

Appendix C

Site Specific Safety and Health Plan
AMFAC Distribution Center
Albany, California

June 5, 1992

ALLWEST PROJECT NO. 92063.24

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SITE SPECIFIC HEALTH & SAFETY PLAN

I. ENTRY OBJECTIVES

AllWest Environmental Inc. (Allwest) and RESNA Industries, Inc. (CONTRACTOR) plan to close by removal, one steel, 600 gallon underground storage tank (UST). Excavated soils will be continuously screened for the presence of volatiles. The excavated soils will be placed on 14-mil polyethylene sheeting until soil analyses are completed. AllWest will be on site to direct the overall project and perform the environmental assessment. The work will be performed between June 17, 1992 and June 24, 1992.

II. ON-SITE ORGANIZATION AND COORDINATION

The following personnel are designated to carry out the job function(s):

Project Manager	Gary Farthing, AllWest
Project Engineer	Long Ching, AllWest
Health & Safety Manager	Anibal Mata-Sol, AllWest
Site Safety Officer	Anibal Mata-Sol, AllWest
Contractor	RESNA Industries, Inc.

Other personnel scheduled to be on site:

1. Alameda County Department of Environmental Health
2. Albany Fire Department

All personnel arriving/departing the site will notify the Project Manager or the Contractor's Site Foreman.

III. SITE BACKGROUND

Site Status: Active Inactive Unknown

Site Description:

There are no underground lines or obstructions that may hinder operations near the tank excavation location. The site utilities were marked by all appropriate agencies, who were notified to do so by the ALLWEST prior to initiation of work

activities.

Waste Types: Liquid Solid Sludge Gas

Waste Characteristics: Corrosive Flammable Inert
 Volatile Reactive Toxic
 Radioactive

Waste Categories: Waste types which may be encountered include soil and groundwater containing gasoline related hydrocarbons.

IV. HAZARDS

Hazards Rating: High Moderate Low Unknown

Hazards/Toxic Substances Likely To Be Encountered: Hazards likely to be encountered on site include the presence of soils and groundwater contaminated by petroleum hydrocarbons. Observe the necessary precautions while excavating in the area.

Reactivity, Stability, Flammability of Substance(s) as They Exist on Site: Hazards likely to be encountered on-site are associated with petroleum releases potentially in groundwater from both on-site and off-site sources. Tank leaks as hydrocarbons as gasoline are volatile and potentially flammable. Due to the corrosive nature of the soil, petroleum products may have been released into the environment. Refer to Table I, Definition of Hazard Evaluation Guidelines.

Area Affected: Area of the site likely to be affected by hydrocarbon releases include the area surrounding the excavation to a radius of 50 feet. Both subsurface soil and groundwater within this area may be affected by leaks from off-site petroleum storage.

Weather Conditions Anticipated: Possible adverse weather conditions to be anticipated on site are cloudy skies with gusting winds.

V. PERSONAL PROTECTION

The level of personal protection designated here should be considered the minimal acceptable level. Project personnel may elect to upgrade the level of protection at their discretion.

Level of Protection Required: A B C D (Minimum)

Level D protection includes hard hats, safety glasses, and steel toed boots.

Personal Protective Equipment: A minimum of Level D protection will be required on site for all personnel. Safety glasses, hearing protection, and neoprene gloves will be worn if conditions warrant them. Should the level of volatiles present in the breathing zone increase to 100 ppm, Level C protection will be required. Level C protection includes PVC boots, a tyvek suit, an air purifying respirator, and protective gloves in addition to the Level D protection.

Equipment: Health and Safety related equipment to be used on site includes: two 20 BC type Fire extinguishers and First Aid Kit. The equipment must be provided by the CONTRACTOR.

VI. DECONTAMINATION PROCEDURES

All operations conducted at this site have the potential to contaminate monitoring equipment and personal protective equipment (PPE). To prevent the transfer of contamination to vehicles, administrative areas and personnel, the following procedures must be followed:

Equipment Decontamination

Whenever possible, monitoring equipment should be decontaminated with a solution of Alconox or soap and thoroughly rinsed with water prior to leaving the site. This must be done outside a 10-foot radius of any work area.

Personal Decontamination

Level D

Segregated equipment drop

Wash/rinse boot (as appropriate)

Wash/rinse chemical resistant outer glove, then remove (as appropriate)

Remove hard hat, goggles/safety glasses/faceshield

Remove and throw out inner disposable gloves in designated lined receptacles (as appropriate).

Level C

Segregated equipment drop

Wash/rinse outer boots

Wash/rinse chemical resistant outer gloves, then remove

Remove outer boots and place to dry (if reusable)

Remove chemical resistant suit (remove by rolling down the suit)

Remove first pair(s) of disposable gloves

Remove respirator/hard hat/faceshield dispose of cartridges and wash respirator

Remove last pair of disposable gloves

Level B

Segregated equipment drop

Wash/rinse outer boots

Wash/rinse chemical resistant outer gloves, then remove

Cross hotline (into clean area) and change air tanks, then redress or

Cross hotline (into clean area)

Remove boots and gloves

Remove SCBA, if worn over chemical resistant suit

If SCBA is worn under the suit, remove the chemical resistant suit, then the SCBA

Remove hard hat

VII. CHEMICAL OF CONCERN

Potential health effects from a chemical exposure are dependant on several exposure factors such as: toxicity of substances, duration of exposure, concentration during exposure and the overall health of the person exposed.

The chemicals anticipated to be found at this site are: Benzene, Toluene, Ethylbenzene, and Xylene. The following is a health analysis of these chemicals.

Benzene

Benzene can enter the body through inhalation, ingestion and skin contact. Studies have noted that chronic exposure to benzene vapor can produce neurotoxic and hematopoietic (blood system) effects. Other effects can include headache, dizziness, nausea, convulsions, coma and possible death if exposure is not reversed. One significant effect from chronic benzene exposure is bone marrow toxicity. There is also an association between chronic exposures to benzene and the development of certain types of leukemia.

Toluene

Inhalation exposure to toluene vapor can produce effects such as central nervous system depression. Depending on exposure factors signs and symptoms can include headache, dizziness, fatigue, muscular weakness, incoordination, drowsiness, collapse and possible coma. Toluene can be a skin and mucous membrane irritant and studies have shown that high levels of toluene exposure can cause liver and kidney damage.

Ethylbenzene

Exposure to ethylbenzene at high concentrations may produce irritation to the skin, eyes and upper respiratory tract. Overexposure to ethylbenzene vapors can produce central nervous system depression with symptoms of headache, nausea, dizziness, shortness of breath and unsteadiness. Prolonged skin exposure to ethylbenzene may result in drying and cracking of the skin (dermatitis). Solvent resistant gloves should be worn during sampling to prevent exposure to the skin.

Xylene

Exposure to xylene is usually via skin contact or by inhalation and this solvent is readily absorbed by both these routes. Exposure to xylene can result in dizziness, excitement, flushing of the face, drowsiness, incoordination, abnormal gait, tremor, confusion, coma, respiratory depression and cardiac arrhythmias. In humans exposed to xylene, damage to the liver and kidneys has also been reported. Long-term high level inhalation exposure to xylene has also been reported to cause deafness in animals.

VIII. MSDS INFORMATION

Material Safety Data Sheets (MSDS) on chemical substances encountered at the site shall be made available to all persons (including subcontractors) working at the site.

For emergency situation not specifically addressed by this site safety plan refer to MSDS recommendations for action information.

IX. GENERAL PROJECT SAFETY REQUIREMENTS

Project activities will be conducted in accordance with the following minimum safety requirements:

Eating, drinking, and smoking will be restricted to a designated area.

Gross decontamination and removal of all personal protective equipment will be performed prior to leaving the site. Contaminated clothing will be removed and collected in a drum for disposal.

Shaking or blowing of potentially contaminated clothing or equipment to remove dust or other materials not permitted.

The Health and Safety Manager will be responsible for taking necessary

steps to protect employees from physical hazards, including

- Falling objects, such as tools or equipment
- Falls from elevations
- Tripping over hoses, pipes, tools, or equipment
- Slipping on wet or oily surfaces
- Insufficient or faulty protective equipment
- Insufficient or faulty equipment or tools

All personnel will be required to wash hands and faces before eating, drinking or smoking.

Field operations personnel will be cautioned to inform each other of the non-visual effects of the presence of toxics, such as,

- Headaches
- Dizziness
- Nausea
- Blurred vision
- Cramps
- Irritation of eyes, skin, or respiratory tract
- Changes in complexion or skin discoloration
- Changes in apparent motor coordination
- Changes in personality or demeanor
- Excessive salivation or changes in pupillary response
- Changes in speech ability or pattern

Exposure Cold Stress: Work schedules will be adjusted to provide sufficient rest periods in a heated area for warming up during operations conducted in cold weather. Also thermal protective clothing such as wind and/or moisture resistant outer wear is recommended to be worn. Dehydration, or the loss of body fluids, occurs in a cold environment and may increase the susceptibility of the worker to cold injury due to a significant change in blood flow to the extremities. Warm sweet drinks and soups should be provided at the work site to provide caloric intake and fluid volume. The intake of coffee should be limited (Adopted from TLV's and Biological Exposures Indices 1988-1989; ACGIH)

X. MEDICAL SURVEILLANCE

CONTRACTOR and subcontractors engaged in project activities must be participants in a medical surveillance program and must be cleared by the examining physician(s) to wear respiratory protection devices and protective clothing for working with hazardous materials. The applicable requirements under 29 CFR 1910.120 of the Federal Administrative Code will also be observed.

XI. SAFETY AND ORIENTATION MEETING

Field personnel from the CONTRACTOR and its subcontractors will attend a project-specific training meeting for safety issues and review the project tasks before beginning work. The meeting will be led by the CONTRACTOR's site foreman. In addition, fit-testing of respiratory protective devices will be conducted as part of the safety orientation meeting when the use of a respirator may be required.

XII. WORK ZONES AND SECURITY MEASURES

The area where the underground storage tank will be removed is to be designated as an Exclusion Zone. Only essential personnel will be allowed into an Exclusion Zone. When it is practical and local topography allows, approximately 25 to 75 feet of space surrounding the Exclusion Zone will be designated as a Contamination Reduction Zone.

XIII. TRAFFIC CONTROL

The CONTRACTOR is responsible for providing necessary traffic controls if required. Cones, wooden barricades, or a suitable alternative will be used to deny the public access to the Contamination Reduction Zone. If for any reason the safety of a member of the public (e.g., motorist or pedestrian) may be endangered, work will cease until the situation is remedied. Cones and warning sign will be used when necessary to redirect motorists or pedestrians.

XIV. PROJECT PERSONNEL

AllWest will oversee and act accordingly during all phases of the project. The following management structure will be instituted for the purpose of successfully and safely completing this project.

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. Specific duties will include:

Coordinating the activities of CONTRACTOR and all subcontractors, to include informing them of the required personal protective equipment and insuring their signature acknowledging this Site Health and Safety Plan (Appendix A),

Selecting a Site Safety Officer and field personnel for the work to be undertaken on site.

Ensuring that the tasks assigned are being completed as planned and on schedule,

Providing authority and resources to ensure that the Site Safety Officer is able to implement and manage safety procedures,

Preparing reports and recommendations about the project to clients and affected AllWest personnel,

Ensuring that persons allowed to enter the site (i.e., EPA, contractors, state officials, visitors) are made aware of the potential hazards associated with the substances known or suspected to be on site, and are knowledgeable as to the on-site copy of the specific site safety plan.

Ensuring that the Site Safety Officer is aware of all of the provisions of this site safety plan and is instructing all personnel on site about the safety practices and emergency procedures defined in the plan, and

Ensuring that the Site Safety Officer is making an effort to monitor site safety, and has designated a Field Team Leader to assist with the responsibility when necessary.

Acting as the Site Safety Manager, if required.

Health & Safety Manager

The Health & Safety Manager shall be responsible for the overall coordination and oversight of the site health and safety plan. Specific duties will include:

Approving the selection of the types of personal protective equipment (PPE) to be used on site of specific tasks,

Monitoring the compliance activities and the documentation processes undertaken by the Site Safety Officer,

Evaluating weather and chemical hazard information and making recommendations to the Project Manager about any modifications to work plans or personal protection levels in order to maintain safety,

Coordinate upgrading or downgrading PPE with Site Safety Officer, as necessary, due to changes in exposure levels, monitoring results, weather, other site conditions,

Approving all field personnel working on site, taking into consideration their level of safety training, their physical capacity, and their eligibility to wear the

protective equipment necessary for their assigned tasks (i.e., Respirator Fit Testing Results), and,

Overseeing the air monitoring procedures as they are carried out by site personnel for compliance with all company health and safety policies.

Act as Site Safety Officer.

Site Safety Officer

The Site safety Officer shall be responsible for the implementation of the site safety plan on site. Specific duties will include:

Monitoring the compliance of field personnel for the routine and proper use of the PPE that has been designated for each task,

Routinely inspecting PPE and clothing to ensure that it is in good condition and is being stored and maintained properly,

Stopping work on the site or changing work assignments or procedures if any operation threatens the health and safety of workers or public,

Monitoring personnel who enter and exit the site and all controlled access points,

Reporting any signs of fatigue, work-related stress, or chemical exposures to the Project Manager and/or Health & Safety Manager,

Dismissing field personnel from the site if their actions or negligence endangers themselves, co-workers, or the public, and reporting the same to the Project Manager and/or Health & Safety Manager,

Reporting any accidents or violations of the site safety plan to the Project Manager and/or Health & Safety Manager, and documenting the same for the project in the project records,

Knowing emergency procedures, evacuation routes and the telephone numbers of the ambulance, local hospital, poison control center, fire and police departments,

Ensuring that all project-related personnel have signed the personnel agreement and acknowledgments from contained in this site safety plan,

Coordinate upgrading and downgrading PPE with the Health & Safety Manager, as necessary, due to changes in exposure levels, monitoring results, weather, and other site conditions, and

Perform air monitoring with approved instruments in accordance with requirements stated in this Site Safety Plan.

XV. 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.

XVI. EMERGENCY RESPONSE PROCEDURES

In the event of an accident resulting in physical injury, first aid will be administered and the injured worker will be transported to the nearest hospital or emergency medical clinic for emergency treatment. A physician's attention is required regardless of the severity of the injury.

In the event of a fire explosion, or property damage, AllWest will be immediately notified. If necessary, local fire or response agencies will be called.

The CONTRACTOR shall develop a contingency plan which address procedures to be followed in the event of fire, personal accidents and explosions which may result in environmental contamination. This shall be reviewed and approved by AllWest before work commences.

EMERGENCY TELEPHONE NUMBERS

Fire and Police:	911
Ambulance:	911
AllWest	415-391-2510
Underground Service Alert (USA)	800-422-4133
Poison Control Center:	415-526-2121
CHEMTREC	800-424-9300

Note: Only call CHEMTREC in an emergency. CHEMTREC is an Acronym for Chemical Transportation Emergency Center, a public service of the Chemical Manufacture's Association. CHEMTREC can usually provide hazard information warnings and guidance when given the identification number of the name of the product and the nature of the problem. CHEMTREC can also contact the appropriate experts.

Medical

Alta Bates-Herrick
3001 Colby at Ashby
Berkeley, California
(510) 540-1303

XVII. LIMITATIONS AND AUTHORITY STATEMENT

AllWest Environmental does not guarantee the health or safety of any persons entering this site. Due to the potential hazards of this site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards which may be encountered. Strict adherence to the HEALTH & SAFETY guidelines set forth herein will reduce, but not eliminate, the potential for injury at this site. The HEALTH & SAFETY guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research and evaluation by personnel trained in HEALTH & SAFETY practices. The Allwest Project manager will responsible for implementing this plan. Both the AllWest Project Manager and the Health & Safety manager have the authority to audit site activities for compliance with this plan and may suspend, modify or halt contractors' work practices whose conduct does not meet the requirements specific to this plan.

TABLE I
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 8-hour work day and a 40-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 which is likely to result in acute or immediate severe health effects. This includes oxygen deficiency conditions.
Hazard:	Explosion
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)	The maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.
Hazard:	Fire
Guideline	Explanation
Flash Point (flash p)	The lowest temperature at which the vapor of a combustible liquid can be made to ignite momentarily in air.