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EMERGENCY PREPAREDNESS
A COMPREHENSIVE PLAN

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ABSTRACT

EMERGENCY PREPAREDNESS - A COMPREHENSIVE PLAN

The Atlantic Richfield Hanford Company (ARHCO) has developed comprehensive plans for coping with emergencies ranging from criticality to civil disturbance. A unique notification system provides for immediate contact with key personnel by using a central communications center, crash alarm warning networks, and a continuing telephone cascade notification system. There is also the capability of immediately contacting other contractor key personnel. Certain jobs have been predetermined as necessary for coping with an emergency. An emergency staff consisting of responsible management, with alternates, has been pre-selected to automatically fill these jobs when notified. Control centers for "headquarters" and "field" are established with telephone and radio communication capabilities and are also supplied with some source materials to assist initiating plans for containing an emergency for recovery. A comprehensive emergency procedures manual has been developed, which contains information of company-wide application and procedures for specific facilities covering almost all accident situations.

EMERGENCY PREPAREDNESS - A COMPREHENSIVE PLAN

INTRODUCTION

The Atlantic Richfield Hanford Company emergency preparedness program has been designed to be responsive to the needs of the Company for immediate and efficient control of emergency situations. It is in harmony with ERDA requirements such as ERDA Manual Chapter 0601, previously 0544, and is responsive to their directives for emergency preparedness. As a prime contractor operating a significant portion of the Hanford project, ARHCO provides many services for other Hanford contractors, such as fire protection, security patrol, transportation and heavy equipment, railroad, electrical, radio and communications services. Each of the other Hanford contractors have emergency preparedness plans to fit their particular needs and ERDA, of course, has an overview of activities and plans to assure adequate protection for the entire Hanford Project and surrounding environs.

COMMUNICATIONS

We have found that communications is an essential key in any emergency plan. Being able to contact key personnel immediately is of utmost importance to carry out the planning and coordination efforts to contain an emergency in the shortest possible time. Without a planned system for communicating with key personnel, quick and efficient control of the emergency is doubtful. We at Hanford are fortunate to have a communications center that is manned 24 hours a day, every day by competent personnel with several systems available to communicate with key personnel or facilities. The center has the capability of continuously monitoring many of the radio communication networks used on the Project along with certain emergency telephone lines. There is also the capability of taping the communications over certain systems for record purposes.

Several telephone "crash alarm" systems for notification of facilities and key personnel are available (slide 2). A telephone crash alarm system consists of several telephones interconnected for receiving information and instructions simultaneously and all can communicate with each other. Use of the telephone crash alarm systems may be coordinated and controlled through the central communications center. These are the systems available:

(slide 3)

1. Home crash alarm - the telephone in each individual's home selected to be on the system for contacting at any time through the communications center.
2. Plant crash alarm - telephones of the Hanford contractor president's and ERDA manager for emergency communications during working hours.
3. Area crash alarm - telephones in facilities in production and service areas for simultaneous communications in case of emergency (there are two ARHCO production areas with a system for each which can be activated separately or together).
4. Plant managers crash alarm - telephones in homes of the Company heads are in this system.

If any of these phones are in use at the time the crash alarm system is activated the other party is automatically cut off and the crash alarm telephone is connected to the emergency call.

A telephone cascade system is also established to contact key personnel. (Slide 4) Assignments have been predetermined for notification in the chain of communications.

There are several fixed radio stations located throughout the Hanford Project and many frequencies available for use by Security Patrol, Fire Protection, Maintenance and Radiation Monitoring. In addition, the Washington State Patrol, Benton County Sheriff and City of Richland Police and Fire Networks can be used. All radio systems are in use daily or are checked at least once every shift by the central communications center.

EMERGENCY ASSIGNMENTS

The following statement was written and presented to Company management along with other material and information during training in emergency preparedness.

"It is the responsibility of the Company's upper levels of management to:

Provide an executive overview for handling emergency situations and to be a coordinating nucleus along with other Hanford contractor executive groups, ERDA, and Company components that provide specific and specialized services necessary to cope with an emergency. Assure that maximum practicable protection is provided for ERDA and ERDA contractor personnel, members of the public, and property in the event of an emergency.

A part of ARHCO's policy for emergency preparedness states that, "Company management shall define clear lines of authority and responsibility for immediate action following an emergency. Employees shall also be suitably trained and practiced to take the planned action."

The importance of pre-planning and organizing cannot be over-emphasized for handling an emergency situation. One of the first things to consider is development of an organizational plan in case of an emergency and to assign responsible personnel definite duties that attention during an emergency were determined and a

responsible member of management was chosen with designated alternates to be in charge of that particular function. The following functions were considered important for management from the central emergency control center.

1. Officer-in-charge - (Company President)
2. Emergency Coordinator - reports to Officer-in-charge
3. Director-Operations - reports to Officer-in-charge
4. Public Relations - reports to officer-in-charge
5. Engineering - reports to Director - Operations
6. Services - reports to Director - Operations
7. Patrol Communications - reports to Director - Operations
8. Security - reports to Director - Operations
9. Safety - reports to Director - Operations

A control point has been established in the field near the location where chemical processing and waste management operations are carried out. Pre-determined management assignments have been made to staff the field control point as follows:

1. Field Director - reports to Director - Operations
2. Field Administrator - reports to Field Director
3. Field Engineering - reports to Engineering
4. Field Services - reports to Field Director
5. Safety - reports to Field Director

In addition, a control point has been established at the center for transportation, heavy equipment and supplies. Personnel in charge at this location report in to the Director of Service.

Each individual officially assigned an emergency function is well aware of his responsibilities and is also expected to develop additional detail for fulfilling these responsibilities.

SYSTEM OF PROCEDURES

ARHCO has developed a comprehensive emergency procedure manual that provides instructions covering essentially all foreseeable situations requiring some kind of emergency action. One section is confined to general instructions for Company-wide application, and a second section covers more detailed instructions for a particular facility and/or operation.

The section for general use includes the Company Policy Guide and Operating Instruction which states the philosophy for emergency preparedness and assigns responsibilities for maintenance of the overall emergency preparedness program.

Other instructions included in this section are:

Description of the emergency notification system, tests and drill instructions, emergency signals, "Quick Sort" criticality procedure and casualty handling, evacuation bus information, civil disturbance emergency and bomb threat response, emergency telephone listing, hazardous chemicals, reentry and recovery plans, and emergency staff assignments.

In the section covering specific facilities and operations, more detailed instructions are given that pertain to that particular facility. An attempt has been made to follow the same general format in describing specific instructions for each facility as given in the following listing:

Specific Facilities Covered

Emergency Chain of Command

Nuclear Excursion

Evacuation

Take Cover

Fire and/or Explosion

Loss of Electricity

Loss of Water

Loss of Ventilation

Loss of Steam

Loss of Air

Radioactive Discharges - Gaseous

Radioactive Discharges - Liquid

These instructions will vary considerably in detail and length depending upon the effect the particular emergency would have upon the facility and the probability of the emergency occurring. Instructions are written by personnel who are most familiar with the details of operation and are reviewed and approved by those responsible for its management. Further, a "third-party" review is also required prior to publishing as a part of the Company emergency preparedness plan.

Emergency Procedure Manuals are controlled through the Company Document Services Operation for accountability and distribution of frequent revisions. A centralized accountability insures that each holder of an Emergency Procedure Manual receives all revisions in the document. It is the individual's responsibility to keep his manual up-to-date when revisions are distributed. Occasional spot checks are made by an internal audit system to determine the thoroughness in which individuals maintain their emergency procedure manual. A system of review dates is used to assure each procedure is periodically reviewed and to assure it reflects the current requirements for emergency action.