



HADLEY INDUSTRIES
environmental technologies

M60050.000047
MCAS EL TORO
SSIC # 5090.3

HEALTH AND SAFETY PLAN
FOR MCAS EL TORO

REVISED
OCTOBER 1991

OK ✓
JA 11/25/91

PROJECT NAME: MCAS EL TORO
PROJECT LOCATION: SANTA ANA, CA



SYSTEM CONTACTS

<u>TITLE</u>	<u>NAME</u>	<u>PHONE</u>
OPERATIONS MANAGER:	Donald A. Klemm	800-345-4227
OPERATOR/SAFETY OFFICER:	Richard Sidlin	Work: 714-496-1786 Home: 714-679-8206
PROJECT COORDINATOR:	Renee' Moye	800-676-6808
CONTRACTING OFFICER:	Tess Heidrich	619-532-2500
REMEDIATION PROJECT MGR:	Andy Piszkin	619-532-1239
EL TORO BASE CONTACTS:	Kathy Britton, CSR	714-726-4905
	Chrisha Mitchell	714-726-6607



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EMERGENCY PHONE NUMBERS

CONTACT

TELEPHONE

Ambulance Services	714-726-3917
Hospital (Irvine Medical Center)	714-753-2000
Poison Control	213-484-5151
MCAS El Toro Police	714-726-3917
Fire Department	714-726-3917
Electric Company	714-635-9051
Gas Company	714-630-2966
Water Company	714-635-9051

HADLEY INDUSTRIES California: 800-676-6808
 Michigan: 800-345-4227

Richard Sidlin, System Operator.work: 714-496-1786
 home: 714-679-8206

Don Klemm, Operations Manager

24 hours: 616-845-7480

Renee Moye, Project Coordinator

24 hours: 805-482-2303

Brad Vanderlaan, Operations Dept.

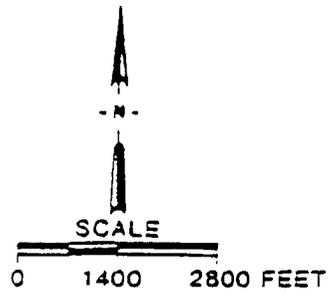
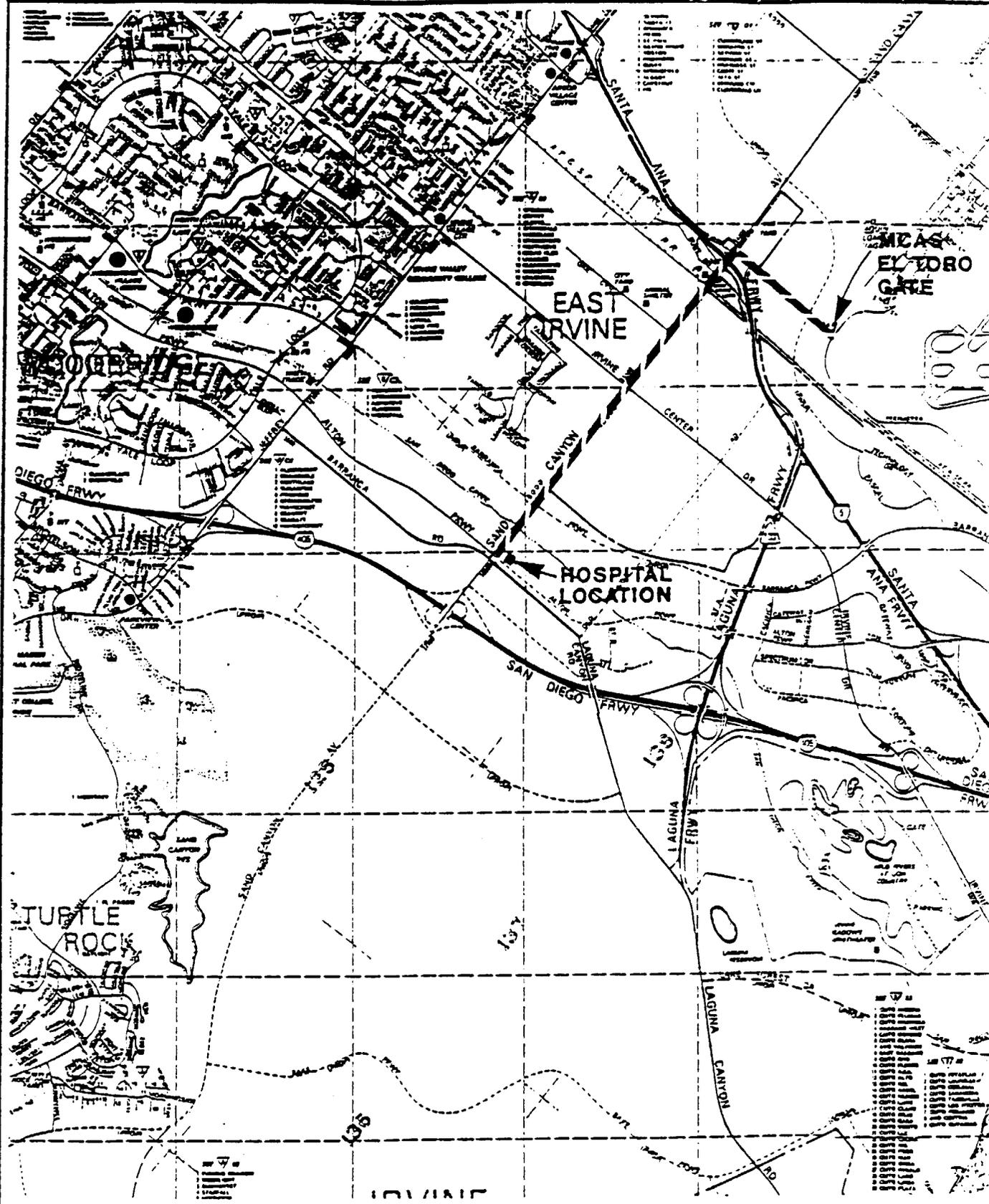
24 hours: 616-845-0047

Scott Hall, Maintenance Dept.

24 hours: 616-869-4627

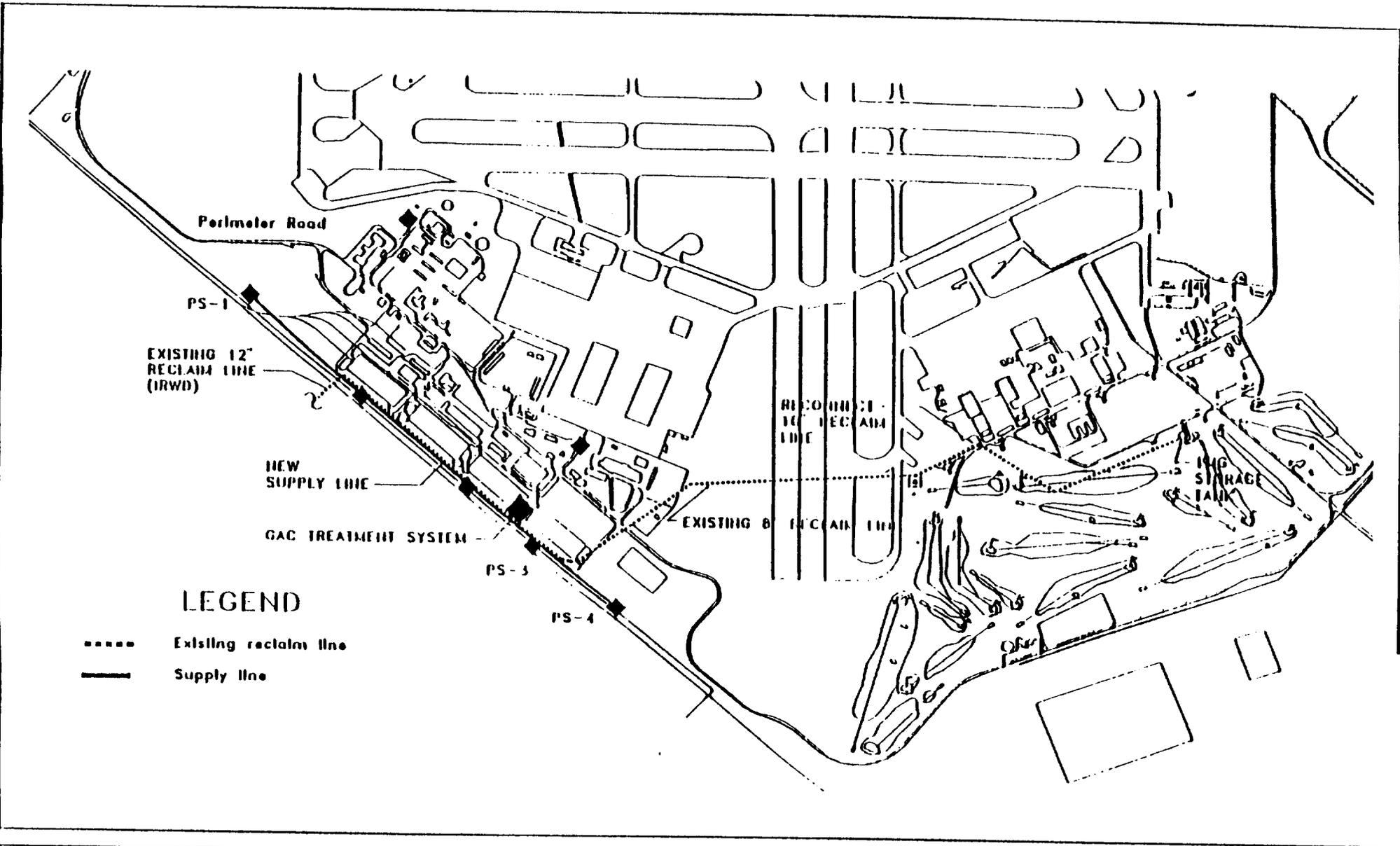
SPECIFIC SITE DIRECTIONS

From Interstate 405 (San Diego Freeway) go NE on Sand Canyon Avenue, just past Interstate 5 (Santa Ana Freeway), turn right (SE) to MCAS El Toro Gate (see attached map).



ER Route, HOSPITAL LOCATION

SECTION (H)



**EL TORO INTERIM GROUNDWATER TREATMENT SYSTEM
SITE PLAN**



PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS SUBSTANCES

Personnel Authorized to Enter Site

1. Donald Klemm
2. James Shillinger
3. Richard Sidlin
4. Bradley Vanderlaan
5. Scott Hall
6. Frank Smiddy
7. Brian Robb
8. Jessie Stubbs

Other Personnel Assigned to Enter Site or Handle Hazardous Substances
(decontaminate, analyze samples)

1. Kelly Lemire
2. Jerry Skar
3. Martin Dillis



HAZARDOUS SUBSTANCES:

Chloroform, Tetrachloroethene (PCE), Trichloroethene (TCE), cis-1, 2-Dichloroethene, 2-Butanone, 1,1 Dichloroethylene, Trans 1,2-Dichloroethylene, Vinyl Chloride

SUBSTANCE ASSESSMENT

Solvents

A solvent is a liquid that dissolves another substance. Solvents are used in industry as thinners and as grease and dirt dissolvers; and in the home as spot removers, paint thinners, and glues.

Solvents can irritate the surface of the skin or can be absorbed through the skin. The skin's natural oil gives little protection against most solvents. Dermatitis is an inflammation of the skin that can be caused by contact with solvents. Dermatitis can either be from an acute (short term) or chronic (long term) exposure. If absorbed by the skin or inhaled, solvents may cause systemic (internal) problems. Acute inhalation may irritate the nose, throat, eyes and lungs. Chronic inhalation of certain solvents can damage the lungs (HC1), liver (alcohol), blood (benzene), kidneys, and even the digestive system.



The hazard potential is affected by how the solvent is used, how toxic the solvent is, the airborne concentration, the duration of exposure, and the individual's susceptibility.

Classes of Solvents

There are two general classes of solvents, the aqueous or water based solvents and the non-aqueous or organic solvents.

Aqueous Solvents are solutions of acids, bases (alkalies) and detergents. The potential hazards associated with aqueous solvents are primarily corrosive in nature. Detergents may also act as degreasing agents and may cause dermatitis.

Organic solvents comprise the second and larger class of solvents. Organic materials always contain the element carbon. The organic class can be further divided into two groups, the chlorinated (halogenated) and the non-chlorinated (non-halogenated). Chlorinated solvents contain chlorine and usually have the term "chlor" in their name, such as methylene chloride and trichlorethylene.

Chlorinated solvents are generally not flammable, but their vapors are toxic and if overheated they can decompose to form corrosive (Cl_2) and poisonous (COCl_2 /phosgene) gases. Chlorinated solvents pose a potential of damage to the liver and the kidneys.



Non-chlorinated solvents are often flammable (flashpoint - 100° F) and may also damage the liver and the kidneys. When handling flammable solvents you must safeguard them from the potential of a fire.

There are four components to a fire: 1) fuel, 2) heat - the ignition source, 3) oxygen, and 4) chain reaction. Safe handling of flammable solvents is based upon preventing the fuel from coming in contact with a source of ignition.

SAFE HANDLING OF ALL SOLVENTS REQUIRES THE MINIMIZING OF THE EXPOSURE TO THAT MATERIAL. Skin contact can be avoided by wearing the proper gloves for that material. Never wash your hands in an organic solvent. Excessive inhalation of solvent vapors can be avoided by use of proper ventilation or if required respiratory protection.



HEALTH EFFECTS AND MEDICAL MONITORING

HAZARDOUS SUBSTANCE: HALOGENATED ALIPHATIC HYDROCARBONS

COMPOUNDS: carbon tetrachloride, chloroform, ethyl bromide, ethyl chloride, ethylene dibromide, ethylene dichloride, methyl chloride, methyl chloroform, methylene chloride, tetrachloroethane, tetrachloroethylene, trichloroethylene, vinyl chloride

USES: Commercial solvents and intermediates in organic synthesis

TARGET ORGANS: Central Nervous System (CNS), Kidney, Liver, Skin

POTENTIAL HEALTH EFFECTS: All cause CNS depression, decreased alertness, headaches, sleepiness, loss of consciousness. Kidney changes: decreased urine flow, swelling (especially around eyes) anemia. Liver changes: fatigue, malaise, dark urine, liver enlargement, jaundice. Vinyl chloride is a known carcinogen; several others in this group are potential carcinogens.

MEDICAL MONITORING: Occupational/general medical history emphasizing prior exposure to these or other toxic agents. Medical examination with focus on liver, kidney, nervous system, and skin. Laboratory testing for liver and kidney function; carboxyhemoglobin where relevant.



EMERGENCY PROCEDURES

In any of the following events, an Incident Report will be filled out, with three copies each sent within 24 hours to Hadley Industries' Personnel Manager, and the NAVFAC Contracting Officer.

Overt Personnel Exposure (skin contact, inhalation, ingestion):

Personnel overtly exposed to contaminants will immediately dispose of their clothing at the decontamination area. Personnel will then be thoroughly washed down with wash water for a minimum of 15 minutes.

Personal Injury

Personnel will follow decontamination procedures as much as possible depending on the severity of the injury. Injured personnel will be removed and transported to a local medical facility.

Environmental Accident

On-site personnel will work to contain accidents as much as possible.

Contamination that spreads beyond the system area will be cleaned immediately upon containment. Testing to verify clean-up will begin immediately upon completion of the clean-up. The Operations Manager will be notified immediately in the event of an accident.



EMERGENCY SHUT-DOWN

IF AN EMERGENCY OR UNSAFE CONDITION EXISTS:

1. Do not enter the treatment area.
2. Turn off the power at the Main Breaker inside Bldg 319 (contact Richard Duffin).
3. Immediately contact:

HADLEY INDUSTRIES at 800-676-6808 or 800-345-4227

and

MCAS EL TORO BASE at 726-4905 or 726-6607.



Report # _____

Date: _____

INCIDENT REPORT

Name: _____ Social Security Number: _____

Home Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Job Title: _____ Age: _____ Sex: Male Female

Division: _____ Department: _____ Project Manager: _____

=====
Location of Incident: _____

Date of Incident: _____ Time: _____ am pm Date Reported: _____

Time Reported: _____ Reported to: _____

Description of Incident: _____

Diagram Attached: Yes No
=====
 INDOORS

Quality of Lighting poor good excellent
Type of Flooring concrete carpet tile
 wood other _____
Condition of Floor dry wet
 new carpet freshly waxed

OUTDOORS

Weather Conditions: clear rain snow
 sleet other: _____

Condition of Surface: _____
Other Conditions: _____

List tools, chemicals or machinery involved in this incident: _____

Vehicles or equipment involved / damage incurred: _____

=====

Did a fatality occur? Yes No



LEVEL OF PROTECTION

Level "D" personnel protection equipment required at the project site includes:

- hard hat
- latex sampling gloves
- steel-toed boots
- safety glasses
- tyvek suits (if necessary)
- escape mask (if necessary)
- face shield (if necessary)

LITERATURE CITATIONS

U.S. Department of Labor, Construction and Safety Standards EPA, Standard Operating Guides