

**ATLAS HYDRAULIC CORPORATION**  
 28971 Hopkins Street Unit 7  
 P.O. Box 56567  
 HAYWARD, CALIFORNIA 94545-6567

**LETTER OF TRANSMITTAL**

(415) 786-3393

DATE	10-13-88	JOB NO	1085
ATTENTION			
RE			
5787 SCARLETT COURT			
DUBUN			
TANK REMOVAL			

TO ALAMEDA COUNTY HEALTH CARE SERVICES  
DEPT. OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS DIVISION

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     PERMIT

COPIES	DATE	NO.	DESCRIPTION
1			CHECK FOR \$500.00
3			TANK REMOVAL APPLICATION
3			PLOT PLANS
3			HEALTH & SAFETY PLANS

THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval  
 For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution  
 As requested     Returned for corrections     Return \_\_\_\_\_ corrected prints  
 For review and comment     \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_     PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

COPY TO \_\_\_\_\_

SIGNED: Deane C. Schuff

HEALTH & SAFETY PLAN,  
ACCIDENT PREVENTION PROGRAM  
AND  
CODE OF SAFE PRACTICE

ATLAS HYDRAULIC CORPORATION  
28971 HOPKINS STREET, UNIT #7  
HAYWARD, CA 94545  
(415) 786-3393

## TABLE OF CONTENTS

	<u>PAGE</u>
1.0 SAFETY, HEALTH, AND EMERGENCY RESPONSE PLAN.....	1
1.1 INTRODUCTION.....	1
1.2 ASSIGNMENT OF RESPONSIBILITIES.....	1
1.2.1 Project Manager.....	2
1.2.3 Field Operations Supervisor.....	2
1.2.4 Technicians/Subcontractors.....	2
1.3 MEDICAL PROGRAM.....	2
1.4 EMERGENCY MEDICAL TREATMENT.....	2
1.5 TRAINING.....	3
1.6 HAZARD EVALUATION AND SAFETY CONSIDERATIONS.....	4
1.6.1 Pre-Removal Activities.....	4
1.6.1.1 Tank Inspection and Sounding.....	4
1.6.1.2 Tank Interior Explosive Atmosphere Testing.....	4
1.6.1.3 Tank Interior Purging.....	4
1.6.1.4 Tank Content Disposal.....	4
1.6.2 Tank Removal and Disposal.....	4
1.6.3 Soil/Watering Sampling.....	5
1.6.4 Soil Excavation, Aeration, and Disposal.....	5
1.7 GENERAL SAFETY REQUIREMENTS.....	5
1.9 PROTECTIVE EQUIPMENT REQUIREMENTS.....	8
1.9 HEAT STRESS.....	9

## 1.0 SAFETY, HEALTH, AND EMERGENCY RESPONSE PLAN

### 1.1 INTRODUCTION

It is the policy of Atlas Hydraulic Corporation to provide a safe and healthful work environment for all its employees. Atlas considers no phase of operations or administration to be of greater importance than accident, injury and illness prevention. Safety takes precedence over expediency or short cuts and every attempt will be made to reduce the possibility of injury, illness, or accident occurrence.

The purpose of the safety and accident prevention program is to assign Atlas site personnel health and safety responsibilities, prescribe mandatory operating procedures, establish personal protective equipment requirements for job or work or activity, for alternative and contingency work items, for emergency response and for spill clean-up and abatement in order to successfully and safely perform all phases of Atlas work.

The proposed activities of our projects can potentially expose site personnel to a variety of chemical and physical materials. These hazards may include toxic airborne contaminants, noise, vibration, and being pinched or struck by moving or rotating equipment. They may also involve exposure to excavations with or without shoring. To the extent feasible, such hazards will be addressed through engineering controls. The site Project Manager shall assist field supervisors in identifying and controlling physical hazards not addressed by Engineering Controls.

The provisions of this plan are mandatory for all Atlas personnel and subcontractors assigned to the project. All authorized visitors on the job site will be required to abide by these procedures. Work conditions can be expected to change as the operation progresses. As appropriate, addenda to the plan will be provided by the Atlas Project Manager. No changes to the plan will be implemented without prior approval of the Atlas Project Manager.

### 1.2 ASSIGNMENT OF RESPONSIBILITIES

#### 1.2.1 Project Manager

The Project Manager will be responsible for field implementation of the Accident Prevention and Health and Safety Plan. This will include communicating site requirements to all personnel and field supervision.

This plan will comply with established site specific procedures in all respects and will include medical surveillance, training requirements, hazard assessment, personal, protective equipment, field implementation, and audits. Agency liaison on matters relating to safety and health will be handled by Atlas representatives.

### 1.2.3 Field Operations Supervisor

The Field Operations Supervisor will be the first line supervisor responsible for ensuring that all personnel on-site, including subcontractors, comply with the Accident Prevention and Health and Safety Plan requirements.

### 1.2.4 Technicians/Subcontractors

Technicians, subcontractors, and other personnel on-site will be responsible for understanding and complying with all site requirements and all aspects of this plan.

## 1.3 MEDICAL PROGRAM

All Atlas Hydraulic Corporation and subcontractor personnel on-site shall have successfully completed a preplacement or periodic/update physical examination. This examination has been designed to comply with appropriate regulatory requirements for hazardous waste site operations only.

The Atlas Hydraulic Corporation medical program consists of:

- \* Medical and Occupational History Form (detailed) questionnaire for new employees, short questionnaire for periodic exams)
- \* Physical Examination
- \* Blood Analysis,
- \* Urinalysis,
- \* Chest X-ray,
- \* Pulmonary Function Test
- \* Audiogram,
- \* Electrocardiogram (if indicated during exam)

## 1.4 EMERGENCY MEDICAL TREATMENT

- a. Should site personnel suffer an injury or illness, the following resources will be utilized as appropriate:

Key site personnel shall be qualified to render first aid and/or cardiopulmonary resuscitation as appropriate.

For emergencies requiring fire, police, or ambulance, personnel contact will be arranged prior to job start up.

Hospitals, locations and telephone numbers shall be identified prior to job start-up. They will be posted on-site, and shall be available in vehicles on-site.

- b. If an injury/illness clearly requires only first aid procedures, treatment can be limited to this level. All incidents not obviously limited to first aid treatment levels require the activation of the appropriate resources to provide more definitive medical care.
- c. Any injury or illness will require the completion of State of California Employer's Report of Occupational Injury or Illness, Form 8359E by the Job Supervisor and when completed, shall be forwarded to the Project Manager as soon as possible.
- d. In addition to the above requirements, any injury/illness not limited to first aid care will require that the Atlas supervisor on-site immediately contact the Project Manager. This will allow coordination of internal resources to advise the treating physician as to appropriate treatment. It will also permit a timely accident investigation to determine underlying causes so that appropriate corrective and preventive steps may be taken to prevent re-occurrence.

## 1.5 TRAINING

- a. All Atlas and subcontractor site personnel shall have been schooled and trained in hazards and protection. This training covers chemical hazards, hazard recognition, hazard assessment, personal protective equipment, and proper handling techniques for hazardous materials. Competent personnel responsible for testing tank atmospheres prior to tank entry shall also have been trained in confined space entry.

Additionally, all Atlas and subcontractor site personnel shall be briefed as to the requirements of this Health and Safety Plan prior to project start-up.

- b. All personnel operating industrial equipment such as forklifts, cranes, hydroblasters, etc., shall have successfully completed training in the safe operation of such items.
- c. Only personnel trained to render first aid and cardio-pulmonary resuscitation will administer such, as appropriate.
- d. Tailgate safety meetings are a useful training tool and will be conducted at the beginning of each shift and whenever new personnel arrive or when a unique work assignment warrants employee indoctrination and training. Tailgate safety meetings are to be conducted by the supervisor, a safety representative, or other qualified persons.

## 1.6 HAZARD EVALUATION AND SAFETY CONSIDERATIONS

### 1.6.1 Pre-Tank Removal Activities

#### 1.6.1.1 Tank Interior Explosive Atmosphere Testing

As required by Cal-OSHA confined space regulations, a combustible gas indicator shall be used to test tank interior atmospheres for flammable atmosphere and oxygen deficiency after the tank has been emptied and cleaned. If the testing reveals any hazard, mechanical ventilation shall be used to abate the hazard. Atlas Hydraulic Corporation policy does not permit entry into confined space unless the flammable contents are at less than 15% of the L.E.L. and the oxygen content is greater than 20%. The presence of volatile hydrocarbons shall also be evaluated to determine the level of respiratory protection needed. Additionally, a first aid/CPR trained standby person shall be available at the tank entryway for emergency response. Where top entry is necessary, ladders of adequate length and extraction devices shall also be used.

#### 1.6.1.3 Tank Interior Purging

The tank atmosphere inerting will be achieved by introducing solid carbon dioxide into the tank, and allowing it to evaporate so it displaces the air. Solid carbon dioxide shall be handled so as to avoid any skin contact to prevent cold burns. After purging the tank interior, no entry will be permitted.

#### 1.6.1.4 Tank Content Disposal

Since tank contents will be pumped off into temporary containers or vacuum trucks by others, Atlas personnel exposure is anticipated to be minimal. Nevertheless, employees handling contaminated hoses shall wear the following protective equipment:

- \* Polyethylene-coated Tyvex Suits (if required)
- \* PVC boots with steel toe and shank
- \* PVC gloves

All pumping equipment shall be bonded and grounded to control any static electricity.

### 1.6.2 Tank Removal and Disposal

After each tank has been cleaned and purged, it shall be removed. The health and safety aspects of such work will depend on the size and nature of the tank. If underground, totally or partially, it will be necessary to excavate. In such event of excavation, all the requirements of Cal-OSHA and Atlas shall be used. Prior to beginning excavation, all neighboring underground utilities shall be located, and disconnected.

Sloping, shoring or benching will be used if excavation depth exceeds five feet and employees are required to enter the excavation.

Excavation spoils shall be kept no closer than three feet from the edge. Where sheetpile shoring or soldier beam/lagging is required, it will be designed by a licensed Civil or Structural Engineer experienced in this type of work.

Exit ladders shall be placed no farther than twenty-five feet apart for appropriate egress. Each day prior to commencing work, the field supervisor shall inspect the excavation for water accumulation or potential hazards associated with moving soil or deflection of shoring members.

All excavation equipment and crane operators shall have successfully completed appropriate training to ensure they can operate such equipment safely.

The need for protective clothing and equipment will depend on the extent of contamination external to the tank. The Project Manager shall determine the appropriate level of protection needed. EPA level C protection is anticipated to be the highest level needed, although field circumstances may require a higher degree of protection.

As with any other Atlas field activity, personal protective equipment use, chemical and physical hazards shall be reviewed at the start of each day in the tailgate safety meeting.

After the tank has been removed, it may be necessary to perform hot work on it, such as cutting it into manageable sizes. Where such work is needed, appropriate fire control precautions such as outlined by Atlas, Fire Dept. and City Officials shall be taken. The tank must be inert before cutting can start.

#### 1.6.3 Soil/Water Sampling

Prior to sampling, the project supervisor shall review health and safety hazards and appropriated personal protective equipment with the sampling crew during the tailgate safety meeting at the beginning of each day.

#### 1.6.4 Soil Excavation, Aeration, and Disposal

Where contaminated soil must be removed, all appropriate excavation procedures as outlined above and as specified in Cal-OSHA regulations, shall be followed.

### 1.7 GENERAL SAFETY REQUIREMENTS

All work will be conducted to apply to all applicable Cal-OSHA General Industry Safety Orders and Construction Safety Orders. The following points outlined are not all inclusive. They illustrate some of the more pertinent concerns.

- a. Each work site shall be divided into three well delineated zones, as follows:



Contamination Zone - This zone includes the actual areas of contamination. This zone has the highest inhalation exposure potential and/or presents a high probability of skin contact with chemicals.

Contamination Reduction Zone - This zone covers all areas immediately surrounding the contamination zone. This zone has the next highest inhalation hazard but does not have a high probability of skin contact with chemicals.

Clean Zone - This zone covers all areas outside of the contamination reduction zone. Adverse exposure to chemicals is unlikely.

- b. The decontamination station shall be positioned at the entrance to the contamination reduction zone with a step-off area just inside the contamination reduction zone. All personnel entering or leaving the site shall pass through these areas with the appropriate protective equipment. Disposable booties, if required, will be provided for those personnel exiting through the station into the clean zone from the contaminated reduction zone.
- c. All excavation work must comply with the following rules:

No employee shall work adjacent to any excavation until a reasonable examination of same has been made to determine that no conditions exist exposing them to injury from moving ground, trees, boulders, and other surface encumbrances, located so as to create a hazard to employees involved in excavation or in the vicinity thereof at any time during operations, shall be removed or made safe before excavating is begun.

Excavations shall be inspected by an Atlas qualified person after every rainstorm or other hazard-increasing occurrence, and the protection against slides and cave-ins shall be increased if necessary.
- d. As appropriate, equipment on-site shall be bonded and grounded, spark proof, and chemically compatible.
- e. Tailgate safety meetings are to be conducted by the supervisor, a safety representative, or other qualified persons at the beginning of each shift and whenever new personnel arrive, or when a unique work assignment warrants employee indoctrination and training.
- f. A qualified person shall take positive steps to ensure that employees are protected from physical hazards, which would include, but are not limited to the following:  
Insufficient or faulty personal protective equipment  
Insufficient or faulty operations equipment and tools  
Noise in excess of acceptable levels

Tripping over hoses, pipes, tools, or equipment, and slipping on wet or oily surfaces.

Appropriate action to provide secure footing shall be taken at all locations where personnel will be working.

- g. Legible and understandable precautionary labels shall be prominently affixed to containers of raw materials, intermediates, products, by products, mixtures, scrap, waste, debris, and contaminated clothing.
- h. Employees shall not be permitted to exit the regulated area until contaminated clothing and equipment have been removed.
- i. Contaminated protective clothing and equipment shall not be removed from the regulated area until it has been cleaned or properly packaged (double plastic bagged) and labeled.
- j. Removal of materials from protective clothing or equipment by blowing, shaking, or any other means which may disperse materials into the air is prohibited.
- k. Eating, drinking, and smoking shall be restricted to areas within the clean zone.
- l. All employees shall be required to wash their face, hands, and forearms with soap and water before eating, drinking, smoking, or applying cosmetics.
- m. Field personnel must observe themselves and each other for signs of toxic exposure. Indications of adverse effects include, but are not limited to:
  - Changes in complexion and skin color
  - Changes in coordination
  - Changes in demeanor
  - Excessive salivation
  - Abnormal pupillary response
  - Changes in speech pattern
- n. Field personnel shall be instructed to inform their supervisor of any non-visual effects of toxic exposure such as:
  - Headaches
  - Dizziness
  - Nausea
  - Blurred Vision
  - Cramps
  - Irritation of eyes, skin, or respiratory tract
  - And any other abnormal physiological functions

- o. Eating, drinking and smoking will be restricted to the rest area.
- p. Fall protection shall be required for any work surface higher than six feet. This may be either fall barriers with toe guard, or safety belts.
- q. All construction equipment shall have automatic back up alarms, seat belts and Roll Over Protective Structures.
- r. No cranes shall be operated within ten feet of live electrical conductors. Rated load capacities shall not be exceeded.
- s. All portable equipment shall be fitted with overcurrent protective devices such as ground fault circuit interrupters. Unless double insulated, all electric tools shall be properly grounded.
- t. Safety glasses are mandatory for all personnel using tools which may eject flying particles or fragments. Examples of such tools are grinders, sanders, saws etc.

#### 1.9 PROTECTIVE EQUIPMENT REQUIREMENTS

- a. Personal protective equipment requirements will be established via task assignment and location.

The protective clothing requirements for tank inspection and sounding, tank atmosphere testing, tank entry and tank interior purging have been outlined in section 1.6.

All personnel and visitors on-site shall be required to wear hard hats, except when in the office. Steel-toe footwear shall be required for the personnel in construction areas.

All construction equipment operators shall be required to wear hard hats, steel-toe boots, and hearing protection, if noise monitoring indicates noise levels in excess of current permissible levels. Where there exists a significant potential for skin contact with toxic substances, operators may be required to wear neoprene boots and gloves and protective coated mask. In unusual circumstances, respiratory protection may also be needed.

- b. Personal protective equipment for entry into any excavation or trench shall be established according to tests and inspections performed by a qualified individual.
- c. Lower explosion level meter is calibrated before taken out on jobs when required.

## 1.10 HEAT STRESS

- a. Adverse climatic conditions - heat and cold - are important considerations in planning and conducting site operations. Ambient temperature effects can include physical discomfort, reduced efficiency, personal injury, and increased accident probability. Heat stress is of particular concern while wearing impermeable protective garments, since these garments prevent evaporative body cooling.
- b. The wearing of protective clothing in warm environments creates a heat stress potential. One or more of the following control measures can be used to help control heat stress:  
Provision of adequate liquids to replace lost body fluids. Employees must replace water and salt lost from sweating. Employees must be encouraged to drink more than the amount required to satisfy thirst. Thirst satisfaction is not an accurate indicator of adequate salt and fluid replacement.  
  
Establishment of a work regime that will provide adequate rest periods for cooling down. This may require additional shifts of workers.
- c. All breaks are to be taken in a cool rest area (77 degree F is best).
- d. Employees shall remove impermeable protective garments during rest periods.
- e. Employees shall not be assigned other tasks during rest periods.
- f. All employees shall be informed of the importance of adequate rest and proper diet in the prevention of heat stress.

TABLE 1  
CLASS ATTENDEES, QUIZ SCORES & RESPIRATOR SIZES

	QUIZ SCORE	HALF-FACE SIZE	FULL-FACE SIZE
Addison, Michael M.	80%	S	S
Alvarez, Harris D.	24%	B	B
Amador, Delfino	28%	B	B
Bender, William	DNT	DNT	DNT
Burks, Robert F.	DNT	NF	NF
Carpenter, Rex M.	72%	NS	NS
Deakin, Jeff S.	82%	L	L
Hales, Ronald C.	72%	B	B
Joseph, John A.	40%	M	L
MacDonald, Paul V.	80%	L	L
McMahan, Ronald A.	80%	M	L
McMorris, Pat M.	82%	B	B
Mequet, Alfred L.	72%	L	L
Osborne, Scott R.	80%	S	L
Stokley, James	96%	L	L
Stokley, Raymond P.	72%	L	L
Walsh, Terry L.	88%	L	L

The half-face Scott brand respirator is Model 64

The full-face Scott brand respirator is Model 65

DNT = Did Not Take Test

S = Small

M = Medium

L = Large

B = Bearded, so not fit tested

NF = Could Not Obtain Fit With Available Sizes

ATTACHMENT II

HEALTH & SAFETY TRAINED PERSONNEL AVAILABLE FOR THE PROJECT

Atlas Hydraulic Corporation

1. James (Tex) Stokley  
Soc. Sec. #447-54-9747
2. Ray Stokley  
Soc. Sec. #462-84-7009
3. Frank P. Marty  
Soc. Sec. #559-31-5139
4. Ronald A. McMahan  
Soc. Sec. #550-23-1831
5. Harris Alvarez  
Soc. Sec. #576-54-1751
6. Rex M. Carpenter  
Soc. Sec. 231-82-1237
7. Kenneth A. Edwards  
Soc. Sec. #530-12-3144
8. Ronald L. Starkey  
Soc. Sec. #569-72-6345
9. Scott Osborne  
Soc. Sec. #572-53-1117
10. Alfred L. Mequet, Jr.  
Soc. Sec. #439-68-9982