _____

Declined By: _____

Date: _____

Amendment Number: _____

Amendment Effective Date: _____

APPENDIX C

DEFINITION OF HAZARD EVALUATION GUIDELINES

Hazard: Airborne Contaminants

Guideline

Explanation

Threshold Limit Value
Time-Weighted Average
(TLV-TWA)

The time weighted average concentration for a normal eight hour work day and a forty hour work week, to which nearly all workers may be repeatedly exposed without adverse effect.

Permissible Exposure Limit (PEL)

Time weighted average concentrations similar to (and in many cases derived from) the Threshold Limit Values.

Immediately Dangerous to Life and Health
(IDLH)

"IDLH" or "Immediately dangerous to life or health" means any atmospheric condition that poses an immediate threat to life, or that is likely to result in acute or immediate severe health effects. This includes oxygen deficiency conditions.

Guideline

Explanation

Lower Explosive Limit (LEL)

The minimum concentration of vapor in air below which propagation of a flame will not occur in the presence of an ignition source.

Upper Explosive Limit (UEL)

Upper Explosive Limit (UEL)The maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.

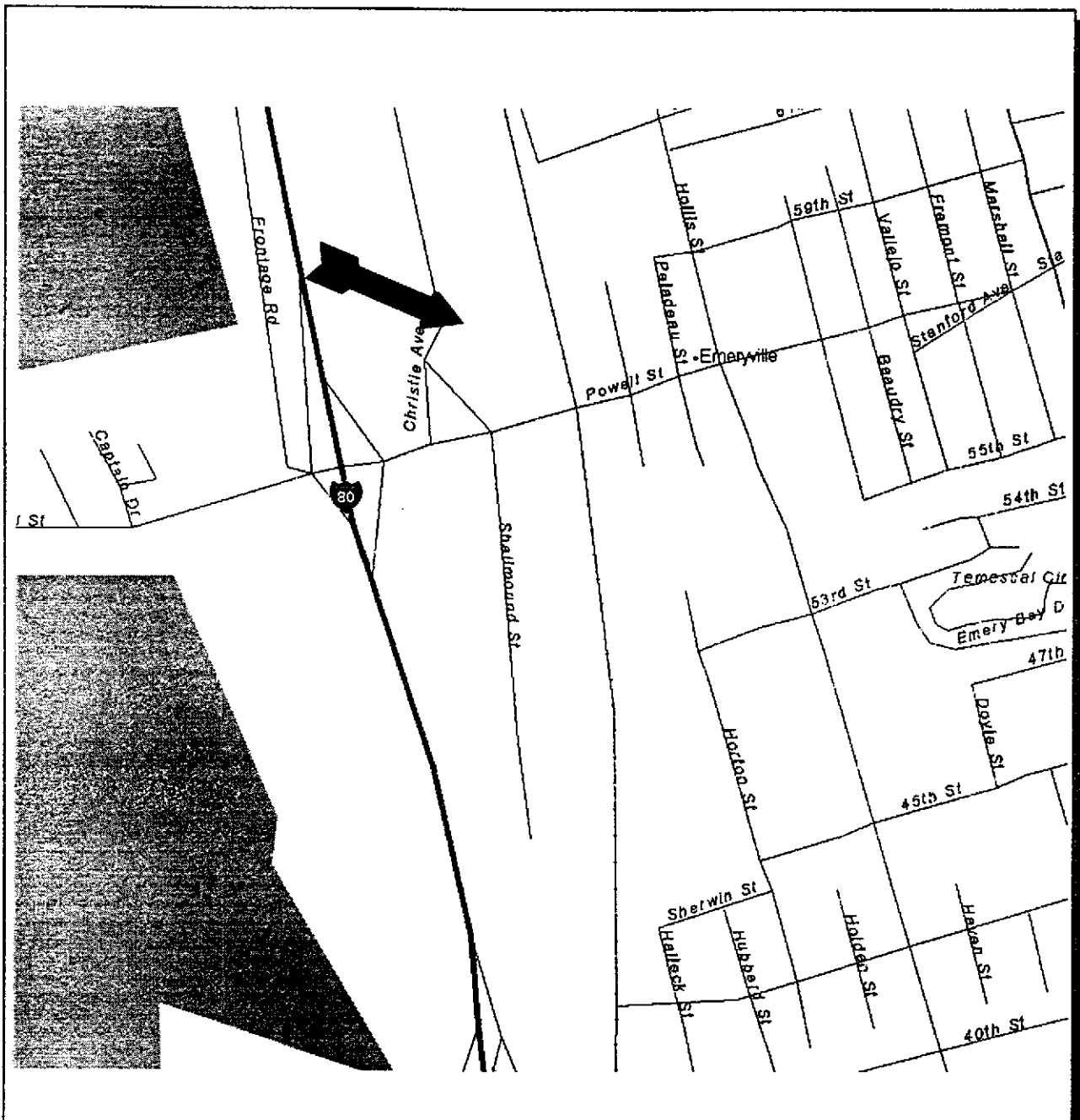
APPENDIX D

WOODFIN SUITE HOTELS

INJURY AND ILLNESS PREVENTION PROGRAM

APPENDIX E.

AREA MAP



**Area Map
Shellmound Street & Powell Street
Emeryville, CA**



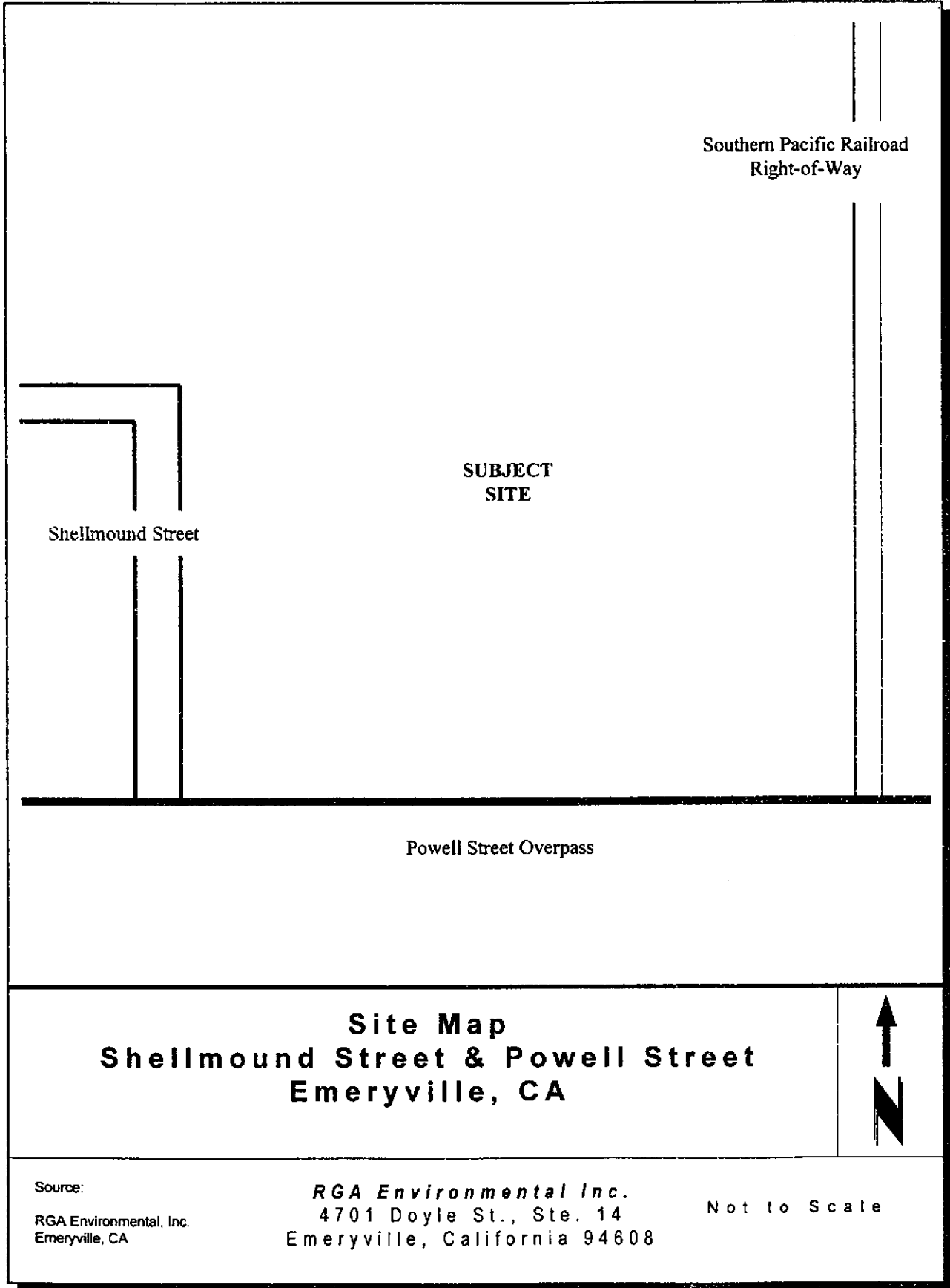
Source:
RGA Environmental, Inc.
Emeryville, CA

RGA Environmental Inc.
4701 Doyle St., Ste. 14
Emeryville, California 94608

Scale:
1 in. = 800 ft.
approximately

APPENDIX F.

SITE MAP



Southern Pacific Railroad
Right-of-Way

**SUBJECT
SITE**

Shellmound Street

Powell Street Overpass

**Site Map
Shellmound Street & Powell Street
Emeryville, CA**



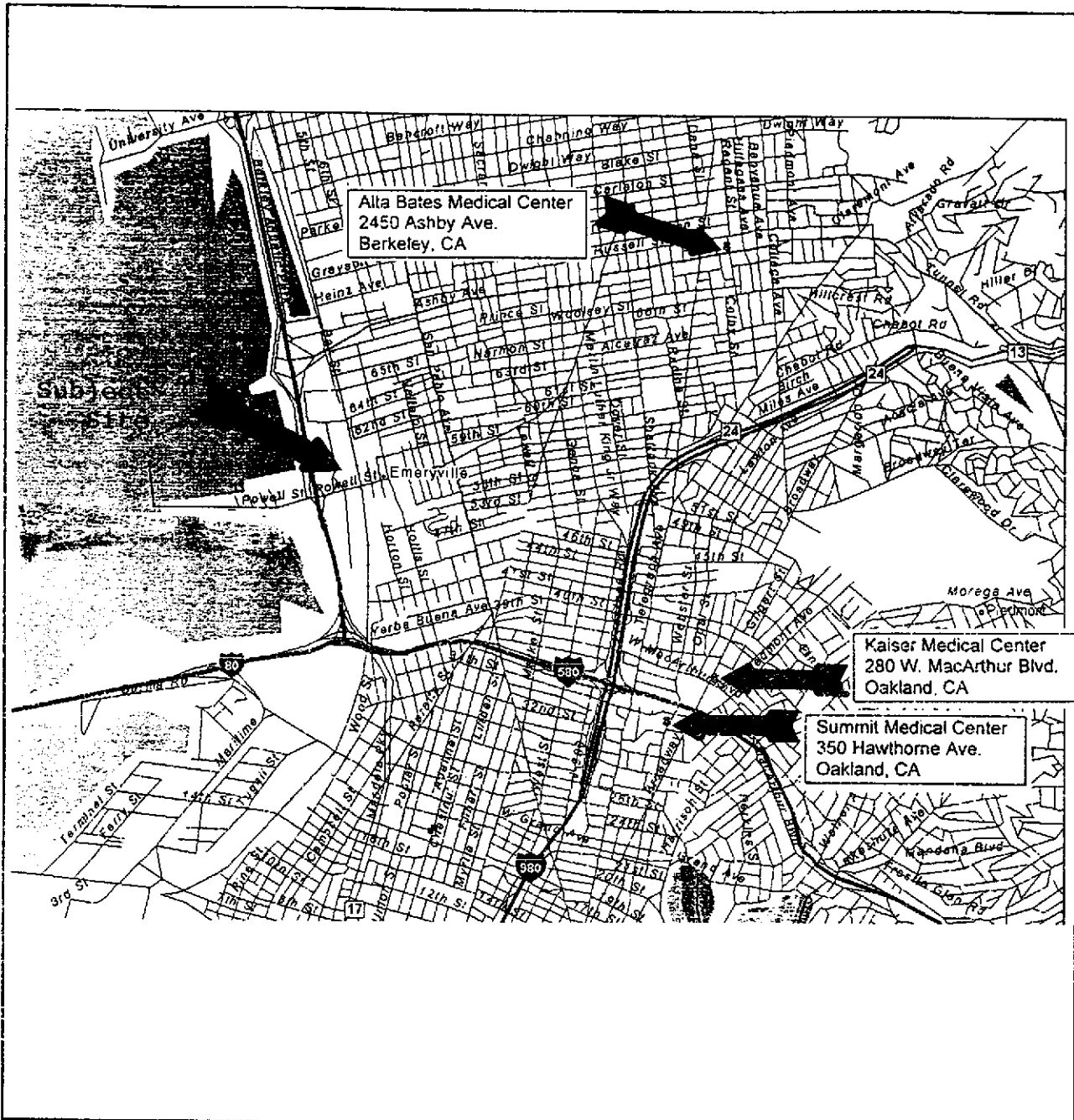
Source:
RGA Environmental, Inc.
Emeryville, CA

RGA Environmental Inc.
4701 Doyle St., Ste. 14
Emeryville, California 94608

Not to Scale

APPENDIX G.

HOSPITAL MAP



Area Map
 (showing Hospital Locations)
Shellmound Street & Powell Street
 Emeryville, CA



Source:
 RGA Environmental, Inc.
 Emeryville, CA

RGA Environmental Inc.
 4701 Doyle St., Ste. 14
 Emeryville, California 94608

Not to Scale