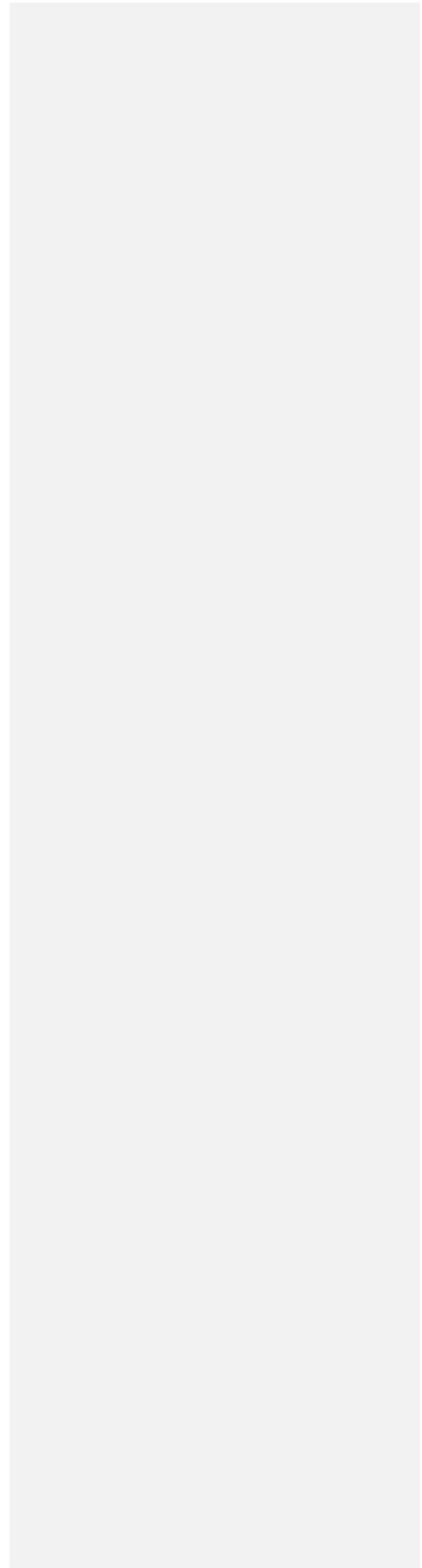


**ATTACHMENT 7**  
**HAZARDOUS WASTE CONTINGENCY PLAN**



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## Definitions

**TEAD:** Tooele Army Depot

**EO:** Environmental Office, organization at TEAD responsible for managing all environmentally related programs at the installation. Report spill to agencies if required.

**HWCP:** Hazardous Waste Contingency Plan, a plan which specifies how all types of emergencies in which hazardous wastes or substances are involved, will be mitigated.

**IOSC:** Installation On Scene Coordinator, the individual who is responsible for assessing the potential impact of an incident and coordinating the deployment of personnel and equipment for mitigation, and reporting the incident to the EO.

**OSC:** On Scene Commander, the individual who directs the actual cleanup operations at the site of the incident. This role is filled by the on duty Fire Department supervisor for emergency incidents.

**HAZMAT TEAM:** Fire Department personnel who are the most highly trained individuals of the IRT. This team has the responsibility of making emergency entries into hazardous areas to mitigate emergency incidents involving hazardous substances.

**EOC:** Emergency Operations Center, a facility located in building 1246 at TEAD which is designed and equipped for directing and coordinating response operations for all types of emergencies.

**EOC Operations Officer:** Acts as the IOSC and reports to the EOC in the event of an emergency incident.

**ICS:** Incident Command System, a standardized system of organization, terminology, and resource identification for efficient control of emergency situations.

**PAO:** Public Affair Officer, The person who is authorized and given the responsibility for releasing information to the public, media, etc.

**ISCP:** Installation Spill Contingency Plan, a required plan (40 CFR 300) for cleanup of discharges of oil and hazardous substances. An ISCP is also required by Army Regulation AR 200-1.

## HAZARDOUS WASTE CONTINGENCY PLAN

### 1.0 General Information

#### 1.1 Introduction

A number of State and Federal regulations have been promulgated which require various plans to respond to spills of hazardous substances. The National Oil and Hazardous Substances Contingency Plan (40 CFR 300) requires federal agencies to develop a plan to respond to discharges of oil and hazardous substances for which they are responsible. The Utah Hazardous Waste Regulations require facilities storing or treating hazardous waste to develop a contingency plan for the release of hazardous waste. Similar State statutes require similar plans. This plan incorporates the requirements from the various regulations into one plan as they apply at Tooele Army Depot (TEAD).

#### 1.2 Purpose

This plan establishes the duties, responsibilities, resources, and procedures to be employed for mitigation and cleanup of hazardous substance or waste spills, fires, and explosions at TEAD. This plan identifies the Installation On Scene Coordinator (IOSC), the On Scene Commander (OSC), and the Hazardous Material (HAZMAT) Team. This plan also identifies Army resources that may be available to the Regional Response Team (RRT) for assistance in cleaning up non-Army spills.

#### 1.3 Scope

Sections 3 and 4 of this plan addresses the following permitted Hazardous Waste Management Units (HWMUs) at TEAD: Container Storage Facilities (Building 528, A-101, C-815, C-816, 1368, 1370, and 1205), the Deactivation Furnace (Building 1320), the Small Caliber Disassembly Line (Buildings 1325 and 1335), the Open Burn/Open Detonation Facility, the Hydrolysis Facility (Building 1400), and the Harper Rotary Furnace (AED Test Site). This section is intended to satisfy the requirements for a hazardous waste contingency plan for permitted units as required by the State Hazardous Waste Regulations, R315-8-4. The plan without sections 4 and 5 below will be titled "Hazardous Waste Contingency Plan."

Section 5 of this plan addresses the non-permitted hazardous waste facilities (90-day storage areas) at TEAD as required by the State Hazardous Waste Regulation, UAC R315-5-10. Section 5 is not required to be incorporated into the hazardous waste permit and will be incorporated in an all-inclusive version of the plan which will be titled "Installation Spill Contingency Plan."

Section 6 of this plan will be applicable to hazardous material storage facilities, to include petroleum products. Section 6 is not required to be incorporated into the hazardous waste permit and will be incorporated in an all-inclusive version of the plan which will be titled "Installation Spill Contingency Plan."

#### 1.4 Type of Installation

TEAD is a government-owned government-operated (GOGO) facility. The current major functions of TEAD are as follows:

- a) Storage, surveillance, maintenance, and distribution of conventional munitions and other military supplies, and
- b) Researching and developing new methods for demilitarization of all types of munitions

The current tenant activities at TEAD are given below:

U.S. Army Corps of Engineers  
U.S. Army Health Clinic  
Utah industrial Hygiene Section  
Air Force Reserve Ammunition Team  
Civilian Personnel Advisory Center

#### 1.5 Name/Address/Telephone Number of Owner/Operator

Installation – Government Staff:

Name: Tooele Army Depot

Address: Tooele Utah, 84074

Telephone Number: (801) 833-3504 (Environmental Office)

Installation's Major Subordinate Command

Name: Joint Munitions Command

Address: Rock Island, Illinois

Telephone Number: (309) 782-0080

Installation's Major Command

Name: Army Material Command

Address: Fort Belvoir, Virginia 22060

Telephone Number: (703) 806-8726 (Env. Office)

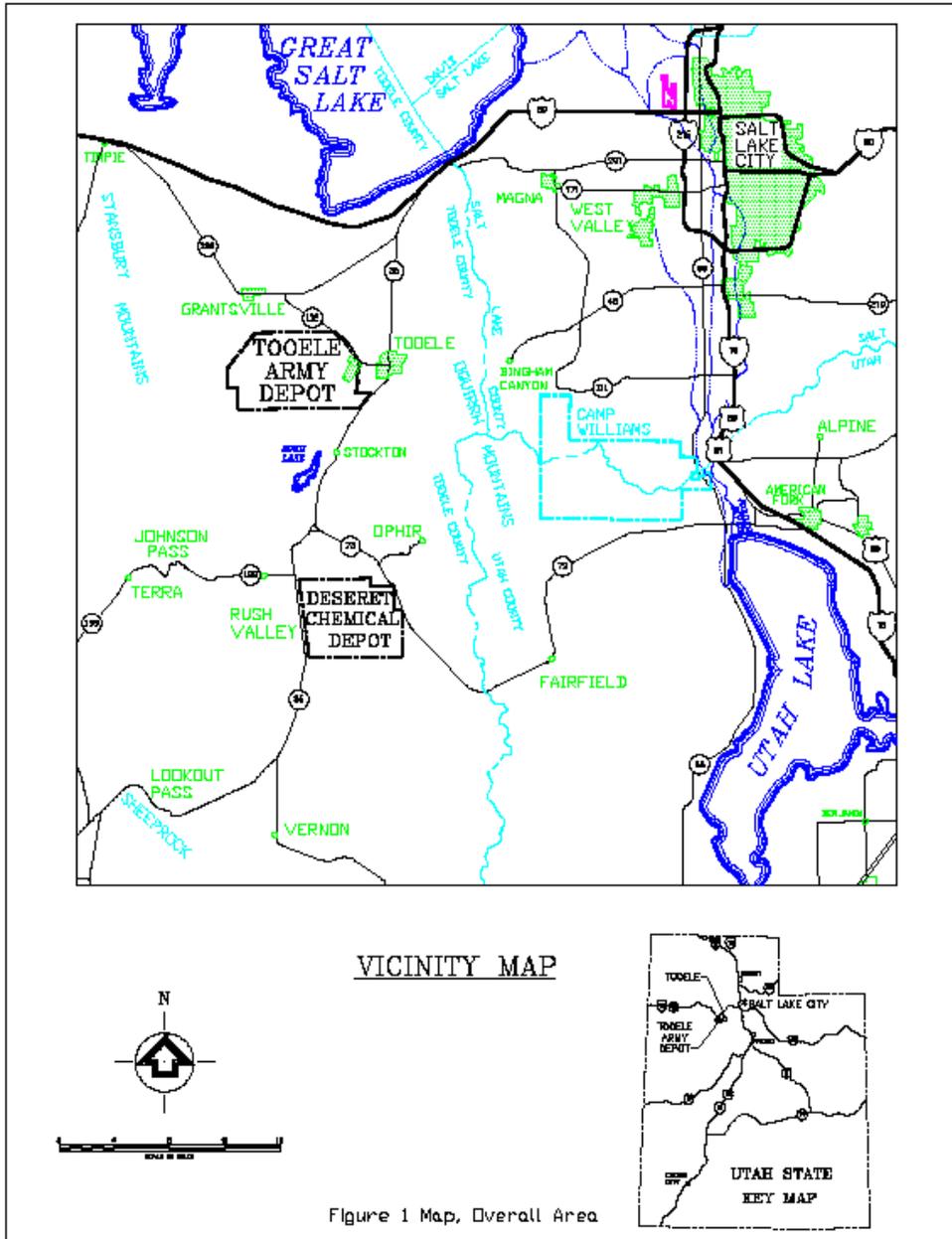


Figure 1 Map, Overall Area

**1.6 Location of Installation**

TEAD is located in the north-central portion of the state of Utah in eastern Tooele County. The installation lies about three miles south of the town of Tooele, and is about forty miles south and west of Salt Lake City. The location of TEAD is indicated on Figure 1.

**1.7 Surveillance Procedures for Early Detection of Spills**

The surveillance function for the early detection of spills at TEAD will be accomplished by the following organizations: Area workers at potential spill sites, Fire Department (HAZMAT Team), and Installation Security. These personnel have been trained to observe these locations throughout the day during their normal duties. In addition to these groups, other personnel including environmental inspectors, maintenance, engineering, and transportation personnel will make observations while performing their regular duties

**1.8 Arrangements Agreed to by Local Agencies:**

TEAD has its own law enforcement, medical, and Fire Department organizations located on the installation. These organizations will be the first responders for emergencies occurring at TEAD. These organizations have been provided copies of this plan and other related plans so that they are informed about the types of hazards present, the layout of the facilities, and evacuation routes.

In addition, TEAD has entered into mutual assistance agreements with other local emergency, medical, and law enforcement agencies. Copies of these agreements are located in the Hazardous Waste Preparedness and Prevention Plan, Attachment 6 of this permit.

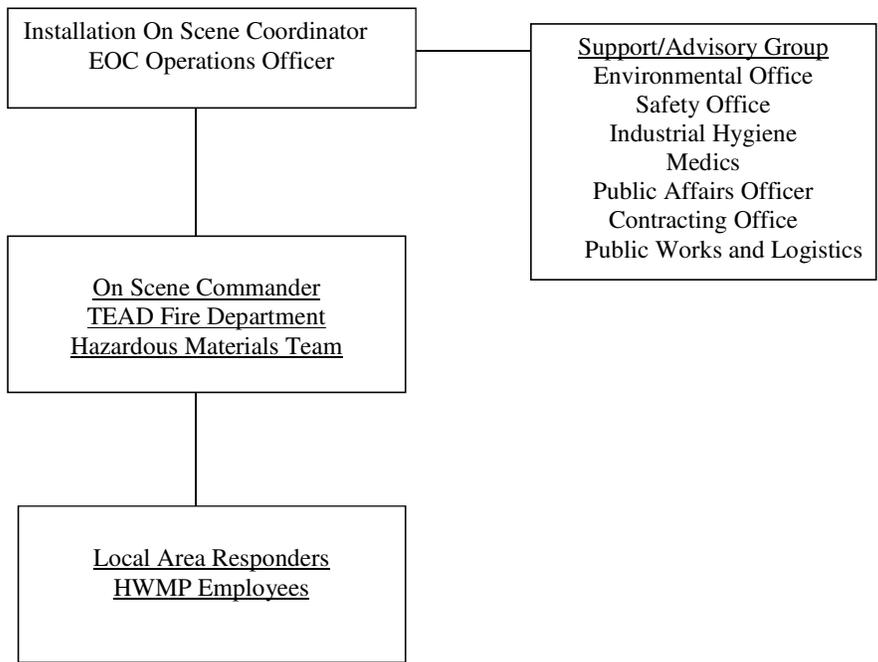
Copies of this Plan will be given to all of the TEAD organizations identified in this plan and the local agencies that we have support agreements. The names and phone numbers of the local agencies are listed below:

- Tooele City Fire Department .....(435) 882-5600
- North Tooele County Fire Department .....(435) 882-5600
- Stockton Fire Department .....(435) 882-5600
- IHC Health Services, Inc. ....(801) 357-7850
- University of Utah Hospital .....(801) 581-2121
- Mountain West Medical Center .....(435) 843-3601
- Tooele City Law Enforcement.....(435) 882-5600
- Dugway Proving Ground Fire Department.....(435) 831-2236
- Grantsville City Fire Department.....(435) 884-3343

**1.9 Installation On-Scene Coordinator (IOSC)**

The IOSC has been designated by the TEAD command group to be the Emergency Operations Center (EOC) Operations Officer. The IOSC will function as the facility emergency coordinator. The responsibilities of the IOSC include: assessment of the spill, requesting for additional manpower and

EMERGENCY RESPONSE



INCIDENTAL (NON-EMERGENCY) RELEASE RESPONSE

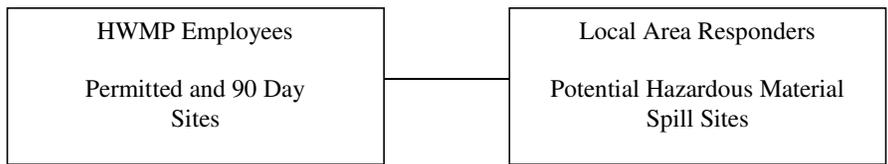


Figure 2. Emergency / Non-Emergency Response Duties

resources, if required, and coordination of mitigation, and cleanup. The IOSC will be supported as necessary by the Advisory/Support Group, see Figure 2. Further information about the duties of the Advisory/Support Group is given in Section 2.2. The IOSC along with the alternates are specified in Appendix A.

### 1.10 Review and Amendment of Plan

This plan will be reviewed and amended if necessary when any of the following conditions exist:

- a) The facility hazardous waste operating permit is modified.
- b) The plan fails in actual use during an emergency.
- c) The design, operation, or construction of the facility changes in such a way as to cause an increased potential for fires, explosions, or releases of hazardous material/waste, or changes the response necessary in an emergency.
- d) The list of emergency coordinators or emergency equipment changes.

## 2.0 Spill Response

### 2.1 Initial Response Actions

The Primary concern in any spill scenario is the protection of personnel from harm. This protection can be accomplished by evacuating the area, using appropriate clothing and personnel protective equipment, and removing sources of ignition if fire or explosion hazards exist.

The overall spill response procedure is shown in Figure 3. Whoever first discovers a spill shall assess the emergency status of the spill or related incident using the following criteria:

**EMERGENCY:** Any spill or release of hazardous substance, which poses an immediate threat to life or health, or poses an immediate threat to the environment and requires immediate action.

The following criteria may also indicate an emergency scenario:

- Need for personal protective equipment beyond what is on hand;
- An unusual release of dangerous quantities of gases, fumes, liquids, etc. for which the local workers are not trained or prepared to deal with;
- Presence of other hazards such as electrical shock, heat, flames, or other physical hazards;
- Spills involving an unknown substance.

**NON-EMERGENCY (incidental release):** Any spill or release of a hazardous substance or waste, which is not immediately threatening to life, health, or the environment and can be controlled and mitigated by employees in the immediate area. A typical example would be routine spills of common substances for which the workers are familiar with and trained and prepared to respond to and in quantities that are manageable.

As further guidance for determining the emergency status of a spill consult Table 1, which was obtained from NFPA 471 (of 1989). An incident level of two or three for any of the listed incident conditions would indicate an emergency response.

Persons regularly working in these areas are most likely to be the ones who discover spills. Most of the workers at the HWMUs and other potential spill sites receive OSHA Hazard Communication Standard training and on the job training (OJT) sufficient for assessing the emergency status of spills. This training is described in the training section of this plan.

#### Initial Response for Emergency Spills:

- Evacuate and deny entry to all personnel in immediate area.
- Call 911 and give the following information
  - Your name and call back number
  - Exact location of spill or release.
  - Injuries involved.
  - Type or kind of substance involved.
  - Amount of substance involved.
  - Stay on line and answer all questions asked by the dispatcher.
- Assign someone to direct emergency personnel to spill or release.
- Do not attempt to rescue downed personnel unless you are trained to do so, and have a reasonable chance for success.

Initial Response for Non-Emergency Spills (incidental releases): Stop flow, contain and clean up spill with locally available resources (spill control supplies, personal protective equipment, manpower) in accordance with site specific instructions for spill cleanup and reporting. Only persons who have received formal training and are equipped with appropriate personal protective equipment (PPE) may take these actions. Site-specific instructions for non-emergency spill response (clean up and reporting) have been developed for all potential spill sites, and will be posted locally. Copies of the site specific spill response procedures are found in Appendix B.

## 2.2 Spill Response Duties and Responsibilities

IOSC: Will activate any internal alarm systems (in most cases this action will be taken by the OSC) and notify any needed facility personnel, such as local area responders, to assist in the emergency response. Will take steps to ensure that fires, explosions, and discharges do not occur, recur, or spread to other hazardous substance/waste operations, etc. This responsibility is also shared with the OSC. Will request assistance for State or local response agencies when their assistance is needed. Will determine the character, source, and extent of any discharged materials, and assess all possible hazards, both direct and indirect, to human health or the environmental resulting from these discharges. Will ensure that any recovered waste or other contaminated materials resulting from the incident are properly managed as a hazardous waste, unless these materials are found not to be hazardous. Ensure that all emergency equipment is clean and fit for its intended use, and will notify the appropriate State or local authorities before operations are resumed.

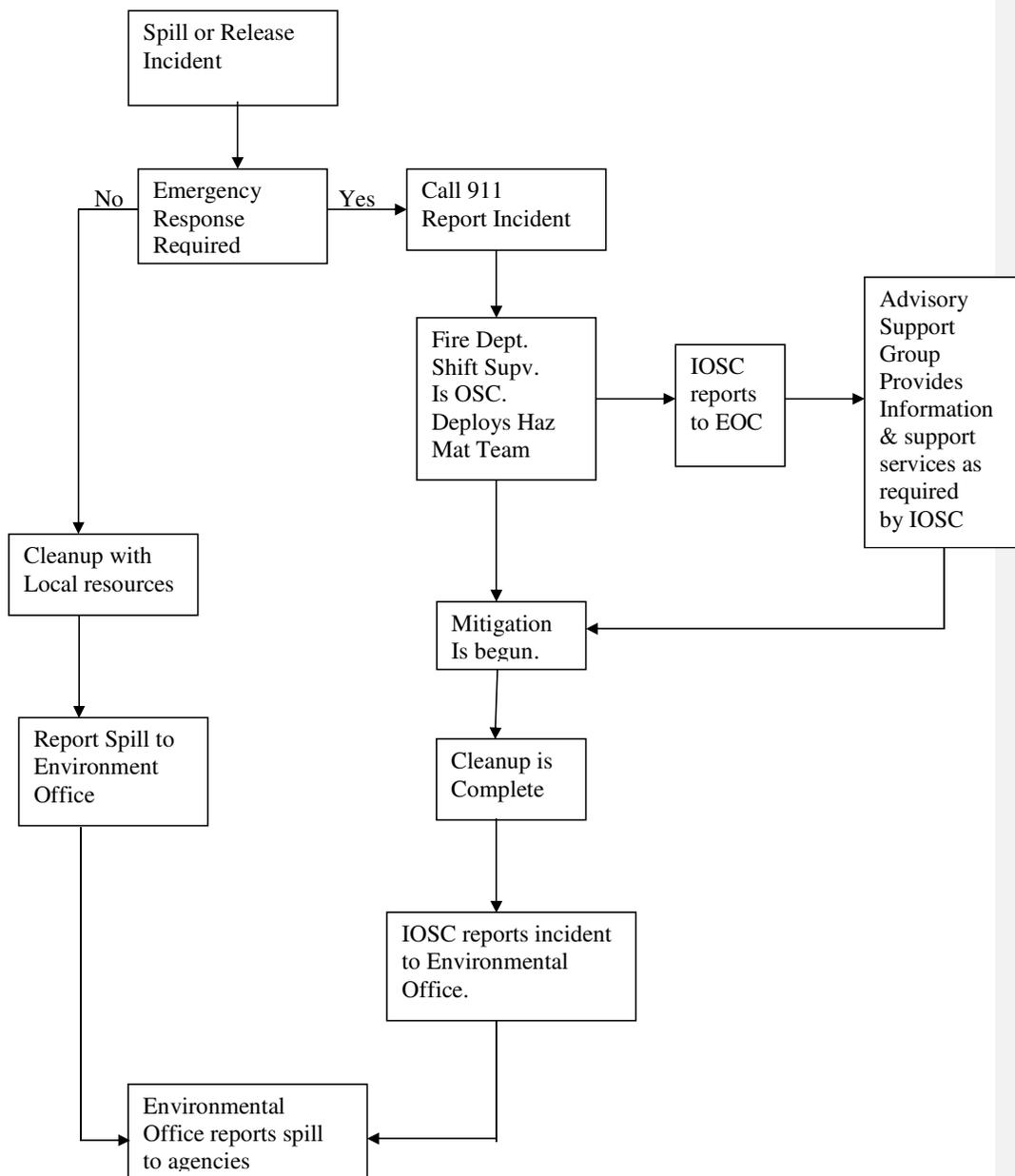


Figure 3 Spill Response Procedures

Table 1 NFPA Planning Guide for Determining Incident Levels, Response and Training

Incident Level	One	Two	Three
Incident Conditions			
Product Identifications	Placard not required, NFPA O or 1 categories all OLM A, B, C, and D.	DOT placarded NFPA 2 for any categories, PCBs without fire, EPA regulated waste	Poison A (gas), explosives A/B organic peroxide, flammable solid, materials dangerous when wet, chlorine, fluorine, anhydrous ammonia, radioactive materials, NFPA 3 and 4 for any categories including special hazardous, PCBs and fire, DOT inhalation hazard, EPA extremely hazardous substances and cryogenics
Container Size	Small (e.g. pail, drums, cylinders except one-ton, packages, bags)	Medium (e.g., one ton cylinder, portable containers, nurse tanks, multiple small packages)	Large (e.g., tank cars, tank trucks, stationary tanks, hopper cars / trucks, multiple medium containers)
Fire / Explosion Potential	Low	Medium	High
Leak Severity	No release or small release contained or confined with readily available resources.	Release may be controllable without special resources.	Release may not be controllable even with special resources.
Life Safety	No life threatening situation from materials involved.	Localized area limited evacuation area.	Large area, mass evacuation area.
Environmental Impact Potential	Minimal	Moderate	Severe
Container Integrity	Not damaged	Damaged but able to contain contents to allow handling and	Damaged to such an extent that catastrophic rupture is possible.

**On Scene Commander (OSC):** The Fire Department supervisor shall assume the role of OSC. The OSC directs the emergency mitigation and cleanup operations at the incident site and works in communication with the IOSC. Responsibilities shared with the IOSC include: activation of facility alarms, notification or recall of response personnel, and ensuring that fires, releases, explosions, etc., do not recur or spread to other HW operations.

**Fire Department (FD):** The participation of FD HAZMAT Team shall be limited to incidents involving real or suspected emergency hazards as defined in section 2.1. The FD HAZMAT Team is the most highly trained and equipped group on the installation for spill response and is responsible for entering and mitigating emergency releases. The FD also provides emergency medical treatment and ambulance service of HAZMAT incident victims.

**Advisory/Support Group:** Members of this group have the responsibility of assisting the IOSC as outlined below.

**Environmental Office (EO):** Assisting with determination of environmental threats, proper disposal and management of wastes, technical guidance and reporting to outside agencies as required by regulations.

**Safety Office:** Shall provide to the OSC site-specific information on chemical and other hazards at TEAD facilities including MSDSs, PPE information, sampling/monitoring data, chemical hazard and other emergency response information. Other responsibilities include the establishment of control zones based upon the evaluation of hazards, ensuring that proper decontamination procedures (Appendix C) are in place, and documentation of site activities.

**Utah Environmental Health Section (Industrial Hygiene):** Shall provide monitoring of the scene and determine the extent of contamination around the scene. This information will be used by the IOSC or OSC to determine evacuation priorities.

**U.S. Army Health Clinic:** Responsibilities include providing medical surveillance and support for HAZMAT entry teams, while remaining outside of the hot areas.

**Public Affairs Office:** The Public Affairs Office (PAO) may be called upon by the IOSC to interface with the news media in the event that a hazardous substance escapes from the installation and threatens the public.

**Contract Officer:** The responsibility of the Contract Officer is to initiate a contract for spill cleanup by private contractor if directed by the IOSC. Contracted cleanup will be used when spill cleanup operations impair the primary mission of TEAD, or when the spill exceeds the installation's capabilities. Contractors will clean up any non-emergency spill that requires greater than level "C" protection. Possible sources of contracted clean up assistance are listed in Appendix D. If clean-up operations involve treatment of HW beyond initial response, an emergency permit may be required

**Local Area Responders:** Composed of persons who regularly work in non-HW management facilities that have a potential for spills of hazardous substances. This group consists of permanently employed individuals from Installation Support, Ammunition Equipment and Ammunition Operations.

Their responsibilities include cleaning up small or large incidental spills (non-emergency) of substances that they are familiar with, trained, and equipped to deal with. This includes stopping or containing flows, diking, repairing leaks, containerizing and labeling spilled wastes, and notification to the IOSC.

For larger, non-emergency spills, this group may be called upon by the IOSC to assist in the clean-up of spills in areas larger than where they ordinarily work.

**HW Management Facility Employees:** The responsibilities of this group are similar to those of the Local Area Responders except that these individuals are members of the TEAD Hazardous Waste Management Program (HWMP). The HWMP is for all employees who work at permitted HW management facilities. All HWMP members receive RCRA hazardous waste management training.

**Directorate for Law Enforcement and Security:** Their function is to control traffic and crowd situations as a result of an incident and assist the OSC with emergency evacuation and isolation.

**Directorate for Base Operations:** Maintenance and Grounds Division Provides heavy equipment support if needed as instructed by the IOSC or the OSC. The Utilities Division may be called upon to disconnect electrical power when deemed necessary by the IOSC or the OSC.

The training requirements for the response groups described above are given in Section 2.11.

### **2.3 Spill Response Mobilization Procedures**

Emergency Response Incidents – any employee who witnesses or discovers a spill or incident involving hazardous or unknown substances and determines that the incident requires an emergency response shall call the Fire Department by dialing 911.

After receiving a 911 call, the Fire Department supervisor (OSC) shall activate the FD HAZMAT Team, notify the IOSC, and commence mitigation procedures.

The IOSC, or alternate, will report to the Emergency Operations Center (EOC), which is located in Building 1246. From the EOC, the IOSC will communicate with the OSC and mobilize support staff if necessary. The Incident Command System (ICS) will be implemented from the EOC, all responders will operate within the ICS.

The FD HAZMAT Team will remain at the incident site until the emergency is brought under control. When the situation becomes a non-emergency clean up, the IOSC will direct one of the other groups (Installation Support, local area responders, HW Mgmt. Employees, etc.) to complete the clean up operations, and report the incident to the EO.

Release of information to the media, if required, shall be coordinated with the PAO and TEAD command group by the IOSC. See Appendix G, *Guidelines for Releasing Information*.

Non-Emergency Incidents – non-emergency spills shall be cleaned up with local manpower and resources as instructed below:

Clean up all spills using locally available materials and manpower and report the incident as soon as possible to the EO in accordance with the site-specific spill response instructions posted in the immediate area (Appendix B).

The EO shall report all spills that are at or above the reportable quantity to the appropriate state and federal agencies. See Appendix F, *Spill Reporting*.

#### **2.4 Emergency Notifications for Off-Site Impacts**

Should the IOSC determine that the facility has had an incident that could threaten human health or the environment outside of the facility, the following reports will be made:

If the IOSC's assessment indicates that evacuation of local areas may be advisable, he will immediately notify the appropriate local authorities, and be available to assist the local authorities in making the decision of whether or not to evacuate.

The Environmental Office will make the appropriate notifications to the State of Utah Department of Environmental Quality and the National Response Center.

#### **2.5 Response During Off-Duty Hours**

The spill response procedure for off-duty hours is the same as for normal hours, except for the following differences: During off-duty hours, the IOSC and Advisory/Support Group are not present, and members or alternates may have to be called on to report to the incident site if required by the OSC.

#### **2.6 Spill Mitigation and Cleanup**

Site-specific spill response procedures for each hazardous material or waste management facility are given in Appendix B. These procedures are for non-emergency cleanup operations, and are to be carried out by HW Management Facility employees working in the immediate areas. The procedures in Appendix B are general in nature, and are for general guidance to be carried out by trained individuals only.

For emergency spills requiring emergency response, the IOSC will determine the most effective clean up procedure for each individual spill, and ensure that the procedures are properly carried out. The most likely materials that could potentially be spilled at TEAD are common industrial chemicals and petroleum products.

Leaking HW containers (drums) are generally not repaired. Normally, a leaking drum will be placed into an overpack drum. Various types of emergency leak repair kits are maintained (Appendix E), and may also be used as a temporary measure until the damaged drum is placed in an overpack drum or the contents transferred to a sound container.

In the event that a waste is incompatible with wastes or materials already stored at a given location is spilled, the incompatible materials or wastes will be moved to a temporary location until the spilled waste is completely cleaned up or neutralized. If necessary, an extension to the 90-day limit for emergency HW storage at the TEAD 90 day storage facility will be requested from the Attachment 7 – Hazardous Waste Contingency Plan

regulators. This same procedure will be used if the Container Storage Facility is unusable for other reasons (fires, explosions, damage, etc.) as well.

Following the completion of spill cleanup, fires, or other incidents involving hazardous materials or wastes, all emergency equipment will be decontaminated using the procedures given in Appendix C. The decontamination operations will be conducted by members of the HAZMAT team, hazardous waste management facility employees, and/or local area responders under the direction of the IOSC. Also, the Fire Department, hazardous waste management facility employees, and/or local area responders will restock spill control and fire control materials, before normal operations resume.

During response to fires, care will be taken to contain and recover any run off of waste and water, foams, or chemicals applied to the fire. If possible, the area will be diked and any drains blocked before using liquids to fight the fire. After the fire is extinguished, the materials involved in the fire and surrounding area will be decontaminated if necessary and recovered and placed into containers for proper disposal.

A complete description of all emergency, spill control, and decontamination equipment, for each hazardous waste management facility is provided in the *Preparedness and Prevention Plan* in Attachment 6 of this permit.

## **2.7 Control of Fires Involving Reactive (Explosive) Hazardous Waste**

The TEAD FD would respond to any reported emergency situation involving reactive hazardous wastes. The FD is staffed and led by trained, professional fire fighters. Actions appropriate to controlling and preventing the spread of fires would be selected and implemented by these trained professionals. TEAD would rely upon their professional, on-scene judgment in selecting a course of action that is most protective of human health and the environment. Similarly, the knowledge and training of on-scene Army ordinance experts would be used in determining the most appropriate response to actual or potential uncontrolled explosions, or releases of reactive hazardous wastes. Typically fires involving explosives will not be fought unless it is necessary to provide assistance to injured personnel.

## **2.8 Cleanup Resources**

**Manpower:** The HAZMAT team is made up of FD staff. Hazardous waste management facility staff varies based on current operations. Local area responders similarly vary.

**Supplies, Materials, and Equipment:** A complete listing of all of these items, including description of capabilities, number of items, and locations are given in Appendix E.

**Medical Equipment:** A medical facility, the U.S. Army Health Clinic, is maintained at TEAD. The Fire Department maintains ambulance service 24 hours per day seven days per week.

**Other Resources:** A file of MSDS's is maintained at the TEAD Safety Office, ext. 2713. A listing of environmental contractors, which could provide technical assistance for emergencies, and their telephone numbers, is provided in Appendix D.

## 2.9 Reporting Requirements

### Telephonic Spill Reporting

Personnel working at HWMUs shall follow the site-specific instructions for reporting spills. The site-specific instructions are located at the hazardous material/waste management areas and are also included in Appendix B of this plan. Regulations, as identified in Appendix F, required that spills in excess of their reportable quantities be reported immediately by telephone to various federal state, and local agencies and Army offices. The Environmental Office is responsible for determining whether a reportable quantity has been spilled and for making the required telephonic notifications. The telephonic reporting should be done promptly, even if the information is incomplete.

### Written Spill Reports

It is required by various federal and state regulations that a written report be submitted, in addition to telephonic reporting, when a spill in excess of the RQ happens. The written report must contain the information discussed in Appendix F. The Environmental Office shall maintain copies of written spill reports on file.

### Reports to the Public

Spill information for release to the public shall be reviewed by the Environmental Office, and approved by the installation commander. Appendix G provides guidance for releasing information. The PAO has been designated as the individual responsible for providing information to the public.

## 2.10 Resources Available to Regional Response Team

All of the equipment listed in Appendix E is available for use by the Regional Response Team (RPT). In the event that such assistance is requested, the IOSC will coordinate with the installation commander and determine what resources will be made available the RRT.

## 2.11 Training

The TEAD ISCP training program consists of two parts as outlined below:

- All employees that work in any of the hazardous waste management facilities will receive the OSHA Hazard Communication Standard training and the RCRA training for hazardous waste management facility employees. See Attachment 5, *Training Plan*. The training records for hazardous waste management employees are maintained by the EO.
- This plan shall be tested annually by staging a simulated spill event, in which the Haz Mat Team is mobilized. In the event that a real spill occurs, the simulated event may not be required. The installation commander and the IOSC will determine the time and scope of the simulated spill. The response actions of the spill exercise will be

evaluated and a lessons learned briefing will be held after the simulation. The exercise shall be documented by the IOSC to include the time, date, and participants of the exercise and lessons learned. The training requirements of OSHA 29 CFR 1910.120, which concern safety hazards associated with hazardous substance emergency response action will be provided to the Fire Department. No other employees will participate in emergency response activities.

## 2.12 Extremely Hazardous Substances

Presently there are no extremely hazardous substances, as defined by Superfund Amendment and Reauthorization Act (SARA) Title III, at TEAD. Yearly inventories are scheduled for determining if any of these materials will be present in the future. If any materials are brought on the installation that are considered extremely hazardous and are above the reportable quantity, the following actions will be taken:

- The Tooele County Health Department and the Utah Division of Solid and Hazardous Waste will be notified.
- This plan will be amended to identify that they are present.

## 3.0 Hazardous Waste Management Facilities

### 3.1 Location of Hazardous Waste Management Units (HWMUs)

The locations of the permitted HWMUs at TEAD (Buildings 528, A-101, C-815, C-816, 1368, 1370, 1205, 1325, 1335, 1320, 1400, 1351 (AED Test Site), and the Open Burning and Detonation facility) are shown on Figure 3.1.

### 3.2 Dissemination of Site Specific Spill Procedures

The purpose of the site-specific spill response procedures is to provide instructions to the local workers at the permitted sites to assist them in cleaning up and reporting non-emergency spills. The instructions are not complete in all details, but should be useful to local workers who have received OSHA Hazard Communication Standard training, RCRA training, and on-the-job training. A complete list of the instruction sheets can be found in Appendix B.

Most of the hazardous wastes, which are handled at these facilities, are derived from common industrial and military materials that are well characterized. Instruction sheets have been prepared for initial response, reporting, emergency procedures, spill cleanup and decontamination procedures for each of the types of hazardous wastes present, will be posted at each HWMU. The chart below lists the combination of instruction sheets posted at each facility.

Site no.

Type of Operation

Instruction Sheets

R0528M	Permitted HW Storage	all, except K
A0101M	Igloo A101, PEP HW Storage	A,B,K,
A0815M	Igloo C815, PEP HW Storage	A,B,K,
A0816 M	Igloo C816, PEP HW Storage	A,,B.K
A1205M	Above Ground Magazine 1205 PEP HW Storage	A,B.K
A1368M	Service Magazine 1368, PEP HW Storage	A,B.K
A1370M	Service Magazine 1370, PEP HW Storage	A,B.K
1320T	Deactivation Furnace	A, B,K
AED Test Site	Harper Rotary Furnace	A,B,K
A1325T	Small Caliber Disassembly Line (Buildings 1325 and 1335)	A, B.K
A1346T	Open Burning/Detonation	A, B, K
A1400T	Hydrolysis Facility	A, B, C, K

### 3.3 Evacuation Procedures and Routes

In the event that a safety or life-threatening hazard exists, the involved facilities will be evacuated. Appendix H contains the evacuation routes and alternate routes for the hazardous waste facilities. The signals for commencement of evacuation a steady continuous alarm with an air horn, siren, or vehicle horn. These signals will indicate that the site should be evacuated. The supervisor or an assigned alternate will determine the presence or absence of all employees when assembled at a safe waiting area.

### 4.0 OB/OD Specific Procedures

The IOSC may implement the Contingency Plan if accidents occur involving wastes intended for OB/OD. These include those accidents that result in or could result in uncontrolled burning or detonation, which could release hazardous constituents into the environment or endanger human health. The IOSC will act immediately to assess any such situation and determine if the Contingency Plan should be implemented. The decision to implement this Plan will depend on the IOSC assessment of several factors:

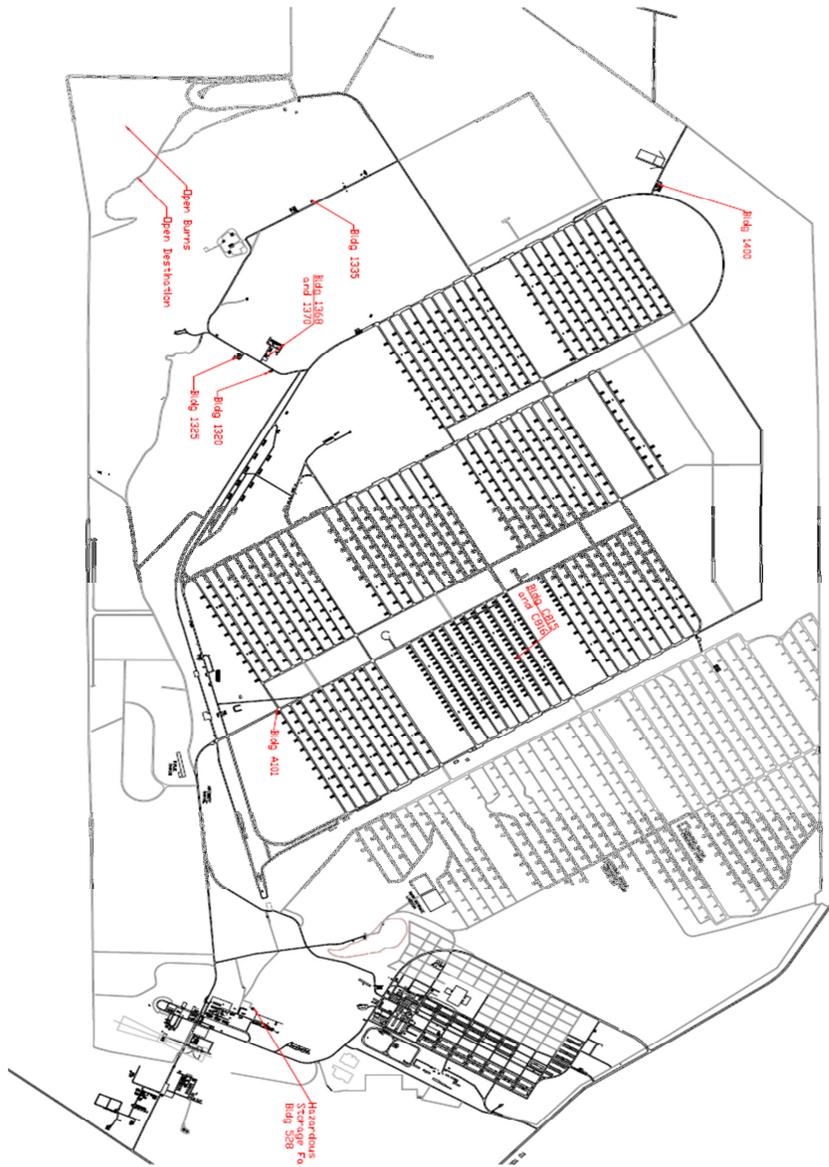


Figure 4 Locations of HWMUs

- The type and quantity of wastes and other materials involved
- The potential for the spread of fire or the initiation of an explosion
- The available capability to respond to and control the situation.

If the IOSC must be summoned, on-scene personnel (in particular the designated team leader), who would most likely be the Range Supervisor at the OB/OD unit, would first call the Demil Team Leader, who would then call the IOSC. While waiting for the IOSC to arrive, on-scene personnel would try to control the incident, if safe to do so, or else would immediately evacuate the area. The initial response to any emergency is to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment constitute the secondary response.

#### **4.1 Identification of Hazardous Materials Released at the OB/OD Unit**

The IOSC, with the assistance of the Demil Team Leader, is responsible for identifying the chemical and physical characteristics, exact source, amount, and area extent of the release and hazards of the incident.

Information available to the IOSC would be gathered by interviewing personnel at the OB/OD unit, reviewing the schedules and records pertaining to the OB/OD operations, and discussions with the Demil Team. Information of any hazards presented by waste materials during an emergency would be limited to the items scheduled to be detonated.

The types of waste explosives treated at TEAD by OB/OD include unserviceable ammunition, mines, grenades, bombs, propellants, and other ordnance.

#### **4.2 Assessment**

The IOSC is responsible for assessing the nature of the emergency incident. Since little or no quantitative information (for example, exposure levels) initially may be available, the criteria for assessing the hazards, risks, and vulnerabilities are qualitative. The following criteria will be considered in making this determination:

- The need to protect individuals present at the scene and those in the process of responding.
- The nature and size of the incident.
- Specific information available on the wastes and other materials involved.
- Weather (e.g., wind speed and direction), topography, and other conditions (e.g., time of day).
- Need to establish safety zones.
- Factors that affect spread, ignition, or reactivity of the product.

- The probability that the incident could spread beyond the incident scene.
- The need to deny access to unauthorized personnel.

To assist in the assessment of the situation, the IOSC may find it appropriate to confer with the Demil Team, or with explosives experts from other Department of Defense installations.

Under reasonably foreseeable conditions, the types and quantities of materials treated at the OB/OD unit would not result in any significant releases that could spread beyond the TEAD boundary. In the event of fires, the combination of natural firebreaks, paved roads, man-made firebreaks, and long distances present in the OB/OD unit have been designed to prevent fires from spreading beyond the unit and outside TEAD.

### 4.3 Uncontrolled Fires

Uncontrolled fires may occur as a result of OB/OD operations. If an uncontrolled fire occurs within the OB/OD area, it will not be fought unless necessary to provide assistance to injured personnel.

During uncontrolled fires, the IOSC typically performs the following functions:

- Assesses the situation using all available knowledge; the assessment determines whether or not to implement the Contingency Plan.
- Upon implementation of the Contingency Plan, restricts all non-essential personnel from the area and evacuates all personnel if necessary.
- Notifies all appropriate military authorities and emergency response units immediately.
- Eliminates all possible sources of ignition in the immediate area. These include lighted tobacco products and unauthorized vehicle traffic.
- Coordinates all response efforts without exposing personnel to undue risk.
- With assistance from EO, assumes responsibility for directing follow-up activities, if required.
- With assistance from EO, prepares and submits all necessary reports on the incident.

The IOSC takes the following actions upon implementation of the Contingency Plan:

- Stops all routine work in the affected area.
- Stops all nonessential waste handling activities.
- Evacuates all nonessential personnel.

- Removes all injured persons from the site and gives medical treatment.
- Gives "all-clear" notification by radio or portable telephone when all danger is over.
- Arranges for cleaning and inspecting all emergency equipment before resuming normal OB/OD operations.

#### **4.4 Storage, Treatment, and Disposal of Released Material**

Immediately after an incident, the IOSC will arrange for the treatment, storage, or transportation and disposal of recovered waste and waste residues, contaminated soil, or other contaminated materials. It is important to note that detonation is the method by which the items are treated at the OD unit and burning is the method by which these items are treated at the OB unit; therefore a premature fire or explosion would have the same end result. The cleanup residue is collected by Demil Team personnel and FD personnel. Depending on the nature of the residue, the appropriate equipment is used. It is anticipated that most of the cleanup residue if present can be cleaned up by shovel. The material will be collected and containerized until the arrangements for TCLP testing and disposal can be made.

Cleanup residues that do not possess a potential to burn or detonate will not be treated in the OB/OD unit respectively. These waste residues that may be reactive, but not explosive, will be treated and disposed offsite by other appropriate methods in compliance with applicable regulations.

The IOSC will be authorized to use all facility personnel and equipment or contractor services as necessary to complete this task. Should the services of a cleanup contractor be required, the IOSC would request such support from the TEAD Director of Contracting. It should be noted that reactive wastes or reactive waste residues recovered after an incident would be treated on-site at the unit by Demil Team personnel.

#### **4.5 Control of Fires and Prevention of Recurrence or Spread of Fires, Explosions, or Releases**

The TEAD FD will respond to any reported emergency situation involving reactive hazardous wastes. The FD is staffed and led by trained, professional fire fighters. Actions appropriate to controlling and preventing the spread of fires would be selected and implemented by these trained professionals. TEAD will rely upon their professional, on-scene judgment in selecting a course of action that is most protective of human health and the environment. Similarly, the knowledge and training of on-scene Army ordnance experts would be used in determining the most appropriate response to actual or potential uncontrolled explosions, or releases of reactive hazardous wastes.

Should any event occur that would require implementation of this Contingency Plan, TEAD would follow up with actions to prevent future recurrences. At a minimum, future OB/OD operations would be suspended and an investigation of the incident would be conducted to determine the reasons for the occurrence. Based on the results of the investigation, any appropriate changes would be instituted prior to resumption of OB/OD operations.

#### **4.6 Post-Emergency Equipment Maintenance**

The IOISC is responsible for maintaining necessary emergency response and PPE. The FD Officer-In-Charge inspects and inventories all emergency equipment before returning it to service. As appropriate, soiled equipment is decontaminated with an appropriate cleaning solution and the rinsate is collected in 55-gallon drums. Representative samples of the collected rinsate will be analyzed for toxic metals (including barium, lead, and selenium) and for 2,4-dinitrotoluene. All analyses will be conducted using the TCLP procedures specified in UAC R315-2-1, Appendix II. Rinsates exhibiting hazardous toxic characteristics as defined in UAC R315-2-1 will be managed accordingly and will be sent offsite for appropriate treatment at a RCRA-permitted treatment facility. OB/OD operations can resume only when all emergency equipment is determined to be clean and in service.

**APPENDIX A**  
**LIST OF EMERGENCY COORDINATORS**

**LIST OF EMERGENCY COORDINATORS**

IOSC	Craig Tate	Office Phone: 435-833-2015 Home Phone: 435-830-7074
Alternate 1	James Tarpley	Office Phone: 435-833-2053 Home Phone: 801-631-5002
Alternate 2	Brad Tippets	Office Phone: 435-833-2015 Home Phone: 435-830-8279

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**FIRE DEPARTMENT SUPERVISORS**

Business Phone: 435-833-2015 (911 - For Emergencies)

Primary	Chief, Fire Department Craig Tate	Home Phone: 435-830-7074
Alternate 1	Assistant Fire Chief James Tarpley	Home Phone: 801-631-5002
Alternate 2	Brad Tippets	Home Phone: 435-830-8279

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**APPENDIX B**  
**SITE-SPECIFIC SPILL RESPONSE PROCEDURES**

## **SHEET A**

**Site No.:**

**Location/Operation:**

### **Spill Response Procedure:**

A. Determine if the spill is an emergency. An emergency exists when the spill causes an immediate threat to human life, health, or the environment. If it is not clear whether or not an emergency exists, assume that there is an emergency. All other spills are non-emergencies.

B. FOR EMERGENCY SPILLS ONLY: (The Fire Department is not responsible for cleanup of non-emergency spills.)

1. Evacuate and deny entry to all personnel in immediate area.
2. CALL 911 and give the following information:
  - a. Your name and call back number.
  - b. Exact location of spill
  - c. Injuries involved.
  - d. Type of substance involved.
  - e. Amount of substance involved.
  - f. Stay on line and answer all questions asked by the dispatcher.
3. Assign someone to direct emergency personnel to the spill site.
4. Do not attempt to rescue downed personnel unless you are trained to do so, and have a reasonable chance for success.

C. For Non-emergency Spills: For spills which can be cleaned up with local resources, perform cleanup operations in accordance with the site specific instructions provided in the following page(s).

D. Reporting Instructions: Fill out the attached Notification of Spill Event as completely and accurately as possible and submit to the Environmental Specialist as soon as possible.

## **SHEET B**

### **General Spill Response:**

The first step in the event of a spill, after donning the proper PPE, is to stop the flow using one of the following methods:

- turning off pumps or closing valves
- returning the container to the upright position
- patching holes
- transferring the material to another container
- moving the container to a less dangerous location

After the flow is stopped or slowed down, the expansion of the spill should be slowed by using one of the following methods:

- apply porous or absorbent material in sheets, booms pillows, or particulate form for land spills
- use floating booms of porous or absorbent material for spills onto water
- if feasible, the material should be gathered together so that it can be more easily separated or collected

Often a sorbent can be helpful for collecting spilled material. The sorbent is distributed using mops, pillow, sheets, booms, or scattered as loose chips, particles, beads, or fibers. Direct pickup, skimming, filtering, or settling can collect the sorbent, with its absorbed spill material. With some types of sorbents the hazardous material can be wrung or squeezed out, so that the sorbent can be used again for treating the spill.

To collect material spilled into water, the material can be skimmed from the surface using adsorbents, if the material floats. Materials that mix or dissolve in water cannot usually be recovered. Materials that sink may be recovered by pumping or dredging from the bottom.

Recovered products must be stored properly prior to reuse or disposal. If they are to be disposed, they must be stored properly until their hazardous waste status is determined. Contact the Environmental Office, extension 3504, for proper storage and containerization instructions. Used sorbents that are not immediately reused must be disposed of.

The last traces of hazardous materials must be removed (decontaminated) from the spill area, cleanup materials, and from protective clothing and equipment. Decontamination procedures for each type of material, which may be present at potential spill sites, are given in the specific spill response procedure for each type of substance.

## **SHEET C**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR BASES:**

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1. Enclose the spilled material with a dike made of a solid absorbent such as sand, sawdust, clay, or vermiculite.
2. For Collection of Liquids:
  - a. Apply an appropriate neutralizer until the pH is in the 6 to 8 range. Use pH paper to test for pH.
  - b. Transfer material into a properly labeled drum by pumping or by collecting with an absorbent and shoveling into drums.
3. For Collection of Solids:
  - a. Containerize as much as possible into a properly labeled drum, by scooping or shoveling.
  - b. Add water to the remaining material and neutralize until the pH is between 6 and 8. The resulting liquid is then collected by pumping or absorption by solids and shoveled into a drum.
4. Personal Protective Equipment: See posted instructions for specific waste streams.
5. Decontamination: Decontaminate the spill area, tools, and personal protective equipment, etc. with an appropriate neutralizer until the resulting pH is between 6 and 8.

## **SHEET D**

### **SPECIFIC SPILL CLEAN UP PROCEDURES FOR ACIDS:**

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1. Contain the spill with a dike of clay absorbent or other non-combustible absorbent.
2. Neutralize acid spill by adding sodium bicarbonate to the liquid acid spill until it is completely covered, test with pH paper until pH is between 6 and 8. If the acid is in solid or pellet form, containerize by direct pickup into a properly labeled drum. Take up liquid by adding sand or other non-combustible absorbent and deposit into properly labeled drum.
3. Personal Protective Equipment: See posted instructions for specific waste streams.
4. Decontamination: Decontaminate the spill area, tools, and personal protective equipment, etc. with sodium bicarbonate (or equivalent) until the resulting pH is between 6 and 8.

## **SHEET E**

### **SPECIFIC SPILL CLEAN UP PROCEDURES FOR OXIDIZERS AND ORGANIC PEROXIDES:**

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1. Contain or enclose the spill by diking with clay, sand, or talc, or other non-combustible material.
2. Chemical treatment (neutralization): Consult with the Environmental Management Division, ext. 3504. Standard Hazardous Material cleanup methods will be employed.
3. Collection: Add more non-combustible absorbent until the oxidizer is completely absorbed. Scoop up the absorbent with a non-sparking shovel. Place the waste oxidizer into drum of the proper type and labeling.
4. Personal Protective Equipment: See posted instructions for specific waste streams.
5. Decontamination: Wash with soap and water.

## **SHEET F**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR NON-FLAMMABLE SOLVENTS:**

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1. Contain the spilled material with a dike made from non-combustible absorbent material (sand, earth, vermiculite, etc.).
2. Collect spilled material by taking up with non-combustible absorbent and place into properly labeled drum. Where liquid is pooled deeply, air operated diaphragm pumps may be used for collection
3. Personal Protective Equipment: See posted instructions for specific waste streams.
4. Decontamination:
  - a. Impervious surfaces: Let trace amounts evaporate.
  - b. Tools and equipment: Tools clean with solvent, clothing wash with soap and water.

## **SHEET G**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR PESTICIDES:**

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1. Contain the spilled material with a dike of absorbent (sawdust, clay, vermiculite, etc.).
2. Neutralize the spilled material by following the procedures found on the container label. Also, MSDSs are available from the Safety Office, ext. 2713.
3. Collection: Add more absorbent if necessary, to collect liquids. Scoop up absorbent or dry solid material and place into a drum or metal can with a plastic liner.
4. Personal Protective Equipment: See posted instructions for specific waste streams.
5. Decontamination: Follow procedure found on product label, or MSDS.

## **SHEET H**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR PAINT:**

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1. Contain or enclose the spilled material with an absorbent such as sand, earth, clay, vermiculite, etc.
2. Collection of Material: If paint is in liquid form, add sufficient extra absorbent to absorb all of the liquid. Shovel or scoop the material into the proper type labeled container. If the material is dry or solidified, gather or shovel the material into the proper type labeled container.
3. Personal Protective Equipment: See posted instructions for specific waste streams.
4. Decontamination: Decontaminate the spill area by removing two inches of earth below the extent of the spill into the ground. Spill sites inside buildings and on impervious surfaces will be cleaned as completely as practicable using sorbents.

## **SHEET I**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR OIL:**

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1. Contain the spilled material with a solid absorbent material such as earth, sawdust, vermiculite, clay, etc.
2. Collection of Material: Absorb liquids onto solid absorbent materials and scoop or shovel into a container. Oil soaked into the ground is shoveled into a container. Spilled oil and the clean-up residues have been tested and found to be non-hazardous. If the circumstances of any spill warrant, the spill clean-up residues will be tested for HW characteristics.
3. Personal Protective Equipment: See posted instructions for specific waste streams.
4. Decontamination: Oil spilled onto the ground is removed along with two inches of uncontaminated soil.

## **SHEET J**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR FLAMMABLE AND COMBUSTIBLE ORGANIC LIQUIDS:**

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1. Enclosed spilled organic liquid with a dike of sawdust or sweeping compound (solid sorbent).
2. Collection: use enough sorbent to soak up all of the spilled liquid. Avoid all sources of ignition or sparking. Scoop up all of the solid sorbent with a non-sparking shovel or scoop and place into a proper type and properly labeled container.
3. Personal Protective Equipment: See posted instructions for specific waste streams. Decontamination Procedure: Let trace amounts which are not collected evaporate. For clothing and personal protective equipment, the procedure is evaporation followed by washing with soap and water.

## **SHEET K**

### **SPECIFIC SPILL CLEAN-UP PROCEDURES FOR EXPLOSIVE REACTIVE WASTE:**

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1. If necessary enclose or contain the material with a non-combustible absorbent such as earth, sand, clay, etc.
2. Collection of Solids:
  - a. Powdery Materials: Apply oil to the material before attempting to collect to avoid reaction.
  - b. Pellet sized materials: Sweep up with non-sparking dustpan and broom.
  - c. Material is destroyed in open burning trays or in open detonation site.
3. Personal Protective Equipment: See posted instructions for specific waste streams.

**APPENDIX C**  
**DECONTAMINATION PROCEDURES**

## DECONTAMINATION PROCEDURES

### DECONTAMINATION:

Personnel protective equipment helps prevent the wearer from exposure while good work practices help minimize contamination of protective clothing, instruments, and equipment. Even with these safeguards, contamination may occur. Harmful materials can be transferred to clean areas, exposing unprotected personnel. In addition, personnel may come in contact with contaminants while removing protective clothing. To prevent such occurrences, methods to reduce contamination must be developed before anyone enters a suspected contaminated area. Decontamination consists of physically removing contaminants involved and the level of exposure. Since the extent of decontamination will depend on the incident, only general guidelines can be given.

Initial decontamination planning should assume that persons leaving the contaminated area are grossly contaminated. A system is set up to wash and rinse all the protective clothing worn. This is combined with a sequential doffing of equipment, starting at the first station with the most heavily contaminated outer clothing and ending at last station with the least contaminated article. The spread of contaminants is further reduced by separating each step in the decon process by at least three feet. After more information is obtained, the initial system may be modified by eliminating unnecessary stations or adapting it for site conditions.

The decon plan must be adapted to conditions found at the incident. These conditions may result in more or less decon being required. The following factors should be considered in determining the extent of decon required.

The extent of decon will depend on the hazard characteristics involved and the chemical's routes of entry. Generally, the more toxic the substance, the more extensive the decon required.

The amount of contamination on protective clothing is normally determined visually. If gross contamination is evident, a thorough decon procedure is required. In addition, higher air concentrations of substances or direct contact may result in permeation or degradation of the clothing material. Swipe tests may help in determining the type and quantity of surface contaminants.

The level of protection to a certain extent influences the extent of decon required. Wearing disposable clothing over the primary protective equipment may reduce direct exposure.

The work being performed by the entry team determines their exposure potential. Clean up monitors, photographers, and perimeter air samplers performing tasks that will not bring them in direct contact with substances will normally require less decon than those performing task involving direct contact with contaminated substances.

The reason for leaving the contaminated area may influence the extent of decon. Personnel leaving the area to pick up or drop off equipment or to change out air cylinders or respirator canisters normally do not require full decontamination. Personnel departing for a lunch break or end of a workday must be thoroughly decontaminated to avoid spreading contaminants to the clean area.

There is no method for immediately determining how effective the decon procedure is. Discoloration, stains, corrosive effects, and substances adhering to clothing may indicate that contaminants have not been completely removed. Also, contaminants may not be easily observed, and permeation of suit material may not be evident. Swipe testing may be used to identify surface contamination. Testing for permeation will require a piece of the exposed material. If there is any question on the effectiveness of the decon procedure, the contaminated clothing may need to be disposed of.

Equipment for decon can be easily procured. Soft bristle, long handle scrub brushes are used to remove contaminants. Water in buckets or garden sprayers can be used for rinsing. Galvanized wash tubs or children's wading pools can be used for holding contaminated water, and plastic garbage bags may be used for storing contaminate water and other liquids, and plastic bags may be used for storing contaminated equipment and clothing.

Equipment is usually decontaminated by scrubbing with a detergent /water solution followed by rinsing with copious amounts of water. While this process may not be fully effective in removing contaminants, it is relatively safe compared with using a chemical decon solution. Decon chemicals may be appropriate when the exact contaminants are known and a decon material is useful to neutralize or change the contaminant to a less harmful substance. Chemical decon solutions should only be used in consultation with and experienced chemist. The appropriate decontamination procedure will be determined by the IOSC in consultation with the Advisory / Support group. Members of this group are outlined in section 6.d. of the Contingency Plan.

Mobile equipment used at TEAD for emergency spill response will be taken to bldg. 609, a steam cleaning facility, for decontamination, if necessary. The effluent from this facility is piped directly into the Industrial Waste Treatment Plan (IWTP).

Any equipment exposed to a hazardous chemical environment must be considered potentially contaminated, and handled accordingly. The extent of decon required will vary with the type of equipment and magnitude of the potential contamination. In most instances, washing and rinsing will remove any gross contamination. In some instances, swab sampling and lab analysis may be required to ascertain the efficiency of the decontamination procedure.

Some situations, such as secondary releases, accidents on-scene, or unanticipated exposures may result in the need for a quick exit from the contaminated zone. Since the normal decon procedure is time consuming, an abbreviated decontamination procedure is necessary for removal of gross levels of contamination prior to exit from the contaminated zone. Generally, the emergency decon would be an abbreviated version of decon procedures including wash down and removal of equipment and protective clothing and removal of potentially contaminated underclothing. If prompt lifesaving first aid and / or medical treatment is required, decon procedures should be omitted or minimized. Lifesaving care should be instituted immediately, although every precaution should be taken to minimize the spread of contamination from injured personnel to medical personnel.

An excellent way to control contamination is with the use of protective equipment covers. These covers can be disposable or reusable. Reusable covers, however, should be decontaminated after use. Disposable covers are the most convenient to use. Clear plastic bags can be used over

equipment as organic vapor detectors or radios. Some equipment, such as atmospheric sniffers, cannot be entirely encapsulated since they need direct access to ambient air. Plastic covers and masking (duct) tape can be used to cover many parts of the equipment. Upon completion of the response, these covers are removed and bagged for disposal.

DECONTAMINATION STATIONS: The full decontamination procedures outlined in this appendix are based on worse case gross contamination levels for entry team members. These procedures may need to be modified based on actual levels of contamination.

#### Station 1: Segregated Equipment Drop

- Deposit equipment used on scene (tools, monitoring instruments, etc.) on plastic drop cloths or in separate containers with plastic liners. Since each item may be contaminated to a different degree, segregation at the drop reduces the possibility of cross contamination.
- Equipment: Various size containers, plastic liners, plastic drop cloths.

#### Station 2: Boot Cover and Glove Wash

- Scrub outer boot covers and gloves with detergent / water or decon solution.
- Equipment: Container (0-3- gallons), Appropriate decon solution, 2-3 long handle soft bristle brushes, small buckets.

#### Station 3: Boot Cover and Glove Rinse

- Rinse off decon solution from station 2 using copious amounts of water. Repeat as many times as necessary.
- Equipment: Container (30-50 gallons) or high-pressure water spray unit, 2-3 long-handle soft bristle scrub brushes.

#### Station 4: Tape Removal

- Remove tape around boot and gloves and deposit in container with plastic liner.
- Equipment: Container (20-30 gallons), plastic liners.

#### Station 5: Boot Cover Removal

- Remove boot covers and deposit in container with plastic liner.
- Equipment: Container (20-30 gallons), plastic liners, bench or stool.

#### Station 6: Outer Glove Removal

- Remove outer gloves and deposit in container with plastic liner.

- Equipment: Container (20-30 gallons), plastic liners.

#### Station 7: Suit/Safety Boot Wash

- Thoroughly wash protective clothes and boots. Scrub unit and boots with long handle, soft bristle scrub brush and copious amounts of the appropriate decon solution. If level B Protection, wrap SCBA regulator (belt type) with plastic to keep out water. Repeat as many times as necessary.

#### Station 8: Suit/Safety Boot Rinse

- Rinse off decon solution using copious amounts of water, repeat as many times as necessary.
- Equipment: Container (30-50 gallons) or high-pressure water spray unit, 2-3 long handle, soft bristle brushes.

#### Station 9: Tank or Canister Change

- If the worker leaves the contaminated area to change out an air tank or respirator canister, this is the last step in the decon procedure. The workers air tank or canister is exchanged, new outer gloves and boots covers donned and joints taped. The workers then return to the contaminated area.
- Equipment: Air tanks / respirator canisters, tank boot covers, gloves.

#### Station 10: Safety Boot Removal

- Remove safety boots and deposit in container with plastic liner.
- Equipment: Container (30-50 gallons), plastic liners, bench or stool, bootjack.

#### Station 11: Removal of Protective Clothing Garment (note: stations 11 and 12 reversed for level B).

- With assistance of decon team, remove the protective clothing garment (encapsulated suit, splash gear). Hang clothing or place in container for disposal as appropriate.
- Equipment: Rack, drop cloths, bench or stool, container (30-50 gallons), plastic liners.

#### Station 12: SCBA Backpack Removal (note: stations 11 and 12 reversed for level B)

- While still wearing face piece, remove backpack and place on table. Disconnect hose from regulator valve and proceed to next station.
- Equipment: table

Station 13: Inner Glove Wash

- Wash with appropriate decon solution that will not harm skin. Repeat as many times as necessary.
- Equipment: Basin or bucket, decon solution, small table.

Station 14: Inner Glove Rinse

- Rinse with water, repeat as often as necessary.
- Equipment: Water basin or bucket, small table.

Station 15: Face Piece Removal

- Remove faceplate, deposit in container with plastic liner, avoid touching face with gloves.
- Equipment: Containers (30-50 gallons), plastic liners.

Station 16: Inner Gloves Removal

- Remove inner gloves and deposit in containers with plastic liner.
- Equipment: Container 30-50 gallons), plastic liners.

Station 17: Inner Clothing Removal

- Remove clothing soaked with perspiration. Place in container with plastic liner. Inner clothing should not be worn out of the decon area since some contaminants may have been transferred while removing the outer protective garment.
- Equipment: Container (30-50 gallons), plastic liners.

Station 18: Field Wash

- If practicable, a field shower should be taken before leaving the decon area. If a shower is unavailable, thoroughly wash face and hands.
- Equipment: Field shower, small table, basin or bucket, towels.

Station 19: Redress

- Put on clean clothing. A dressing trailer or tent is appropriate for inclement weather.
- Equipment: Tables, chairs, tent or trailer.

**APPENDIX D**  
**CONTRACTED AND OUTSIDE RESOURCES**

## CONTRACTED AND OUTSIDE RESOURCES

**E.T. Technologies Inc.**  
3656 W 2100 S  
Salt Lake City  
(801) 977-0731

General HAZMAT, petroleum products,  
Level B Team, TSD

**Ecology Control Industries**  
503 W 400 S  
(800) 321-5479  
(801) 359-6861

General HAZMAT, petroleum products,  
Level B Team, TSD

**TW Company**  
505 N Main  
North Salt Lake  
(801) 299-1900

General HAZMAT, petroleum products,  
Level A Team, Level B Team, TSD

**WRS Infrastructure  
Environmental Inc.**  
4120 S 500 W  
Salt Lake City  
Day (801) 265-2323  
Night (404) 358-4135

General HAZMAT, petroleum products,  
Level A Team, Level B Team, TSD

**APPENDIX E**  
**EMERGENCY AND SPILL CONTROL EQUIPMENT**

**FACILITIES ENGINEER EMERGENCY EQUIPMENT**  
**POINT OF CONTACT: Utilities Division x3386**

<u>Description</u>	<u>Capability</u>
Earth Auger	Boring, depths to 9 ft.
Multipurpose Excavator	Backhoe type, for excavation
Tractor	Caterpillar type, for trenching backhoe capabilities, etc.
Road Grader	Road Grader, trenching etc. with 12 ft. blade
Scoop Loader	1-1/2 cu. yd. capacity, front end
Hydraulic Crane	25 ton major item material handling
Dump truck	10 cu. yd. capacity
Pickup truck	General transportation
Bucket truck	60 ft. reach, 500 lb. capacity
Emergency generator Trailer mounted	60 KW

**FIRE DEPARTMENT EMERGENCY EQUIPMENT AND MATERIALS  
POINT OF CONTACT: FIRE DEPARTMENT x2015  
In HAZ MAT TRAILER and TRUCK in Bldg. T-8**

<u>Description</u>	<u>Capability</u>
Fire Truck	Skid Load Squad/Pierce Pumper
Trailer	Enclosed 22'
Acid Neutralizer	Acid Neutralizer Box
Base Neutralizer	Base Neutralizer Box
Repair Kit	Emergency leak repair kit (Edwards & Cromwell 'F')
Repair Kit	Emergency leak repair kit (Edwards & Cromwell 'A-NS')
Repair Kit	Emergency leak repair kit (Edwards & Cromwell 'E')
SCBA	Apparatus (SCBA), One Hour Packs SCBA, Thirty Minute Packer
Communication Interface (SCBA)	Communication hardware (installed on SCBA)
Replacement bottles, SCBA	Spare bottles for SCBA
Gastrsc	Flammable Gas Detector for Flammable Vapors
Weather Station	Wind speed and direction indicator

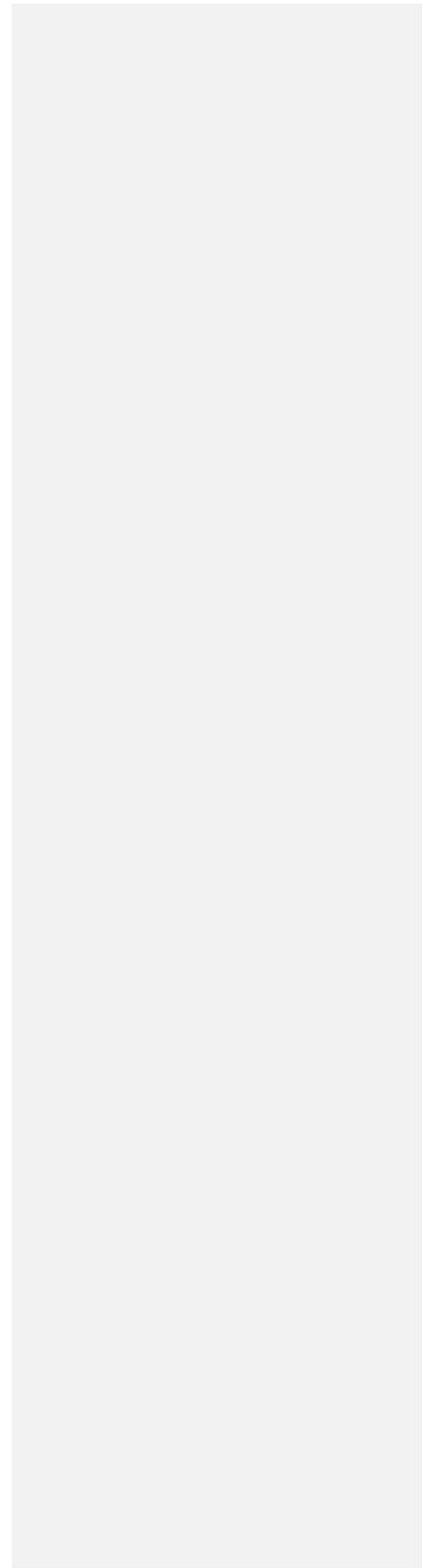
**FIRE DEPARTMENT EMERGENCY EQUIPMENT AND MATERIALS  
POINT OF CONTACT: FIRE DEPARTMENT x2015  
In HAZ MAT TRAILER and TRUCK in Bldg. T-8**

<u>Description</u>	<u>Capability</u>
Decontamination Booth	Portable decontamination booth used for personnel after entry into Hazardous areas
Eye wash	Portable eyewash and solution used to wash out eyes after contamination
Level A	Protective Suits, fully encapsulated Regular and Flash
Vests	Cooling vests used with ice
Drum Uprinder and Lifter	Used in placing drums in upright position
Cart 300 LB Capacity	Portable cart used for moving equipment and for rescue of personnel
Tools	Non-sparking tools
Additional Misc.	60-minute air cylinders
	pH paper
	chemical tape
	Barricade tape (haz mat)
	Emergency response guidebook and various other references
	Push broom and scrub brushes
	Stakes for tents and marking
	Various Sorbent rolls and Pads
	Sorbent Pillows
	Plug and Dike Kit

**FIRE DEPARTMENT EMERGENCY EQUIPMENT AND MATERIALS  
POINT OF CONTACT: FIRE DEPARTMENT x2015  
In HAZ MAT TRAILER and TRUCK in Bldg. T-8**

85 gal. salvage drum  
Levels of protective suits  
Scrubs apparel  
Butyl gloves  
PVC gloves  
Disposable silver shield gloves  
Examination gloves, various sizes  
Safety vests for positions  
Pipe fittings and valves  
Poly tarps  
Wooden plugs for tank holes, (various shapes and sizes)  
Bucket, brushers, soap  
Chlorine "A" kit  
Propane heaters

**APPENDIX F**  
**SPILL REPORTING**



## SPILL REPORTING

1. Utah Department of Environmental Quality Requirements:
  - a. Immediately notify the Department of Environmental Quality by calling the 24 hour answering service (801) 536-4123, if greater than 2.2 pounds of acutely hazardous waste is spilled or 220 pounds if any other hazardous waste is spilled in accordance with R315-9.1(b). The following information will be provided when making the verbal report:
    - (1) Name, address, and phone number of the person responsible for the spill.
    - (2) Name, title, and telephone number of the individual reporting.
    - (3) Time and date of spill.
    - (4) Location of spill – as specific as possible including nearest town, city, highway, or waterway.
    - (5) Description contained on the manifest and the amount of material spilled.
    - (6) Cause of spill.
    - (7) Emergency action taken to minimize the threat to human health and the environment.
  - b. Within 15 days after any reportable spill of hazardous waste, submit a written report to the Division of Solid and Hazardous Waste containing the following information:
    - (1) Name, address, and telephone number.
    - (2) Date, time, location, and nature of the incident.
    - (3) Name and quantity of material(s) involved.
    - (4) The extent of injuries, if any.
    - (5) An assessment of actual or potential hazards to human health and the environment, where this is applicable.
    - (6) The estimated quantity and disposition of recovered material that resulted from the incident.
  - c. If a release of a hazardous substance or an acutely hazardous substance, as defined in 40CFR302.6 or 40CFR355 Appendix A, has the potential to expose persons off-site, the incident must also be reported to the Department of Environmental Quality by calling (801) 536-4123.
  - d. Releases of greater than 25 gallons of used oil must be reported immediately to the Department of Environmental Quality by calling (801) 536-4123. This must be followed by a written follow-up report within 15 days (R315-15-9).
7. Local Community Emergency Coordinator: If a release of a hazardous substance or an acutely hazardous substance, as defined in 40CFR302.6 or 40CFR355 Appendix A, has the potential to expose persons off-site, the incident must also be reported to Tooele County Emergency Management, (435) 833-8100.

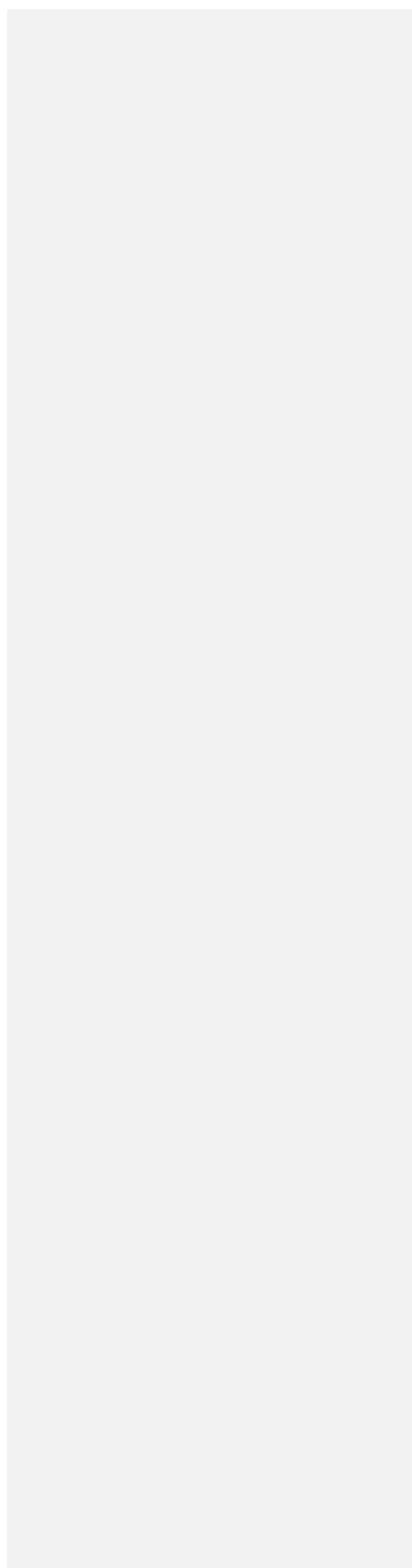
8. National Response Center: Spills exceeding the reportable quantity of a hazardous substance must be reported immediately to the National Response Center in accordance with 40CFR302.6. Table 302.4, contains a listing of hazardous substances and their reportable quantities. The National Response Center requirement applies to both fixed facility and transportation incidents. The National Response Center's phone number is 800-424-8802 or 202-426-2675.
9. Army Internal Reporting Requirements: Any reportable spills, as defined in the paragraphs above, will be reported, within 24 hours of discovery, to JMC Operations Center by calling DSN 793-7270 and a follow-up report submitted electronically to the following email address:

AMC.ROCK.ORG.JMC-OPCTR-OP@mail.mil  
Dennis.R.Versluys.civ@mail.mil  
USARMY.RIA.JMC.MBX.OPCTR-OP@mail.mil

Within five working days from the initial notification, forward any information that was unknown at the time of the initial report to the above addresses, e.g., remedial action planned, total cost of cleanup activities, steps being taken to prevent future occurrences of this type, etc.

<b>NOTIFICATION OF REPORTABLE QUANTITY POLLUTION EVENT</b>			
1. INSTALLATION:		2. COMMANDER:	
4. PERSON REPORTING (NAME/PHONE):		3. DISCOVERY DATE & TIME:	
		5. SEVERITY: <input type="checkbox"/> Minor <input type="checkbox"/> Medium <input type="checkbox"/> Major	
6. TYPE & AMOUNT OF MATERIAL SPILLED:			
7. LOCATION OF SPILL (FACILITY/EQUIPMENT INVOLVED):			
8. CAUSE:			
9. PERSONNEL INJURIES/PROPERTY LOSS:			
10. DURATION/MAGNITUDE OF POLLUTION PRODUCED/RELEASED:			
a. SOURCE OF RELEASE BEEN STOPPED?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
b. RELEASED MATERIAL BEEN RETAINED?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
c. REACH ENVIRONMENT (CHECK ALL THAT APPLY)?		<input type="checkbox"/> Navigable waters	<input type="checkbox"/> Surface water
		<input type="checkbox"/> Ground water	<input type="checkbox"/> Drinking water supply
		<input type="checkbox"/> Land surface (soil)	<input type="checkbox"/> Ambient air
d. NAME OF RECEIVING WATERS:			
e. PASS THE INSTALLATION BOUNDARY?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
f. NPDES PERMITS POINTS INVOLVED?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
g. SAMPLE BEING TAKEN FOR LEGAL RECORDS?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
11. DAMAGE/IMPACT ON SURROUNDINGS (GROUNDWATER, WILDLIFE, ETC.):			
12. REMEDIAL ACTION TAKEN:			
13. REMEDIAL ACTION PLANNED:			14. DATE OF REMEDIAL ACTION COMPLETION:
15. NOTIFICATIONS:			
a. NRC	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE/TIME:	POC:
b. ACO STAFF	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE/TIME:	POC:
c. STATE	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE/TIME:	POC:
d. LEPC	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE/TIME:	POC:
e. EPA	<input type="checkbox"/> Yes <input type="checkbox"/> No	DATE/TIME:	POC:
16. NRC INCIDENT NUMBERS:		17. REACTION BY NEWS MEDIA/PUBLIC:	
18. DOLLAR VALUE OF MATERIAL SPILLED:		19. TOTAL COST OF CLEANUP ACTIVITIES (EST/ACTUAL) :	
20. WHAT STEPS ARE BEING TAKEN TO PREVENT FUTURE OCCURRENCES OF THIS TYPE AND DATE FORMAL REPORT IS DUE (TO WHAT AGENCY) :			
21. FORWARD REPORT TO: (1) JMC-OPCTR-OP@AFSC.army.mil      (2) AMSJM-IS@AFSC.army.mil (3) AMSJM-ISM@AFSC.army.mil                                      (4) Dennis.Versluys@us.army.mil			

**APPENDIX G**  
**GUIDELINES FOR RELEASING INFORMATION**

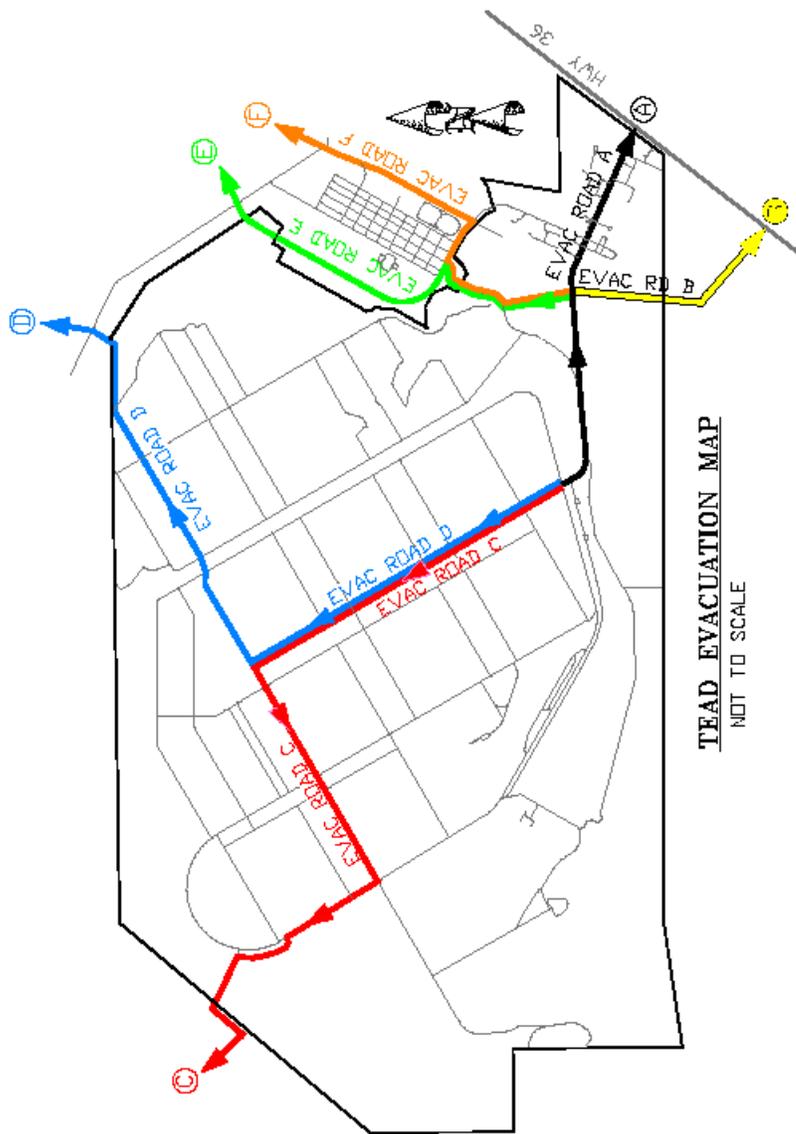


## **GUIDELINES FOR RELEASING INFORMATION**

Although prompt action is essential in coping with any accident or incident, the potential impact on public health and the public's perceptions of spills of hazardous substances magnify this importance. Regarding release of information concerning chemical surety material and accidents resulting in casualty, specific guidance is in AR 360-5. Release of information regarding spills of hazardous substances will be conducted per the following guidelines:

1. The public is entitled to all unclassified information concerning a spill of a hazardous substance. Furnishing such information in a timely, positive manner that assures accuracy and reflects consideration of the public welfare is in the national interest and is a function of the command.
2. In the event that a spill of a hazardous substance poses an imminent threat to the public health or welfare, or to the environment, the Installation Commander has the authority to approve the release of information.
3. Information proposed for release will be coordinated with the installation's higher headquarters before release.
4. For spills that are contained within the installation boundaries and pose no threat to the public health and welfare, or the environment in the surrounding community, release of information will be made at the discretion of the Installation Commander. However, prompt release of factual information is encouraged. Even if no information is formally disseminated to the public, any unclassified information that may be obtained under the Freedom of Information Act should be made readily available to any person who requests it.
5. The responsible official who releases information about the spill should ensure that such releases of information will be prepared to:
  - a. Ensure public safety.
  - b. Prevent or reduce widespread public alarm.
  - c. Ensure public understanding of the extent and nature of the public hazard resulting from the spill.

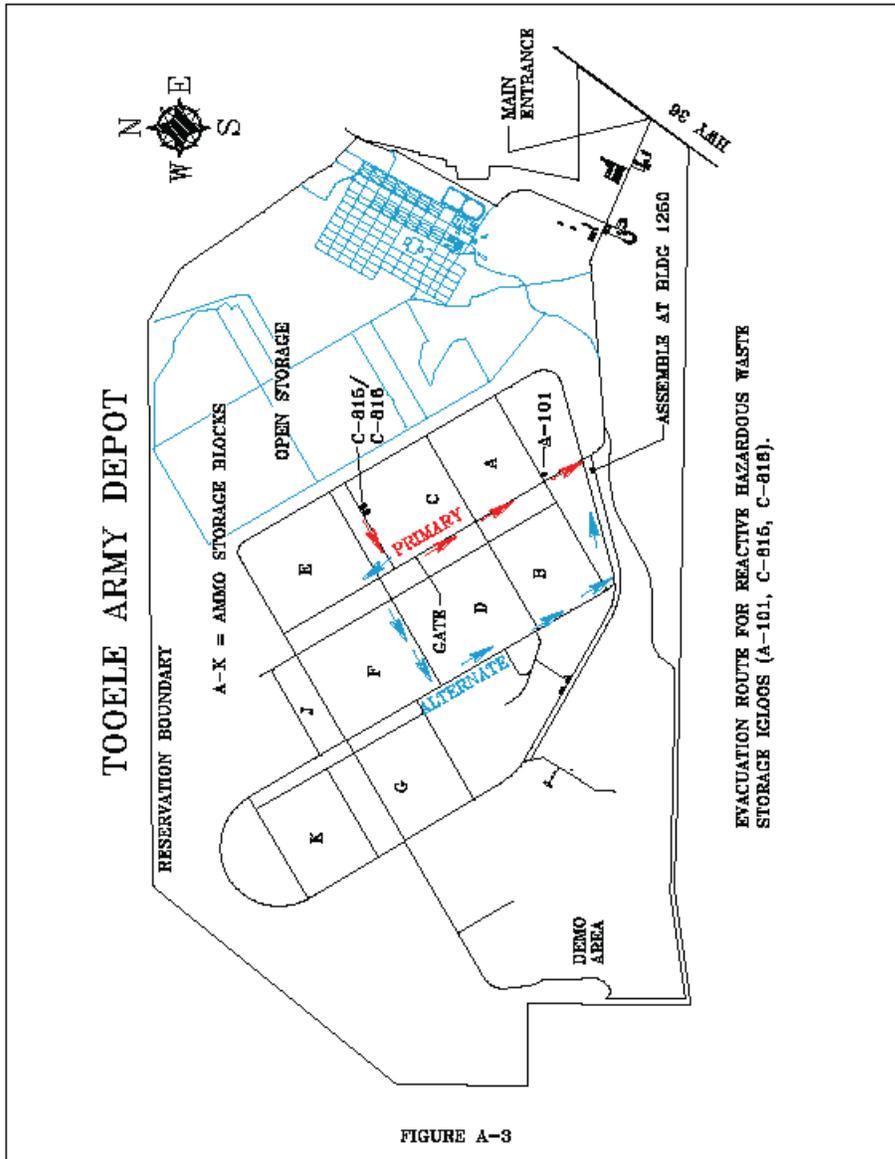
**APPENDIX H**  
**EVACUATION ROUTES**  
**Figures A-1 through A-11**

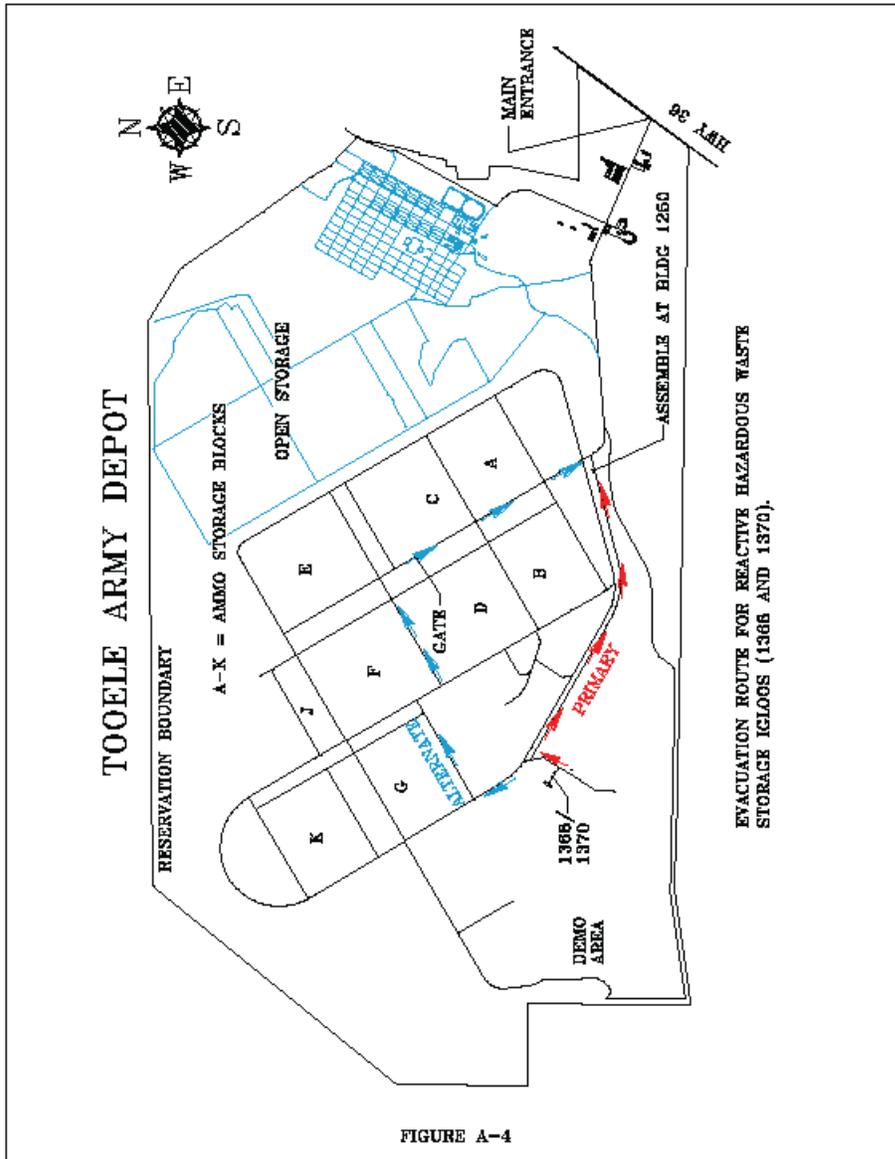


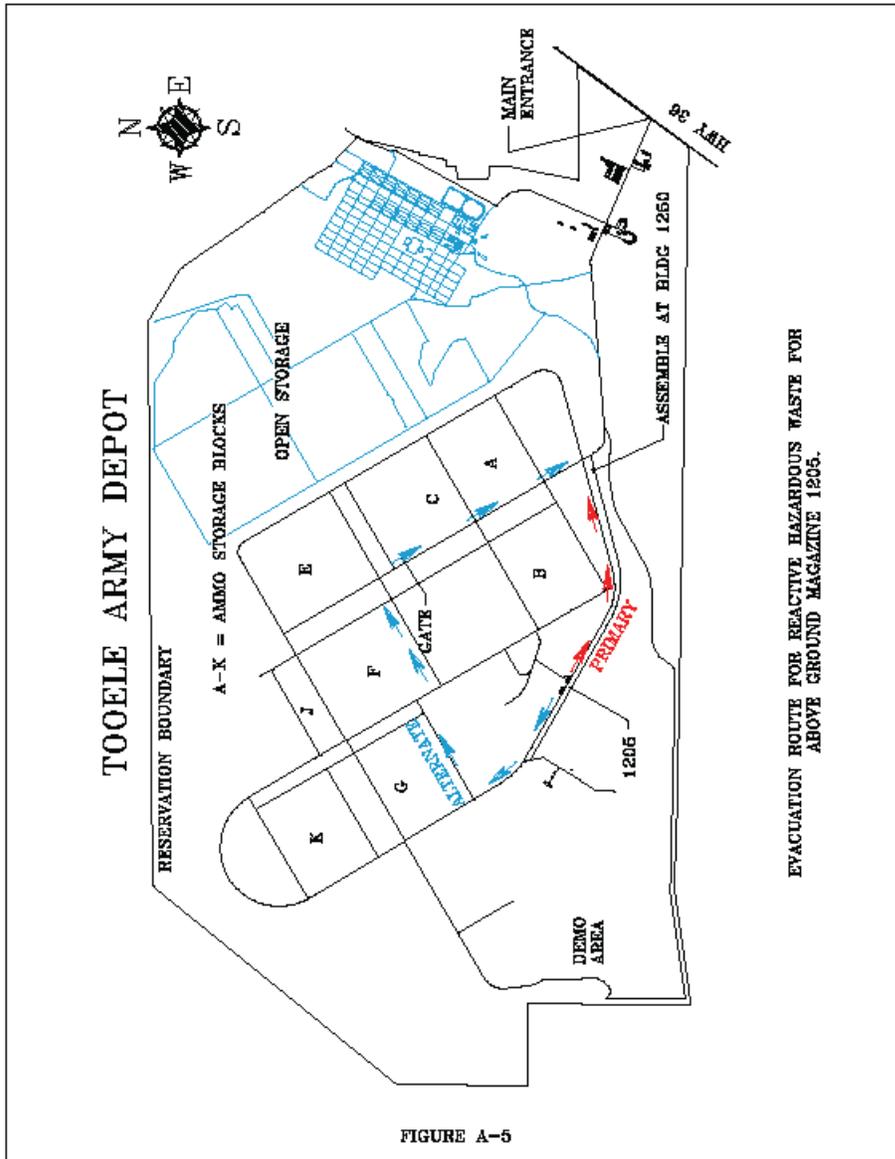
**TEAD EVACUATION MAP**  
NOT TO SCALE

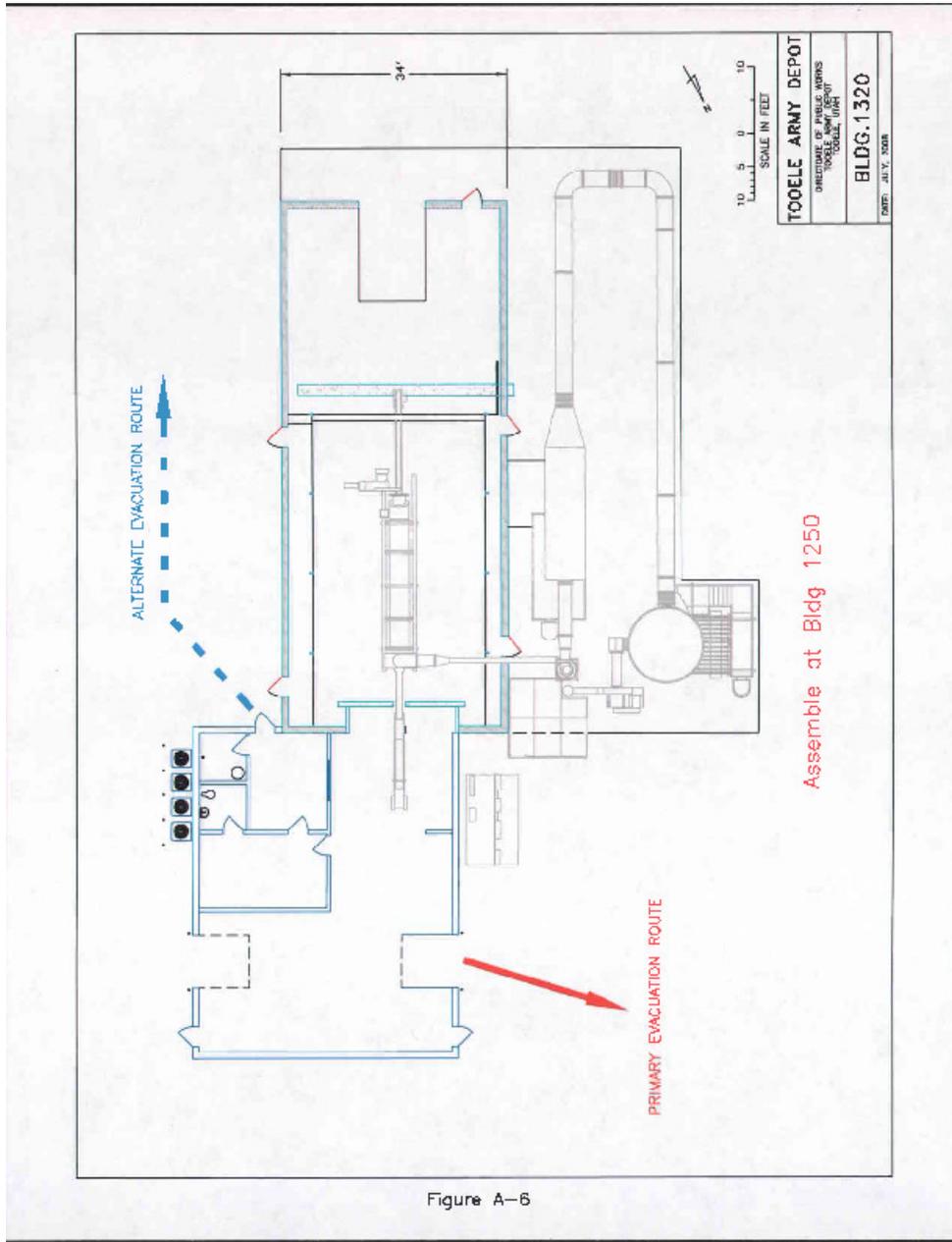
Figure A-1











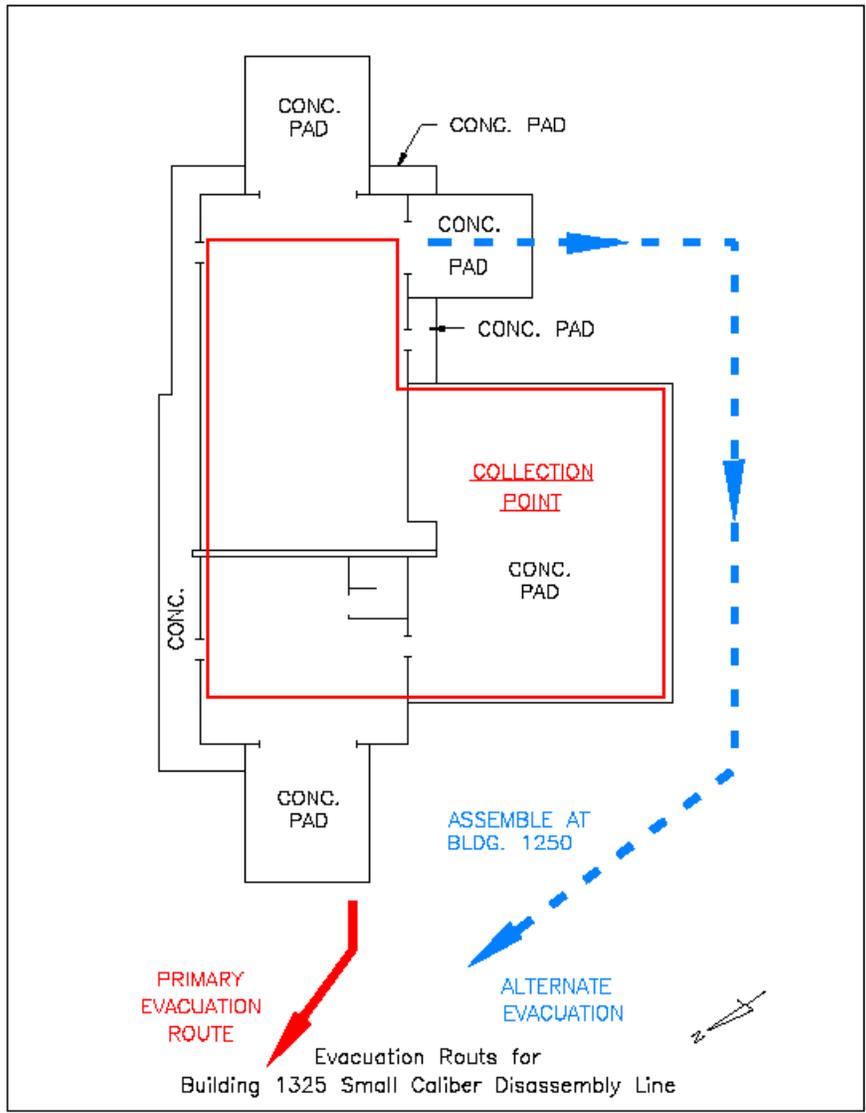
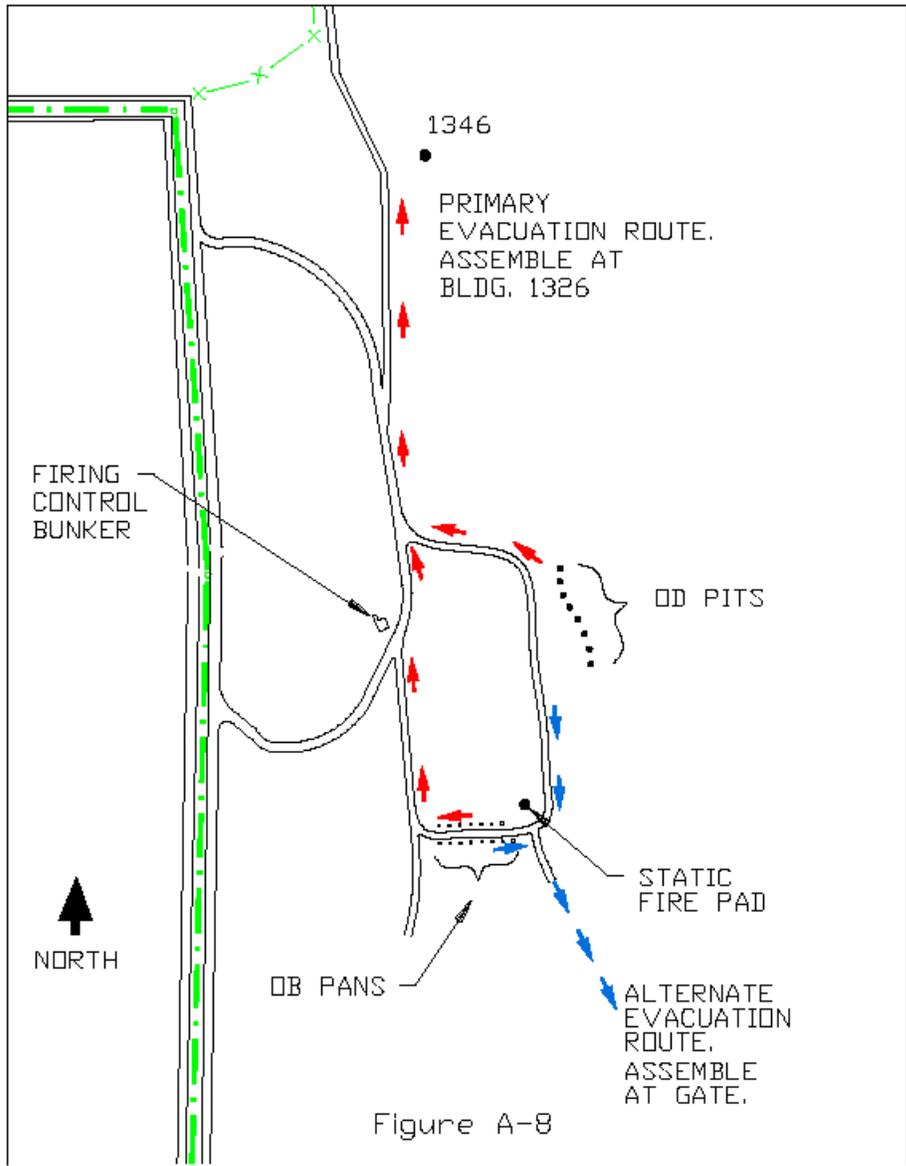


Figure A-7



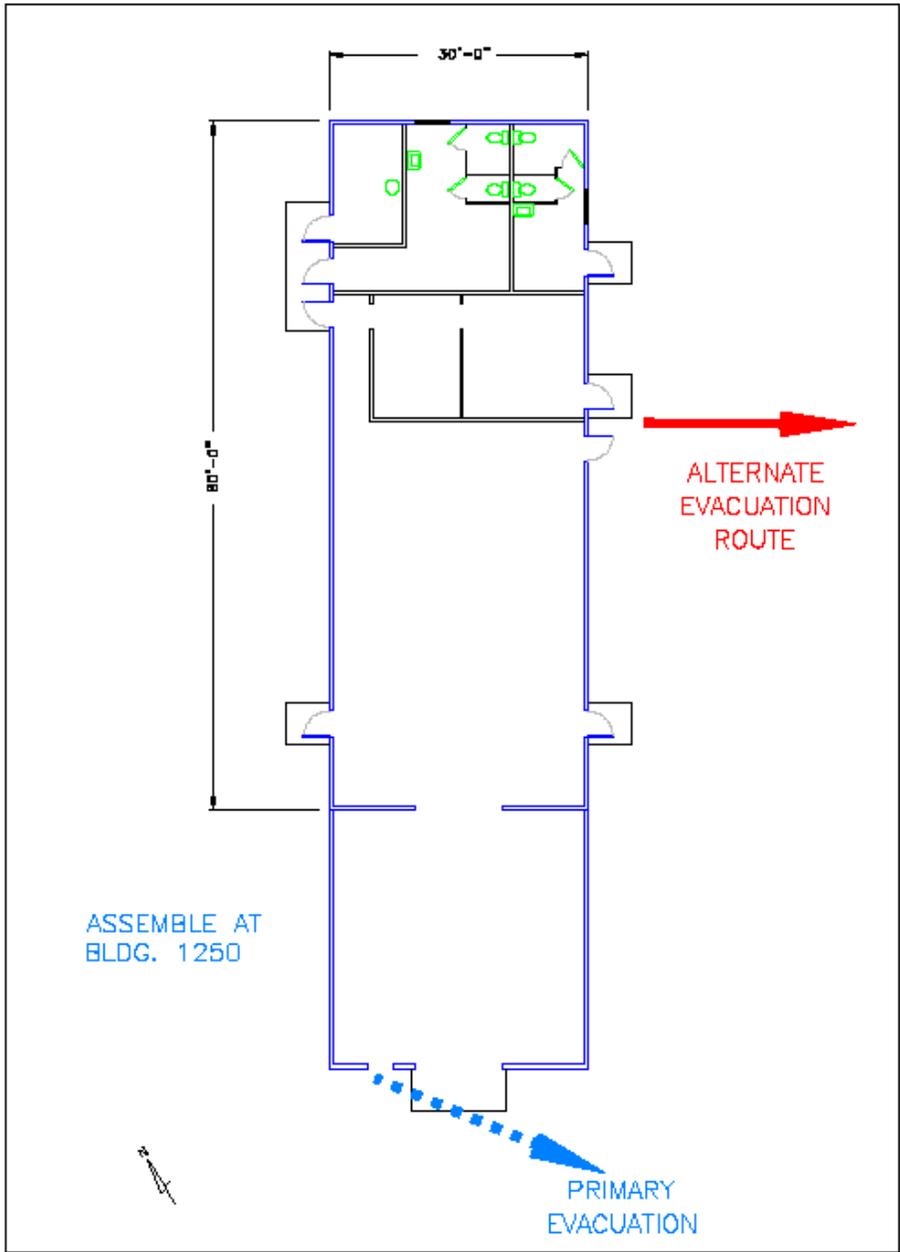


Fig. A-9  
 Building 1400 Evacuation Routes

**EMERGENCY NUMBERS**

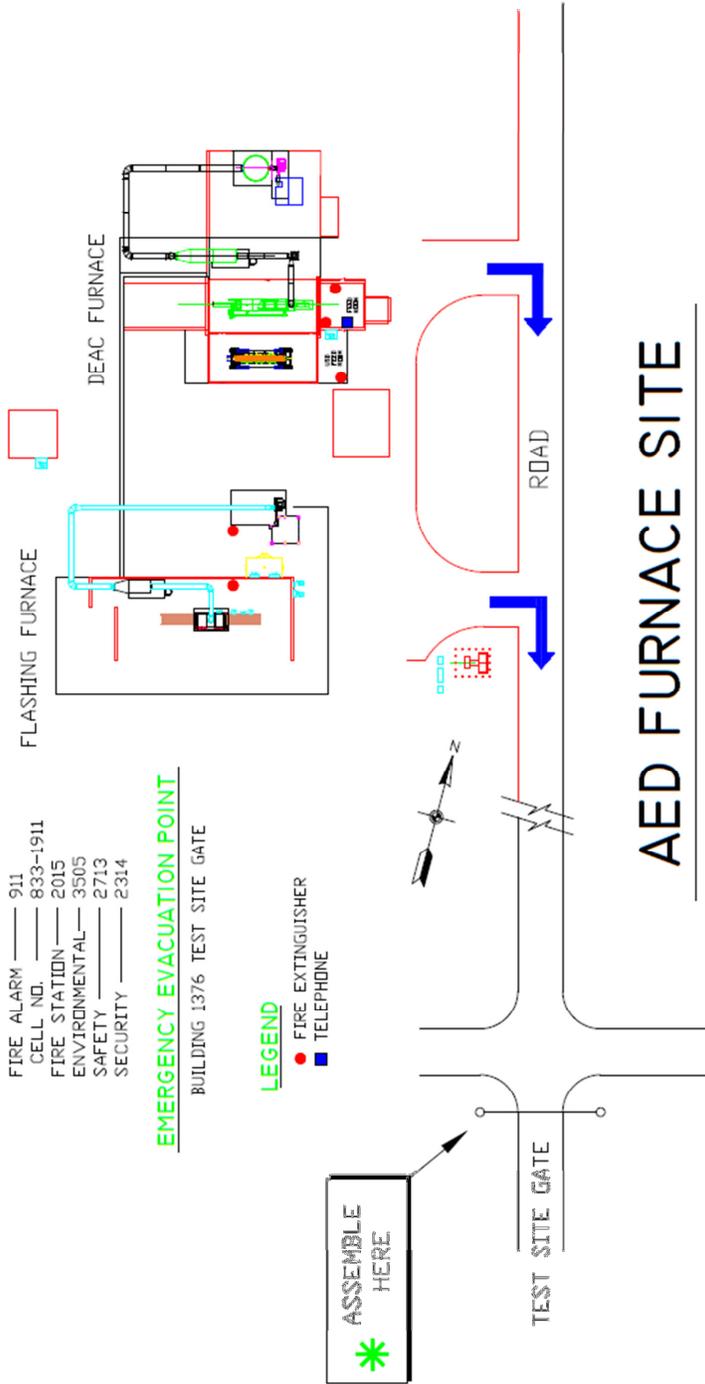
- FIRE ALARM — 911
- CELL NO. — 833-1911
- FIRE STATION — 2015
- ENVIRONMENTAL — 3505
- SAFETY — 2713
- SECURITY — 2314

**EMERGENCY EVACUATION POINT**

BUILDING 1376 TEST SITE GATE

**LEGEND**

- FIRE EXTINGUISHER
- TELEPHONE



**AED FURNACE SITE  
EVACUATION PLAN**

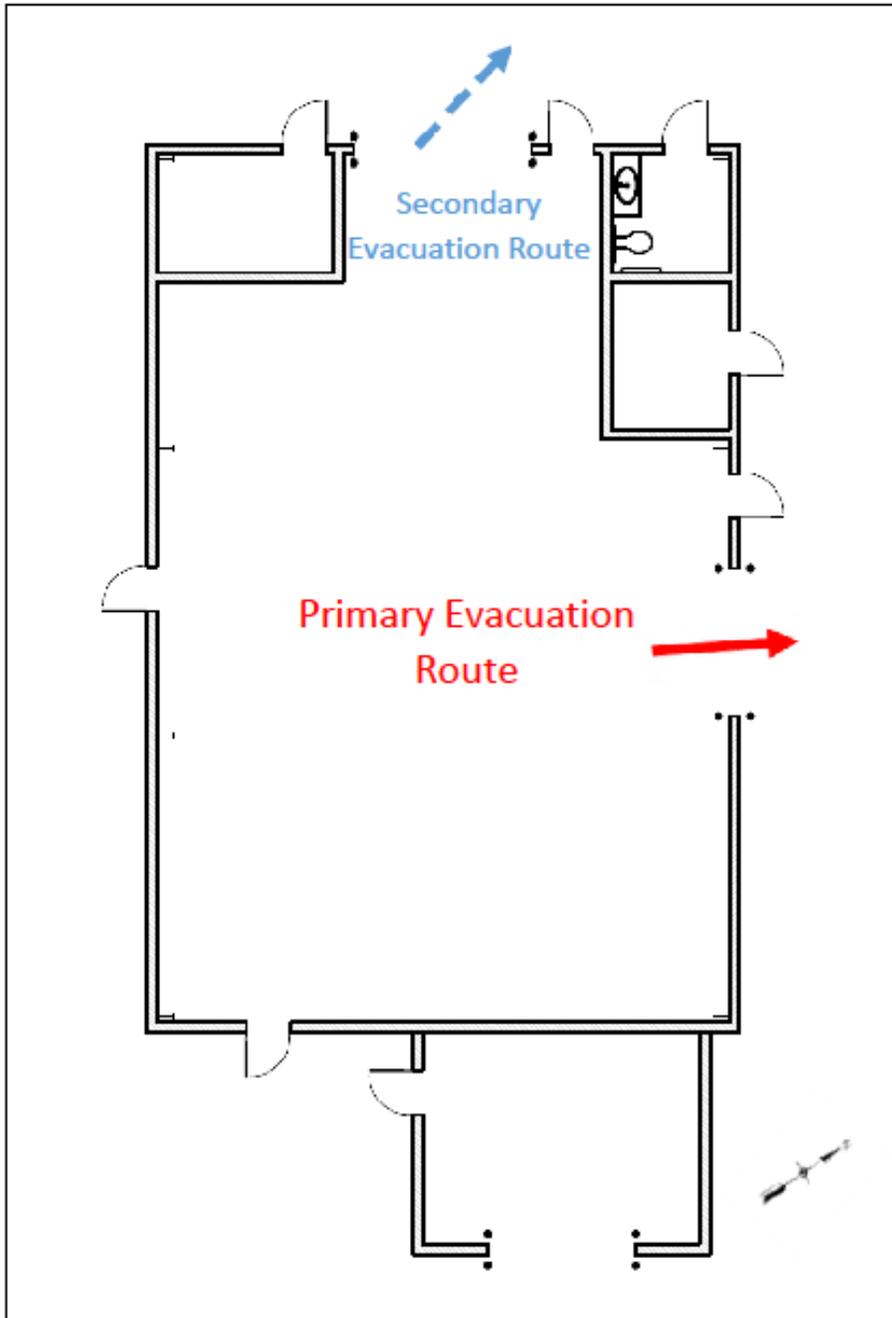


Figure A-11  
Building 1335 Evacuation Route