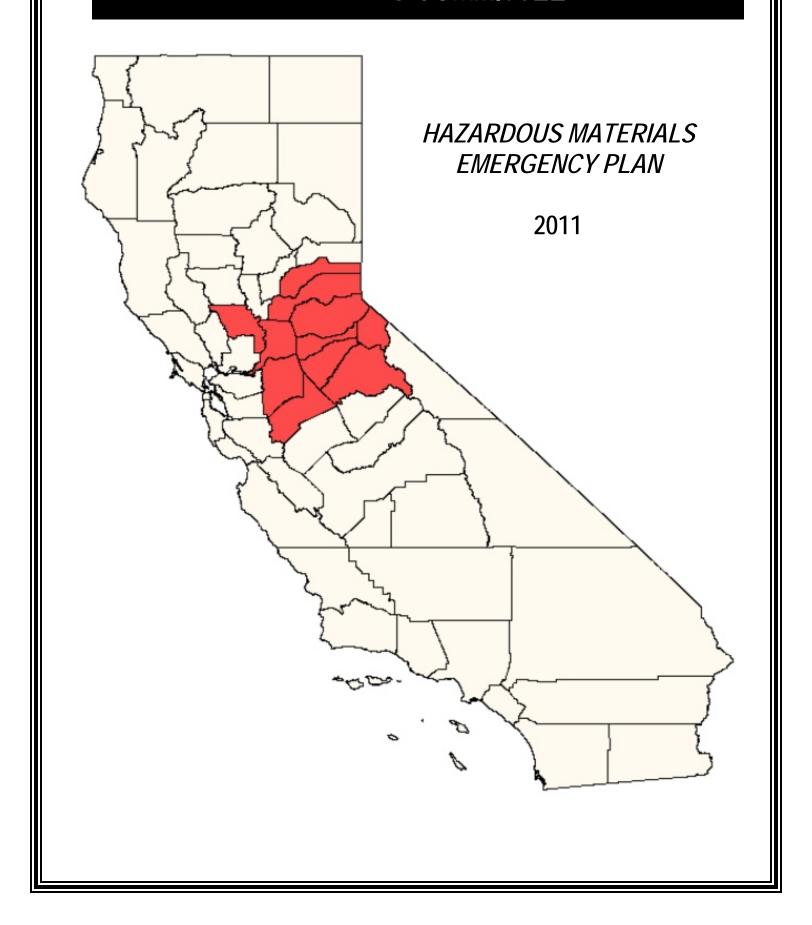
## REGION IV LOCAL EMERGENCY PLANNING COMMITTEE



# LEPC Region IV Certified Unified Program Agency (CUPA) Contacts and Local Emergency Coordinators

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN	LOCAL EMERGENCY COORDINATOR
	INFORMATION	
	PHONE NUMBER AND EMAIL	
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Amador	Michael Israel, Director of Environmental Health misrael@co.amador.ca.us Amador County Environmental Health 810 Court Street Jackson, CA 95642 (209) 223-6439	Rusty Kern, OES Coordinator <a href="mailto:rkern@co.amador.ca.us">rkern@co.amador.ca.us</a> Amador County Sheriff's Office 700 Court Street Jackson, CA 95642 (209) 223-6384
Calaveras	Jason Boetzer, CUPA Program Manager jboetzer@co.calaveras.ca.us Calaveras County Environmental Health Dept. 891 Mountain Ranch Road San Andreas, CA 95249 (209) 754-6744	Clay Hawkins, OES Director <a href="mailto:chawkins@co.calaveras.ca.us">chawkins@co.calaveras.ca.us</a> Calaveras County Office of Emergency Services 891 Mountain Ranch Road San Andreas, CA 95249 (209) 754-2891
El Dorado	Dave Johnston, Program Manager County of El Dorado dave.johnston@edcgov.us Environmental Management Department 2850 Fairlane Court Building C Placerville, CA 95667 (530) 621-5896	Marty Hackett, OES Director martyh@el-dorado.ca.us 300 Fairlane Court Placerville, CA 95667 (530) 621-7467

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN	LOCAL EMERGENCY COORDINATOR
	INFORMATION	
	PHONE NUMBER AND EMAIL	
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Placer	Billy Harmon, Program Manager <a href="mailto:bharmon@placer.ca.gov">bharmon@placer.ca.gov</a> Placer County Environmental Health 3091 County Center Dr, Ste 180 Auburn, CA 95603 (530) 745-2300	Rui Cunha, OES Program Manager rcunha@placer.ca.gov Placer County Office of Emergency Services 2968 Richardson Drive Auburn, CA 95603 (530) 886-5300
City of Roseville	Steve Anderson, Life Safety/HazMat Officer <a href="mailto:sanderson@roseville.ca.us">sanderson@roseville.ca.us</a> Roseville Fire Department 401 Oak Street, Office 402 Roseville, CA 95678 (916) 774-5821	Dean Grundy, Battalion Chief, Roseville Fire Department dgrundy@roseville.ca.us 401 Oak Street Roseville, CA 95678 (916) 774-5837
Sacramento	Elsie Rothschild, Environmental Compliance Division Chief RothschildE@saccounty.net Sacramento County Environmental Management 10590 Armstrong Avenue, Suite A Mather, CA 95655 (916) 875-8473	Roger Ince, Emergency Operations Coordinator, Sheriffs Department <a href="mailto:sacoa@saccounty.net">sacoa@saccounty.net</a> 711 G Street, 83-003B Sacramento, CA 95814 (916) 874-4670
San Joaquin	Kasey Foley, CUPA Program Coordinator  kfoley@sjcehd.com 600 E. Main Street Stockton, CA 95202 (209) 468-3420	Ron Baldwin, OES Director  rbaldwin@sjgov.org  222 East Weber Ave Room 610  Stockton, CA 95202 (209) 468-3962

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN INFORMATION PHONE NUMBER AND EMAIL	LOCAL EMERGENCY COORDINATOR
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Tuolumne	Sheilah Lillie, Environmental Health Specialist slillie@co.tuolumne.ca.us Tuolumne County Environmental Health 2 South Green Sonora, CA 95370 (209) 533-5990	Maureen Frank, Deputy County Administrator (interim)  mfrank@co.tuolumne,ca.us Tuolumne County Administrative Office 2 South Green Street Sonora, CA 95370 (209) 533-5511
Yolo	Jeff Pinnow, Supervisor jeff.pinnow@yolocounty.org Yolo County Environmental Health 137 N. Cottonwood Street, Ste 2400 Woodland, CA 95695 (530) 666-8646	Bill Martin, Emergency Services Coordinator bmartin@yolooes.org 120 W. Main Street, Ste E Woodland CA 95695 (530) 406-4930

### **Executive Summary**

In California the Local Emergency Planning Committee (LEPC) regions coincide with the six CAL EMA mutual aid regions. The LEPCs are designated emergency planning districts. They are required to prepare Hazardous Materials Emergency Plans pursuant to the Superfund Amendments an Reauthorization Act (SARA), Title III (Emergency Planning and Community Right to Know) found in Title 42, United States Code §110003(a).

The LEPC Region IV is comprised of eleven inland counties including Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tuolumne, and Yolo. Region IV LEPC first prepared a Hazardous Materials Plan in 1994. The plan was revised and updated in 1999, 2006, 2008 and 2011.

This regional Hazardous Materials Emergency Plan builds on the county Hazardous Materials Area Plans and facility Hazardous Materials Business Plans located in the region's counties. It includes the identity, location and emergency contacts for facilities that handle threshold quantities of extremely hazardous substances. It also contains chemical release response procedures, public protective action notification information, county government emergency coordinators and plans for exercising the Hazardous Materials Emergency Plan.

### Plan Organization

The Region IV Hazardous Materials Emergency Plan is organized into three sections: Part I, Part II and Part III.

#### Part I - Regional Plan Basics

Part I provides background, facility, concept of operations, training, emergency equipment and public notification requirements.

### Part II - Roles and Responsibilities

Part II describes hazardous materials emergency roles and responsibilities of local, state and federal agencies.

#### Part III - Attachments

Part III includes Attachments providing supporting documentation and more detailed information on the topics discussed in parts I and II.

### REGION IV LEPC HAZARDOUS MATERIALS EMERGENCY PLAN TABLE OF CONTENTS

#### Region IV Local Emergency Planning Committee Hazardous Materials Emergency Plan September 2011

The Hazardous Materials Emergency Plan is required by the Superfund Amendment and Reauthorization Act (SARA), Title III (Emergency Planning and Community Right-to-Know).

The 2011 update was conducted by the Region IV LEPC members:

Jim Bueler, Aerojet
Doug Osborn, Sacramento County EMD
Robert Hayward, Environmental Logistics/Filter Recycling
Mike Parissi, San Joaquin County OES
Loni Howard, Sutter Health Sacramento
Todd Lenkin, El Dorado County EMD
Dave Johnston, El Dorado County EMD

The 2006 plan revision was funded through Office of Emergency Services FY-06 Hazardous Materials Emergency Preparedness Grant # HMECA- CAL EMA ID# 5033130 and prepared by contractor Chris Boykin, Boykin Consulting Services.

First Edition: 1994

Revised: 1999, 2006, 2008, 2011

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#### Section A - Local Government

**CUPA/Administering Agencies** Hazardous Materials Response Team **Air Pollution Control District Public Health Department** Office of Emergency Service Fire Agencies Law Enforcement District/County Attorney Agricultural Commissioner Public Works/Roads Departments Local Emergency Medical Services Water and Sewer Districts/Departments **Poison Control Center** 

Air Resources Board

Department of Fish and Game

**Department of Forestry and Fire Protection** 

**Department of Health Services** 

Department of Pesticide Regulation

**Department of Toxic Substances Control** 

Department of Transportation

**Emergency Medical Services Authority** 

Governor's Office of Emergency Services

Office of Environmental Health Hazard Assessment (OEHHA)

California Highway Patrol

California National Guard

95th Civil Support Team - Weapons of Mass Destruction

Occupational Safety and Health Administration

State Water Resources Control Board

#### Section C - Federal Government

**United States Coast Guard** 

Department of Energy

United States Environmental Protection Agency

Federal Emergency Management Agency

**Department of Homeland Security** 

National Oceanic and Atmospheric Administration

Department of Health and Human Services

**Department of Justice** 

#### Section D - Non-Governmental Agencies

**American Red Cross** 

**Business and Industry** 

**Chemical Manufacturers** 

**Chemical Transportation Emergency Center (CHEMTREC)** 

Radio Amateur Civil Emergency Services

The Salvation Army

#### Part III - Attachments

Attachment 1 List of Administering Agencies/CUPAs in LEPC Region IV and Community Emergency Coordinators and contact information

Attachment 2 Distribution List

Attachment 3 Record of Revisions

Attachment 4 List of Cal-ARP and RMP Facilities in LEPC Region IV

Attachment 5 Emergency Responder Training Completed by Jurisdiction

Attachment 6 Cal EMA Inland Region Phone Directory

Attachment 7 California Hazmat Mutual Aid Bulletin

Attachment 8 Specialized Emergency Equipment Inventories of Typed Teams

Attachment 9 Remediation, Clean Up and Hazardous Waste Contractors

### Region IV Local Emergency Planning Area – Inland Region Counties



SARA TITLE 111, SECTION 303 CROSS REFERENCE				
Section of Title III	Subject	Section in Plan (page)		
303(a)	Plan Review	11		
303(b)	Resource Evaluation	12,28		
303(c)(1)	Identification of: Facilities Transportation Routes Facilities Impacted	12, 13		
303(c)(2)	Emergency Response Procedures	36		
303(c)(3)	Designation of Emergency Coordinator Facility Community Coordinator	36		
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303(e)	Review by SERC	11		
303(g)	Review by regional response teams	11		

## A. INTRODUCTION - BACKGROUND AND AUTHORITY, PURPOSE, OBJECTIVES, AUTHORITIES AND REFERENCES

## Background and Authority

In California the Local Emergency Planning Committee (LEPC) regions coincide with the six CAL EMA mutual aid regions. The LEPCs are designated emergency planning districts. They are required to prepare Hazardous Materials Emergency Plans pursuant to the Superfund Amendments an Reauthorization Act (SARA), Title III (Emergency Planning and Community Right to Know) found in Title 42, United States Code §110003(a).

The LEPC Region IV is comprised of eleven inland counties including Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tuolumne, and Yolo. Region IV LEPC first prepared a Hazardous Materials Plan in 1994. The plan was revised and updated in 1999, 2006, 2008 and 2011.

#### **Purpose**

This regional Hazardous Materials Emergency Plan (HMEP) builds on the county Hazardous Materials Area Plans and facility Hazardous Materials Business Plans located in the region's counties. It includes the identity, location and emergency contacts for facilities that handle threshold quantities of extremely hazardous substances. It also contains chemical release response procedures, public protective action notification information, county government emergency coordinators and plans for exercising the Hazardous Materials Emergency Plan.

This HMEP is consistent with, and complementary to the California Hazardous Materials Incident Contingency Plan and local Area Plans. The 1999 HMEP revision was submitted to the State Emergency Response Commission for review. The LEPC is required to periodically test the HMEP by conducting emergency drills and annually review the plan.

#### **Objectives**

The general HMEP objectives are to meet Federal requirements as detailed in SARA Title III, Section 303 (c) and to serve as a reference for agencies involved in large hazardous materials emergencies that are multijurisdictional or require mutual aid.

The specific HMEP objectives are to describe or identify:

- Facilities in the region that have above the California Accidental Release Program (CalARP) threshold quantities for extremely hazardous substances.
- The transportation routes along which extremely hazardous substances are transported.
- Facilities that may contribute or be subject to additional risk by virtue of their proximity to a CalARP facility.
- Community emergency coordinators and facility emergency coordinators, who shall make determinations necessary to implement the plan.
- Methods for determining the occurrence of a release and the areas or

- populations likely to be affected by such release.
- Emergency equipment and facilities in the communities and an identification of the persons responsible for such equipment and facilities.
- Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to a release of extremely hazardous substances, including evacuation plans.
- Methods and schedules for exercising the emergency plan.
- Training programs, including schedules, for training of local emergency response and medical personnel.

#### 4. Authorities

The following provide authority to implement the Hazardous Materials Emergency Plan:

#### Federal

- ✓ Title 42, of the United States Government Code, Section I 1001 et seq., the
  Superfund Amendments and Reauthorization Act of 1986, (SARA), Title III;
- ✓ Title 42, of the United State Government Code, Section 9601 et. seq., the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).
- ✓ Title 40 of the Code of Federal Regulations, Parts 300, 310, 350, 355, 370 and 372 (RCRA)
- ✓ Title 29 of the Code of Federal Regulations, Labor.

#### State

Governor's Executive Order No. 48078.

California Government Code, Title 2, Division 1, Chapter 7, Section 8550 et seq., the California Emergency Services Act.

California Health and Safety Code, Division 20, Chapter 6.95, Section 25500 et seq. California Vehicle Code, Sections 2450 -2454, the Hazardous Substances Highway Spill Containment and Abatement Act.

California Code of Regulations, Title 19, Chapter 2, Subchapter 3, Section 2620 et seq.

#### 5. References

The following are references to the Hazardous Materials Emergency Plan:

California Master Mutual Aid Agreement
California Hazardous Materials Incident Contingency Plan
California Hazardous Materials Incident Tool Box (January 2006)
Regional and local mutual aid agreements
Local jurisdictions' Hazardous Materials Area Plans
Local jurisdictions Emergency Operations Plans

#### B. ADMINISTRATION

LEPC Region IV Planning Basis The area designated by the State Emergency Response Commission as LEPC Region IV is comprised of the following counties:

Alpine
Amador
Calaveras
El Dorado
Nevada
Placer
Sacramento
San Joaquin
Stanislaus
Tuolumne
Yolo

In each of these Counties and the City of Roseville one local agency has been certified by the CalEPA as a Certified Unified Program Agency (CUPA). Each CUPA is required to develop and maintain a Hazardous Materials Area Plan (Area Plan) for preparing for and responding to hazardous materials emergencies in their jurisdictions. These Area Plans provide the basis for Region IV's HMEP. The contact and phone numbers for each CUPA are included in *Attachment 1*.

The membership of the Committee consists of representatives of 12 different disciplines as mandated by SARA Title III and six ad-hoc position added by the SERC and Region IV LEPC.

Mandated positions are:

Community Group First Aid

Hospital Law Enforcement

Fire Media

Civil Defense Transportation

Local Environmental Health

Industry Elected Official Local/State

Ad-hoc positions are:

Administering Agency/CUPA Environmental Legal Agriculture Emergency Management

Education Dept. of Defense

Committee activities are supported by California Emergency Management Agency (CalEMA) staff. Members are nominated and voted in by the committee. Committee members must be approved by the SERC. The LEPC meets bi-monthly to discuss hazardous materials planning, training and equipment issues.

The LEPC Region IV, with assistance from State CAL EMA Inland Region staff serves as lead agency for purposes of preparing and maintaining the HMEP.

Hazardous
Materials
Emergency
Plan
Development
and
Cross
Reference
Table of
Compliance
Hazardous
Materials
Emergency
Plan Review,
Comment

This HMEP was developed in accordance with: Title 42, Chapter 116, Subchapter I, Section 11003 (a)-(g), Hazardous Materials Emergency Planning Guide (NRT-1) National Response Team, LEPC and Deliberate Releases (EPA August 2001). A HMEP Cross Reference Table of Compliance, located on page seven (7), provides the page number in the document where each requirement is addressed.

Prior to being finalized, the 1999 and 2006 HMEP revision was distributed to the agencies on the Hazardous Materials Emergency Plan Distribution List (*Attachment 2*) for review and comment. The local hazmat emergency response teams were also provided a copy for their review and comment. Hard copies are no longer distributed. HMEP revisions are reviewed by the LEPC Region IV during the public meetings. HMEP revisions are posted at <a href="http://www.calema.ca.gov/RegionalOperations/Pages/Plans-for-Inland-Region.aspx">http://www.calema.ca.gov/RegionalOperations/Pages/Plans-for-Inland-Region.aspx</a> During the meetings the public has an opportunity to comment on the HMEP. Members of the public can contact their local CUPA representative noted on *Attachment 1* to review the document.

4. Plan Availability, Review and Maintenance

Distribution

and

In addition to the Cal EMA website noted above, The HMEP can also be viewed at <a href="http://www.edcgov.us/Government/EMD/HazardousMaterials/Hazardous\_Materials\_Plans.aspx">http://www.edcgov.us/Government/EMD/HazardousMaterials/Hazardous\_Materials\_Plans.aspx</a>

The LEPC Region IV and State CAL EMA Inland Region staff are responsible for updating the HMEP. The HMEP is a working document. By statute, the Hazardous Materials Emergency Plan is required to be reviewed and updated annually. The process for updating is as follows:

At the March LEPC meeting, the review of the Hazardous Materials Emergency Plan will be placed on the agenda. A sub-committee will be formed to review the HMEP and make changes if necessary. The Hazardous Materials Emergency Plan review and update should be completed by October of each year.

Each time the HMEP is updated, a Record of Revisions page will be updated by holders of the HMEP which will indicate the changes, the date and the posting individual. This is included in *Attachment 3*.

The State Emergency Response Commission will be sent a revised copy of the HMEP if substantial changes are made to the document.

#### C. HAZARDS ANALYSIS

#### 1. Purpose

Hazards analysis is a critical component of hazardous materials release planning. It includes identifying potential hazards involving accidental releases of extremely hazardous substances, whether they are natural, technological or national security related. Hazards analysis consists of three components, defined as follows:

- a. Hazards identification provides specific information on situations that have the potential for causing injury to life or damage to property.
- b. Vulnerability analysis identifies property and individuals in the community that may be affected by a hazardous materials spill or release.
- c. Risk analysis is an assessment by the community of the likelihood (probability) of an accidental release of a hazardous material and the potential consequences.

This is an on-going task performed at the local level by CUPAs when evaluating facilities' Risk Management Plans and other accident release data. This task would also be useful to perform on a regional level to evaluate any cross county boundary risks. A formal Hazards Analysis for Region IV LEPC will be conducted at a later date if one of the local jurisdictions takes the project lead.

## 2. Identification of Risk Management Plan Facilities

Facilities that exceed threshold amounts of extremely hazardous substances (those chemical on the federal list [40 CFR 68.130] or the state list [19 CCR 2770.1, et. seq.]) in a process are required to prepare a Risk Management Plan (RMP). The California Accidental Release (CalARP) Program merges the federal and state programs for the prevention of accidental releases of regulated toxic and flammable substances and is administered locally by the CUPAs.

The RMPs describe the accidental release prevention and emergency response policies and procedures at each facility. The RMPs contain a hazards analysis and an off-site consequence analysis of an accidental release from facilities. These off-site analyses consider sensitive populations including schools, hospitals, long term health care and child care facilities, park and recreation areas and major commercial, office and industrial businesses.

The RMPs also contain emergency response plans with procedures for notifying and interfacing with the public and emergency response agencies. Facilities are categorized into "responding facilities" and "non-responding" facilities based on the capability to respond to an accidental release at their facility. If "non-responding," they must have a mechanism in place to notify local responders and the facility must make other arrangements for appropriate response (for example, by establishing a mutual aid agreement with an industry or private response team).

**Attachment 4** contains a list of facilities subject to the CalARP program in LEPC Region IV. The list includes the facility coordinator, whether they are a responding or non-responding facility and if they have specialized emergency response equipment.

#### 3. Hazardous Materials Business Plan program

The Hazardous Materials Business Plan (HMBP) program is required by Chapter 6.95 Division 20 of the California H&SC. This law requires businesses which handle hazardous materials over threshold amounts (55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases) to submit a HMBP to the CUPA. A HMBP consists of general business contact information, an inventory of hazardous materials, a map showing the location of the materials and evacuation routes, an emergency response plan and a training plan for employees. All HMBPs are required to be revised annually or plan holders must submit a statement certifying the continued accuracy of the HMBP.

The HMBPs provide information essential to fire fighters, health officials, planners, elected officials and workers in meeting their responsibilities for the health and welfare of the community. The HMBP program also fulfills the community's right to know regarding the presence of hazardous materials in their community.

The HMBPs are on file in jurisdictional CUPA offices. Copies of HMBPs (or electronic versions) are sent to the fire agency having jurisdiction. Beginning January 1, 2013, businesses will be required to submit HMBPs electronically via the State's new California Environmental Reporting System. Emergency responders will be able to directly access this information for hazardous materials emergencies at fixed facilities.

## 4. Terrorism Planning

The State's Terrorism Response Plan, updated in February 2001 discusses how the State of California responds to terrorist incidents within California. Much of the information in the plan is focused on responding to Weapons of Mass Destruction i.e., Nuclear, Biological and Chemical incidents. State and local agencies can use this document in conjunction with the State and Local Emergency plans to develop and revise their plans for responding to terrorist incidents. The State encourages local governments to use the Local Planning Guidance on Terrorism Response when developing their plans. These plans are usually annexes to City or Operational Areas Emergency Operations Plans.

Local first response to a terrorist event is conducted under the National Incident Management System (NIMS) and California's Standardized Emergency Management System (SEMS). These systems form the basis of California's concept of operations for managing any kind of disaster or emergency. Local responders manage all aspects of the incident. The FBI is involved in incident investigation.

The Regional Anti-Terrorism Threat Assessment Center (RTTAC) and FBI Joint Terrorism Task Force (JTTF) have main offices in San Francisco, Sacramento, Los Angeles and San Diego and additional offices in other areas of the State. The RTTAC is a multi-jurisdictional intelligence gathering and threat assessment activity. The RTTAC provides information to the JTTF for follow-up investigation.

In addition, the Federal Department of Homeland Security provides funding to Urban Area Security Initiative (UASI) cities. In California the cities of Sacramento, San Francisco, Los Angeles and San Diego receive funding for purposes of training, conducting drills and terrorism planning.

### D. JURISDICTIONAL SUMMARIES

#### Alpine County



#### a. General

Alpine is California's least populated county with 1220 permanent residents and up to 30,000 during high tourist days. It covers an area of 739 square miles.

Alpine County is located in the heart of the Sierras. It is bordered on the west by Calvarias County, to the North by El Dorado County, to the south by Mono County and the east by Douglas County, Nevada. There are no incorporated towns in Alpine County. The City of South Lake Tahoe and Minden/Gardnerville, Nevada with populations of 25 to 30,000 are the closest neighbors (within 20 miles).

The average elevation is approximately 6500 feet. The entire county receives significant amounts of snowfall each year.

#### **Population Centers**

Markleeville, Woodfords, Kirkwood and Bear Valley are the main population centers in Alpine County.

Other areas of specific health and safety concern are the two schools in the county, Diamond Valley School near Woodfords and Bear Valley School.

#### c. Transportation Routes

- Past incidents have involved fuel spills and transportation accidents on Highway 89 over Monitor Pass. Large trucks frequently travel Highway 88 over Carson Pass to Nevada and Highway 89 over Luther Pass and Monitor Pass to Highway 395. There are no railways in Alpine County or commercial airports. Highway 4 (Ebbitts Pass) restricts commercial vehicles and Highway 89 (Monitor Pass) are closed to winter travel.
- Markleeville, Woodfords, Bear Valley and Kirkwood are communities most likely to be affected by a hazardous materials incident, since they lie along state highways often used by truckers. All these communities have permanent populations of 200 or less.

Past incidents have involved fuel spills and transportation accidents on Highway 89 over Monitor Pass.

#### d. Industry

Alpine County has no industry and few hazardous material handlers.

- There are 4 underground tank sites all located in the Bear Valley community off
  of Highway 4 on the western boundary of Alpine County. There are 40 HMBP
  sites, and two facilities in the Risk Management Plan Program Alpine County
  Water District (chlorine gas) and Kirkwood Power Company (ammonium
  hydroxide).
- There are two major ski areas in Alpine County, one county maintenance yard, 3 Caltrans maintenance yards, Grover Hot Springs State Park, USFS Forrest Maintenance Station and four small service stations as the main hazardous materials handlers and have the most potential for an on-going

hazardous materials incident.

#### e. Sensitive Environmental Areas

Sensitive environmental areas in Alpine County include stream zones, wetlands, flood zones and aquifer recharge zones. Much of Highways 4 and 88 lie adjacent to the East Fork and West Fork Carson Rivets, which could easily be affected in a hazardous materials incident.

Wetlands occur primarily in the Diamond Valley area, but also are located at Kirkwood Meadows and portions of Bear Valley.

Aquifer recharge zones have not been specifically identified, although the most important recharge is probably near Woodfords and Fredericksburg which feed the aquifer within the West Fork Carson River alluvial fan.

#### 2. Amador County

#### General Area



Amador County consists of 593 square miles of rolling hills and mountains. Located approximately 30 miles southeast of Sacramento on the western slope of the Sierra Nevada Mountains, Amador County is part of California's historic Mother Lode region. Elevations range from 200 feet in the low foothills constituting the western portion of the County to more than 9,000 feet in the mountainous peaks of the Sierra Nevada Mountains on the County's eastern boundary. The south fork of the Consumnes River is the northern boundary with El Dorado County and the Mokelumne River forms the border on the south with Calaveras County. The county is bordered to the west by Sacramento and San Joaquin Countries and to the east by Alpine County at the Sierra Nevada crest.

Geographically, the County is divided into two principal regions; the oak woodland "foothills" and a pine forested "upcountry." The lower foothills are typified by gentle rolling hills covered with oaks and grasslands with incised stream valleys. The upcountry in generally steep and rugged with dense pine forests.

Lands to the east of the junction of Shakeridge Road and State Highway 88 are generally held in large blocks and managed for timber production, watershed values, and recreation. Most of the upcountry lands are under the jurisdiction of the U.S. Forest Service. The upcountry contains several resort areas, including Kirkwood Resort, Silver Lake, and Bear River.

#### **Population Centers**

- The County population is currently estimated at 38,940 people, including almost 5,000 persons in institutions such as Mule Creek State Prison.
- Most of the County's population is located in the foothills region, concentrated around or within the County's five incorporated cities; Jackson (the county seat), Sutter Creek, Ione, Plymouth and Amador City. The unincorporated area of Martell between Sutter Creek and Jackson, the site of a former lumber mill, is being developed as a regional commercial and business center.
- Unincorporated communities in the foothills region include Lake Camanche, Drytown, Fiddletown, and River Pines. Upcountry development has occurred around the unincorporated communities of Volcano, Pine Grove, Pioneer and Buckhorn and along Fiddletown Road, Shakeridge Road, and State Highway 88.
   Fifty-nine percent of the County population lives in the unincorporated area.

 The historic cities and towns in the lower elevations attract a strong tourist trade throughout the year. Tourism at the upper elevations is created by winter recreation activities, non-winter camping, backpacking, fishing, and hunting

#### **Transportation Routes**

State Highway 88 (east-west), State Highway 16 (east-west), and State Highway 49 (north-south) are the principal transportation routes within the county. State Highway 26/104 and County maintained Latrobe Road are secondary transportation routes.

Southern Pacific Railroad operates rail lines in the western portion of the county ending at the City of Ione.

 Westover Field, an uncontrolled access airport serving private aviation, is located in Martell.

#### Industry

Agriculture, basic materials mining, construction and light fabrication are the principal industrial activities in the County. Agriculture activities include viticulture, ranching, and timber harvesting.

Hazardous materials usage includes several bulk fuel and propane plants located along State Highway 88 in areas of high traffic. Propane is the principal source of energy of domestic heat in most areas outside of the incorporated cities. Typically, individual propane tanks are supplies by propane delivery trucks.

Gaseous and liquid chlorine are used at regional water and wastewater treatment plants.

Other industries in the unincorporated area using hazardous materials include pyrotechnic and explosive manufacturing plants, antique furniture refinishing shops, and electrical co-generation facilities.

 In total there are 207 facilities in the Hazardous Materials Business Plan Program, 33 facilities in the underground tank program and 1 facility in the Risk Management Plan program.

#### **Sensitive Environmental Areas**

Large areas of Amador County watersheds provide domestic water supplies for areas inside and outside of the county. Potions of the Mokelumne River watershed, the south fork of the Cosumnes River watershed, and the Silver Fork of the American River watershed are vulnerable to chemical releases. Shallow soils and fractured bedrock allow for the vertical movement of chemical contaminants into the groundwater, the primary source of domestic water for most of the unincorporated area.

Portions of State Highways 49 and 88 cross or run near wetlands, streams, and rivers. The alluvial fans and meadow areas act as groundwater recharge zones.

 A portion of Amador County's surface water supply is conveyed through open channeled ditches and canals. These canals and ditches are extremely vulnerable to contamination if vehicles transporting potential contaminants crash and spill in their vicinity.

#### Calaveras County



#### General Area

Calaveras County is one of the state's Mother Lode counties located on the western slope of the Sierra Nevada Mountain Range.

The county covers an area of 1,000 square miles, with elevations ranging from a few hundred feet to nearly 8,000 feet and contains a population of approximately 45.000.

The county is bordered by Stanislaus county to the southwest, San Joaquin county to the west, Amador County to the north, Alpine county to the northeast and Tuolumne County to the south.

#### **Population Centers**

The Highway 4 corridor from the city of Angels Camp to Arnold.

The Mountain Ranch and San Andreas area.

The Highway 12 and 26 corridor in the greater Valley Springs area.

Highway 4 in Copperopolis.

#### **Transportation Routes**

The major highways are identified as State Highways 12, 26, 4 and 49.

The Calaveras County Airport is located at 3600 Carol Kennedy Drive, San Andreas, approximately between San Andreas and Angels Camp.

#### Industry

- Due to the abundance of natural beauty, as evidenced by the many rivers, lakes, state parks, and national forest, tourism is a major industry of the area.
- The major employment sectors of the County are the Government (approximately 29%), service (approximately 23%), and retail (approximately 20%). Industries such as wineries, cattle ranching and farming round out the County's economic base.
- There are 38 underground tank sites, 161 facilities in the Hazardous Materials Business Plan program and one facility in the Risk Management Plan program.

#### Sensitive Environmental Areas

The county's elevation ranges from approximately 180 to 8,100 feet and incorporates a portion of the Sierra Nevada foothills and mountains. The Mokelumne River watershed, the Calaveras River watershed and the Stanislaus River watershed areas are the most extensive watershed areas of the county.

#### El Dorado County



#### **General Area**

El Dorado County covers an area of approximately 1,711 square miles and has a population of 162,000 residents.

Residential dwellings are spread out over large areas, thereby decreasing major evacuation potential.

#### **Population Centers**

The areas of greatest population concentration coincide with the areas of

industrial concentration. Those areas are the South Lake Tahoe Basin, and the Highway 50 corridor from Pollock Pines to El Dorado Hills.

#### **Transportation Routes**

- Highway 50 is the county's main artery and has the greatest potential for a major transportation incident.
- The majority of materials transported via Highway 50 are destined for locations in El Dorado County. Most of the interstate transportation of hazardous materials passing through the area is via Interstate 80 in Placer and Nevada Counties.
- Other transportation routes of concern are Highway 49, Highway 193, Missouri Flat Road and the city surface streets.
- El Dorado County has no active railways. Natural gas pipelines are located in the western end of the county and the Lake Tahoe Basin. Propane gas is supplied to facilities and residences in other areas via truck and onsite storage tanks. Petroleum products are transported throughout the county via truck.

#### Industry

The County is home to 800 regulated hazardous materials handling facilities. Of those 82 have underground storage tanks and two are CalARP facilities storing chlorine gas.

#### **Agriculture**

Agricultural commodities include wine grapes, apples, pears, and peaches. Pasture for rangeland accounts for the largest percent of agricultural land use in the county. Wine grapes and apples are the highest production and highest income yielding crops.

#### Nevada County

#### General



Nevada County covers an area of approximately 958 square miles and contains a population of 98,760. The County is bounded by: Placer County, Yuba County and Sierra County.

Nevada County elevations range from 527 feet at Lake Englebright to 9,143 feet at Mt. Lola.

#### **Population Centers**

 The incorporated population centers are located in Grass Valley, Nevada City and the Town of Truckee. These towns are located in the rural setting of the foothills and mountains of the Sierra Nevada. Unincorporated population centers include Washington, Penn Valley, North San Juan, Rough and Ready, and Lake of the Pines.

#### **Transportation Routes**

#### Roadway

- ✓ The major highways are identified as 20, 49, 89, 174 and Interstate 80.
- ✓ Primary highway transportation routes are Interstate 80 and State Highways 20 and 49.

Materials transported on these highway systems are both traveling through and destined for local use. All hazard classes as defined by Department of Transportation have been observed under transport in Nevada County.

#### Rail

Union Pacific Transportation Company (UP) operates the Trans-Sierra rail line through the Sierra-Nevada Range, East – West, with several miles of rail crossing downtown Truckee. Many more miles, of rail are located within the watersheds of Donner Lake and the Truckee River, both sensitive ecosystems, recreation areas, and drinking water sources. The UP right of way is used for the Kinder / Morgan Petroleum pipeline, a high-pressure underground interstate petroleum pipeline.

#### Airports

There are two rural community Airports one located in Western Nevada County at 13083 John Bauer Avenue, Grass Valley, CA 95945, (530) 273-3374 and the other located in Eastern Nevada County in Truckee California., 10356 Truckee Airport Rd., Truckee, CA 96161, (530) 587-4540

#### Industry

Nevada County Environmental Health's Certified Unified Program Agency maintains an inventory of facilities involved with hazardous material or hazardous waste. Currently the inventory is as follows: 45 underground storage tank facilities, 365 HMBP facilities, 191 hazardous waste facilities, 16 CalARP facilities, and 30 aboveground petroleum storage tank facilities. There are many former and active mines.

#### Sensitive Environmental Areas

The Truckee River, a water source for Reno Nevada, the Yuba River and the Bear River are among the sensitive environmental areas in Nevada County.

Placer County (excludes City of Roseville)



#### General Area

Placer County covers an area of approximately 1503 square miles and has a population of 330,000 residents.

#### **Population Centers**

The areas of greatest population concentration are Roseville, Rocklin and Lincoln. There is an Indian Casino in Lincoln which draws a large number of visitors.

#### **Transportation Routes**

- Interstate 80 and State Routes 28, 49, 65, 89, 193 and 267 run through Placer County.
- Highways, railways, petroleum pipelines, and commercial and military aviation routes constitute a major threat because of the multitude of chemicals and hazardous substances transported along them.
- Union Pacific and Southern Pacific railroad tracks roughly parallel I-80 and SR

65. A large Southern Pacific rail yard is located in Roseville. Kinder Morgan has a petroleum tank farm in the City of Rocklin.

Hazardous materials emergencies have occurred in the past and will occur in
the future along these major transportation routes. These routes run through or
are adjacent to population centers and fragile wilderness areas and ecosystems,
thereby offering the potential for substantial impacts to life, property and the
environment.

#### Industry

Manufacturing and light industrial firms near SR 65 (northeastern Roseville and the Sunset Industrial Area).

There are a number of businesses in each of the incorporated cities (Auburn, Colfax, Lincoln, Loomis, Rocklin, and Roseville).

In total, there are 800 facilities in the Hazardous Materials Business Plan program, 95 underground tank sites and 9 facilities in the Risk Management Plan program.

#### Agriculture

The majority of agricultural industry in Placer County consists of ranching and orchard operations in the western portion of the county and in the vicinity of Auburn.

#### Sensitive Environmental Areas

Businesses in the Tahoe Basin, especially those adjacent to Lake Tahoe, use or store products which may be harmful to the sensitive ecosystems of the area.

#### City of Roseville

# Roseville

#### General Area

The City of Roseville is a fast growing community of approximately 109,150 people covering a 36 square mile area. The city envelopes the largest train marshaling yard west of the Mississippi River, and is divided by Interstate 80 and SR 65. Because of the main transportation routes and the heavy amount of industry, the City of Roseville is extremely susceptible to a hazardous materials incident.

#### **Population Areas**

The city is very diverse, having dense residential areas surrounded by retail, commercial, and industrial properties.

#### **Transportation Routes**

- The potential for significant hazardous materials incidents exists on the major routes of transportation through the City of Roseville, Interstate 80, and State Route 65.
- I-80 divides the city and runs through residential, retail, commercial and industrial areas of the city, including hospitals and schools.
- Approximately 1 million shipments of hazardous materials are transported in bulk through the City of Roseville annually.
- SR 65 which passes through the north end of the city through mostly commercial and industrial areas carries approximately 61,000 hazardous materials

shipments per year.

- There are four sites in the city which have above ground storage tanks containing >8,000 gallons of diesel.
- Additionally, the Southern Pacific Rail Yard also divides the City of Roseville:
   The rail yard is the largest rail marshaling yard west of the Mississippi,
   encompassing 106 miles of yard track and 60 miles of main line. On this track run
   400 hazardous materials shipments per day. The rail yard poses the greatest
   threat to the City of Roseville due to it's proximity to the heavily populated retail
   district and the quantity of material hauled in any one car. 2 million gallons of
   diesel storage on-site.
- A series of pipelines runs parallel to the rails throughout the City of Roseville: Two pipelines measuring 10" and 12" run 24 hours per day along the entire length of the city. The high-pressure pipelines transport flammable liquids at approximately 5,000 barrels per hour. There is also a 6" pipeline running between Roseville and Rocklin which operates approximately 8 hours per day, three days per week, delivering 3,000 barrels per hour. These pipelines also pose significant threats to the city due to the quantity transported and the time delay in stopping the flow should a leak occur. A large high pressure natural gas line also dissects the city running along the north-south axis.

#### Industry

It is home to large industrial firms including NEC, H.B. Fuller, Hewlett Packard, and others including the city's wastewater treatment plant which uses chlorine gas. HB Fuller receives weekly rail shipments of vinyl acetate. NEC continues to use the very powerful oxidizer CLF3. HP is storing quantities of compressed natural gas. There are two major hospitals in the city, both of which store and cryogenic gases.

The city operates a waste water treatment plant and an electrical generation plant in the west. Because major infrastructure is not yet complete in that area, hazardous materials serving those two plants are being delivered via residential streets raising concerns about potential releases in those areas.

There are 294 HMBP sites, 54 underground tank sites and 41 facilities in the Risk Management Plan program.

#### Sensitive Environmental Areas

Wetlands - Highway 65 and the railroad run through very sensitive vernal wetlands along the northern border of the city. A release in this area could cause significant damage to the environment.



Sacramento City and County

#### General Area

Sacramento County covers an area of approximately 994 square miles and according to the most current US Census Bureau statistics contains a population of 1,424,400. Sacramento County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west. Sacramento County extends from the low delta lands between the Sacramento and San Joaquin rivers north to about ten miles beyond the State Capitol and east to the foothills of the Sierra Nevada Mountains. The southernmost portion of Sacramento County has direct access to the San Francisco Bay. The terrain is predominately flat.

#### **Population Centers**

Population centers are generally located in the metropolitan area of the City of Sacramento and the northern portion of the unincorporated county, the Cities of Citrus Heights, Folsom and Rancho Cordova in the east and the cities of Elk Grove and Galt in the south.

#### **Transportation Routes**

The county has major truck transportation routes in Interstates 5, 50, 80, and 99, and state highways 12, 16, 104, and 160. A major proportion of hazardous materials pass through the county on its way to other destinations on the interstate freeways.

There is significant deep water ship and barge transport of hazardous materials in the southern areas of the county, namely from the mouth of the Deep Water Channel south. There is limited traffic of hazardous materials on the Sacramento River.

There are shipments of hazardous materials in and through the county on railroads of the Southern Pacific Transportation Company and the Union Pacific Railroad Company. There are minor shipments of hazardous materials from Sacramento Metropolitan Airport, Sacramento Executive Airport, and Mather Business Park.

Kinder Morgan, a private energy company, maintains several natural gas and petroleum pipelines throughout the County.

#### Industry

The metropolitan area of the County of Sacramento accounts for most of the industry in Sacramento County. Hazardous materials are found in facilities in the metropolitan area. The county requires each pertinent facility to have a hazardous materials business plan, risk management and prevention program, and an underground storage tank permit, along with the other hazardous materials controls and limitations. There are:

498 underground tank sites

3,907 facilities in the Hazardous Materials Business Plan Program

2.893 hazardous waste facilities

44 facilities in the Risk Management Plan program (Fed and CalARP)

#### Agriculture

Sacramento County lies in the middle of the 400-mile long Central Valley, which is California's prime agricultural region.

#### Sensitive Environmental Areas

The creeks running through the base feed the Sacramento River, and there are ponds and wetlands located on the west side of the base.

#### San Joaquin County



#### General

 San Joaquin County covers an area of 1,450 square miles with a population of just over 685,660.

#### **Population Centers**

Nearly three fourths of the population lives in incorporated areas, which include the Cities of Stockton, Lodi, Manteca, Tracy, Lathrop, Ripon, and Escalon.

Large unincorporated towns include Thornton, Mountain House and Lockeford.

#### **Transportation Profiles**

#### Roadways:

Major intrastate and interstate transportation links crisscross San Joaquin County. Major routes include Interstate Highways 5, 205, 580, and State Highways 4, 12, 26, 33, 88, 99, and 120. Most of these routes converge in or near the Stockton metropolitan area.

#### Pipelines:

Three major pipelines, which carry hazardous materials, cross the county.

#### Rail:

The Southern Pacific, Union Pacific, and Santa Fe Railroads all have major northsouth and east-west lines through the county, along with significant switching and maintenance facilities in the Stockton metropolitan area.

- ✓ Rail lines use a large number of bridges and raised tracks for crossing the numerous waterways in the county.
- ✓ The potential for spills into waterways leading to the pumping stations for Delta-Mendota Canal in the southern part of the county is high.
- ✓ There are two major container-loading facilities within the County.
- ✓ Amtrak and as well the Altamont Commuter runs through the County.

#### Port:

The Port of Stockton provides a major shipping destination through the San Joaquin River shipping channel. This channel was deepened to 35 feet, allowing its use by even larger ships loaded with agricultural and industrial chemicals. The port handles large quantities of materials classified as extremely hazardous materials.

#### **Airport**

The Stockton Metro Airport has lengthened its runways to accommodate fully loaded large transport aircraft. Traffic includes Farmington Fresh overseas produce deliveries and a single airline. The Airport also hosts an Air National Guard unit.

#### Industry

The county can be described as a major agribusiness area, with a rapidly expanding

industrial and population base. Significant chemical manufacturing and storage facilities serving agriculture and industry are located in the county and use its major transportation links for their raw materials. The growing industrial base is rapidly increasing the risk of hazardous materials incidents and their potential severity.

Currently there are 2,939 Hazardous Materials Business Plans on file, 135 businesses in the CalARP program, and there are 252 underground storage facilities with 683 separate underground tanks.

#### **Government Installations**

The County has Tracy Defense Depot and Sharpe Depot. Both facilities belong to Defense Logistics. Both facilities ship large quantities of various types of materials including hazardous materials on the various transportation routes in the County. There is an Army Air National Guard unit located at the Stockton Metro Airport.

#### Sensitive Environmental Areas

San Joaquin County lies entirely within the northern San Joaquin Valley at the convergence of several river systems, including the Calaveras, Mokelumne, Consumnes, Stanislaus, and San Joaquin Rivers. Approximately 30 per cent of the county area is legally classified as part of the Sacramento-San Joaquin Delta. Over 1,000 miles of levees protect area near and below sea level.

#### 10. Stanislaus County

#### a. General Area

- Stanislaus County covers 1494 square miles and contains a population of 525,900.
- The population centers within the county are urban with the remainder of the county being rural and agriculture based. The county is primarily agribusiness with increased commercial and industrial bases growing within the populated areas of the county
- The county is bordered by the San Joaquin county and San Joaquin River to the north and Merced county to the south. To the west of the county is Santa Clara County and Tuolumne County to the east.

#### **Population Centers**

Population centers are located within the nine incorporated cities in the county-Ceres, Hughson, Modesto, Newman, Oakdale, Riverbank, Turlock and Waterford.

#### **Transportation Routes**

- The major highways within the county are identified as Interstate 5, Highways 99, 33, 108, 120 and 132. Interstate 5 and Highway 99 both transport hazardous chemicals north and south within the county.
- There are three major railways that provide transportation: Southern Pacific, Union Pacific, and Santa Fe. These railways crisscross the county and have several bridges and raised lines that cross rivers and roads.
- There is one general aviation airport in the county, Modesto City-County Airport.

There are six major pipelines that carry hazardous materials through the county.

#### Industry

There are 223 underground storage tank sites, 1987 facilities in the Hazardous Materials Business Plan program, and 59 facilities in the CalARP program.

#### Agriculture

The agriculture base consists of field crops, orchards and dairy.

## 11. Tuolumne County



#### General

Tuolumne County covers an area of approximately 2,236 square miles and has a population of 58,000.

Most of the county is fairly rural, with the majority of the population residing along Highway 108.

There are large expanses of land that are not accessible to daily business activity, such as Yosemite National Park and various designated wilderness areas.

#### b. Population Centers

The rural towns of Sonora, Jamestown, Columbia, Groveland, Big Oak Flat, Soulsbyville, Tuolumne City, Twain Hart, Sierra Village, Mi Wuk, Long Barn and Strawberry are the main population centers.

#### **Transportation Routes**

The major highways are identified as 49, J59, 108, 120, and 108/120.

For the most part, all of the highways, except Highway 49, are "non-through routes" and are used primarily to access only those businesses within the county.

The Sierra Railroad, which bisects the county into north and south halves, is used primarily for the transportation of lumber products and those chemicals associated with their processing. These chemicals come in large quantities and are often containerized in synthetic bladders.

#### Industry

Approximately 240 businesses fall under hazardous materials reporting requirements, 38 facilities are in the underground tank program and two are covered in the RMP program. One facility handles anhydrous ammonia and one handles chlorine gas.

Most of these constitute what the county's area plan defines as "small to medium user sites" and usually handle commonly used chemicals, such as petroleum products, gases, etc.

Some of the "medium to large user sites" consist of hydroelectric plants, mines, bulk fuel and propane plants, water treatment facilities, and lumber mills.

Many of the above facilities are nestled in and around businesses and residences. There are several facilities that are very close to hospitals and other care facilities.

#### Special Populations

Several bulk fuel and propane plants are located very close to one remaining hospital, extended care units and schools.

Many schools and residences are located close to water treatment units.

#### f. Sensitive Environmental Areas

Much of the county's geology consists of fractured rock, limestone or porous granites. All three formations facilitate the movement of chemicals into groundwater.

Surface water supplies approximately 60% of the county's drinking water (via 30 surface water plants) with wells providing the other 40% (via 109 small public water systems and numerous domestic wells).

Rivers and lakes used for drinking water and recreation are numerous and could be subject to chemical releases.

Some parts of two major watersheds (the Stanislaus and Tuolumne Rivers) within Tuolumne County are vulnerable to chemical releases.

Yosemite National Park and many designated wilderness areas make up a large part of the county; however, these areas are fairly isolated from chemical releases (except for illegal dumping).

#### 12. Yolo County

#### a. General



Yolo is a rural agricultural county covering an area of approximately 1034 square miles and contains a population of 199,050. Yolo County and the City of West Sacramento are bordered on the east side by the Sacramento River.

#### b. Population Centers

The population centers are the cities of Davis, West Sacramento, Winters, and Woodland. The University of California at Davis supports a population of about 30,000 students

#### c. Transportation Routes

The major truck transportation routes include Interstates 5, 80, and 505 and State Highways 113 and 16. Hazardous materials are transported on all of these routes. There is a significant amount of material transported on 1-80 and 1-505 that is not destined for delivery within Yolo County. Agricultural related hazardous materials are transported via highways and county roads usually from commercial warehouses to farms.

#### Ports:

Ships carrying hazardous material reach the Port of Sacramento via the Sacramento Deep Water Channel. The Port is located in West Sacramento. There is a large fertilizer plant near the port that receives shipload quantities of anhydrous ammonia.

Rail:

Rail carriers in the county are Southern Pacific Transportation Company and the Sacramento Northern Railroad.

#### d. Industry

- The cities of West Sacramento and Woodland account for most of the industry in Yolo County.
- There are 106 underground tank sites, 1,037 facilities in the Hazardous Materials Business Plan program and 12 facilities in the Risk Management Plan program.

#### E. TRAINING AND EXERCISES

#### Training Overview

Personnel involved in hazardous materials response participate in an ongoing program to continually meet the training requirements as established by State and Federal regulations. Training standards are defined in California Administrative Code Title 19, Section 2725; Federal OSHA, 29CFR 1910.120; and Cal OSHA Title 8, CCR Subchapter 7, Section 5192, Title 19, Section 2428 (SEMS) and Homeland Security Presidential Directive/HSPD-5.

The following topics are covered in training courses:

Health and safety procedures for response personnel

Use of emergency response equipment and supplies

Procedures for access to mutual-aid resources

Identification of medical facilities

Evacuation plans and procedures

Monitoring and decontamination procedures for personnel and equipment

First-aid procedures

Procedures for informing the public

Psychological stress

National Incident Management System (NIMS)

Standardized Emergency Management System (SEMS)

Weapons of Mass Destruction

Terrorism

There are a variety of organizations that provide training to meet Federal and State standards. The California Emergency Management Agency provides information on required training and also provides training via the California Specialized Training Institute (CSTI), which is the training branch of CAL EMA. CSTI provides certified training for hazardous materials response, including the Standardized Emergency Management System (SEMS), First Responder Awareness and Operations, Hazardous Materials Specialist and Technician, Incident Command, Safety Officer, Train the Trainer and Executive Management courses. Specialized courses in radiological response, decontamination, rail cars and cargo tank, clandestine drug labs, response to terrorist incidents involving

nuclear, biological and chemical weapons, and criminal investigation of environmental crimes are also provided. Cal EMA is responsible for coordinating and monitoring the integration of SEMS and NIMS.

The California Specialized Training Institute offers a full spectrum of training classes for all levels of government. The course catalog and schedule can be viewed at <a href="https://www.csti.ca.gov">www.csti.ca.gov</a>. Courses are scheduled contingent upon the availability of funding. The State CAL EMA prepares and disseminates a training schedule to local emergency management agencies, local law enforcement agencies, and local fire departments. Agencies within the LEPC Region IV area recruit participants for these courses from local emergency response agencies and organizations. Training methods include classroom lecture, online courses, field exercises, and incident critiques.

Other sources for training include public institutions such as California State Universities, Community Colleges and University of California systems. There are also hazardous materials extension classes offered at University of California at Davis as well as other colleges and universities. The web site for UC Davis Extension is <a href="http://extension.ucdavis.edu">http://extension.ucdavis.edu</a>.

The Continuing Challenge Hazardous Materials Emergency Response Workshop is held in Sacramento on an annual basis. This premier workshop for hazardous materials emergency response personnel is another forum for training, networking and hands-on learning opportunities. It is sponsored by local, state and federal government as well as private organizations. The website is <a href="www.hazmat.org">www.hazmat.org</a>.

Private companies also provide training on all aspects of hazardous materials response, incident command, SEMS and NIMS.

## 2. Training Documentation

Each local government agency is responsible to assure that local emergency response personnel receive adequate hazardous materials training annually. The county or local agency maintains records of training completed by their personnel. These records are updated to reflect refresher training taken.

#### 3. Training Completed and Needs Assessment

In 2006, a survey was conducted of training completed for each CUPA agency and corresponding Hazmat response team. The survey focused on Hazmat response teams but also included CUPA agency personnel which in most cases respond to hazardous materials events in some capacity. Categories such as First Responder Awareness, First Responder Operational, Hazardous Materials Technician and Specialist, SEMS and NIMS were included. *Attachment 5* which describes the training completed for each CUPA Agency and response agencies in LEPC Region IV as of 2006. This information has not been updated. It has been replaced to some degree by Cal EMA's hazmat team typing. Typed teams must have a minimum number of trained Technicians and Specialists. Information on team typing is included in Section H. 3.

A needs assessment of Hazardous Materials equipment, teams and training will be undertaken by Region IV LEPC during a future HMEP grant cycle. The preparedness of first responders to respond at all levels will be evaluated. The response areas of regional hazmat teams will be evaluated as well. This

information and incident statistics will be used to allocate resources in the future.

## 4. Drills and Exercises

Exercises and drills need to be conducted periodically to evaluate the adequacy of the hazardous materials emergency plan and the skills of the emergency response personnel. Results of exercises and drills provide a basis for changes in the response plans, in implementing procedures, and for future scheduling of training for emergency response personnel. Each agency periodically conducts exercises at the tabletop, functional and full scale levels involving hazardous materials incidents.

A drill is a brief repetition of one specific action and is usually conducted by individual agencies or businesses to assure that their personnel know and understand their internal standard operating procedures. Exercises should have an after action report or exercise critiques to ensure that the exercise met its objective and to clearly define additional planning or training that may be necessary.

Grant money is available through the State CAL EMA Hazardous Materials Emergency Planning (HMEP) grant program to conduct training and tabletop exercises. In the 2011/2012 HMEP grant cycle both Nevada and Stanislaus Counties will conduct hazmat emergency exercises.

#### F. NOTIFICATION AND REPORTING

#### Notification and Dispatch

If there is a threatened or actual hazardous materials release, the following information should be reported immediately:

Who is making the notification and who is the responsible party?
Where did the release occur? (exact location, address and county)
What was the material involved in the release/threatened release?
What was the quantity released?
What are the potential hazards presented by this release, if known?
How did the release happen?
Whether or not a body of water is affected.
Local agencies that are on-scene and/or notified
What containment and/or cleanup actions have been taken?

At a minimum, this information needs to be reported to:

- √ 911 or the local emergency response agency; and
- ✓ CUPA/AA/PA if different from the 911 agency and
- ✓ California State Warning Center (800) 852-7550

When the 911 report is received, the emergency dispatch agency notifies the appropriate law enforcement, fire agencies and environmental agencies. The public agency first on-scene may request needed resources through dispatch. The California State Warning Center should be the next agency notified. The Incident Commander (IC) may notify other agencies as needed such as the Department of Fish and Game, Public Utility Districts, or the Federal National Response Center, depending on the nature of the incident.

The CAL EMA Notification guide can be found at:

http://w3.calema.ca.gov/WebPage/oeswebsite.nsf/PDF/How%20to%20handle%2 OHazardous%20Spills/\$file/EmergencyPreparednessHotTopic.pdf

CalEMA's Warning Center web page is:

http://www.calema.ca.gov/ThreatandResponse/Pages/Warning-Center.aspx

If a significant number of casualties, potential casualties or contaminated casualties are involved, the Emergency Dispatch Agency notifies the appropriate Emergency Medical Services personnel and hospitals.

Each agency has a comprehensive list and telephone numbers of agencies, resources and emergency contractors to be contacted in an emergency. For LEPC Region IV, CAL EMA has compiled an Inland Region Phone Directory of emergency managers, administrators and police and fire chiefs which could be a valuable resource in a regional emergency. This annually updated Phone

#### 2. Business Notification Requirements

a. Verbal Notification Any handler (any business that handles hazardous materials), employee, authorized representative, agent or designee of a handler who has knowledge of an actual or potential release of hazardous materials must *immediately* verbally notify the following agencies:

911 or the local emergency response agency; and

CUPA/AA/PA if different from the 911 agency and

California State Warning Center (800) 852-7550 or (916) 845-8911

#### **Additional Agencies**

**National Response Center at (800) 424-8802** if the spill equals or exceeds Federal Reportable Quantities, or *any amount* of oil reaching or having the potential of reaching navigable waters of California. Federal reporting requirements are summarized at

#### http://www.epa.gov/superfund/policy/release/rg/

Section 2703 of Title 19, CCR details the criteria to determine if a release of hazardous materials is reportable under State law. Verbal notification must be made if the release or potential release:

Poses a hazard to human health and safety, property or the environment (notification should be made even if the impacts are potential or delayed).

Or

Is equal to or exceeds the CERCLA Federal Reporting Quantity (RQ) of an extremely hazardous material – listed in 40 CFR, Part 355, Appendix A. This list can be found at the following web site:

Or

The release is equal to or exceeds the EPCRA Federal Reporting Quantity (RQ) of a hazardous substance – listed in 40CFR, Chapter 1, Subchapter J, Section 302.4. These lists can be found at:

http://www.epa.gov/oem/content/reporting/rgover.htm

#### b. Written Notification

A business is required to prepare a written follow-up notice (within 30 days of the release) if a release of an extremely hazardous substance (40 CFR, Part 355, Appendix A) or hazardous substance (40 CFR, Chapter 1, Subchapter J, Section 302.4) exceeds the Federal Reporting Quantity. Section 2705 of Title 19, CCR details the format for the notice and where the notice should be sent. The blank follow-up notice can be obtained at:

http://www.calema.ca.gov/HazardousMaterials/Documents/Summary%20of%20Spi ll-Release%20Statute%20and%20Regulations.pdf

The completed notice should be submitted to CAL EMA, acting on behalf of the SERC/LEPC, Attn: Section 304 Reports, 3650 Schriever Ave., Mather, CA 95655. A transporter must fill out a U.S. Department of Transportation Hazardous Materials Incident Report System (HMIS) form for all incidents reported to the National Response Center or when there is an unintentional release of hazardous materials during transportation. Additional information on US DOT incident reporting requirements can be found at:

http://www.phmsa.dot.gov/hazmat/incident-report

An HMIS report form is available at:

http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/IncidentForm010105.pdf

#### 3. Response Agency Notification Requirements

Although the bulk of the responsibility for notification lies with the private sector, responding agencies must also make the appropriate notifications as follows:

State agencies and department that become aware of significant situations must notify the State Warning Center.

Any local or state agency responding to an oil spill must also notify the State Warning Center (GC 8670.26). (800) 852-7550.

Any emergency rescue personnel responding to a hazardous substances spill within one-half mile of a school must notify the superintendent of the affected school district (H&SC 25507.10).

Any designated government employee (defined in GC82019) must report any hazardous waste discharge which is likely to cause substantial injury to the public health or safety that they become aware of within their jurisdictional boundary within seventy-two hours to the local health department or board of supervisors (H&SC 25180.7).

The IC is responsible for ensuring that the required notifications are made. The IC directs the Dispatch agency to contact the required agencies. Fire and Law

agencies are required to report incidents on electronic forms such as the National Fire Incident Response System (NFIRS).

# 4. California State Warning Center

The California State Warning center is a single point of notification for all state agencies, as well as federal and local agencies. When adequate spill information is received, the California State Warning Center issues a spill control number to the incident that can be used to track various activities associated with the incident.

Notifying the California State Warning Center satisfies the requirements to notify the State Emergency Response Commission and the LEPCs as required under Section 304 of SARA Title III.

#### G. MANAGING EMERGENCY OPERATIONS

National Incident Management System (NIMS), Standardized Emergency Management System (SEMS) and the Incident Command System (ICS) The National Incident Management System (NIMS) is used to manage response to multi-agency and multi-jurisdiction emergencies. NIMS establishes standardized incident management processes, protocols, and procedures that all responders, federal, state, and local,-- use to coordinate and conduct response actions. The California version, known as SEMS, the Standardized Emergency Management System, was updated in 2004 to be consistent with the National Homeland Security Program. SEMS standardized the principles and methods of emergency response in California. The Incident Command System (ICS) operates under SEMS and is an efficient tool for responding to all types of incidents. All local fire departments use the ICS when responding to incidents. Under the ICS structure, the IC has the primary responsibility and the authority to activate a response consistent with the HMEP.

Standardized Emergency Management System (SEMS) SEMS was established to provide an effective response to multi-agency and multijurisdictional emergencies in California by standardizing key elements of the emergency management system. SEMS incorporated the following key components:

Multi-agency or interagency coordination;

State's Master Mutual Aid Agreement and existing mutual aid systems;

Operational Area concept and

Use of the Incident Command Systems

Details of the SEMS concepts and organizational levels can be found in the Hazardous Materials Incident Tool Kit (2010) at the following website:

http://www.oes.ca.gov/WebPage/oeswebsite.nsf/OpenBranchContent/2E4692EB75C69 6C888257433007EBC9E?OpenDocument

#### Incident Command System

The Incident Command System is a management system designed to improve emergency response operations of all types and complexities. The five functions of the ICS organization are management (command), operations, planning and intelligence (information), logistics and finance and administration. The Hazardous Materials Incident Tool Kit provides a very detailed explanation of the Incident Command System, principles and structure and can be found at the address listed in the SEMS section

above:

A brief description of the roles of the command staff positions of the standardized ICS system follows:

**Incident Command –** The Incident Commander (IC) or Unified IC has overall management, coordination and responsibility over an incident. The IC is responsible for evaluating needs, identifying resources and procuring resources to abate the incident, protect life, environment and property.

**Liaison Officer** – For multi-jurisdictional incidents, the Liaison Officer is the point of contact for representatives from other agencies.

**Public Information Officer -** The Public Information Officer (PIO) is responsible for developing accurate and complete information regarding the incident cause, size, current situation, resources committed, and other matters of general interest.

The PIO is the point of contact for the media and other government agencies desiring information about the incident. In both single and Unified Command structures, only one PIO is designated, although assistants from other agencies or departments may be appointed.

**Safety Officer** – A Safety Officer position is mandated for all hazardous materials incidents. The Safety Officer develops and recommends measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Preparing the Site Safety Plan is an important role of this position.

**Planning Section Chief-** The Planning Section Chief is responsible for collecting, evaluating, and disseminating information about the development of the incident and the status of resources. This person supervises the preparation of the Incident Action Plan outlining objectives, strategy, organization, and resources necessary to effectively mitigate an incident.

**Logistics** - The Logistics Section is responsible for ensuring that all of the necessary personnel, equipment, facilities, and services are obtained and delivered in support of incident response and recovery operations. Communications come under this section.

**Finance/Administration** - The Finance Section is responsible for all financial and cost analysis aspects of an incident (usually only established on large and complex incidents).

**Operations Section Chief** – The Operations Section Chief is responsible for managing all tactical operations to control the incident, including response and recovery. The Operations Chief provides resources to assist in securing and maintaining immediate control of the incident until the situation has been stabilized. The Incident Action Plan Operations Section is carried out by the Operations Chief.

4. Hazardous Materials Group The FIRESCOPE (Firefighting RESources of California Organized for Potential Emergencies) Hazardous Materials Module to the Incident Command System provides an organizational structure for responding to hazardous materials incidents. The primary functions are directed by the Hazardous Materials Group Supervisor.

#### Supervisor Positions

Hazardous Materials Group Supervisor - The Hazardous Materials Group Supervisor directs the overall operations of the Hazardous Materials Group and reports to the Operations Section Chief. The Hazardous Materials Group Supervisor is responsible for implementing Incident Action Plan sections related to Hazardous Materials Group operations. They assign resources and job functions within the Hazardous Materials Group, report operational progress and resource status.

Reporting to the Hazardous Materials Group Supervisor are six positions including Site Access Control Leader, Decontamination Leader, Safe Refuge Area Manager, Entry Leader, Assistant Safety Officer-Hazardous Materials and Technical Specialist–Hazardous Materials Reference. A brief description of the responsibilities of these positions follows:

Site Access Control Leader is responsible for managing and tracking personnel movement and equipment used in the Control Zones. The Site Access Leader ensures that contaminants are controlled and records are maintained.

**Decontamination** Leader is responsible for managing decontamination operations.

Safe Refuge Manager is responsible for evaluating and prioritizing victims for treatment, collecting information from the victims, and preventing the spread of contamination by these victims.

**Entry Leader** is responsible for managing the entry team operations within the "Hot or Exclusion" zone. This includes rescue, materials identification, containment and control of the release.

Assistant Safety Officer-Hazardous Materials reports to the Incident Safety Officer and coordinates with the Hazardous Materials Group supervisor and provides advice on all aspects of health and safety and has the authority to stop or prevent all unsafe acts. It is mandatory that an Assistant Safety Officer-Hazardous Materials be appointed at all hazardous materials incidents.

**Technical Specialist-Hazardous Materials Reference** provides technical information and assistance to the Hazardous Materials Group Supervisor. Reference sources such as computer databases, technical journals, CHEMTREC, and phone contact with facility representatives are used.

The ICS HazMat Position manuals can be found on the FIRESCOPE web site at <a href="http://www.firescope.org/ics-hazmat-pos-manuals.htm">http://www.firescope.org/ics-hazmat-pos-manuals.htm</a>.

#### H. EMEGENCY RESPONSE PROCEDURES

#### 1. Facilities

Facilities are responsible for making a verbal notification to the local emergency response agency, CUPA (if different from the 911 agency) and the California State Warning Center immediately of a release or threatened release that could pose a hazard to human health and safety, to property or the environment.

Facilities must implement their emergency response plans. Some facilities have emergency response teams on-site which can enter the "hot zone" and take necessary actions to mitigate the release but a majority of facilities are considered "non-responding". If the facility has an emergency response team, these persons would take direction from the Incident Commander on-scene and fill in roles as the Incident Commander requests.

Facilities handling hazardous materials must have at least two persons designated as Emergency Coordinator (one alternate) and these persons need to have direct knowledge of the process and controls at the facility and would serve as the liaison to the local emergency response agency. This person also has the authority to expend facility funds for emergency clean up actions by contractors. If needed, they would order the evacuation from the building and direct employees to follow procedures for assembly at a designated location. The Emergency Coordinator is responsible for the following activities:

- Activate facility alarms and communications which initiate an on-site response.
- Notify appropriate local, state, and federal agencies.
- Immediately identify characteristics, source, amount and area of release.
- Assess possible hazards by considering both the direct and indirect effects of the release.

They are responsible for determining the cause of the release, if any changes need to be made to the Emergency Response Plan or operating procedures to avoid future releases and to provide a written emergency release follow-up form or report to the CUPA. They are responsible for any costs associated with mitigating the release which could be billed by the CUPA or other agency.

#### 2. Local Government Emergency Response

Local governments are responsible for directing and coordinating emergency operations within their geographic boundaries. Each local jurisdiction designates an Incident Commander as identified in their emergency plan. The Incident Commander directs and oversees response activities as identified in their standard operating procedures (SOPs) The Incident Commander, working with a Community Emergency Coordinator, performs the following functions:

- Establish a command post location, evaluate the situation, and implement protective measures (evacuation or shelter-in-place)
- Notify the State Warning Center of the situation and request mutual aid
- Rescue victims, if it can be done safely with available PPE
- Provide emergency medical care, including decontamination.

- Activate the local operations emergency center (EOC) as necessary
- Acquire and deploy necessary resources according to the plan.
- As necessary, recommend proclamation of a local emergency
- Stabilize and secure the scene to ensure the protection of life-safety, property and the environment from hazardous materials releases and threatened releases

Under SEMS, the Local Emergency Coordinator is responsible for opening and closing of Emergency Operations Centers in their response area. The list of Community Emergency Coordinators is included as *Attachment 1*.

#### 3. HazMat Response Teams

Hazardous Materials Response Teams, also known as HazMat "Resources" within FIRESCOPE, are categorized according to State standards in terms of training, staffing levels and required equipment. Following is a description of the capabilities of the various types of companies (from FIRESCOPE):

- A Type III company is one that is appropriately equipped and trained to handle, and can function in all categories, for all known industrial chemical hazards, in liquid, aerosol, powder and solid forms. They are not expected to be fully equipped to intervene and handle vapor/gas emergencies, nor incidents involving WMD chemical and biological substances.
- A Type II company is one that meets all Type III requirements, and is appropriately equipped and trained to handle, and can function in all categories, for all unknown industrial chemical hazards, in liquid, aerosol, powder, solids, and vapor and gas forms. They are not expected to be fully equipped to intervene and handle incidents involving WMD chemical and biological substances.
- A Type I Company is one that meets all Type III and Type II requirements, and is appropriately equipped and trained to handle, and can function in all categories, for all known and unknown WMD chemical and biological substances.
- Un-typed team is one which has not applied for

The following are the Haz Mat Teams with in Region IV. (As of 12/13/10)

Minimum staffing levels are:

Type 3 – Five members trained to CSTI *HMT* (160 hour)

Type 2 – Five members trained to CSTI *HMS* (80 additional hours), in addition to the HMT requirements

**Type 1** – Seven members trained to CSTI *HMS*, and also trained to CSTI *HM/Weapons of Mass Destruction: Terrorism* [Title 19 CCR 2520(ff)] or equivalent.

At least one (1) member of teach team must have also completed the CSTI Assistant Safety Officer/Haz-Mat course [Title 19 CCR 2520(r)], or equivalent [ICS-HM-222-5]. The following are the Haz Mat Teams with in Region IV. (As of 12/13/10)

County	Туре	Agency	Unit Designation
Alpine	Un-typed	Calaveras Sheriff's	
		Department	
Amador			
Calaveras	Un-typed	Calaveras Sheriff's	
		Department	
El Dorado	Un-typed	El Dorado County EMD	
Nevada	Type II	Truckee F.P.D. (managed by	HM-1
		Placer County)	
Placer	Type I	Roseville City Fire	HM-1
	Pending	Placer Co Interagency,	HM-10
	Type II	housed in Bowman	
Sacramento	Type I	Sacramento City Fire	HMRT-7
	Type I	Sacramento City Fire	HMRT-30
	Type I	Sacramento Metro F.P.D.	HM-109
San Joaquin	Un-typed	San Joaquin OES and Fire	
		Agencies in County	
Stanislaus	Un-typed	Stanislaus Env. Resources	
		and Fire Agencies in County	
Tuolumne	Un-typed	Calaveras Sheriff's	
		Department	
Yolo	Un-typed (1	Joint Team including UC	
	Team)	Davis, City of Davis, City of	
		Woodland, City of West Sac,	
		Yolo County EH	

Total Haz Mat Teams for Region IV are (as of 12/13/10):

Type I	Type II	Type III	Un-typed
4	1	0	6

The 11 counties in Region IV are also referred to as "Operational Areas". Each Operational Area has an Operational Area Coordinator and an identified Operational Area Dispatch Center. Each Region has a "REOC", Regional Emergency Operations Center. Region IV REOC is located at the Cal/EMA Headquarters Bldg in Mather.

Mutual aid requests for hazmat typed team assistance must be submitted by local agencies to the Operational Area Fire and Rescue Coordinators (OAFRC). The OAFRC evaluates requests for assistance from local agencies and determines if resources from within the operational area can provide sufficient assistance. If not the OAFRC determines if sufficient assistance is available from an adjacent operational area and if so, request assistance from the adjacent OAFRC. When resources are needed from more than one adjacent area, the request must be made to the Regional Fire and Rescue Coordinator. Adjacent OAFRCs and the Regional Fire and Rescue Coordinator may request response by typed hazmat teams. California's hazmat mutual aid system is further described in *Attachment 7* Cal EMA Bulletin #20. *Attachment 7* also includes a complete list of all typed teams in the State and map showing where the typed teams are located.

#### 

The decision to evacuate or shelter-in-place is the responsibility of IC or Unified

#### Shelter-in Place Planning

Command. The need to take some form of protective action is a decision that must be determined quickly and often with a lack of definitive data to assist the decision-makers. The decision to evacuate may be based on the Department of Transportation (DOT) Emergency Response Guidebook, or other guidelines. The IC may also consult with the County Health Officer.

The IC consults with the appropriate ICS positions (such as Safety Officer and Technical Specialist), technical references and any agency necessary (such as CHEMTREC, Poison Control and OEHHA) to obtain information about the health properties of the material. The IC must evaluate area topography, meteorology, hydrology, demography and facility characteristics, including the delineation of potentially impacted areas. A Telephone Notification System can be used to notify residents and business of actions to take to either shelter-in-place or evacuate.

The evacuation warning should include such information as:

- Reason for evacuation
- Type of evacuation (voluntary or mandatory)
- Best available routes out of the area
- Location of reception and care facilities, if established
- Anticipated duration of the emergency and
- Time remaining before the situation becomes critical

An Incident Action Plan (IAP) should be developed to assist in the decision to shelter-in-place or evacuate and may include the following elements:

- Determination of the necessity for evacuation
- Consideration of sheltering in place
- Centralized coordination of information with local law, fire, Sheriff, health services, medical and other emergency response agencies
- Release of safety information to the public
- Notification of medical and health facilities of the nature of the incident and the substance(s) involved
- Description of hazardous materials involved such as quantity, concentration, vapor pressure, density and potential health effects
- Possible release scenarios
- Facility characteristics, topography, meteorology, and demography of potentially affected areas
- Ingress and egress routes and alternatives
- Location of medical resources trained and equipped for hazardous material response
- Mass-care facilities, reception areas and shelters and
- Procedures for post-emergency period population recovery

The list of shelters for each jurisdiction can be found in their local Emergency Operations Plan.

5. Facility Specific Evacuation Plans Each facility that is captured by the Hazardous Materials Business Plan or Risk Management Plan program must prepare an evacuation plan for their business. These plans, submitted to the CUPA, are available to emergency response

personnel. Most of the evacuation plans do not include provisions for precautionary evacuation and alternative traffic routes. This task could be addressed in the Hazards Analysis section at a future update of this Plan or at the local CUPA level.

#### I. EMERGENCY COMMUNICATIONS

#### I. EMERGENCY COMMUNICATIONS

## Integrated Communications

Communications at an incident are managed through the use of common communication plans and an incident based communications center. Area Plans includes information such as the planning and integration of all communications frequencies and resources, hardware system, and procedures for transferring information. The following is an overview of key radio channels for coordination of hazardous materials incidents statewide.

#### California On-Scene Emergency Coordination Channel (CALCORD 1)

CALCORD was established to provide common radio frequencies to be used statewide by state and local public safety and special emergency agencies during emergencies where interagency coordination is required. CALCORD is used in mobile and portable units at the scene of any emergency incident. The frequency for CALCORD is 156.0750.

#### White Fire

There are three white channels available to all fire agencies. White #1 is authorized for base station and mobile operation. The other two channels are for mobile and portable use only. All three white channels are designated by the Federal Communication Commission as "Inter-system" channels and are intended for interagency fire operations. White #2 and White #3 are intended for on-scene use only. Following are the frequencies for these channels:

White Fire 1 (154.2800) White Fire 2 (154.2650) White Fire 3(154.2950)

# 4. CLEMARS and CLERS

California Law Enforcement Mutual Aid Radio Systems (CLEMARS) and California Law Enforcement Radio Systems (CLERS) are statewide systems. CLEMARS is used on a day-to-day basis for law enforcement activities and in emergency and disaster situations. CLERS is a statewide, microwave-linked, VHF and UHF point-to-point network with control stations in every county and major city in the state. It permits contact from any member station to another. State CAL EMA and DHP also have stations. The frequencies for CLEMARS are 154.9200 and 154.9350.

#### CAL EMA Fire Radio

This Statewide system provides centralized coordination, direction and control of CAL EMA fire and rescue resources to combat major fire or other

	emergencies. The Crossband System is used for day-to-day coordination of the Statewide Fire and Rescue Mutual Aid System.
California Emergency Services Radio System (CESRS)	Formerly referred to as the Local Government (LG) radio system, this mobile relay system uses 26 mountaintop repeaters to serve state and county CAL EMA use. Many counties have control and base stations on this network.
Hospital Emergency Administrative Radio System (HEAR)	This system is utilized for communications between hospitals and ambulance or between base hospitals, usually for emergency traffic, and for large-scale or disaster operations.
OASIS	The Operational Area Satellite Information System (OASIS) provides both a communication network and an information dissemination system linking three of the five SEMS operational levels. A satellite system links county operational area communications to selected state, local and federal agencies.
Statewide Radio System Assessment Survey	CAL EMA is conducting a statewide radio assessment survey at all levels of government to assess interoperability. This information will help the state in designing and implementing a statewide interoperable radio system.
Public Information and Warning Systems	Local governments are responsible for warning the population likely to be affected by an emergency.  Each county disseminates warnings from the county warning points to cities through local communications channels. These warnings are accomplished via all available means including the following:  All available media (broadcast radio, television, and cable) Activation of the Emergency Alert System (EAS) Siren systems, if available Mobile public address systems School alert monitors Electronic telephone dialing systems Local government operated low power AM radio stations Devices and methods for the impaired Door-to-door  Additional information about local public notification systems can be found in each local jurisdiction's Emergency Operations Plan.
10. Public Information	During a hazardous materials incident, the IC is responsible for disseminating information to the public and the media. The IC designates a Public Information

#### Officers

Officer (PIO) as part of the Command Staff, as identified in the Incident Command System. The IC/PIO is responsible for notifying business personnel and the affected public of safety procedures to follow during a hazardous materials release. The IC should move the field PIO responsibility to the Public Information Branch of the EOC level if there is a need for:

Additional public information resources and/or The centralized coordination of information from responding agencies

In order to avoid release of conflicting or sensitive information, all information (whether verbal, printed, or web based) should be coordinate through the PIO and must be approved by the Incident Commander or Unified Command prior to its release. The type of information that would be release during a hazardous materials incident would include the following:

Emergency instruction and critical information to the affected public, including health and safety issues Information regarding incident cause, sizes, current status, resources committed and potential short or long-term impacts, if known.

#### J. SUPPLIES AND EQUIPMENT

# Available Supplies and Equipment

Each CUPA's Hazardous Materials Area Plan must describe the hazardous materials supplies and equipment in their jurisdiction. These detailed lists frequently change. For regional planning purposes rather than these specific lists, the equipment used by the typed teams is listed because these are the teams likely to be involved in a mutual aid response. Equipment requirements for the typed teams are included in *Attachment 8*. The un-typed teams typically have the majority of equipment listed in Attachment 7, but have not had that equipment inventoried by Cal EMA staff during a team typing evaluation. Typically the untyped teams have protective clothing up to level A suits, detection and monitoring equipment, product identification equipment, spill containment and control equipment, decontamination equipment and dedicated hazmat response vehicles and trailers. Equipment lists are useful in planning for large scale events requiring mutual aid.

# Facility Supplies and Equipment

Facilities subject to the CalARP and Hazardous Materials Business Plan program have emergency response equipment to respond to hazardous materials spills. These lists are detailed in their Emergency Response Plans. For purposes of this Region IV LEPC HMEP, the availability of specialized release mitigation equipment available at the Cal ARP facilities is noted. This equipment may be used by either facility personnel or by emergency response personnel during an incident. Facilities with specialized equipment are noted in *Attachment 4*.

Testing and

All agencies that have equipment and supplies available for response to a

#### Maintenance of Equipment

hazardous materials incident are responsible for the testing and maintenance of this equipment. The monitoring equipment must be operated, tested, charged and field calibrated according to manufacturer's recommendations. Responding agencies must ensure that there are adequate emergency supplies on hand at all times. Documentation of equipment maintenance is kept according to each jurisdiction's procedures.

#### K. PUBLIC AWARENESS

#### General

The intent of the Chemical Emergency Preparedness Program is to ensure that the public and governmental agencies have timely access to information regarding chemicals and chemical releases in their communities. It is a stated purpose of the Region IV LEPC to make available information to the public concerning chemicals and emergency response procedures in the eleven counties comprising Region IV. This section describes how the public and governmental agencies may access the information referred to in the Community Right-to-Know Act as required in Section 324 of SARA Title III.

#### Public Meetings

The LEPC holds bi-monthly, noticed meetings in which the public is encouraged to attend and provide input. Citizens are also encouraged to attend meetings to stay informed of activities and plans in the hazardous materials emergency response and planning community. This Region IV HMEP will be on the agenda annually for public review and comment.

#### Requests for Community Right-to-Know Information

To obtain information about hazardous chemicals in their communities, the public is encouraged to contact their local CUPA. Contact information for the appropriate CUPA for each jurisdiction can be obtained by logging on to:

http://www.calepa.ca.gov/CUPA/Directory/default.aspx

or by referring to the information in Attachment A-1

For very specific local information, the requester may be referred to a local CUPA. The listing contains the agency name, address, email address and telephone number for each CUPA.

### ROLES AND RESPONSIBILITIES OF LOCAL, STATE AND FEDERAL AGENCIES DURING A HAZARDOUS MATERIALS INCIDENT

Reference: OES Hazardous Materials Tool Kit

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### A. LOCAL GOVERNMENT

# Certified Unified Program Agencies/ Administering Agencies/ Participating Agencies

- a. Administer the "Unified Program" which includes Hazardous Materials Business Plans, Area Plans, hazardous waste, underground storage tanks, Risk Management Plans and above ground storage tanks.
- b. Respond to hazardous materials incidents.
- c. Provide technical support for medical health considerations of first responders.
- d. Provide Incident Commander with technical assistance and advice regarding:
  - i. Threats to public health and the environment
  - ii. Containment, clean up and disposal procedures
- e. Assist in identification, categorization, and analysis of unidentified substances, including taking samples and assist in the field identification of hazardous materials.
- Access the Emergency Reserve Account for Hazardous Materials Incidents (Cal-Superfund) administered by the State Department of Toxic Substances Control.
- g. Establish the criteria for cleanup and disposal of hazardous materials.
- h. Oversee and supervise clean-up of hazardous materials incident sites.
- i. Pursue cost recovery to bill the responsible party.

#### HazMat Teams

- a. Provide personnel and specialized equipment at hazardous materials incidents to conduct tactical operations within the scope of their capabilities and training to contain and mitigate hazardous materials emergencies.
- b. Fill positions of the FIRESCOPE organizational structure as directed by the IC.
- c. Identify categorize, and analyze unidentified substances, including taking samples and field identification of hazardous materials.
- d. Don any level of personal protective equipment to assume a role in the exclusion (hot) zone.
- Use specialized equipment to mitigate the incident.
- f. Perform decontamination activities.
- g. Oversee and supervise clean-up of hazardous materials incident sites.

#### Local Air Pollution Control Districts

- a. Provide meteorological and wind drift information.
- b. Provide technical information on levels of atmospheric contamination.
- c. Act as a liaison to local, state, and federal agencies involved in air pollution control.

#### Local Public Health Departments

- a. Coordinate the activation of shelters and mass care facilities.
- b. Coordinate shelter management and operations with the American Red Cross.
- c. Declare public health emergencies per H&S Code 471, 458 and 505.
- d. Provide technical support for public health issues.
- e. Declare incident sites safe for re-entry by the public.

#### Local Office of Emergency Services

- a. Respond to hazardous materials incidents as part of the Incident Command staff.
- b. Serve as local Emergency Response Coordinator.
- c. Assist the Incident Commander with overall management of emergency operations.
- d. Activate the Emergency Operations Center and coordinate emergency operations.
- e. Assist with the procurement of resources.
- Notify State Office of Emergency Services Warning Center and obtain spill control number.
- g. Coordinate the activities of other jurisdictions, state and federal agencies, volunteer organizations, and the private sector with local agencies.
- h. Coordinate state and federal assistance (financial, technical, personnel, and equipment).
- i. Ensure the timely dissemination of warning and emergency public information.
- j. Coordinate with the Incident Commander and participating agencies in cost recovery.

#### Fire Agencies

- a. Provide hazard recognition, assessment, and notification of proper authorities, including the HazMat Team.
- b. Provide fire control activities.
- c. Provide containment activities necessary to confine the hazardous material(s) to the immediate area and prevent further contamination, if these actions can be performed safely within the capabilities of first responders and according to the law.
- d. Provide rescue activities, as appropriate.
- e. Provide field treatment, expedient field decontamination, and transport for patients with contamination or other injuries resulting from hazardous materials incidents (transportation service provided only by those agencies that provide emergency medical/ambulance services).
- f. Provide trained personnel (e.g., hazardous materials specialists and/or technicians) to operate as an inter-agency team.

#### Law Enforcement Agencies

- a. Provide overall management of hazardous materials emergency operations, including Incident Command, coordination of emergency operations, and utilization of personnel.
  - i. Per the CVC 2454 the California Highway Patrol maintains the Incident Command authority for the highways and roadways within the county where the CHP has primary traffic enforcement authority.
  - ii. In the absence of local codes, ordinances, or previously written agreements to the contrary, local police departments assume Incident Command responsibility for hazardous materials incidents occurring on roadways within their jurisdiction.
  - iii. The County Sheriff's Department assumes Incident Command responsibility for off-highway hazardous materials incidents in the unincorporated areas of counties.
- b. Provide scene security.
- c. Issue evacuation or shelter-in-place directives.
- d. Provide communications:
  - i. Dispatch appropriate jurisdictional emergency response personnel.
  - ii. Notify other emergency response personnel and agencies, as requested and/or required.
  - iii. Monitor communications among responding and involved agencies.
- e. Provide information to the public and coordinate PIO functions of various agencies, unless CHP has Incident Command authority.
- f. Conduct hazard recognition and site assessment.
- g. Conduct notification of proper authorities, including the HazMat Team.

#### District/City Attorney

- a. Prosecute violators of hazardous materials and waste laws.
- b. Recover costs associated with hazardous materials incidents.

#### Agricultural Enforce State and Federal regulations relating to the use of pesticides. Commissioners Provide assistance and information regarding specific hazards associated with pesticides, herbicides, fertilizers, and other agricultural chemicals. c. Provide information to the CUPA on hazardous materials inventory from businesses operating a farm. Local Department a. Provide personnel and resources for road closures and traffic diversion, if of Public required. Works/ Roads **Departments** b. Establish traffic control zones. c. For certain non-hazardous materials affecting locally maintained roadways, e.g., petroleum products (gasoline, diesel fuel, or oil) provide personnel and resources necessary for product abatement and disposal (some jurisdictions only). Local Emergency Provide care and transportation of injured persons, including victims of Medical contamination. Services Local Water and a. Initiate ICS if incident occurs on water/sewer district property. Sewer Districts/ **Departments** b. Coordinate with outside emergency response personnel/agencies. Immediately notify proper authorities in the event of a hazardous materials incident affecting waterways under their jurisdiction. d. Provide remedial actions/cleanup when a hazardous material affects water sources and/or distribution systems. e. Assist in site sampling and product analysis. Issue warnings or advisories to customers.

#### Poison Control Center (800) 876-4766

- a. Access to an extensive toxicology library and immediate access to expert consultants for evaluating, assessing and medically managing health affects from exposures associated with hazardous materials spills.
- b. Provide drug identification for law enforcement.
- c. Knowledge of hospitals' capabilities for handling hazardous materials victims.

#### B. STATE AGENCIES

#### Air Resources Board

- a. Receive notification of incidents affecting air quality.
- b. Provide technical advice and air monitoring/modeling if requested by local agency.

#### Department of Fish and Game (DFG)

- a. Act as the State Agency Coordinator for off-highway hazardous materials incidents and participate in a unified command.
- b. Take action necessary to protect or minimize the impact of a hazardous materials incident to fish and wildlife.
- c. Access the Fish and Wildlife Pollution Clean-Up Abatement Account for cleanup and abatement of materials threatening to pollute, contaminate, or obstruct waters of the state to the detriment of fish, plant, bird, or animal life, or their habitat.
- d. Provide technical advice on the impact proposed containment and clean-up operations will have on fish, wildlife, and their habitats.
- e. Supervise or provide recommendations, establish guidelines, and approve methods for containment and clean-up.
- f. Act as 'State Agency Coordinator' (SAC) in determining the completion of clean-up activities when natural resources are threatened.
- g. Conduct investigations, including evidence collection.
- h. Assess incident's impacts to flora, fauna, and their habitats; establish criminal and civil liability and responsibility; and file cases against violators when necessary.
- i. Represent the State of California (along with the Governor's Office of Emergency Services) on the Federal Region IX Regional Response Team.
- j. In the event of a declared emergency, cooperate with other state agencies in providing requested communications and law enforcement support.

#### Department of Forestry and Fire Protection (CDF)

- a. Under contract to local jurisdictions, carry out responsibilities of local fire suppression agencies as they relate to hazardous materials incidents.
- b. The State Fire Marshal's Office was consolidated into CDF that included all Fire Marshal's resources.
- c. Provide Incident Management Teams.
- d. Support emergency feeding operations of other state agencies.
- e. Provide mobile communications units and logistics support as requested by the Incident Commander.
- f. Provide field observers to monitor environmental contamination as requested.
- g. Support local fire fighting in accordance with fire mutual aid agreements.
- h. Provide Hazmat trained personnel (Tech/Specs) to assist with the incident; emergency response hand crews for support of incident operations or logistics.

#### Department of Health Services (DHS)

- a. Protect public health from effects of hazardous and radioactive materials. There are five Branches or Divisions:
  - Radiological Health Branch regulates use of radioactive materials through licensing and compliance programs. They provide technical advice on radioactive materials.
  - ii. Division of Drinking Water and Environmental Management regulates public drinking water systems.
  - iii. Food and Drug Branch ensures the safety of food, drugs, medical devices, cosmetics, bottled water and other such products.
  - iv. Environmental Health Branch includes the Nuclear Emergency Response program, Medical Waste, Shellfish and Division of Environmental and Occupational Disease Control.
  - v. Licensing and Certification Division is in charge of licensed health facilities
- b. Provide technical advice on all areas of responsibility.

#### Department of Pesticide Regulation

- a. Investigate any complaint or incident involving pesticide exposure, and take regulatory and enforcement action, with assistance from the Agricultural Commissioner.
- b. Utilize Chemistry Laboratory Services, accessed through the Pesticide Enforcement Branch, for emergency hazardous materials identification purposes if pesticides or fertilizers are suspected.
- c. Provide information regarding the environmental fate of pesticides in water, air, and soil (Environmental Monitoring and Pest Management Branch).
- d. Provide medical and toxicological risk assessment regarding active pesticide ingredients (Medical Toxicology Branch).
- e. Worker Health and Safety Branch will provide information regarding:
  - i. Pesticide exposure assessment
  - ii. Exposure monitoring and evaluation
  - iii. Industrial hygiene and safety
  - iv. Medical management and illness investigation
- f. Provide registration, labeling, and ingredients data for pesticide products (Pesticide Registration Branch).

#### Department of Toxic Substance Control (DTSC)

- a. Provide or facilitate access to technical advice regarding the safe handling or suitable disposal of toxic materials and alternative funding sources, if appropriate.
- b. Respond to incidents involving facilities or activities, upon request, where the department has enforcement responsibilities to ensure compliance with regulations.
- c. Assess and provide financial support for emergency response pre-incident needs in the form of equipment and general preparedness.
- d. Evaluate requests for financial assistance for off-highway hazardous materials emergencies.
- e. Issue Environmental Protection Agency identification numbers for nonresponsible party incidents or clandestine drug lab cleanups where funding has been approved.

#### Department of Transportation (CALTRANS)

- a. Ensure, in cooperation with other public and private agencies, proper cleanup and restoration of the highway within its rights-of-way.
- b. Within the state highway rights-of-way Caltrans will perform the following:
  - i. Coordinate cleanup efforts between the responsible parties, public and private sectors.
  - ii. Assist public and private agencies in the identification and containments of hazardous materials.
  - iii. Assist CHP with traffic control and routing requirements.
  - iv. Repair and restore damaged/contaminated highways for the restoration of the orderly flow of traffic.
  - v. Maintain a staff trained to the CSTI Hazardous Materials Technician level of competency.
  - vi. Maintain necessary hazardous material documentation as legally required.
  - vii. Maintain a contract of authorized hazardous material emergency response contractors under Caltrans control.
  - viii. Maintain a contingency plan for incident response.

#### Emergency Medical Services Authority (EMSA)

- Develop general guidelines for the triage and handling of contaminated/exposed patients.
- b. Assist with the development of general guidelines and promotion of training for personnel involved in a hazardous materials emergency medical response, including personal safety at the site of an incident, triage and medical management of patients, and limiting the contamination of transport vehicles and hospital emergency departments.
- c. Works through a system of Regional Disaster Medical Health Coordinators to coordinate requests for additional medical personnel.
- Identify medical facilities capable of handling injured and contaminated persons.
- e. Arrange for emergency procurement, storage, distribution, and handling of supplementary medical supplies and equipment in support of local government response.
- f. Identify and coordinate procurement of medical assistance from other state departments, hospitals, and ambulance providers.
- g. Coordinate the evacuation of casualties from the affected area to definitive care facilities throughout and outside of the state.

#### California Emergency Management Agency (Cal EMA)

- a. Operate the State Warning Center, including notification of hazardous materials emergencies to federal, state, and local agencies on a 24-hour, seven day week basis.
- b. Coordinate statewide Mutual Aid Radio Communications Systems.
- c. Develop procedures and staffing of the Regional Emergency Operations Centers and State Operations Center.
- d. Prepare (including planning and training) and response to radiological incidents, including overseeing state and local preparedness for nuclear power plant accidents.
- e. Develop the California State Emergency Plan.
- f. Maintain Statewide Fire and Rescue Mutual Aid System and the California Law Enforcement Mutual Aid System and assistance in coordinating mutual aid preparedness, planning, response, and recovery activities.
- g. Coordinate the Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE).
- h. Implement state and federal hazardous materials emergency planning and community right-to-know programs in the Hazardous Materials Unit. This includes providing guidance on CalARP requirements and providing support to the CUPAs/PAs.
- i. OES Regions operate the Regional Emergency Operations Center in each of the three regions (Southern California, Coastal and Inland).
- j. Provide specialized training in hazardous materials emergency response and manage Federal Emergency Management Agency-sponsored Title III (hazardous materials) training through the California Specialized Training Institute.
- k. Assist local jurisdictions in preparing hazardous materials emergency response plans.

#### Environmental Health Hazard Assessment, Office of(OEHHA)

- a. Publish Chemical Emergency Response Fact Sheets to support responder preparedness.
- b. Provide chemical risk characterization information. OEHHA provides information on public health risk and environmental threats of hazardous substances. They can:
  - i. Identify health effects including those that may cause discomfort, disability or are life threatening.
  - ii. Assist responders in assessing potential exposures for decisions on shelter-in-place, evacuation, and re-entry.
  - iii. Assist in environmental fate assessment; determine health and environmental consequences of breakdown products, reaction products and inter-media transfer.
- c. OEHHA scientists may be contacted at any time to assist responding agencies and the news media on health effects information.

#### California Highway Patrol (CHP)

- a. Act as the Incident Commander for hazardous materials incidents that occur on all state freeways and state buildings and grounds, even if located within political boundaries of a city. Also act as IC at all hazardous materials incidents that occur on county roads.
- b. Serve as statewide information, assistance, and notification coordinator for all on-highway hazardous materials incidents.
- c. As a peace officer has authority to enforce specified hazardous waste laws relating to hazardous waste, its transportation and disposal pursuant to Section 2401.1 of the California Vehicle Code and Section 25180 of the Health and Safety Code.
- Upon request, provide technical support and expertise concerning commercial vehicle equipment regulations and/or hazardous materials transportation provisions.
- d. Upon request, assist the Incident Commander in obtaining state assistance for the mitigation of hazardous materials incidents occurring within cities via SEMS hierarchy.
- e. Evaluate and report road conditions to the Incident Commander and OES.
- f. Provide traffic control in support of evacuation and/or relocation.
- g. Reroute traffic under CHP jurisdiction in coordination with the IC.
- h. Prevent unauthorized entry into contaminated areas.
- i. Assist local authorities in maintaining law and order.

#### California National Guard (CNG)

- Assistance from the California National Guard may be available for very large or slow-developing hazardous materials incidents where a State of Emergency has been declared.
- b. During a hazardous materials incident, to the extent that military capabilities are not compromised, and as directed by the Governor, the California National Guard may provide the following:
  - i. Assist in the evacuation of threatened areas;
  - ii. Provide assistance to civil law enforcement operations, including access control of restricted or evacuated areas;
  - iii. Assist in caring for people from evacuated areas by operating a field kitchen, providing shelter and feeding operations at available Military Department facilities, and assisting the American National Red Cross and local welfare agencies;
  - iv. Provide medial assistance;
  - v. Assist in the clearance of rubble and debris;
  - vi. Provide assistance in communications:
  - vii. Provide air and surface transportation of authorized personnel, equipment and supplies;
  - viii. Provide technical advice and resources for the handling and disposing of explosives.

#### CNG 95th Civil Support Team (CST) Weapons of Mass Destruction (WMD)

- a. Provide HazMat Specialist Entry Teams.
- b. Provide reconnaissance, detection and sampling of WMD events and material in a WMD environment.
- c. Provide detection capabilities for chemical, biological and radiological sources.
- d. Access to field analytical system with GCMS, FTIR, and other state of the art assessment equipment for WMD identification.
- e. Use of computer modeling for crisis and consequence management.
- f. Unified Command Communications Suite equipped with satellite communications, secure and non-secure voice and data, VHF, UHF, AM and FM capabilities.
- g. Act as Technical Reference resource for medical, biological, radiological and chemical incidents.
- h. Use medical support section to assist in providing WMD effects information to the EMS community.
- Self-decontamination capability.

Occupational
Safety and Health
Administration
(Cal-OSHA)
Department of
<i>Industrial</i>
Relations

- a. Prevent and regulate occupational exposures and injuries in the workplace.
- b. Evaluate adequacy of health and safety plans designed to protect employees from exposure to hazardous materials during the hazardous materials response and recovery operations.
- c. Administer Process Safety Management Program (which is closely aligned with the CalARP program).

#### State Water Resources Control Board (SWRCB)

- a. Provide technical assistance to the Liaison Officer and DTSC in evaluating the potential impact of hazardous materials incidents to water resources.
- b. Issue clean up and abatement or cease and desist orders to responsible parties, assess fines, and pursue recovery of costs for abatement, mitigation, or contract clean up.
- **c.** Conduct water sampling, analysis, and monitoring activities to assist in the evaluation and mitigation of hazardous materials releases.
- d. In cooperation with the Department of Toxic Substances Control, designate sites for disposal of hazardous materials.
- **e.** Assist the Department of Health Services in advising water users of potential adverse impacts of a spill.

#### C. FEDERAL AGENCIES

#### United States Coast Guard (USCG)

- a. Ensure that timely and effective response action is taken to control and remove discharges of oil and releases of hazardous substances, including threats of substantial discharges and releases, into the coastal zones.
- b. Monitor removal actions conducted by the responsible party.
- c. Operate the National Response Center.
- d. Operate the Pacific Strike Team to support federal On Scene Coordinators.
- e. Maintain a capability to contain and clean-up polluting and hazardous substances in waters and shores within their jurisdiction through the Pacific Strike Team.
- f. Provide the federal On Scene Coordinator for incidents within their jurisdiction.
- g. Access federal funding for abating and mitigating releases of hazardous materials.

#### Department of Energy (DOE)

- a. Provide assistance to state and local agencies in incidents involving radiological materials, in accordance with the Interagency Radiological Assistance Plan. The California Department of Health Services, Radiological Health Branch triggers the DOE response.
- b. Provide assistance in identifying the source and extent of radioactive contamination, and in the removal and disposal of radioactive discharges.
- c. Coordinate with the Federal On-Scene Coordinator in implementing the Federal Radiological Emergency Response Plan.

#### United States Environmental Protection Agency (EPA)

- a. Ensure that timely and effective response action is taken to control and remove discharges of oil and releases of hazardous substances, including threats of substantial discharges and releases, into the inland zones unless such removal actions are being conducted properly by the responsible party.
- b. Provide the Federal On-Scene Coordinator for incidents within their jurisdiction.
- c. Operate the emergency response program of experience federal contractors, including the Superfund Technical Assistance and Response Team (START) and the Emergency Response and Remedial Services contractors (ERRS).

#### Federal Emergency Management Agency (FEMA)

- a. Under the Department of Homeland Security is the federal lead for the management of Presidentially declared disasters and coordinates with other Federal agencies for disaster response and recovery activities.
- b. FEMA serves as the lead agency in the management of the Disaster Assistance Program in affected areas after a catastrophic hazardous materials emergency if requested by the Governor and declared by the President under the authority of Public Law 93-288.
- c. Provide hazardous materials and related training through the National Emergency Training Center's resident and non resident programs, and through its administration of SARA Title III training grant contracts with the state. Regional hazardous materials programs include planning, training and exercising.

#### Homeland Security, Department of

- a. The Department of Homeland Security's mission is to protect the nation against terrorist attacks. Component agencies analyze threats and intelligence, guard our borders and airports, protect our critical infrastructure, and coordinate the response of our nation for future emergencies.
- b. There are five major divisions: Border and Transportation Security, emergency Preparedness and Response, Science and Technology, Information Analysis and Infrastructure Protection and Management.
- c. The following critical agencies are being folded into the new department: United States Coast Guard, United States Secret Service, Bureau of Citizenship and Immigration Services, Office of State and Local Government Coordination, Office of Private Sector Liaison, and Office of Inspector General.

#### National Oceanic and Atmospheric Administration (NOAA)

- a. Provide scientific support to federal On Scene Coordinators for emergency responses.
- b. Provide contingency planning in coastal and marine areas.
- c. When requested by EPA, provide scientific support for emergency responses in coastal areas.

#### Department of Health and Human Services (DHHS)

- a. Federal lead agency for public health and medical support.
- b. Determine that illness, disease, or complaints thereof may be attributable to exposure to a hazardous substance, pollutant, or contaminant.
- **c.** Provide expert advice and assistance on actual or potential discharges or releases that pose a threat to public safety and health.
- **d.** Provide advice and assistance when chemical releases violate or may violate Public Laws administered by the USEPA.

#### Justice, Department of (DOJ)

- a. Provide legal expert advice on complicated legal questions arising form discharges or releases and federal agency response, and represent the federal government in litigation.
- b. The Drug Enforcement Agency, involved in the enforcement activities associated with clandestine drug laboratories and the Federal Bureau of Investigation, the lead federal agency for all terrorist incidents within the United States, fall under the DOJ.

#### D. NON-GOVERNMENTAL AGENCIES

#### American Red Cross (ARC)

- a. Provide relief for persons affected by disaster, including serious hazardous materials emergencies including:
  - i. food, clothing, and lodging;
  - ii. supplemental medical and nursing assistance in accordance with established agreements;
  - i. various family services;
  - ii. rehabilitation
- Coordinate with local government on evacuation and shelter-in-place operations (i.e., selection and staffing of shelter sites and dissemination of shelter information).

# Business and Industry

- a. Develop contingency plans for hazardous materials emergencies within their facilities in accordance with Sections 25503 et. seq. of the California Health and Safety Code and Title 19 California Code of Regulations.
- b. Provide the Incident Commander with the following information throughout the duration of an emergency:
  - i. Any conditions within the facility that may affect emergency response.
  - ii. On-site monitoring for extent of damage.
  - iii. Causation.
  - iv. Technical advice.

#### Chemical Manufacturers

- a. Provide detailed technical information, including special precautions, disposal procedures, etc., on their products.
- b. Provide an emergency response team, if needed.

#### Chemical Transportation Emergency Center (CHEMTREC)

- a. Provide immediate emergency action information for spill, leak, exposure, or fire control measures.
- b. Provide precautionary information.
- c. Assist with identification of hazardous substances if the manufacturer is known or shipping papers is present.
- d. Conduct immediate notification of manufacturers or shippers and/or notification of industry mutual aid networks.

#### Emergency Services

- Radio Amateur Civil a. Provide communications personnel (licenses volunteers) to government agencies in times of emergencies.
  - b. Operate on radio amateur frequencies, by authority of the FCC, an can augment existing systems, substitute for damaged or inoperable systems, and establish communication links with area that are inaccessible through other forms of communications.

#### The Salvation Army

- Provide mobile feeding for disaster victims and emergency workers.
- b. Provide emergency housing.
- c. Provide medical assistance.
- d. Provide referrals to appropriate government and private agencies for special services required by victims.

# LEPC Region IV Certified Unified Program Agency (CUPA) Contacts and Local Emergency Coordinators

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN	LOCAL EMERGENCY COORDINATOR
	INFORMATION	
	PHONE NUMBER AND EMAIL	
Alpine	Dennis Lampson, Environmental Specialist III  dlampson@hhs.alpinecountyca.gov Alpine County Health & Human Services 75-B Diamond Valley Road Markleeville, CA 96120 (530) 694-2146	Rob Levy, Under Sheriff roblevy@alpineso.com Alpine County Sheriff's Department P.O. Box 278 Markleville, CA 96120 (530) 694-2231
Amador	Michael Israel, Director of Environmental Health misrael@co.amador.ca.us Amador County Environmental Health 810 Court Street Jackson, CA 95642 (209) 223-6439	Rusty Kern, OES Coordinator <a href="mailto:rkern@co.amador.ca.us">rkern@co.amador.ca.us</a> Amador County Sheriff's Office 700 Court Street Jackson, CA 95642 (209) 223-6384
Calaveras	Jason Boetzer, CUPA Program Manager jboetzer@co.calaveras.ca.us Calaveras County Environmental Health Dept. 891 Mountain Ranch Road San Andreas, CA 95249 (209) 754-6744	Clay Hawkins, OES Director <a href="mailto:chawkins@co.calaveras.ca.us">chawkins@co.calaveras.ca.us</a> Calaveras County Office of Emergency Services 891 Mountain Ranch Road San Andreas, CA 95249 (209) 754-2891
El Dorado	Dave Johnston, Program Manager County of El Dorado dave.johnston@edcgov.us Environmental Management Department 2850 Fairlane Court Building C Placerville, CA 95667 (530) 621-5896	Marty Hackett, OES Director martyh@el-dorado.ca.us 300 Fairlane Court Placerville, CA 95667 (530) 621-7467

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN	LOCAL EMERGENCY COORDINATOR
SOMODIONOM	INFORMATION	EGG/IE EMERGENGT GGGREMVITOR
	PHONE NUMBER AND EMAIL	
Nevada	Wesley Nicks, Director Wesley.nicks@co.nevada.ca.us Nevada County Environmental Health 950 Maidu Avenue Nevada City CA 95959 (530) 265-1464	Vic Ferrera, Emergency Services Manager vic.ferrera@co.nevada.ca.us 950 Maidu Avenue Nevada City, CA 95959 (530) 265-1515
Placer	Billy Harmon, Program Manager <a href="mailto:bharmon@placer.ca.gov">bharmon@placer.ca.gov</a> Placer County Environmental Health 3091 County Center Dr, Ste 180  Auburn, CA 95603 (530) 745-2300	Rui Cunha, OES Program Manager rcunha@placer.ca.gov Placer County Office of Emergency Services 2968 Richardson Drive Auburn, CA 95603 (530) 886-5300
City of Roseville	Steve Anderson, Life Safety/HazMat Officer <a href="mailto:sanderson@roseville.ca.us">sanderson@roseville.ca.us</a> Roseville Fire Department 401 Oak Street, Office 402 Roseville, CA 95678 (916) 774-5821	Dean Grundy, Battalion Chief, Roseville Fire Department dgrundy@roseville.ca.us 401 Oak Street Roseville, CA 95678 (916) 774-5837
Sacramento	Elsie Rothschild, Environmental Compliance Division Chief RothschildE@saccounty.net Sacramento County Environmental Management 10590 Armstrong Avenue, Suite A Mather, CA 95655 (916) 875-8473	Roger Ince, Emergency Operations Coordinator, Sheriffs Department <u>sacoa@saccounty.net</u> 711 G Street, 83-003B Sacramento, CA 95814 (916) 874-4670
San Joaquin	Kasey Foley, CUPA Program Coordinator  kfoley@sjcehd.com  600 E. Main Street  Stockton, CA 95202 (209) 468-3420	Ron Baldwin, OES Director rbaldwin@sjgov.org 222 East Weber Ave Room 610 Stockton, CA 95202 (209) 468-3962

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN INFORMATION PHONE NUMBER AND EMAIL	LOCAL EMERGENCY COORDINATOR
Stanislaus	Beronia Beniamine, Program Manager  BBENIAMINE@envres.org  Stanislaus County Environmental Resources 3800 Cornucopia Way, Suite C  Modesto, CA 95358 (209) 525-6753	Gary Hinshaw, OES Assistant Director <a href="mailto:ghinshaw@stanoes.com">ghinshaw@stanoes.com</a> Stanislaus County Office of Emergency Serv. 3705 Oakdale Rd., Modesto, CA 95357 (209) 552-3600
Tuolumne	Sheilah Lillie, Environmental Health Specialist slillie@co.tuolumne.ca.us Tuolumne County Environmental Health 2 South Green Sonora, CA 95370 (209) 533-5990	Maureen Frank, Deputy County Administrator (interim)  mfrank@co.tuolumne,ca.us Tuolumne County Administrative Office 2 South Green Street Sonora, CA 95370 (209) 533-5511
Yolo	Jeff Pinnow, Supervisor jeff.pinnow@yolocounty.org Yolo County Environmental Health 137 N. Cottonwood Street, Ste 2400 Woodland, CA 95695 (530) 666-8646	Bill Martin, Emergency Services Coordinator bmartin@yolooes.org 120 W. Main Street, Ste E Woodland CA 95695 (530) 406-4930

# LEPC Region IV Certified Unified Program Agency (CUPA) Contacts and Local Emergency Coordinators

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN	LOCAL EMERGENCY COORDINATOR
	INFORMATION	
	PHONE NUMBER AND EMAIL	
Alpine	Dennis Lampson, Environmental Specialist III  dlampson@hhs.alpinecountyca.gov Alpine County Health & Human Services 75-B Diamond Valley Road Markleeville, CA 96120 (530) 694-2146	Rob Levy, Under Sheriff roblevy@alpineso.com Alpine County Sheriff's Department P.O. Box 278 Markleville, CA 96120 (530) 694-2231
Amador	Michael Israel, Director of Environmental Health misrael@co.amador.ca.us Amador County Environmental Health 810 Court Street Jackson, CA 95642 (209) 223-6439	Rusty Kern, OES Coordinator <a href="mailto:rkern@co.amador.ca.us">rkern@co.amador.ca.us</a> Amador County Sheriff's Office 700 Court Street Jackson, CA 95642 (209) 223-6384
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Placer	Billy Harmon, Program Manager <a href="mailto:bharmon@placer.ca.gov">bharmon@placer.ca.gov</a> Placer County Environmental Health 3091 County Center Dr, Ste 180 Auburn, CA 95603 (530) 745-2300	Rui Cunha, OES Program Manager rcunha@placer.ca.gov Placer County Office of Emergency Services 2968 Richardson Drive Auburn, CA 95603 (530) 886-5300
City of Roseville	Steve Anderson, Life Safety/HazMat Officer <a href="mailto:sanderson@roseville.ca.us">sanderson@roseville.ca.us</a> Roseville Fire Department 401 Oak Street, Office 402 Roseville, CA 95678 (916) 774-5821	Dean Grundy, Battalion Chief, Roseville Fire Department dgrundy@roseville.ca.us 401 Oak Street Roseville, CA 95678 (916) 774-5837
Sacramento	Elsie Rothschild, Environmental Compliance Division Chief RothschildE@saccounty.net Sacramento County Environmental Management 10590 Armstrong Avenue, Suite A Mather, CA 95655 (916) 875-8473	Roger Ince, Emergency Operations Coordinator, Sheriffs Department <a href="mailto:sacoa@saccounty.net">sacoa@saccounty.net</a> 711 G Street, 83-003B Sacramento, CA 95814 (916) 874-4670
San Joaquin	Kasey Foley, CUPA Program Coordinator  kfoley@sjcehd.com 600 E. Main Street Stockton, CA 95202 (209) 468-3420	Ron Baldwin, OES Director  rbaldwin@sjgov.org  222 East Weber Ave Room 610  Stockton, CA 95202 (209) 468-3962

JURISDICTION	CUPA CONTACT FOR REGIONAL PLAN INFORMATION PHONE NUMBER AND EMAIL	LOCAL EMERGENCY COORDINATOR
Stanislaus	Beronia Beniamine, Program Manager  BBENIAMINE@envres.org  Stanislaus County Environmental Resources 3800 Cornucopia Way, Suite C  Modesto, CA 95358 (209) 525-6753	Gary Hinshaw, OES Assistant Director <a href="mailto:ghinshaw@stanoes.com">ghinshaw@stanoes.com</a> Stanislaus County Office of Emergency Serv. 3705 Oakdale Rd., Modesto, CA 95357 (209) 552-3600
Tuolumne	Sheilah Lillie, Environmental Health Specialist slillie@co.tuolumne.ca.us Tuolumne County Environmental Health 2 South Green Sonora, CA 95370 (209) 533-5990	Maureen Frank, Deputy County Administrator (interim)  mfrank@co.tuolumne,ca.us Tuolumne County Administrative Office 2 South Green Street Sonora, CA 95370 (209) 533-5511
Yolo	Jeff Pinnow, Supervisor jeff.pinnow@yolocounty.org Yolo County Environmental Health 137 N. Cottonwood Street, Ste 2400 Woodland, CA 95695 (530) 666-8646	Bill Martin, Emergency Services Coordinator bmartin@yolooes.org 120 W. Main Street, Ste E Woodland CA 95695 (530) 406-4930

Distribution Attachment 2

## REGION IV HAZARDOUS MATERIALS EMERGENCY PLAN DISTRIBUTION

\*Note - Hard copies of the plan are only distributed on request. Plan can be viewed at http://www.edcgov.us/Government/EMD/HazardousMaterials/Hazardous\_Materials\_Plans.aspx and

http://www.calema.ca.gov/Hazardous Materials/Pages/Local-Emergency-Planning-Committee-(LEPC).aspx

## LEPC Region IV Hazardous Materials Emergency Plan Record of Revisions

Change Date	Modification (page numbers)	Distributed by:
9/20/11	Changes, updates and edits made	Posted at
	throughout document	http://www.calema.ca.gov/Reg
		ionalOperations/Pages/Plans-
		for-Inland-Region.aspx

# Risk Management Plan Facilities (Subject to either Federal or State requirements)

Attachment 4

Jurisdiction:

Facility Name	Address	Facility	Extremely	Responding or	Specialized	Is this a Regional
		Emergency	hazardous	Non	Emergency	Facility?* (name
		Response	materials	responding	Equipment	the potentially
		Coordinator and	on-site	(HazMat Team	Available	affected
		Phone Number		on-site?)		county)

<sup>\*</sup> A regional facility is one that has the potential for a release to cross another county's border and impact that county Page 1 of 1

# EMERGENCY RESPONSE PERSONNEL TRAINING COMPLETED

Amador County	
Name of Team:	
Team Type (Type I, Type II or Type III) _	
Contact: Michael Israel	
Phone Number: (209) 223-6439	
Email: misrael@co.amador.ca.us	

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW	ENV MGMT
Hazardous Materials Technician				3
Hazardous Materials Specialist				1

## Calaveras County:

Name of Team: <u>Calaveras County Sheriff's Dept.</u>				
Team Type (Type I, Type II or Type III) II				
Contact: Clay. Hawkins, Capt.				
Phone Number: <u>209-754-2891</u>				
Email: chawkins@co.calaveras.ca.us				

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW	ENV MGMT
Hazardous Materials Technician	12			3
Hazardous Materials Specialist	8			1

## **El Dorado County**

Name of Team:EDC Environmental Mgmt					
Team Type (Type I, Type II or Type III) un-typed					
Contact: Dave Johnston					
Phone Number: <u>(530) 621 5896</u>					
Email: dave.johnston@edcgov.us					
*Environmental Management employees staff the Hazmat Team					

TRAINING RECEIVED	HAZMAT TEAM*	FIRE & RESCUE	LAW ENF	ENV MGMT*
Hazardous Materials Technician	2	8		2
Hazardous Materials Specialist	4	7		4

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician				1
Hazardous Materials Specialist				2

Placer County

Name of Team: <u>Placer County\_OES Interagency Hazardous Materials Response Team – Central/Eastern</u>
Team Type (Type II, Type II) II

Team Type (Type I, Type II or Type III) II
Contact: Young (Rod) Rodriguez
Phone Number: (530) 886-5300

Email: <u>yrodrigu@placer.ca.gov</u>

TRAINING RECEIVED	HAZMAT TEAM	HAZMAT TEAM EASTERN	LAW ENF	ENV MGMT
Hazardous Materials Technician	14	7		
Hazardous Materials Specialist	20	8		

City of Roseville
Name of Team:Roseville Fire
Team Type (Type I, Type II or Type III) I
Contact: Jeff Carman
Phone Number: (916) 764-1673
Email: jcarman@roseville.ca.us

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician				
Hazardous Materials Specialist	48			

# Emergency Response Personnel Training Completed Attachment 5

## Sacramento County

Name of Team: Sacramento Metro
Team Type (Type I, Type II or Type III)
Contact: Dave Stoddard
Phone Number: (916) 556-4391
Email: dave@smfd.ca.gov

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician	2			
Hazardous Materials Specialist	68			

## City of Sacramento

Name of Teams: Hazmat 7 and Hazmat 30

Team Type (Type I, Type II or Type III) Type I

Contact: Rodney Tateishi

Phone Number: 916-264-1958

Email: rtateishi@sfd.cityofsacramento.org

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician	103			
Hazardous Materials Specialist	103			

## San Joaquin County

Name of Team: San Joaquin County HazMat Team
Team Type (Type I, Type II or Type III) un-typed
Contact: Bill Costanza, Battalion Chief, Stockton Fire
Phone Number: (209) 937-8801

Email: william.costanza@ci.stockton.ca.us

Includes San Joaquin OES, Tracy Fire, Linden-Peters Fire District, Waterloo Morada Fire, Ripon Fire

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician	9	4		
Hazardous Materials Specialist	12	3		

# Emergency Response Personnel Training Completed Attachment 5

Stanislaus County

Name of Team: Multi-Jurisdiction HazMat Team
Team Type (Type I, Type II or Type III) un-typed

Contact: Jim Simpson

Phone Number: (209) 525 6753

Email: jimsimpson@envres.org

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician				
Hazardous Materials Specialist	40	30	2	12

Tuolumne County
Name of Team: <u>Tuolumne County combines with</u>
Calaveras County Hazardous Materials Team
Team Type (Type I, Type II or Type III) II
Contact:
Phone Number:
Email:
· · · · · · · · · · · · · · · · · · ·

<sup>\*</sup> Numbers do not include State resources (CDF or CHP)

TRAINING RECEIVED	HAZMAT TEAM	FIRE & RESCUE	LAW ENF	ENV MGMT
Hazardous Materials Technician				
Hazardous Materials Specialist				

Yolo County\*

Name of Team: Yolo County HMRT

Team Type (Type I, Type II or Type III) un-typed

Contact: Tod Reddish

Phone Number (530) 752-6399

Email: rtreddish@ucdavis.edu

<sup>\*</sup> Includes Davis Fire, UC Davis Fire, Woodland Fire, West Sacramento and Yolo County Environmental Health Department

TRAINING RECEIVED	HAZMAT	FIRE &	LAW ENF	ENV
	TEAM	RESCUE		MGMT
Hazardous Materials Technician	17	6		2
Hazardous Materials Specialist	13	4		4

## ALPINE COUNTY

www.alpinecountyca.gov

#### TDD (530) 694-2231

Sheriff

\*John Crawford

Alpine OES / Sheriff Office

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Markleeville, CA 96120

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Email: jcrawford@alpineso.com

Chairperson, Board of Supervisors & Director

**Terry Woodrow** P.O. Box 158

Markleeville, CA 96120

b) (209) 753-2551 r) (530) 694-2395

f) (530) 694-2491

Email: twoodrow@alpinecountyca.gov

#### Volunteer Fire Chief, Kirkwood

Rick Ansel

b) (209) 258-4444 ext 3 Email: kvfd@volcano.net

## **AMADOR COUNTY**

#### TDD (209) 233-6513

## **Emergency Services Coord.**

\*Sgt. John Silva

Office of Emergency Services

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b) (209) 223-6384 EOC) (209) 223-6384 f) (209) 223-1609 24 hrs) (209) 223-6500

Email: oes@co.amador.ca.us

isilva@amadorgov.org

#### Chairperson, Board of Supervisors

John Plasse 810 Court Street Jackson, CA 95624

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24 hrs) (209) 223-6500

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#### **Sheriff**

Martin Ryan 700 Court Street

Jackson, CA 95642

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Email: sheriff@amadorsheriff.org

## **Health Officer**

Dr. Robert C. Hartmann

10877 Conductor Blvd., Suite 400

Sutter Creek, CA 95685

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rhartmann@amadorgov.org

## **RACES Coordinator**

Blaine Snyder 25601 Blaze Court Volcano, CA 95689

Call Sign: KF6YIE

## **AMADOR CITY**

www.amador-city.com

#### City Clerk

\*Joyce Davidson

14531 E. School St., P.O. Box 200

Amador City, CA 95601

b) (209) 267-0682 f) (209) 267-0682

Email: citvclerk@amadorcitv.net

#### Mayor

Aaron Brusatori

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Amador City, CA 95601

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## IONE

#### www.cityofione-ca.com

City Manager

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Mavor

David Plank P.O. Box 398 Ione, CA 95640

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**City Clerk** 

Janice Traverso P.O. Box 398 Ione, CA 95640

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Email: itraverso@ione-ca.com

Fire Chief

Ken Mackey P.O. Box 398 Ione, CA 95640 b) (209) 274-4548

Email: kmackey@ione-ca.com

**Police Chief** 

Michael L. Johnson P.O. Box 398 Ione, CA 95640

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Email: mjohnson@ione-ca.com

## **JACKSON**

City Manager

\*Michael Daly 33 Broadway

Jackson, CA 95642

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<u>Mayor</u>

Connie Gonsalves 33 Broadway

Jackson, CA 95642

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Email: mayor@ci.jackson.ca.us

**Police Chief** 

Scott Morrison 33 "D" Broadway Jackson, CA 95642

b) (209) 223-1771 f) (209) 223-3403 Email: smorrison@ci.jackson.ca.us Fire Chief

Marc Crain 33 Broadway

Jackson, CA 95642 b) (209) 223-2147 24 hrs) (209) 223-1092

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## **PLYMOUTH**

City Manager

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Mayor

Greg Baldwin P.O. Box 429

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**Battalion Fire Chief** 

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## **SUTTER CREEK**

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<u>Mayor</u>

Tim Murphy P.O. Box 877

Sutter Creek, CA 95685

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**Police Chief** 

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**City Administrator** 

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Fire Chief

Dominic Moreno P.O. Box 365

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24 hrs) (209) 267-5646

## **CALAVERAS COUNTY**

www.co.calaveras.ca.us

## TDD (209) 754-6500

Chairperson, Board of Supervisors

Steve Wilensky
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San Andreas, CA 95249

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Email: sph@volcano.net

**County OES Director** 

\*Sgt. Blain Smith

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Gary Kuntz

Sheriff Dept/Government Center 891 Mountain Ranch Road San Andreas, CA 95249

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**County Administration Officer** 

Jeanne Boyce

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b) (209) 754-6025

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## **ANGELS CAMP**

**City Administrator** 

\*Michael McHatten

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**Police Chief** 

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Fire Chief

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## **EL DORADO COUNTY**

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**Deputy Director** 

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**Asst. Deputy Director** 

Lt. Marty Hackett\*

El Dorado County Sheriff Dept.

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El Dorado County Sheriff Dept.

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**Administrative Officer** 

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American Red Cross Rep.

District Coord. Patty Judge

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El Dorado Co. Health Officer

Dr. Jason Eberhardt-Philips Director of Public Health

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El Dorado Co. Search and Rescue

Sgt. Marty Hackett, Coordinator

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## **PLACERVILLE**

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**Police Chief** 

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Manager

Cleve Morris

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## **SOUTH LAKE TAHOE**

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Fire Chief/Public Safety Manager

Brian Uhler

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## **NEVADA COUNTY**

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**Chairperson, Board of Supervisors** 

Edd Scofield

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Administrator – Co. Executive Officer

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**Director** 

Richard Reader

Office of Emergency Services

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Program Manager

\*Vic Ferrera

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**Sheriff** 

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Fire Coordinator

Hank Weston

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**Nevada County Health Officer** 

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## **GRASS VALLEY**

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**City Administrator** 

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Daniel C. Holler

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Coordinator **Rex Marks** 

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**Fire Chief** 

**Tony Clarabut** 125 E. Main Street

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## **NEVADA CITY**

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Mayor

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**Police Chief** 

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Fire Chief

Sam Goodspeed

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Email: sam.goodspeed@nevadacityfire.com

## **TRUCKEE**

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**Town Manager** 

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**Police Chief** 

\*Nicholas Sensley (Until Nov 2011)

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## **PLACER COUNTY**

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f) (530) 889-4009

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**Emergency Services Program Mgr/Coord.** 

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**County Executive Officer** 

Tom Miller 175 Fulweiler Avenue Auburn, CA 95603

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Sheriff Ed Bonner P.O. Box 6990

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Auburn, CA 95604

Email: <a href="mailto:ebonner@placer.ca.gov">ebonner@placer.ca.gov</a>

Fire Coordinator/Eastside

Duane Whitelaw, Chief North Tahoe FPD P.O. Box 5879 Tahoe City, CA 96145

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Email: whitelaw@ntfire.net

Fire Coordinator/Westside

Ian Gow, Chief

Placer Hills Fire Protection District

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b) (530) 878-0405 f) (530) 878-0959

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## **AUBURN**

www.auburn.ca.gov

Mayor

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24 hrs) (530) 823-4222

Email: flyingsurgeon210@yahoo.com

City Manager/Director

\*Robert Richardson 1225 Lincoln Way Auburn, CA 95603

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**Police Chief** 

John Ruffcorn 1215 Lincoln Way Auburn, CA 95603

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Fire Chief

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24 hrs) (530) 823-4222

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## **COLFAX**

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#### Mayor

Ken Delfino

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Colfax, CA 95713

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24 hrs) (530) 346-2220

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## City Manager

\*Bruce Kranz

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Colfax, CA 95713

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24 hrs) (530) 346-2220 or (530) 308-7991

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#### **Fire Chief**

Chris Paulus

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## **Public Works Director**

Gabe Armstrong

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24 hrs) (530) 346-2220

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## **LINCOLN**

## www.ci.lincoln.ca.us

#### <u>Mayor</u>

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24 hrs) (916) 645-4040

Email: tcosgrove@ci.lincoln.ca.us

#### City Manager

\*Jim Estep

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24 hrs) 645-4040

Email: jestep@ci.lincoln.ca.us

## **Police Chief**

Interim: Paul Shelgren

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24 hrs) (916) 645-4040

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## Fire Chief

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## **LOOMIS**

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## <u>Mayor</u>

Rhonda Morillas

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24 hrs) (916) 652-0956

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#### **Town Manager**

\*Perry Beck

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## **ROCKLIN**

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Mayor

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City Manager - Director

Ricky Horst 3970 Rocklin Road Rocklin, CA 95677

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Fire Chief

\*Bill Mikesell 4060 Rocklin Road Rocklin, CA 95677

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**Police Chief** 

Ron Lawrence 4080 Rocklin Road Rocklin, CA 95677

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**ROSEVILLE** 

www.roseville.ca.us

**Mayor** 

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**Police Chief** 

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**Fire Chief** 

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## **SACRAMENTO COUNTY**

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#### TDD (916) 875-5000

Chairperson, Board of Supervisors

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**County Executive/Director** 

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**Emergency Services Coordinator** 

**Rick Martinez\*** 

Sacramento Co. Emergency Operations

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EOC) (916) 575-4501 only when activated

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**County Sheriff** 

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**County Fire Coordinator** 

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## <u>CITRUS HEIGHTS</u>

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## **ELK GROVE**

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#### **Police Chief**

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## **FOLSOM**

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## City Manager

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## **GALT**

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#### **Police Chief**

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## Fire Chief

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## **ISLETON**

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Fire Chief/Director

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## **SACRAMENTO**

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## **SAN JOAQUIN COUNTY**

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## **ESCALON**

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## **LATHROP**

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## **LODI**

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## **MANTECA**

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**Interim Police Chief** 

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Fire Chief

Kirk Waters

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## **RIPON**

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**Dennis Bitters** 

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## STOCKTON

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**Assistant Director OES** 

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**City Manager/Administrator** 

**Bob Deis** 

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**Fire Chief** 

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#### **Police Chief**

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## TRACY

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#### City Manager/Director

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## **Police Chief**

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## **STANISLAUS COUNTY**

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## **CERES**

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## **HUGHSON**

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## **MODESTO**

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Greg Nyhoff

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## **NEWMAN**

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## **OAKDALE**

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## **PATTERSON**

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## **RIVERBANK**

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## WEST SACRAMENTO

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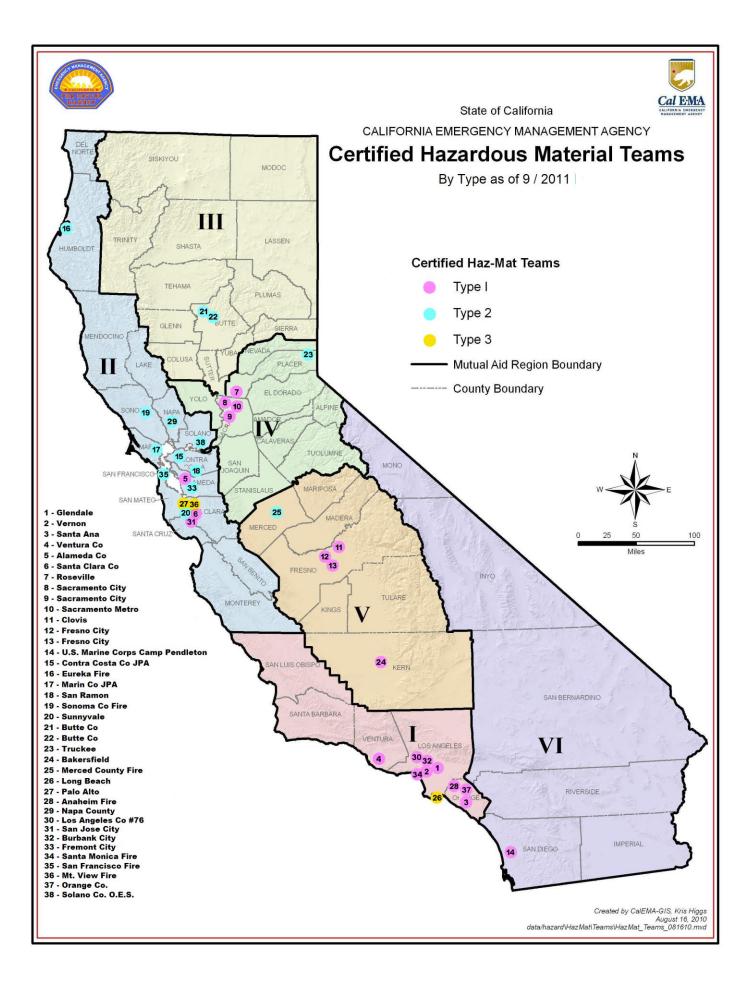
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CERTIFIED CALIFORNIA HAZ-MAT TEAMS, BY TYPE (Items highlighted is new data since last update) - AS OF 5/17/11								
	Request #	Insp. #	AGENCY	Operational and Local Identifier	Region	Unit Designation	Attained	Zip Code
	14	13	Burbank City Flre	XLC-BRK	I	HM-12	2-16-11	91505
	10	10	Glendale City Fire	XLC-GLN		HM-24	2-26-08	91204
	26	25	Vernon City Fire	XLE-VER	I	HM-151	5-14-09	90058
	49	44	Santa Ana Fire	XOR-STA	I	HM-9	6-22-10	92705
	45	40	Ventura County Fire	XVE-VNC	I	HM-50	6-23-10	93010
	46	41	Anaheim Fire	XOR-ANA	I	HM-8	9-21-10	92807
	18	17	Los Angeles County Fire	XLB-LAC	I	HM-76	12-27-10	91355
	54	48	Santa Monica Fire	XLA-SMA	I	HM-4	4-5-11	90404
	6	6	Alameda County Fire	XAL-ACF	II	HM-12	3-10-08	94546
TYPE	22	45	San Jose City Fire	XSC-SJS	П	HIT-29	2-9-11	95134
1	24	23	Santa Clara County Fire	XSC-CNT	II.	HM – 2	12-16-09	95014
	1	1	Roseville City Fire	XPL-RSV	IV	HM-1	10-26-06	95678
	2	2	Sacramento City Fire	XSA-SCR	IV	HMRT-7	12-27-06	95823
	3	3	Sacramento City Fire	XSA-SCR	IV	HMRT-30	12-28-06	95835
	4	4	Sacramento Metro F.P.D.	XSA-SAC	IV	HM-109	7-13-06	95608
	42	36	Bakersfield Fire. Dept	XKE-BKF	V	HM-15	1-11-11	93314
	27	26	Clovis City Fire	XFR-CLV	V	HM-40	5-1-09	93611
	17	16	Fresno City Fire	XFR-FRN	V	HMRT-1	11-4-08	93703
	16	15	Fresno City Fire	XFR-FRN	V	HMRT-16	11-20-07	93722
	15	14	U.S. Marine Corp Camp Pendleton  TYPE 1 TOTAL:	XSD-MCP	VI	HazMat 1	3-13-08	92055
	-			V00 00H		1104.4	44.4.07	0.4550
	5	5	Contra Costa County JPA	XCC-CCH	II	HM-1	11-1-07	94553
	31	29	Eureka Fire	XHU-EUR	II	HM-8190	4-21-10	95501
	41	35	Fremont City Fire	XAL-FRE	Ш	HM-57	4-4-11	94538
	33	31	Marin County Fire Haz-Mat JPA	XMR-MRN	II	HM-1	7-22-09	94945
	28	27	San Ramon Fire Prot. Dist	XCC-SRM	II	HM-35	6-19-09	94506
	8	8	Sonoma County Fire	XSN-SSR	II	HM-2936	11-02-09	95403
	25	24	Sunnyvale Dept. Public Safety	XSC-SNY	II	HM-2	6-1-10	94085
TYPE	35	32	Napa County Fire	XNA-NPA	II	HM-27	10-26-10	94558
2	44	39	San Francisco Fire	XSF-SFR	II	HM-1	4-5-11	94102
	36	33	Butte County Fire	XBU-BUT	III	HM-5	4-1-10	95926
	37	34	Butte County Fire	XBU-BUT	III	HM-64	4-1-10	95966
	13	12	Truckee Fire Prot. District	XTB-TRK	IV	HM-1	10-6-08	96161
			(Bakersfield Deleted, up-grade to T-1)					
	11	11	Merced County F.D.	XMD-MRD	V	HM-62	5-09-09	95301
			TYPE 2 TOTAL:	<u>'</u>		1:		
	7	7	Long Beach Fire Dept.	XLF-LOB		HM-24	2-26-08	90802
TYPE	20	49	Mt. View Fire	XSC-MTV	II	HM-5	5-13-11	94043
3	21	20	Palo Alto Fire Dept.	XSC-PAF	II	Rescue 2	8-2-2010	94304
	۷1	20	TYPE 3 TOTAL:	700-1 AI	- 11	1163646 2	0-2-2010	34304
		TOT	AL TEAMS PASSED INSPECTION:			36 36	•	
TOTAL TEAMS PASSED INSPECTION:								

THESE TOTALS ARE ACTUAL – THEY WILL NOT JIVE WITH THE "QUICK-GLANCE" CHART TOTALS, as that chart includes counting and tabulating separately UP-GRADE INSPECTIONS, and FULL RE-INPSECTIONS.



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November 15, 2011

# Fire & Rescue Branch Hazardous Materials Section

## **BULLETIN #20**

# CALIFORNIA STATE HAZ-MAT MUTUAL AID ROSTER and HMRT MOBILIZATION

#### WHAT HAPPENS AFTER WE PASS THE HAZ-MAT TEAM TYPING INSPECTION?

Those agencies that have passed the Cal/EMA Fire & Rescue Branch *Hazardous Materials Team Typing inspection* and have achieved a Haz-Mat Type 1, Type 2, or a Type 3 certification, the specified Company (your agency numerical designation for the unit) is then added to the Haz-Mat Team Mutual Aid Roster. It is an EXCEL table that is maintained by Fire & Rescue Branch, Special Operations. It is important that we indicate each Company by proper Operational Area three-letter designator (i.e. XKE for Kern County Operational Area) and the agency's three-letter designator (i.e. BKF for Bakersfield Fire Dept). Certified teams are also identified by Zip Code number as this identifies a geographical area. All this information is helpful in order to accurately indicate positioning of the Company on GIS over-lays of the State of California. Zip codes are further helpful to determine closest units to an event, and to determine estimated response distances and probable response times.

This EXCEL table is accessible by all Chief Officers of the Fire & Rescue Branch, FIRESCOPE and the Warning Center. Similar EXCEL tables are maintained for the Swift Water Rescue teams, and the Urban Search & Rescue teams. A few examples are shown in the facsimile table below:

CERTIFIED HAZ-MAT TEAMS, BY TYPE (Abbreviated) - AS OF 11/15/11									
	AGENCY Operational and Local Identifier Region		Unit Designation	Attained	Zip Code				
	Roseville City Fire	XPL-RSV	IV	HM-1	10-26-06	95678			
TYPE 1	Sacramento City Fire	XSA-SCR	IV	HMRT-7	12-27-06	95823			
	Alameda County Fire	XAL-ACF	ll .	HM-12	3-10-08	94546			
	Glendale City Fire	XLC-GLN	I	HM-24	2-26-08	91204			
	Contra Costa County JPA	XCC-CCH	II		11-1-07	94553			
TYPE 2	San Ramon Fire Prot. Dist	XCC-SRM	II	HM-35	6-19-09	94506			
	Truckee Fire Prot. District	XTB-TRK	IV	HM-1	10-6-08	96161			
TYPE 3	Long Beach Fire	XLF-LOB	İ	HM-24	2-26-08	90802			

#### WHO PARTICIPATES IN THE STATE-WIDE HAZARDOUS MATERIALS MUTUAL AID PROGRAM?

First, any entity that agrees to participate in the California Fire & Rescue Statewide Mutual Aid System. Then if they also have a hazardous materials response team, there are several criteria:

- 1. Any agency who manages a hazardous materials response team program, and;
- 2. The haz-mat team(s) must have passed the team typing inspection for certification to Type 1, Type 2, or Type 3, and;
- 3. The agency agrees and understands that a Cal EMA Fire & Rescue request for Haz-Mat Team resources may require response for considerable distances out-of-jurisdiction and for prolonged periods of time, and;
- 4. Participation in the mutual aid program is voluntary.

Any agency agreeing to the above noted criteria is now a participant in the state-wide Fire & Rescue Mutual Aid System for hazardous materials company response. This means that a request for haz-mat team mutual aid assistance (emanating from and/or through the Cal EMA Fire & Rescue system) may be directed to your agency. A request may be for a variety of different resources:

- 1. A Single Company Resource.\* The request is for just one certified Haz-Mat Team company.
- 2. <u>A Haz-Mat Task Force</u>.\* The request is for several (usually up to five) resources but with different levels of typing, and a Task Force Leader. The Task Force may be pre-assembled and caravan to the incident, or may be directed to respond directly to the incident and form into the specified Task Force upon arrival.
- 3. <u>A Haz-Mat Strike Team</u>.\* The request is for several (usually up to five) resources all with the same level of typing (i.e. all Type 1), and a Strike Team Leader. The Strike Team may be pre-assembled and caravan to the incident, or may be directed to respond directly to the incident and form in the specified Strike Team upon arrival.

  \*See definitions for these terms in the FIESCOPE Field Operations Guide.

#### IF WE ARE CONTACTED TO RESPOND, IS IT MANDATORY?

No. There is a mandate that requires all fire department agencies in the state to be signatory to the California State Mutual Aid System and the Emergency Mutual Aid Plan. This means that all fire agencies will participate within the program when an emergency arises. However, this is only so long as it does not impact the emergency response capabilities of a particular agency negatively. At the time a particular agency is in receipt of an official CalEMA request for mutual aid for specified equipment, that agency can at the time of request turn down and deny the request for mutual aid when such a request will negatively impact local response disciplines. For example, if at the time of a Hazardous Materials Response Team mobilization request for single company resource, Strike Team, or Task Force, the agency being requested to participate cannot do so because of increased local or regional fire activity, or their Haz-Mat Team and unit is unavailable, or their current staffing status is negatively impacted, etc., then that agency can deny the request for participation in the mutual aid with no negative impact.

#### WHAT IS THE MUTUAL AID PLAN?

The California Fire Service & Rescue Emergency Mutual Aid Plan is an extension of, and supportive document to, the California Emergency Plan. The purpose of the Mutual Aid Plan is to provide for systematic mobilization, organization and operation of necessary fire, rescue, and hazardous materials resources of the state and its political subdivisions in mitigating the effects of disasters, whether natural or man-caused. Further, the Mutual Aid Plan provides for the following:

- 1. Creates a formal structure for the provision of mutual aid.
- 2. Provides that no party (participating agency) shall be required to unreasonably deplete its own resources in furnishing mutual aid.
- 3. Provides that the responsible local official in whose jurisdiction and incident requiring mutual aid has occurred shall remain in charge of said incident.

If you do not have a copy of the Fire & Rescue Branch Mutual Aid Plan it is strongly recommended that you obtain one and place it in possession of your trained Strike Team Leaders, and with each of your haz-mat companies. It is downloadable from:

http://www.oes.ca.gov/Operational/OESHome.nsf/PDF/FirePDFs/\$file/MutualAidPlan3-05.pdf

#### WHAT IS THE STRIKE TEAM LEADERS' MANUAL?

It is a manual published by the Fire & Rescue Branch. Basically it guides the Task Force/Strike Team Leader in the assembly and response of the resources assigned to him. Further, it contains guidance in the operation, management and direction of his resources at the incident. It contains check-off lists and includes lists of duties and responsibilities of the Task Force/Strike Team Leader.

For example, at the time of a requested mobilization of a Haz-Mat Task Force or Strike Team (of any type), the Leader is prompted by the Manual to insure he is in receipt of the following information as the Task Force or Strike Team is forming up:

- 1. The requesting agency
- 2. The Incident Name
- 3. Incident Order Number
- 4. Incident Request Number
- 5. Strike Team number
- 6. Travel Route (or one planned by the Leader)
- 7. Reporting location
- 8. Communication Frequency

The Task Force/Strike Team Leaders' Manual includes many (but not all) of the ICS forms and instructions on how to properly complete them. It also contains information on the statewide radio frequency plan, including the frequencies for many of the radio channels.

If you do not have a copy of the Fire & Rescue Branch Mutual Aid System Strike Team / Task Force Leader Manual, it is strongly recommended that you obtain one for each of your trained Strike Team Leaders, and for your haz-mat company(s). The 5 / 2009 edition is downloadable from:

http://www.calema.ca.gov/WebPage/oeswebsite.nsf/ClientOESFileLibrary/Fire%20Documents/\$file/Strike%20Team%20Leader%20Manual%202009%20final%205.11.09.pdf

#### IS THERE RESPONSE CRITERIA WHEN WE ARE ACTIVATED FOR A HAZ-MAT MUTUAL AID REQUEST?

Yes, there are several. When an agency has been contacted if they can agree to send one of their Haz-Mat resources out of jurisdiction in a mutual aid mobilization, the following criteria must be followed:

- 1. The response unit must contain, at the time of the mobilization request, all of the equipment that was inspected for the units' Team Typing Certification. This may require the inclusion of an additional vehicle such as a trailer that contains some equipment and tools not otherwise included on the specified response unit.
- 2. The response unit and the team as a whole, at the time of the mobilization request, must meet the type of team being requested, i.e. **Type 1**, **Type 2**, or a **Type 3**.
- 3. Staffing and training level of the Haz-Mat Team, at the time of the mobilization request, must conform to the FIRESCOPE hazardous materials chart on *Hazardous Materials Company Types and Minimum Standards (Refer to the FOG Guide document ICS-420-1, Chapter 14)*:
  - a. Type 3 staffing five, to CSTI Hazardous Materials Technician (HMT)

- b. Type 2 staffing five, to CSTI Hazardous Materials Specialist (HMS)
- Type 1 staffing seven, to CSTI Hazardous Materials Specialist and CSTI Weapons of Mass Destruction (HMS-WMD)
- 4. Be prepared to respond at the time of notification and mobilization request for "Initial Attack", or "Immediate Need", or "Planned Need". The requesting agency should convey through the dispatch procedure not only the type of resources needed as reviewed above, but also the urgency of the response:
  - a. Initial Attack: The hazardous materials incident is dire, it is out-of-control, it is of significant size that the threat to life and property is imminently threatened by the event, and there is an urgent need for Haz-Mat Team mutual aid. This response is "Code Three".
  - b. **Immediate Need:** The hazardous materials incident is not quite so severe, but a swift response is still needed. This response is either "Code Two" or "Code Three".
  - c. **Planned Need:** Usually includes a response that will not include intervention by the responding resources until the next operational period or a designated time. This response is "Code Two"

Response Mode	Time Frame	Criteria
INITIAL ATTACK: Code Three	Respond Instantly at time of activation request and dispatch (As quickly as is possible)	Life and property imminently threatened Closest available resources within operational area or adjacent operational area Resources to rendezvous at the incident
IMMEDIATE NEED: Code Two or Three	Respond within 30 minutes of activation request and dispatch	Life and property threatened     Any available resources within operational area or adjacent operational area     May or may not rendezvous prior to departure
PLANNED NEED: Normally Code Two	Planned Arrival (Usually within 2 hours of activation request and dispatch)	Resources respond within the operational area, adjacent operational area, region, or the state. Response is planned for the next operational period or as determined by the requesting agency Usually will rendezvous prior to departure Caravan as a Task Force or Strike Team within the 2 hour time-frame

#### WHAT DO WE DO WHEN WE GET THERE?

Upon arrival at the designated incident the Strike Team / Task Force Leader or the individual Haz-Mat Resources must report in. If instructed to report to a "Staging Area", find the Staging Area Manager and receive your assignments. If no Staging Area has been designated, locate the Command Post and check in with either the Incident Commander or the designated Liaison Officer to receive your briefing and assignments. In large events, Divisions and/or Groups may have been established, including a Hazardous Materials Group. In this case, the Strike Team / Task Force Leader or the Single Company Resource (Haz-Mat) Officer should be directed to report to the Haz-Mat Group Supervisor.

Please refer to and review the following documents for more information:

POSITION	DOCUMENT	PAGE
Strike Team / Task Force Leader	FOG ICS-420-1, Chapter 8	Page 8-5
Single Company Resource	FOG ICS-420-1, Chapter 8	Page 8-7
Hazardaua Matariala Craun Supanicar	FOG ICS-420-1, Chapter 8	Page 8-4
Hazardous Materials Group Supervisor	FOG ICS-420-1, Chapter 13	Page 13-8

The entire Chapter 14 "Hazardous Materials" portion of the FIRESCOPE Field Operations Guide (ICS-420-1) should be well known and understood by the members of the mobilized hazardous materials resource. It contains complete descriptions and duties of all of the ICS positions within

the Haz-Mat Group and their respective position check-off lists. Copies of the FOG can be accessed and downloaded at:

#### http://www.firescope.org/ics-8x11-fog.htm

#### ARE THERE SPECIAL FORMS AND CHECK-OFF LISTS FOR HAZ-MAT MUTUAL AID?

Yes. The most important packet of pre-designed forms are the standard FIRESCOPE ICS forms. There are about 26 different forms. Those most closely associated to the particular incident should be used. Your Task Force/Strike Team Leader should have a packet of them ready to go at all times. However, these forms are accessible at any time on the FIRESCOPE web page and are printable in PDF format.

#### http://www.firescope.org/ics-forms.htm

The Hazardous Materials organizational module of the ICS is designed to provide an organizational structure that will provide necessary supervision and control for the essential functions required at virtually all Hazardous Materials incidents. This is based on the premise that controlling the tactical operations of companies and movement of personnel and equipment will provide a greater degree of safety. The Hazardous Materials Group Supervisor (or the Hazardous Materials Branch Director, if activated) will direct primary functions, and all resources that have a direct involvement with the hazardous material will be supervised by one of the functional leaders or the Hazardous Materials Group Supervisor.

Further, it is important for any Haz-Mat Team to have all of the appropriate FIRESCOPE ICS Position Manuals which explain in detail all of the functions and responsibilities of each position within the Hazardous Materials Group. There are eight of them. They can be accessed and printed from PDF files at:

## http://www.firescope.org/ics-hazmat-pos-manuals.htm

## HOW SHOULD WE PREPARE FOR A POSSIBLE ACTIVATION AND RESPONSE?

<u>FIRST:</u> If your agency, - at the time of a Cal/EMA Mutual Aid request, - has also been asked to provide a *Strike Team Leader*, then the documents as listed below comprising a *STRIKE TEAM LEADER'S KIT PACKET* (put together by the Fire & Rescue Branch) should be pre-assembled and provided at the ready. It is imperative that this packet accompany anyone who is or will be a Strike Team Leader.

A CalEMA Fire & Rescue Branch **STRIKE TEAM LEADER'S KIT PACKET** should consist at the minimum of the following documents:

•	Strike Team Leaders Manual	1 each
•	ICS 214 – Unit Log form	14 each
•	Cal/EMA F-42, Emergency Activity Record	14 each
•	Cal/EMA Strike Team Control Record	2 each
•	Cal/EMA Operations Bulletin #8 "Emergency Activity Record:	1 each
•	Cal/EMA Mail/Storage Envelope	1 each
•	Cal/EMA Strike Team Identification Stickers, (Window/Bumper)	12 each
•	Fire & Rescue Mutual Aid Plan	1 each

These kit packets are available by contacting your CalEMA Fire & Rescue Region Assistant Chief. Also, at the time of a CalEMA mutual aid mobilization, the Assistant Chiefs that you will be reporting to at the scene of the incident will also have available and will pass out these **STRIKE TEAM LEADER'S KIT PACKETS**.

<u>SECOND</u>: Many fire departments in California have developed **STRIKE TEAM "GO" KITS**, particularly in anticipation to be requested to participate in a Strike Team mobilization during peak forest fire and grass land fire seasons. From experience gained by response to long campaign incidents (i.e. forest fires, floods, earthquakes, etc), the idea of these kits is to augment ordinary personal comforts of life for long durations of time away from agency and family.

These are individual kits assembled in a duffle bag type carry-all, and stored at the fire station. When a message is received by the on-duty personnel at the station that their resource is being activated for haz-mat mutual aid, these kits are quickly transferred to the response vehicle or an accompanying staff vehicle. This saves considerable time in the assembly of a Task Force or a Strike Team even if requested to respond as a "Planned Need". Remember, it may be some time before meals and a place to sleep can be arranged even after you arrive at your destination. The weather may be completely different than your local conditions. Being properly prepared strengthens personal confidence and security.

# A typical **STRIKE TEAM "GO" KIT** can consist of the following:

## a. Agency assigned SAFETY GEAR and items:

- All assigned safety gear, to include standard issue turnouts, helmet, boots, gloves, goggles
- Additional assigned safety gear such as flame retardant jump suits, grass land fire fighting clothing
- Fire shelter, and SCBA face piece

## b. Individual PERSONAL Items:

- Personal credit card or ATM card
- Personal telephone calling card
- Extra cash, to be used for food, phone calls, and other needs while en-route
- At least one change of underclothing, i.e. shorts, T-shirt, socks
- For cold weather, an insulated rain jacket, sweat shirt, long johns
- Personal items to include: toothpaste and brush, shaving gear, toilet paper, cloth towel, replacement eye glasses or contact lenses, suntan lotion, soap, comb, scissors
- Appropriate prescription medication
- Sleeping bag, sleeping pad, small ground cloth
- Personal first aid kit
- Flash light with extra batteries
- Portable AM/FM radio
- Map of State of California or Map Book of same
- Clipboard, writing implements, tape
- Canteen (or Igloo cooler on board the apparatus)
- Immediate need munchie food (peanuts, energy bars, hard candy)

#### c. Regarding phone numbers, the following should be included:

- Personal family contacts
- Your agency contacts
- Operational Area Coordinator Dispatch Center
- Cal EMA Fire and Rescue Branch main (916-845-8711)
- Cal EMA Fire and Rescue Branch EOC (916-845-8670)
- Cal EMA Warning Center (800-421-2921) or (916-845-8911)

<u>THIRD:</u> In addition to the above described personal STRIKE TEAM "GO" KIT, a smaller kit is sometimes pre-assembled and held in ready by the agency for support of a Strike Team Leader or

for the Captain or officer of a Single Company Resource. This agency assigned **SPECIAL ITEMS KIT** is also optional and is determined by the agency.

- d. Agency assigned SPECIAL ITEMS KIT (Optional, depends upon agency protocols):
  - Agency assigned fuel card
  - Agency assigned credit card for miscellaneous purchases, lodging
  - Set of assigned walkie talkies, per local agency operating procedures
  - Set of replacement rechargeable batteries
  - Cell phone, per local agency operating procedures
  - Agency provided State Map Book(s)
  - Set or packet of pre-printed FIRESCOPE ICS forms
  - Set or packet of local agency's required forms
  - Set or packet of other forms (i.e. OSHA injury reports, accident reports, etc.)

# FIRESCOPE STANDARDIZED HAZARDOUS MATERIALS EQUIPMENT LIST

# **PART 2: LIST OF EQUIPMENT**

#### 1. FIELD TESTING and DETECTION

Field Testing and Detection are procedures that can be employed in the field. They are utilized to support verification as to the possible presence of, or the specific identification of, industrial chemicals, WMD chemicals and/or biological substances. Field testing and detection incorporate a step-by-step process which utilize a variety of resources, including complete field testing chemical kits, specific chemical testing kits, individual testing paper strips, tickets, and packets, the use of colorimetric tube technology, and biological agent testing kits.

The objective of field testing is to employ an adequate and acceptable subjective testing procedure that will yield results with a high degree of credibility. The results should focus on at least verifying the presence of a substance, categorizing a substance according to chemical and physical property hazards, and occasionally identifying a substance by common or chemical name. Field testing category does not include instruments or devices for continuous survey. Continuous survey is included in the Air Monitoring category.

## 1.1 Color Change Analysis - Non-Electronic [Sub-Category]

Field testing employed to verify presence of suspect known substances. This type of analysis is also used to determine possible presence of unknown industrial chemicals, WMD chemicals and biological substances. This testing and detection process is largely predicated upon a "color change" technology. The results are often interpreted in a "yes – no" environment, such as employed by single use test paper, test strips, test cards, tickets, and coupons. This includes: pH paper, chemical specific test strips (i.e. formaldehyde, cyanides); chemical classification strips (i.e. nitrides, nitrates, heavy metals); or chemical and physical property determination (i.e. oxidizer, water reactivity).

lnv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
1.1.1	<b>TEST STRIPS, pH PAPER, Packets:</b> To test acidity or alkalinity of aqueous solutions; $\mathcal{U}$ " wide x 3" long nominal; Presence is based upon a color change.	1 Pkt		R	R	R
1.1.2	<b>TEST TABS, pH PAPER, Kit:</b> Same as pH PAPER Test Strips, but extra-large, ½ to 1" wide by 6 to 9" long nominal; Presence is based upon a color change.	1 Pkt		Opt	Opt	Opt
1.1.3	<b>TEST STRIPS, OXIDIZER, Packets:</b> Physical or chemical property sensitive; Presence is based upon a color change.	1 Pkt		R	R	R
1.1.4	<b>TEST STRIPS, PEROXIDE, Packets:</b> Physical or chemical property sensitive; Presence is based upon a color change.	1 Pkt		R	R	R
1.1.5	<b>TEST STRIPS, CHEMICAL SPECIFIC, Packets:</b> Additional industrial chemicals test strips, usually sensitive for a specific chemical (i.e. formaldehyde; chlorinated hydrocarbons; organo-phosphate; halogen ion; heavy metals; nitrites; nitrates; cyanides, sulfites, sulfates, etc.) Presence is based upon a color change.	1 Pkt of each		Opt	Opt	Opt
1.1.6	TEST STRIPS, MULTI-ION CLASSIFICATION, Kit: Single large test strips detects for 5 or more ions or compounds simultaneously (typically is a combination of the following: corrosiveness, oxidizer, fluoride ion, halogen ions, organic solvents, sulfite, sulfide, nitrite, nitrate; potassium, lead, arsenic, organo-phosphates – depending on manufacturer); Combination can depend upon type of kit purchased). Based upon color change.	1 Kit		Opt	Opt	Opt

1.1.7	<b>TEST STRIPS, WATER QUICK TEST, Kit:</b> Test strip detects 5 or more common contaminants in water simultaneously (typically chlorine ion, pH, alkalinity, hardness, nitrates, nitrites). Based upon color change.	1 Kit	o	pt	Opt	Opt
1.1.8	<b>TEST STRIPS, WATER QUAITY, Kit:</b> More advanced test kit, in addition to kit above, also tests for bacteria, ammonia, sulfates, free iron, free copper	1 Kit	o	pt	Opt	Opt
1.1.9	TEST STRIPS, WMD CHEMICAL, Kit: Military grade detection papers for field testing of liquids only:  (i.e. "M-8" paper booklet of 25 sheets, which are also part of the M256A1 Kit, for nerve agents GA, GB, GD, GF VX and blister agents L, H, HD). Strip turns to one of four colors.  Or -  (i.e. "3-WAY" adhesive paper booklet of 12 sheets; for some nerve agents, blister agents). Strip turns to one of three colors	1 Pkt		R	NA	NA
1.1.10	<b>TEST PAPER, WMD CHEMICAL, Roll:</b> Military grade (i.e. "M-9" paper rolls, for nerve or blister agents). Presence is based upon a single color change, and does not distinguish between nerve agents and blister agents.	1 Pkt	F	R	NA	NA
1.1.11	<b>TEST PAPER, WMD CHEMICAL, Card:</b> Military M256A1 plastic card test kit (Twelve disposable plastic test cards are part of the M256A1 kit; for nerve [GA, GB, GD, VX], blister [H, HD, CX, L], blood [AC, CK] Presence is based upon color changes)	1 Kit	ı	R	NA	NA
1.1.12	<b>TEST CARD, TRAINING ONLY, WMD CHEMICAL</b> : Military M256A1 Training Kit.	1 Kit	F	R	NA	NA
1.1.13	<b>TEST TICKET, NERVE AGENT ONLY, Sensor:</b> Applicable only for some nerve agents, color change based upon detection of organo-phosphate radicals, in air or water.	1 Package or Kit	o	pt	NA	NA
1.1.14	<b>TEST TICKET, MUSTARD AGENT ONLY, Sensor:</b> Applicable only for mustard agents, color change based upon detection of chlorethyl radical, in air or water.	1 Package or Kit	0	pt	NA	NA
1.1.15	<b>DETECTION, EXPLOSIVE SUBSTANCE, Kit:</b> Kit contains three aerosol cans, each to test for a specific group of explosives (A – TNT, TNB, DNT, picric acid; B – RDX, nitro, dynamite, PETN, SEMTEX; C – ANFO, black powder, nitrates, gun powder, potassium chlorate). Positive results are based upon color change.	1 Package or Kit	O	pt	Opt	NA

#### 1.2 Qualitative Analysis, Kits - Non-Electronic [Sub-Category]

A more advanced and disciplined qualitative analysis that incorporates numerous step-by-step procedures. Often assembled and marketed as complete stand-alone kits to detect presence of specific chemicals or verify chemical classes based on hazards, these kits are a compilation of numerous test procedures which are also based upon color change comparison, including color changes in a liquid medium. Their inventory may incorporate detection papers and test strips, sensor tickets, a wide range of reagent vials, some colorimetric tubes, and step-by-step instruction booklets. Testing a known or unknown in accordance to a protocol may incorporate numerous test procedures, and each test procedure may include numerous test steps.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
1.2.1	<b>INDUSTRIAL CHEMICALS, KNOWN, Qualitative:</b> Test Kit, Qualitative analysis, For testing and detection of known industrial chemicals			NA	NA	R
1.2.2	<b>INDUSTRIALCHEMICALS, UNKNOWN, Qualitative:</b> Test Kit, Qualitative analysis, For testing and detection of unknown industrial chemicals, not for biological substances. (Usually the more advanced version of the kits listed in # 1.2.1). <i>If included in inventory, satisfies requirement for 1.2.1.</i>	1 Kit		R	R	Opt

1.2.3	PCB CHEMICALS, Test Kit: Consists of a simple multi-step screening procedure to test for presence of poly-chlorinated biphenyl contaminated solvents. Range of detection nominally is 20 ppm to 500 ppm, with different kit versions having different ppm ranges. Detection is dependent upon liquid color change.	4 Kits		R	R	R
1.2.4	CHLORINATED HYDROCARBON, Test Kit: Consists of a simple multi-step screening procedure to test for presence of free chlorine ions in solvents. Several different kits available representing different ppm ranges, but nominally range between 200 ppm to 4,000 ppm. Detection is dependent upon liquid color change.	4 Kits	EPA 40 CFR 261	Opt	Opt	Opt
1.2.5	<b>ORGANO-PHOSPHATE, Test Kit:</b> Consists of a simple multistep screening procedure to test for presence of organophosphate radical; Includes special test strips based on color change.	1 Kit		Opt	Opt	Opt
1.2.6	INDUSTRIAL CHEMICALS, WATER CONTAMINATION, , Kit: Qualitative analysis of domestic drinking water, and utility water supplies for contaminant industrial chemicals. Involves numerous different test procedures. Detection is dependent upon liquid color changes.	1 Kit		Opt	Opt	Opt
1.2.7	INDUSTRIAL CHEMICALS, WATER SAMPLE TAKING, Kit,: – A kit designed to support water utility company needs to gather large volume samples in preparation for analysis at their laboratories. Kits might be supplied by a local water utility company for use by the local haz-mat team.	1 Kit		Opt	Opt	Opt
1.2.8	WMD, WATER TEST, MILITARY, Kit: Qualitative analysis for WMD chemicals in water (i.e. M272 or M273 kit); Sensitive for GA, GB, GD, GF, VX HD, and L to ppb and ppt. Detection is dependent upon liquid color change. (Rev2008)	1 Kit		R	Opt	NA
1.2.9	wmd chemicals, military, Test Kit: - Part of the M18A2 or M18A3 or CAD C-2 kit; For detecting nerve (GB, VX); blister (H, HD, HN, HT, L, CX, ED); blood (AC, CK); and choking/vomit (CG, MD). Comprises detection tickets, sampling tubes, reagent chemicals and some colorimetric tubes (i.e. M18A2, M18A3, CAD Kit C-2). (Rev2008)	1 Kit		R	Opt	NA
1.2.10	WMD CHEMICALS, MICROSCOPY, Kit: Field portable microscope, digital camera; Requires access to internet or by telephone to a prescribed registered laboratory for transmission, and analysis of data. Complements the HazCat® type field test kit described in Sub-Category 1.2.	1 Kit, Complete		Opt	Opt	NA
1.2.11	wmd chemicals, Reagent Test Kit: Includes kit containing reagent chemicals, and step-by-step procedures to test and screen suspect WMD chemicals by qualitative analysis. Complements the HazCat® type field test kit described in Sub-Category 1.2.	1 Kit, Complete		Opt	Opt	NA

# 1.3 Qualitative Analysis, Kits - Electronic [Sub-Category]

A more advanced qualitative analysis detection method. The results are based upon a sophisticated electronic testing process producing very reliable results. Analysis is based upon examining a substance at the molecular level. A sample of the unknown chemical must be collected and then properly prepared and containerized in accordance with the requirements of the specific device.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
1.3.1	<b>CHROMATOGRAPHY</b> , <b>GAS</b> – Portable chromatograph system complete within a briefcase or attaché case, self-contained computer, database, and display.				01	NA
1.3.2	<b>SPECTROMETRY, MASS</b> or equal – Portable general mass spectrometry system complete within a briefcase or attaché case, self-contained computer, database, and display.	three technologies Described, or		ĸ	Opt	NA

1.3.3 SPECTROPSCOPY, INFRA-RED: Portable identification system including computer, color display, software, 12 volt or 120 volt; Scans unknown with infra-red light and compares fingerprint with information in a database to identify unknown; Varies between 23 lbs to 45 lbs, depending upon manufacturer.	better		
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#### 1.4 Colorimetric Analysis - Non-Electronic [Sub-Category]

Comprises the use of sealed detection tubes, each tube is chemical specific. Colorimetric tube technology detects the presence of a suspect industrial chemical, and some WMD chemical substances in air, by reacting to a pre-sensitized absorbent medium in the tube. Presence is verified by a color change of the absorbent material. Colorimetric tube technology is based upon chromatography principles, and therefore findings should be considered qualitative. Although each tube may be calibrated for a specific substance, tubes may be cross-sensitized to like materials or other interfering contaminants.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
1.4.1	<b>COLORIMETRIC Kit, BASIC</b> – For industrial chemicals spot analysis detection of vapors, gases.					NA
1.4.2	COLORIMETRIC Kit, CHIP – Industrial chemicals spot analysis detection of vapors, gases; Miniaturized colorimetric tubes in a glass or plastic chip, often several chips to a packet. May include or require special bellows pump, electronic reader depending upon sophistication and manufacturer.	1 Kit, Complete, of any of the three listed		R	R	NA
1.4.3	<b>COLORIMETRIC Kit, MULTI-SENSING</b> – Industrial chemicals spot analysis detection of vapors, gases; Specifically designed to read up to five (5) or more tubes simultaneously (each tube can be different), during one reading survey.					NA
1.4.4	COLORIMETRIC Kit, WMD Special – WMD chemicals spot analysis detection of vapors, gases; Consists of specially selected industrial chemical colorimetric tubes assembled by the manufacturer with special instruction on how to employ for some WMD chemicals detection. Requires more advanced interpolation of the data derived.	1 Kit, Complete		R	NA	NA
1.4.5	COLORIMETRIC Kit, CLAN LAB – Special kit for spot analysis detection of vapors, gases associated with clandestine drug lab chemicals. Consists of specially selected industrial chemical colorimetric tubes assembled by the manufacturer with special instructions on how to employ.	1 Kit		Opt	Opt	NA
1.4.6	<b>PUMP, BELLOWS, Electric</b> – A battery powered bellows pump to augment or upgrade hand operated bellows pump; Programmable, with LCD readout.	One		Opt	Opt	NA

#### 1.5 WMD Biological Detection - Electronic

Use of a field test system for unknown biological agents. This qualitative analysis process includes a testing ticket or strip based upon a color-change technology. It incorporates antibodies against an antigen (which may be an organism, part of an organism, a product of the organism, or a chemical). This antibody-antigen interaction triggers a chemical reaction on a test strip or ticket which may be visually interpreted with a detector. Detection for suspect biological substances, including toxins, can be grouped into two (2) assessment approaches: 1) Presumption of the presence of a biological substance (non-agent specific), and; 2) Verification of specific biological agents (agent specific). Testing and detection systems that support the first assessment approach (non-agent specific) are supported by an electronic reader, and give a simple "yes-no" response to possible presence of a biological agent, but does not specifically identify the agent. Those that support the second assessment approach (agent specific) are supported by a more sophisticated electronic reader, and utilize more complex analysis technologies, which are (in the order of increasing reliability) ion fluorescence, PCR (polymerases chain reaction) / DNA replication, chromatography, and infrared spectrometry. Test duration time from start to finish of one test may be 15 minutes to 1 hour.

This WMD Biological Sub-Category DOES NOT include simple test strips which are based only on a color change (i.e. simple amino-assay, protein, and enzyme technologies), with no further analysis. They are inaccurate, often require a very high background concentration of the target substance to initiate a "positive" reading, and are easily prone to false positives.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
1.5.1	NON-AGENT SPECIFIC Biological Detection – A sampling and detection system which will screen for presence of a biological substance based upon fluorescence technologies. Is not agent specific, only gives a "yes" or "no" that a suspect biological agent might be present with reliability of less than 50%. Confirmation and agent identification for more reliable hazard assessment requires further more advanced field testing, or samples sent in for laboratory analysis. Presence of proteins may give false positives.	1 Kit		Opt	Opt	NA
1.5.2	AGENT SPECIFIC Biological Detection — A sampling and detection system which will verify presence of a biological substance based upon protein fluorescence, or PCR / DNA replication technologies. This system is agent specific. Devices from different manufacturers should be reviewed as each manufacturer may provide a different array of agents that can be detected.  Protein fluorescence technology — (Anthrax, SEB, Plague, Tularemia, Ricin, Botulinum, Brucella) — Or - Immuno-assay fluorescence technology, - (Ricin, Botulinum, Anthrax, Small Pox) — Or - DNA replication technology, - (Anthrax, Small Pox, Tularemia, Plague)	1 Stand-Alone Kit or System, or equal or better		R	ОРТ	NA

## 2. AIR MONITORING

The use of electronic devices to monitor for and detect the presence of known or unknown gases or vapors or dangerous environments. Application is ideal for continuous air monitoring with continuous data readout. Platform monitoring begins with ability to provide standard OSHA confined space readings (oxygen presence in %; Flammable atmosphere in LEL; Carbon Monoxide presence, and Hydrogen Sulfide presence). Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and which may directly identify by name a specific flammable or toxic vapor. More advanced air monitoring may also include ability to report parts-per-billion (ppb) readings for toxic substances, and continuous biological survey and monitoring.

#### 2.1 Confined Space Monitoring [Sub-Category]

Combustible Gas Indicators (CGI) and Flame Ionization Detectors (FID) are the most popular technologies employed in detectors that provide a measurement of combustible vapors in air, as a percent (%) of Lower Explosive Limit (LEL). Additionally, some Photo Ionization Detectors (PID) can do the same (See also section 2.2). These instruments are best used to detect the presence of dangerous atmospheres in a confined space environment, namely oxygen deficiency, percent of the LEL of a hydrocarbon flammable gas, presence of Carbon Monoxide, and presence of Hydrogen Sulfide. These units generally do not identify the hydrocarbon by name and typically cannot identify aromatic hydrocarbons.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
2.1.1	CONFINED SPACE OSHA STANDARD Four Gas: Continuous monitoring, independent displays, built-in alarms, minimum of 10 feet of tubing and sampling wand. Referred to as "Four-in-One" Kits: (O <sub>2</sub> Presence in Percent; Combustible Vapor in LEL; CO presence; H <sub>2</sub> S presence)	1 Unit	Intrinsic to UL #913	R	R	R

2.1.2	CALIBRATION KIT, for Item # 2.1.1: For each of the above		_	0	_
	that may be in inventory. (May be supplied by manufacturer	1 Kit	K	K	ĸ
	as part of monitoring device kit).				

## 2.2 Multiple Gas Monitoring, Toxic [Sub-Category]

These units are able to detect for two or more toxic gases as well as combustible vapors simultaneously and may be able to differentiate between at least two or more different vapors present (some up to 30). Most are PID technology but some may be FID technology. These units typically measure toxic vapors in parts per million (ppm) but some may read in parts per billion (ppb). Some are able to identify a specific combustible vapor by substance name, and include software to allow download of data for display on a computer. More advanced PID models may also be capable of additional monitoring functions, such as detection of specific or unique gases, identifying presence of aromatic compounds, have memories that store data for up to 8 hours or greater of continuous monitoring, and are not harmed by some corrosive atmospheres.

lnv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
2.2.1	TOXIC VAPOR, in ppm: Capable of detecting combustible atmospheres (VOC – Volatile Organic Compounds) and toxic vapors (TIC – Toxic Industrial Compounds); Capable of identifying specific substances; Resistant to damage from chlorinated hydrocarbons; Data downloadable to computer. Not usually suitable for Benzene ring substances.	One Unit		R	R	NA
2.2.2	AROMATIC HYDROCARBON (Benzene Ring) Monitoring: Device designed to detect aromatic hydrocarbon (ring) substances. If this utility is incorporated into the above device, this criteria is met.	One Unit		R	R	NA
2.2.3	<b>SIMULTANEOUS MULTI-VAPOR Monitoring:</b> Can differentiate between several combustible vapors or toxic vapors. Not usually suitable for Benzene ring substances.	One Unit		Opt	Opt	NA
2.2.4	<b>CALIBRATION KITS:</b> For each of the above that may be in inventory.	1 Unit for each kit		R	R	NA

#### 2.3 Specialty Gas Capability [Sub-Category]

Continuous monitoring specialty gas detectors are instruments designed to measure a specific gas or vapor (i.e. chlorine), or a very specific category or family of materials. (i.e. halogen gases). Some basic units only warn of presence (i.e., freon and refrigerant detectors), while others can display a specific reading usually in ppm (i.e., cyanides). Units described in Sub-Category 2.2 as being able to also detect and monitor for specialty gases will meet this sub-category requirement. Determining the need to equip for particular specialty gases will be largely dependent upon local requirements and local pre-hazard assessment studies and potential threats.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
2.3.1	<b>AMMONIA:</b> Detects Ammonia vapors to ppm, nominal range 0 to 100 ppm.	1 Unit		R	R	NA
2.3.2	<b>FREONS, Halogenated Hydrocarbons:</b> Halogen derivative refrigerants.	1 Unit		R	R	NA
2.3.3	HALOGEN GASES: Specifically Chlorine; Other halogen gases optional depending upon local needs. (Rev2008)	1 Unit		R	R	NA
2.3.4	PHOSPHINE: Continuous Monitoring. (Rev2008)	1 Unit		R	R	NA
2.3.5	ALDEHYDES: Specifically Formaldehyde	1 Unit		Opt	Opt	NA
2.3.6	ARSINE: Specifically Arsenic Trihydride	1 Unit		Opt	Opt	NA
2.3.7	CARBON DIOXIDE: Measures to ppm, some also display ambient temperature. Requires calibration kit.	1 Unit		Opt	Opt	NA
2.3.8	CARBON MONIXIDE: Measures to ppm.	1 Unit		Opt	Opt	NA

2.3.9	<b>CYANIDES:</b> Specifically Hydrogen Cyanide, Cyanogen Chloride.	1 Unit	Opt	Opt	NA
2.3.10	ETHYLENE OXIDE:	1 Unit	Opt	Opt	NA
2.3.11	<b>HALOGEN ACID VAPORS:</b> Specifically Hydrogen Chloride	1 Unit	Opt	Opt	NA
2.3.12	<b>HYDROGEN SULFIDE:</b> Often is incorporated into a CGI/FID or PID instrument designed to meet OSHA Confined Space detection requirements.	1 Unit	Opt	Opt	NA
2.3.13	<b>NITRIC OXIDE, NITROGEN DIOXIDE:</b> Nominal 0 to 100 ppm for Nitric Oxide, and nominal 0 to 10 ppm for Nitrogen Dioxide.	1 Unit	Opt	Opt	NA
2.3.14	SULFUR DIOXIDE:	1 Unit	Opt	Opt	NA
2.3.15	VOLATILE ORGANIC COMPOUNDS (VOC's):	1 Unit	Opt	Opt	NA
2.3.16	<b>CALIBRATION KITS:</b> Maintenance or Calibration Kit for each of the above devices that may be in inventory, as necessary.	1 for each type of monitoring unit on hand	R	R	NA

#### 2.4 WMD Chemical Dedicated Instruments [Sub-Category]

WMD chemical detection instruments are highly specialized. They are specifically designed to detect presence of WMD chemical agents. The instruments may have narrow detection capability (i.e. nerve agents only), or they may have the ability to measure multiple chemical agents (i.e., nerve, blood, and blister agents). Most are based upon Ion Mobility Exchange technology or Surface Acoustic Wave technology.. A Type I Haz-Mat Company must have the ability to monitor for and detect presence of nerve agents, blister agents, blood agents, choking agents, and incapacitating agents. A variety of instruments are available, however, no one instrument can detect presence of all the mentioned WMD agent categories. Therefore, in order to assure a Company has this detection and monitoring capability, the Company's inventory may require inclusion of two or more instruments. See Chart # 1 in Appendix D for reference and a cross-comparison as to what WMD agents can be detected and monitored by what WMD dedicated instruments

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
2.4.1	<b>NERVE AGENT Detection:</b> This includes GA, GB, GD, GF, VX; See Appendix D, Chart #1 for instruments.	Must have capability to		R		
2.4.2	BLISTER AGENT – MUSTARDS Detection: This includes H, HD, HN, See Appendix D, Chart #1 for instruments	monitor and detect for at		R		
2.4.3	BLISTER AGENT – LEWISITE Detection: This includes L HL; See Appendix D, Chart #1 for instruments.	least one substance in each of these		R		
2.4.4	<b>BLOOD AGENTS Detection:</b> This includes AC, HCN, CK, SA; See Appendix D, Chart #1 for instruments. Some specialty industrial detection devices are available.	six categories. This may require one to		R	NA	NA
2.4.5	CHOKING / VOMITING AGENTS Detection: This includes CG, DP, CL; See Appendix D, Chart #1 for instruments. Some specialty industrial detection devices are available for Chlorine and Hydrogen Chloride.	several instruments, depending upon versatility of		R		
2.4.6	INCAPACITATING AGENTS Detection: Specifically Pepper Spray. See Appendix D, Chart #1 for instruments.	each instrument		R		
2.4.7	<b>CALIBRATION KITS:</b> Maintenance or Calibration Kit for each of the above devices that may be in inventory, as necessary.	1 for each type of monitoring unit		R	NA	NA

## 3. **SAMPLING**

Sampling is the process of instituting a standard substance collection protocol, and includes: Substance Capturing and collection; Containerizing and Labeling; and preparations for Transportation and Distribution. The latter may include evidence documentation and professional laboratory analysis. Sampling is

particularly critical when collecting samples that require further on-scene testing, analysis, and categorization, as well as samples that may become evidence in court or other legal proceedings.

## 3.1 Substance Capture [Sub-Category]

Suitable sample taking activities require special tools to facilitate accurate capture of samples. This Sub-Category includes those tools necessary to capture, collect and then transfer samples of liquids, powders, solids, and surface contaminants to a collection vessel, container, or area. While there are specific tools designed for taking samples, other devices can be improvised into sample taking tools. Some of these items may be found as part of a Qualitative Field Testing Kit as described in Sub-Category 1.2, and if present there in the quantities listed below, would satisfy these requirements.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
3.1.1	COLIWASA TUBES, Disposable: Glass or clear plastic, nominal 43" length, with ground glass seal, approx. 225 ml capacity	Must have minimum of 12 of either	EPA Protocol B	R	R	R
3.1.2	COLIWASA TUBES, Re-usable, Glass: Nominal 43" length, with Teflon seal	type, mix or match	EPA Protocol B			
3.1.3	<b>COLIWASA TUBES, Re-usable, Teflon©:</b> Nominal 40" length, all parts are 100% Teflon©, with Teflon© seal. Only sampling tube suitable for HF.	12	EPA Protocol B	Opt	Opt	Opt
3.1.4	<b>COLIWASA TUBES, Disposable, Polypropylene:</b> Nominal 40" length, with neoprene cone stopper; Most inexpensive of all coliwasa tubes, suitable for sludges, most organic solvents.	12		Opt	Opt	Opt
3.1.5	<b>PIPETTE, TRANSFER, Plastic, Regular, Bulk:</b> Disposable, plastic, nominal 5 to 8 mil capacity, 15 cm long, some available with "billows" type squeeze end.	Pkg of 100 of either type;		R	R	R
3.1.6	<b>PIPETTE, TRANSFER, Plastic, Large, Bulk:</b> Disposable, plastic nominal 20 ml capacity, 30 cm long.	Or a mixture (Rev2009)				
3.1.7	<b>PIPETTE, TRANSFER, Graduated:</b> Glass or plastic, graduated, nominal 28 cm long, disposable, for use with Pipetter Safety Bulb or squeeze bulb.	6		R	R	R
3.1.8	<b>PIPETTER SAFETY BULB:</b> Rubber, with adjustable suction valve, re-useable, replacement	1		Opt	Opt	Opt
3.1.9	<b>PIPETTE, TRANSFER, Plunger Style:</b> Polypropylene, capable of sucking or expelling 1 to 12 ml via action of push-pull plunger with rubber gasket, graduated markings in 1.0 ml increments, disposable	Pkg 10		Opt	Opt	Opt
3.1.10	<b>TEST TUBES, Disposable:</b> Borosilicate glass, heat resistant, nominal 12-14 ml capacity	100		R	R	R
3.1.11	<b>FIBERGLASS CLOTH:</b> Cloth of woven fiberglass thread, pliable, for surface swipe samples of contamination; Maintained in EPA sterile 8 oz. jar.	1 sq. foot		R	R	R
3.1.12	<b>SPONGE</b> , <b>Sealed</b> , <b>Sterile</b> : For surface swipe sample taking.	2		R	R	R
3.1.13	<b>DRUM SAMPLER:</b> Nominal 43" long plastic handle, with screw-on borosilicate glass bottle of nominal 125 ml capacity, to sample 55 gallon drums or small stationary tanks.	1		Opt	Opt	Opt
3.1.14	<b>TANKER SAMPLER:</b> Same as <b>previous item</b> but with extension or telescopic handle to nominal 8 feet.	1		Opt	Opt	Opt
3.1.15	<b>ENVIRONMENT DIPPER, Telescopic:</b> For grabbing samples in tankers, large tanks, creeks, canals; Usually polyethylene extendable or telescopic handle to nominal 8 – 24 feet, with slip-on 500 ml plastic cup, or 500 ml swivel ladle.	1		R	R	R
3.1.16	<b>TONGS, BEAKER or CRUCIBLE, Metal, PTFE Coated:</b> Chemical resistant stainless steel with tips coated with PTFE, nominal 9 ½" long.	2 - Two of either		R	R	R
3.1.17	<b>TONGS, BEAKER or CRUCIBLE, Metal, Plastic Coated:</b> Chemical resistant stainless steel with tips coated with plastic for handling jars, beakers; nominal 10" long.	type, or one of each		IX.	IX.	IX

3.1.18	TONGS, BEAKER or CRUCIBLE, Metal, Extra-Long: Chemical resistant stainless steel or nickel plated, nominal 18" long.	1		Opt	Opt	Opt
3.1.19	FORCEPS: Steel, Teflon coated or uncoated, or Plastic polypropylene, Nominal length 3 ¾" to 5 ½", with pointed or round tips.	At least two, of any kind		R	R	R
3.1.20	FUNNEL: Plastic, Glass or Metal (disposable or re- useable): Small - nominal opening measurement 1 ½" to 2" diameter; Medium - nominal opening measurement 2 ½" to 3 ½"; Large - nominal opening measurement 4" to 6" diameter. (Rev2009)	Complement of 3, with at least 1 of each size (Rev2009)		R	R	R
3.1.24	SPATULA, SAMPLING, LARGE, "V" Shape: Plastic or metal, nominal 6" to 11" long x 3/4" wide, nominal capacity 15 cc to 36cc.	Total of 5, in any combination		R	R	R
3.1.25	SPATULA, SAMPLING, MICRO, Teflon Coated: Nickel plated with long narrow flat ends, one end is oblong, the other end is blunt; Both ends coated with; Nominal 7 ½" long.	1	Meets FDA compliance	R	R	R
3.1.26	<b>SPOON, Plastic:</b> Polypropylene, with long 7" handle, disposable, in ¼ teaspoon, ½ teaspoon, 1 teaspoon, and 3 teaspoon sizes.	12 in any combination of those listed		R	R	R
3.1.27	SCOOP, SMALL, Sterile, 2 oz: General purpose polystyrene, nominal 2 ¼" x 4"	One		R	R	R
3.1.28	SCOOP, MEDIUM, Sterile, 4 oz: General purpose polystyrene, nominal 3" x 5"	One		Opt	Opt	Opt
3.1.29	SCOOP, LARGE, Sterile, 8 oz: General purpose polystyrene, nominal 4" x 6 ½"	One		Opt	Opt	Opt
3.1.30	SCOOP, SMALL, Stainless Steel: Nominal bowl size 5" x 2 $1/2$ ".	One		Opt	Opt	Opt

# 3.2 Bulk Liquid Transfer – Mechanical [Sub-Category]

Mechanical processes needed to support the moving of large quantities of substances which may proceed over a long period of time such as hand operated, electrical, or hydraulic devices. This process is most prevalently instituted to facilitate bulk liquid transfer and to hasten the return of a safe environment.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
3.2.1	<b>PUMP, SYPHON, DRUM, Heavy Duty, Stainless Steel:</b> For 55 gallon drums; All 316 stainless steel with Teflon piston; Hose 35 to 55 feet length; Rate 16 oz. per stroke nominal.		FM or UL Listed			
3.2.2	PUMP, SYPHON, DRUM, Heavy Duty, High Quality: For 55 gallon drums; PVC construction with Viton gaskets and valves; Polyethylene hose 35 to 55 feet length; Rate 1.3 pints per stroke nominal.	1 of any of these three pumps listed	FM or UL Listed	R	R	R
3.2.3	<b>PUMP, ROTARY, Transfer, Metal:</b> Suitable for flammable liquids in 55 gallon drums; Cast iron housing, rubber "O" rings (Viton is recommended for solvents); Aluminum pick-up tube, flame arresting screen and baffle, vacuum breaker, and bung adaptor; Transfers nominal 8 – 10 gallons with 100 revolutions.	· · -	FM or UL Listed			
3.2.4	<b>PUMP, SYPHON, DRUM, Plastic, Medium Duty:</b> For 55 gallon drums; Polyethylene or better, hose 36" minimum; For use with solvents and some inorganic acids; Fits 2" NPT bung hole of drums; Nominal 7 GPM.	1		Opt	Opt	Opt
3.2.5	<b>PUMP, SYPHON, DRUM, Plastic, Light Duty:</b> For 55 gallon drums; Polyethylene or better, hose 36" minimum; For use with solvents and some inorganic acids; Fits 2" NPT bung hole of drums; Nominal 5 GPM.	1		Opt	Opt	Opt
3.2.6	<b>PUMP, ROTARY, Transfer, Plastic:</b> Suitable for solvents and corrosive liquids in 55 gallon drums; Polypropylene housing, Uses Teflon "O" rings; Transfers nominal 8 – 10 gallons per minute.	1		Opt	Opt	Opt

3.2.7	PUMP, DIAPHRAGM, HAND: Portable hand pump with handle, push-pull diaphragm; Available with screw or QC snap-tight 1 ½" hose connections (2), with nitrile strainer on inlet side; 10' of 1 ½" inlet hose and 20' 1 ½" discharge hose; Unit mountable on sturdy platform; Nominal 15 GPM. Often is included as part of a tool inventory in support of decontamination processes.		R	R	R
3.2.8	STINGER, SUCTION PROBE: Usually an "in-house" fabricated aluminum pipe of nominal 4" dia. and 12' long, to assist in transfer of flammable liquid product from an overturned tanker truck; Requires drill, proper size metal cutting 4" dia. drill bit, suction or mechanical pump.	1	Opt	Opt	Opt

# 3.3 Containerization, Labeling, Documentation [Sub-Category]

Containers for samples and sample transport can be critical to the purity of the sample. Incompatible containers and Inappropriate container transportation may contaminate the sample and result in inaccurate analysis, thus emphasis for evidence collection and lab analysis samples should be sterile packaged, as sample contamination may jeopardize sample admissibility as evidence in legal matters.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Туре	Type II	Type III
3.3.1	SAMPLE JARS, Sterile, Clear Glass, 16 oz: Short, EPA Class 2000, wide mouth with Teflon lined lids	6	Class 2000 EPA Protocol B	Opt	Opt	Opt
3.3.2	SAMPLE JARS, Sterile, Clear Glass, 8 & 4 oz: Short, EPA Class 2000, wide mouth with Teflon lined lids	Compliment of 12 (Rev2009)	Class 2000 EPA Protocol B	R	R	R
3.3.3	<b>SAMPLE JARS, Sterile, Amber Glass, 16 oz</b> , EPA Class 2000, wide mouth with Teflon lined lids	2	Class 2000 EPA Protocol B	Opt	Opt	Opt
3.3.4	<b>SAMPLE JARS, Sterile, Amber Glass, 8 &amp; 4 oz:</b> EPA Class 2000, wide mouth with Teflon lined lids	Compliment of 4	Class 2000 EPA Protocol B	R	R	R
3.3.5	<b>SAMPLE JARS, Non-Sterile, Plastic, 8 oz</b> : Ideal for solids or powder samples, polypropylene, with wide mouth screw lids; Not recommended for solvents; Not recommended for evidence or lab analysis collection.	12	None	Opt	Opt	Opt
3.3.6	SAMPLE JARS, Non-Sterile, Glass, 8 oz: Ideal for corrosive liquids and solvents, glass, with wide mouth screw lids. Not recommended for evidence or lab analysis collection.	12	None	Opt	Opt	Opt
3.3.7	<b>SAMPLE VIALS, Sterile, Clear Glass, 1.3 oz</b> : Borosilicate glass vials, with closed Teflon lined cap	12	Class 2000 EPA Protocol B	R	R	R
3.3.8	STOPPERS, Conical: Rubber, neoprene, or silicone; Assortment, ranging between sizes #000 to #6 (9 sizes), (12 mm to 30 mm)	Kit of 5 different sizes		R	R	R
3.3.9	BAGS, PLASTIC, Zipper Locking: Small nominal 3" x 3"; Medium nominal 6" x 6"; Large nominal 9" x 9"; Thickness is 3 to 4 mil.	Kit of 24, representing all three sizes		R	R	R
3.3.10	<b>BAGS</b> , <b>EVIDENCE</b> , <b>Tamper-Proof</b> : Clear integrity evidence bags, nominal sizes are 7" x 4", 7" x 9", 12" x 9", with preprinted label, tamper-proof, tear resistant, and self-sealing.	12		R	R	R
3.3.11	<b>LABELS, ORDINARY BLANK:</b> Nominal size to fit on sides of evidence collection jars or evidence bags; Preferably self-adhesive.	Kit of 50 of various sizes		R	R	R
3.3.12	LABELS, NFPA DATA BLANK: Nominal size is 1" x 2 ½" on vinyl, suitable for small and medium evidence bags, small vials and containers.	Kit of 12 blank	NFPA 704	Opt	Opt	Opt
3.3.13	<b>LABELS, NFPA DATA BLANK:</b> Nominal size is 4" x 6" on vinyl, suitable for medium and large evidence bags, large containers.	Kit of 12 blank	NFPA 704	Opt	Opt	Opt
3.3.14	LABELS, NFPA LABEL ROLL: Nominal size of each label is 1 1/8" x 3 1/8" on vinyl, available in rolls of 500 or more; Suitable for small evidence bags and all glass sample jars.	One role	NFPA 704	Opt	Opt	Opt

3.3.15	LABELS, EVIDENCE SEALS: Tamper-proof evidence labels or tape, nominal size is 1 ¼" x 3", may come by the roll of 250 or more; Dye protected, tampering or attempts to remove leave signs of tampering; Suitable for sealing sampling jars and evidence bags, door jams, electrical circuit switches, locks.	One role, or minimum of 25	R	R	R	
3.3.16	<b>PENS, MARKING, PAINT:</b> Permanent marking, broad tip of porous fiber, multiple colors usually of enamel paint; Usually requires shaking to stir up paint.	4, preferably of different colors	R	R	R	
3.3.17	PENS, MARKING, INDELIBLE: Medium & Fine Point; Permanent marking, Variety of colors.	Kit of 6	R	R	R	
3.3.18	CHAIN OF EVIDENCE FORMS:	20	R	R	R	
3.3.19	PHOTO, ASSESSMENT and RECONNAISSANCE KIT: Camera – film type or digital technology: Must provide "instant" printed images or printable from on-board computer for analysis by on-scene personnel / Incident Command conducting hazard assessment. (Rev2008)	1 kit	1 kit Of either	R	R	R
3.3.20	PHOTO, ASSESSMENT and RECONNAISSANCE KIT, Digital: Camera (high end 4 megapixel or better) digital which provides "instant" digital images for analysis by onscene personnel / Incident Command conducting hazard assessment, and can be downloaded to computer and printed.	type as described (Rev2009)	Opt	Opt	NA	

## 3.4 Transportation [Sub-Category]

Occasionally samples captured at an incident need to be prepared for transportation. Responsibility for the transportation of samples is usually delegated to the investigating agency having jurisdiction, such as law enforcement, county health (environmental haz-mat), or state or federal EPA. On very rare occasions samples need special preparation and special handling. Low threat biological samples might need to be kept chilled in an ice bath. High threat biological samples may need packaging in a certified leak-proof metal container before FBI or CHP assumes chain of responsibility. Leaking compressed gas cylinders might necessitate the use of special DOT certified high pressure casks before they can be moved to a receiving facility for repair.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
3.4.1	CONTAINER, BIOLOGICAL, Plastic: A complete packaging system consisting of locking screw lid and jars of various capacities (6 ml to 500 ml), reinforcing receptacle, and cardboard box, with labels and instructions; Suitable for low threat infectious, blood, and biological.	1 complete kit	ICAO Packing #602 for Infectious Substances	R	Opt	NA
3.4.2	ICE CHEST, Locking Lid: Sturdy plastic, insulated, nominal capacity 2-5 gallon, with lid that securely locks shut.	Availability to 1		Opt	Opt	NA
3.4.3	CONTAINER, BIOLOGICAL, Pelican Case: Sturdy impact resistant case, for added protection of item described above; Approved for air travel; Nominal total capacity 4 liters; Ideal for high threat infectious diseases, WMD biological, and WMD chemical.	1 Case	ICAO Packing #602 for Infectious Substances	Opt	Opt	NA
3.4.4	<b>CONTAINER, D.O.T. CERTIFIED, Small:</b> Stainless steel, with six-bolt lid, 6 ½" dia. By 10" tall, approved for air cargo, pressure tested. The 6" dia plastic containers in Item # 3.4.2 (above) fit into this supper strong cask.	1	DOT	Opt	Opt	NA
3.4.5	CONTAINER, D.O.T. CERTIFIED, Large: Stainless steel, with six-bolt lid, 6 ½" dia. By 22" tall, approved for air cargo, pressure tested. Three 6" dia plastic containers in Item # 3.4.2 (above) fit into this supper strong cask.	1	DOT	Opt	Opt	NA
3.4.6	CONTAINER, D.O.T. CERTIFIED, Recovery Vessel: Totally encapsulate 100 and 150# compressed gas cylinders, 250 psi. rated. Weighs 350 pounds. Requires DOT exemption certificate.	1	DOT 3A480	Opt	Opt	NA

#### 4. RADIATION MONITORING/DETECTION

The process of instituting devices specifically for the detection of radiation sources. This process should be able to aid response personnel to differentiate between types of radiation; interpret accurately readings from the device; employ a field monitoring plan to conduct geographical survey for the search of suspect radiological sources or contamination spread. Basic criteria include detection and survey capabilities for gamma. Intermediate criteria include detection capabilities for beta. Advanced criteria include detection capabilities for alpha and radioactive nuclides. Radiation detection instruments incorporated into an inventory can be those that are specialized for each form of radiation, or a multi-purpose instrument to detect more than one form of radiation.

## 4.1 Gamma, Beta, and Alpha Detection and Survey [Sub-Category]

These instruments can be designed and calibrated for specialized application of a single ionizing radiation (i.e. gamma detection only, beta detection only, and alpha detection only), or designed and calibrated for use against more than one type of radiation (i.e. beta-gamma, or alpha-beta-gamma). Each type of radiation detection requires incorporation of separate electronic circuitry. Gamma instruments detect the "presence" of high energy gamma, and measure the dose rate of the exposure. It can be an "all-in-one" type unit including hand-held wand, or a meter that can accommodate different attachable probes or extendable telescope probes. Gamma detection technology includes gas G-M tubes, sodium iodide crystal, or cadmium zinc telluride. Beta and Alpha instruments detect the "presence" of particles, and measure the dose rate of the exposure. Beta and Alpha detection technology includes gas G-M tube, liquid crystal scintillation, and solid state detection circuitry. All can be referred to as "survey meters".

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Туре	Type II	Type III
4.1.1	SURVEY METER, GAMMA: Capable of detecting gamma radiation (10 keV), with visual display meter 0.001 milli-Roentgen to 1 Roentgen per hour scale, and includes counts per minute/counts per second scale (0-60,000CPM). May include additional support utilities such as headphone set, interchangeable probes, computer hardware receptacle.	I Unit: "Combination" survey meter will also satisfy requirement (See Options)		R	R	R
4.1.2	SURVEY METER, BETA: Capable of detecting beta particles (50 keV at 45% efficiency or 150 keV at 80% efficiency), with variable visual display readout in Roentgen and milli-Roentgen per hour, and includes counts per minute/counts per second scale. May include additional support utilities such as headphone set, interchangeable probes, and computer hardware receptacle.	I Unit: "Combination" survey meter will also satisfy requirement (See Options)		R	R	<b>R</b> (Rev2007)
4.1 3	SURVEY METER, ALPHA: Capable of detecting alpha particles (2.5 MeV with 70% efficiency), with variable visual display readout in Roentgen and milli-Roentgen per hour, and includes counts per minute/counts per second. Can contain a built-in detector or incorporate separate attachable detector probes.	I Unit: "Combination" survey meter will satisfy requirement (See Options)	European "CE" Certification is recommended	R	NA	NA
4.1.4	SURVEY METER, COMBINATION, GAMMA-BETA: Will survey for both Gamma and Beta, and Includes performance of items # 4.1.1 and 4.1.2 in one unit If selected, one unit will satisfy requirement for both 4.1.1 and 4.1.2	1 Unit will satisfy 4.1.1 & 4.1.2 requirement		Opt	Opt	Opt
4.1.5	SURVEY METER, COMBINATION, GAMMA-BETA-ALPHA: Will survey for Alpha, Beta, and Gamma, and Includes performance of items # 4.1.1, 4.1.2 and 4.1.3 in one unit. If selected, one unit will satisfy requirement for 4.1.1, 4.1.2 & 4.1.3.	1 Unit will satisfy 4.1.1, 4.1.2 & 4.1.3 requirement		Opt	Opt	Opt
4.1.6	<b>POCKET METER, COMBINATION,</b> With Alarm: Palm-held compact meter detects alpha, beta, gamma and x-ray; Operating range 0.05 to 50 mR/hr, and CPM 0-50,000; Built-in programmable alarm to function as dosimeter warning for accumulated dose.	2 Units		Opt	Opt	Opt

4.1.7	<b>PROBE, GAMMA, EXTENSION:</b> Telescoping wand with Gamma detection capability, for up to 15'.	1 Wand		Opt	Opt	Opt	
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## 4.2 Radionuclide Detection [Sub-Category]

Radio-nuclide detection instruments can identify by proper chemical name specific nuclide isotopes. The instrument comes equipped with a large library of nuclides in its memory database. These instruments typically use gamma-spectroscopy. Some units can identify multiple nuclides concurrently, and are adaptable to computer interface for display of graphs, time vs distance data, continuous time monitoring.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
4.2.1	RADIO-NUCLIDE DETECTION: Hand held instrument which includes either an internal or external detector, and also includes an internal memory of a radioactive nuclide library. Graphical display in counts per second, and energy corrected dose. Might be programmable for defined alarm levels. Might require docking station. May support download of stored data to computer display. Displays correct chemical name of identified radio-nuclide, classification, and nuclide size.	1 Unit		R	NA	NA

## 4.3 Dosimeters [Sub-Category]

Dosimeters measure the amount (not the intensity) of high energy radiation (gamma and x-ray) an individual was exposed to during an operational period. The result is called "accumulated dose". The display (the reading) is in milli-roentgens. Film badges and TLD (Thermoluminescent Dosimeters) must be sent to a licensed laboratory for processing. All others are instantaneously reading, and require re-charging or recalibration for each use. Dosimeters are required to be worn by all personnel who are assigned or knowingly do work in a radiation threat environment.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
4.3.1	<b>DOSIMETER, DIRECT READING:</b> Direct reading of accumulated dose, or quantity of gamma and x-ray exposure. Requires hand-held re-charger, scale increments should be in milli-Roentgen. Good for quick, immediate, and initial emergency survey. Electronic dosimeter, with or without alarm in 4.3.3 will also satisfy this requirement.	1 for each assigned member; Electronic also satisfies, see 4.3.3	ANSI N-13.5	R	R	R
4.3.2	<b>DOSIMETER, TLD:</b> It is a thermoluminescent dosimeter (TLD) utilizing crystals or film to measure dose. Must be sent to licensed lab for analysis; Are re-useable, but some have a limited shelf life (6 months);	1 for each assigned member		Opt	Opt	Opt
4.3.3	DOSIMETER, ELECTRONIC, Alarm: Direct reading dosimeter with programmable limits and alarms; Functions like a pager and is worn in pocket or on belt; Battery operated, alarms when programmed accumulated dose has been recorded. Will satisfy requirement for 4.3.1.	One for each member of team		Opt	Opt	Opt

## 5. CHEMICAL PROTECTIVE CLOTHING

Chemical protective clothing (CPC) which includes complete ensembles (suit, boots, gloves), and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed. Levels of protection are; Vapor Protective, Liquid-Splash Protective, Chem-Bio Protective Option, and Flash Fire Protective Option. All levels of protection must be compliant with NFPA standards.

#### 5.1 Vapor Protective [Sub-Category]

A vapor protective ensemble or garment, including boots and gloves, that is intended for use in an unknown threat atmosphere or for known high health risk threat atmospheres (at or above IDLH). The ensemble must

be vapor tight (encapsulating). To insure accurate performance protection, they shall be compliant with NFPA Standard # 1991. Individual vapor protective ensembles compliant with NFPA Standard # 1991 can also be certified for and provided with a variety of additional NFPA 1991 "options", which include certification for chemical flash fire escape protection, and liquid gas protection. The formerly optional requirement for protection from chemical and biological terrorism agents is no longer optional and is now incorporated into the base requirements for all NFPA 1991 vapor-protective ensembles(Recy2009). If it is desired that protection for WMD chemical and biological warfare agents be a separate ensemble, this separate ensemble may be compliant with NFPA Standard # 1994. For ensembles to be totally compliant with NFPA 1991 and 1994, detachable glove assemblies, and removable or permanently attached boot assemblies as supplied by the manufacturer, must also meet appropriate NFPA compliance at all times.

NFPA 1991 ensembles provide for the highest level of physical properties protection (rip, tear, puncture, abrasion), and are considered re-useable garments. NFPA 1994 ensembles provide for a reduced level of physical properties protection (rip, tear, puncture, abrasion), and are considered "Limited Use" garments. Ensembles compliant with NFPA 1991 are automatically certified for both WMD Chem-Bio vapor and liquid protection. A Type I Haz-Mat Company must have WMD Chemical / Biological Agent vapor protection capability for each member assigned to the company.

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Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
5.1.1	VAPOR PROTECTIVE ENSEMBLE, 1991 Industrial Chemicals; At least one for each assigned member, not less than 6 for a Type I Company, and 4 for a Type II Company.	6 – Type I 4 – Type II	NFPA 1991	R	R	NA
5.1.2	VAPOR PROTECTIVE, with 1991 Flash Fire Escape: Includes additional NFPA 1991 Flash Fire Escape Protection Option; At least one for each assigned member (Can be same ensemble as 5.1.1 if so specified and certified)	6 – Type I 4 – Type II	NFPA 1991	Opt (Rev2007)	Opt (Rev2007)	NA
5.1.3	VAPOR PROTECTIVE, with 1991 Liquid Gas Protection: Includes additional NFPA 1991 Liquid Gas Protection Option; At least one for each assigned member (Can be same ensemble as 5.1.1 if so specified and certified)	6 – Type I 4 – Type II	NFPA 1991	Opt	Opt	NA
5.1.4	VAPOR PROTECTIVE, with 1991 WMD Chemical / Biological Protection: Includes additional NFPA 1991 WMD Chemical / Biological Protection Option; At least one for each assigned member (Can be same ensemble as 5.1.1 if WMD specified and certified. The 2005 edition of NFPA 1991 includes WMD chemicals tests. Certifying labels MUST be attached to inside of suit). (Rev2008)  VAPOR PROTECTIVE, with 1994 WMD Chemical / Biological Protection: A separate garment per NFPA 1994 Class One (pre-2005 manufacturer's date) or Class Two (post 2005 manufacturer's date) for high vapor threat protective ensemble. (This item DOES satisfy the WMD protection requirement of SEL item # 5.1.4, but DOES NOT	Provides for WMD entry.  Minimum 6 of either type of ensemble, must include gloves, boots to same certification	NFPA 1991  - OR -  NFPA 1994, Class One or Class Two	R	NA	NA
5.1.6	satisfy Industrial Chemicals protection requirement of item # 5.1.1. Certifying labels MUST be attached to inside of suit).  (Rev2008)  PRESSURE TEST KIT: Usually supplied by garment manufacturer, includes Magnehelic gauge.	One	NFPA 1991; ASTM F-1052	R	R	NA

#### 5.2 Liquid Splash Protective [Sub-Category]

A liquid splash protective ensemble or garment, including boots and gloves, in a jumpsuit or multi-piece design that is intended for use in known threat atmospheres where vapor health risk threat is below IDLH but suspect to be above threshold limit value (TLV). The ensemble is intended to be used in an unknown vapor threat atmosphere only where the vapor threat is significantly low (below TLV) or non-existent, and where exposure to liquid splash threats and particulate contaminants may be probable. To insure accurate performance protection, they shall be compliant with NFPA Standard # 1992. For the ensemble to be totally

compliant with NFPA 1992, detachable glove assemblies, and removable or permanently attached boot assemblies as supplied by the manufacturer, must also meet appropriate NFPA compliance at all times.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
5.2.1	<b>LIQUID SPLASH PROTECTIVE, NFPA 1992</b> ; Industrial Chemicals for liquid contact and splash protection (no vapor protection), can be jumpsuit style or multi-piece ensemble depending on manufacturer design.	6 – Type I Company	NFPA 1992	R	R	R
5.2.2	LIQUID SPLASH PROTECTIVE, with NFPA 1994 Class 3 WMD Chemical / Biological Protection: A separate NFPA 1994 Class 3 WMD Chemical / Biological Protection Ensemble which provides for liquid splash protection, and provides a lesser level of physical property protection than NFPA 1992 garment. If selected to be in inventory, meets requirement for item 5.2.1.	4 – Type II Company Of either type	NFPA 1994, Class 3	R	Opt	NA
5.2.3	LIQUID SPLASH PROTECTIVE, with NFPA 1992 Flash Fire Escape Protection Option; Same garment as above, but with flash fire option added; (Can be same ensemble as 5.2.1 if so specified and certified at time of purchase).	6 – Type I 4 – Type II	NFPA 1992	Opt	Opt	Opt
5.2.4	LIQUID SPLASH PROTECTIVE, with NFPA 1992 Liquefied Gas Protection Option; (Can be same ensemble as 5.2.1 if so specified and certified at time of purchase).	6 – Type I 4 – Type II	NFPA 1992	Opt	Opt	Opt

## 5.3 Limited Use Protective [Sub-Category]

Limited Use protective ensembles or garments are intended for use in known threat atmospheres where health risk is below TLV. Further, these ensembles or garments are adequate for low risk known liquid splash environments. Use of these garments are for one time exposure or for limited short duration exposure to the threat. Work environments suitable for selection of these garments would be after elevated chemical and physical threats have been substantially reduced to the extent that vapor protective or liquid-splash protective ensembles are not necessary. The concentration of airborne substances are known and the criteria for using air purifying respirators (APR) are met. These garments are often referred to as "disposable" or "single use", and incident support activities utilizing these garments include sample taking, sample testing, decontamination activities, incident documentation, scene investigation, etc. Currently there is no minimum NFPA Standard to which this level of protective clothing must meet. (NFPA Standard 1993 did describe this ensemble, however this standard was discontinued in year 2000.)

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
5.3.1	<b>LIMITED USE, Splash Protective</b> ; With at least bond or sealed seams (not simple stitch or surged); Liquid tight zipper; Two for each assigned member	2 for each assigned member		R	R	R
5.3.2	LIMITED USE, WMD SPLASH THREAT, NFPA 1994, Class Three: Certified for low threat WMD liquid environments; Primarily attractive for first responder use and protection. This protection level can be combined with the particulate protection (i.e., Ensemble can be both Class Three and Four)	2 for each assigned member		Opt	NA	NA
5.3.3	<b>LIMITED USE, WMD PARTICULATE THREAT, NFPA 1994, Class Four:</b> Certified for low threat WMD particulate environments. Primarily attractive for first responder use and protection. This protection level can be combined with the liquid protection (i.e., Ensemble can be both Class Three and Four)	2 for each assigned member		Opt	NA	NA

#### 6. ANCILLARY PROTECTIVE EQUIPMENT

Ancillary protective equipment are items that are available as separates, and even though some are supplied with chemical protective clothing to provide a complete ensemble (i.e. gloves, boots, booties), it is often necessary to maintain inventories of separates as replacement items. Whenever possible, replacement

items should meet the same standards or certification criteria as that which was first supplied with the CPC from the manufacturer.

## 6.1 Hand Protection [Sub-Category]

In addition to chemical protective gloves that are supplied with the CPC ensemble, sufficient inventory of NFPA compliant gloves must be kept for CPC ensemble replacement purposes. Additionally, a variety of specialty gloves should be considered (i.e. cryogenic, ultra-high temperatures, and radiological gloves). There are no national standards for these later items.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
6.1.1	REPLACEMENT GLOVES, Vapor Protective: Compliant to NFPA Standard 1991. Replacement glove inventory shall be ordered from and include ample supply of the <i>manufacturer</i> 's recommended "outer" glove. Readily available generic type replacement gloves not acceptable. The "inner" glove is listed in item # 6.1.3 below. (Rev2008)	1 replacement set for each suit on hand	NFPA 1991	R	R	Opt
6.1.2	REPLACEMENT GLOVES, Liquid Splash Protective: Compliant to NFPA Standard 1992. Replacement glove inventory must include ample supply of the "outer" generic replacement gloves (Some 1992 suit ensembles are not supplied with gloves from the manufacturer). Where gloves are used as part of the protective ensemble, the manufacturer shall specify types of compliant outer gloves. When Liquid Splash-Protective ensembles are not provided with outer gloves by the manufacturer, replacement gloves must be compliant to NFPA Standard 1992 (Rev2009). The "inner" glove is listed in item # 6.1.3 below. Doubling the number of 6.1.1 replacement gloves will satisfy this requirement, and reduce the number of different types of gloves. (Rev2008)	1 replacement set for each suit on hand; Gloves for 6.1.1 will satisfy.	NFPA 1992	R	R	R
6.1.3	<b>UNDER-GLOVE:</b> Light weight chemical resistant disposable type glove popularly used as an under-glove or "inner" glove for the 1991 and 1992 ensembles. Also is used separately for light duty work, handling, sampling.	24 Pair		R	R	R
6.1.4	HIGH TEMPERATURE Protective Glove: Provides nominal one minute of contact protection for surface temperatures of 800 ° F to 1,000 ° F, and 1,000 ° F to 1,300 ° F. Differing heat insulating ratings versus time is dependent upon manufacturer blend of Nomex© / Kevlar© / and PBI©.	2 Pair	None	R	R	NA
6.1.5	ULTRA-HIGH TEMPERATURE Protective Glove: Provides nominal one minute of contact protection for surface temperatures of 1000 ° F to 2,000 ° F. Differing heat insulating ratings versus time is dependent upon manufacturer blend of Nomex© / Kevlar© / and PBI©. Configuration is often a mitten that fits over glove as described in 6.1.3.	2 Pair	None	Opt	Opt	NA
6.1.6	<b>ULTRA-COLD Protective Glove:</b> Gauntlet length minimum elbow; Provides nominal one minute continuous contact protection for liquids (minus) – $260^{\circ}$ F to (positive) + $300^{\circ}$ F. Often not suitable for immersion in liquid nitrogen.	2 Pair	None	R	R	NA
6.1.7	<b>RADIOLOGICAL Protective Glove:</b> Lead lined glove of butyl or nitrile rubber. Excellent for 100 % blockage of alpha and beta particles, provides limited protection for gamma radiation.	2 Pair	None-	R	Opt	NA

# 6.2 Foot Protection [Sub-Category]

Some Chemical Protective Clothing ensembles are manufactured and supplied with attached boots. However, some are designed only with attached booties and require the donning of chemical resistant boots. Heavy duty chemical resistant outer boots must be provided by the employer, and a sufficient inventory of NFPA / ANSI compliant CPC boots must be kept for use or replacement purposes.

6.2.1	BOOTS, CHEMICAL RESISTANT: For use with Vapor Protective or Liquid Protective garments, and originals may be supplied by garment manufacturers. Replacements for NFPA 1991 ensemble must meet NFPA Standard 1991; Replacements for NFPA 1992 ensemble must meet NFPA Standard 1992 or better; Replacements for use with NFPA 1994 ensemble must meet NFPA Standard 1994 or better. In order to reduce the number of boot sets on hand, one set of NFPA 1991 boots will satisfy requirements for both NFPA 1992 and 1994	member	NFPA 1991 or NFPA 1992 or NFPA 1994; and ANSI Z-41	R	R	R
6.2.2	BOOTIE, OUTER PROTECTIVE: Disposable chemical protective bootie slip-over that covers entirely a General Work Safety Boot for use in low threat level contamination environments. Not intended to take the place of nor provide protection equivalent to NFPA 1991, 1992 and 1994 CPC boots.	12 sets		R	R	R

# 6.3 Head and Eye Protection [Sub-Category]

Protection of the head, ears, an eyes often require the employer to provide additional protective equipment or clothing not normally part of a CPC ensemble. Head protection should be considered whenever CPC is donned, including entry teams and decontamination teams. Adequate eye protection is afforded by the lens of Vapor Protective CPC, and also by the lens of breathing apparatus. In those environments (i.e. sample taking, sample testing, container labeling) where CPC must be worn, but breathing apparatus is not, eye protection should be provided by a supply of ancillary eye protective items.

lnv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
6.3.1	<b>HELMET:</b> Light weight construction style helmet to provide head protection when wearing any CPC ensemble. Should include suspension system, and adjustable sizing.	1 for each assigned member	ANSI Z-89.1	R	R	R
6.3.2	<b>GOGGLES:</b> For use during sample taking, material testing and qualitative analysis; Wide angle wraparound to prevent frontal and side splash to eyes; Polycarbonate or better lens for impact resistance. Some available to fit over prescription glasses.	1 for each assigned member.	ANSI Z-87.1	R	R	R

#### 6.4 Support Systems [Sub-Category]

Support systems are devices, items of clothing, or equipment that when added or included as part of a complete CPC ensemble, provides additional safety and/or versatility. Any system or equipment item that requires the penetration of the CPC (i.e. umbilical air systems, hard wire communications systems), must be installed by the CPC manufacturer and not the employer, in order to attain and maintain industry and OSHA standards. Items that are ordinarily just an addition to the existing ensemble and do not interfere with the original performance function of the CPC should never-the-less meet appropriate industry standards.

lnv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
6.4.1	UNDERGARMENT, FIRE RESISTANT: Jumpsuit style garment, one or two piece, with or without pockets, of fire resistant material (Nomex©, PBI©, Kevlar⊚ or blend) Compliant to one of the following NFPA Standards:  2112 – "Flame Resistant Garments for Industrial Personnel"  Or -  1975 – "Station Work Uniform for Fire and Emergency Services"  Or -  1977 – "Protective Clothing for Wildland Fire Fighting" (Rev2008)	1 for each assigned member	NFPA 2112 Or NPFA 1975 Or NFPA 1977 (Rev2008)	R	R	R
6.4.2	<b>COOLING SYSTEM, Vest:</b> Auxiliary vest worn to provide cooling to torso for short period of time; Different technologies available, such as dry ice, ice packs, cryogenic nitrogen.	4 complete systems		Opt	Opt	NA

6.4.3	COOLING SYSTEM, Jumpsuit: Jumpsuit style garment usually of fire resistant material, interwoven with tubes to provide a liquid circulating medium internal body cooling; Different technologies available, such as circulating cold water, cryogenic nitrogen; May require umbilical tube to supply cooling medium to wearer.	4 complete systems		Opt	Opt	NA
6.4.4	COOLING SYSTEM, Umbilical Air: Air from outside source (cascade system) supplied to wearer via umbilical hose system and manifold; Is also often used to augment or override breathing air apparatus. All parts from cascade supply to wearer's face piece must be of same manufacturer. SEE also Section 12.1.	4 complete systems for suit cooling	NIOSH, OSHA	Opt	Opt	NA

#### 7. TECHNICAL REFERENCE

Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic devices and chemical testing procedures. For those references and electronic databases that are updated with annual or periodic revisions or new editions, library should insure that no reference is over 5 years old.

#### 7.1 Printed References, Industrial and WMD Chemicals [Sub-Category]

A variety of printed references provide different types of data: **Database** type (technical data) is the principal source for physical and chemical properties, toxicological data, and medical related properties of substances and illness symptoms; **Guidebook** type principally focuses on providing remedial intervention steps, precautionary warnings, "first responder" incident stabilization or handling suggestions, first aid treatment; **Specialty** type are unique references containing information not elsewhere found in any other source, such as focusing on one narrow subject field (pesticides), container construction, plumbing, and cargo transportation (rail tank car reference), or incompatible chemicals data; **Regulatory** type are references that contain information regarding regulation, placarding, shipping requirements, local response procedures, mutual aid agreements, etc. Several charts are included in Appendix E for reference to printed resources. Chart # 2 is for **Database** type; Chart # 3 is for **Guidebook** type; Chart # 4 is for **Specialty** type, and Chart # 5 is for **Regulatory** type.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
7.1.1	<b>DATABASE TYPE, Printed:</b> Technical data, physical, chemical and toxicological properties (See Appendix E, Chart # 2)	3 Different references		R	R	R
7.1.2	GUIDEBOOK TYPE, Printed: Intervention, incident handling, hazard assessment. (See Appendix E, Chart # 3)	2 Different references		R	R	R
7.1.3	<b>SPECIALTY TYPE, Printed:</b> Special topics (i.e., rail tank car cross sections, pesticides, etc.) or specific information (i.e. incompatibility) (See Appendix E, Chart # 4)	2 Different references		R	R	NA
7.1.4	REGULATORY TYPE, Government Codes, Ordinances, Printed OR Electronic: Includes Federal and State codes, adopted consensus standards such as NFPA 471, 472, 2112, 1975, 1977, 1991, 1992, 1994, etc. (See Appendix E, Chart # 5). (Rev2008)	1 each of: CFR 49; CFR 29; Appropriate NFPA standards		R	R	R
7.1.5	REGULATORY TYPE, Response Guidelines, Printed OR Electronic: Local, Municipal, and County Response Plans, Operational Area Response Plans, OES Hazardous Materials Incident Contingency Plan.	1 copy – Local Response Plans 1 copy – Oper Area Resp. Plan		R	R	R
7.1.6	WMD Chemical / Biological Substances; Printed: Technical data, some guidelines, some first aid information. (See Appendix E, Chart #6)	At Least: 1 – Chemical 2 - Biological		R	NA	NA

## 7.2 Electronic References, Industrial and WMD Chemicals [Sub-Category]

Many printed references on industrial and WMD chemicals are also available in electronic forms which utilize a computer based information system. Some proprietary chemical reference databases are available only in electronic (software) form. These electronic references are available through software distributors. Some might be available via internet access. Some electronic versions of these databases are now becoming available for Palm Pilots, thumb drives, and miniature CD's, or can integrate to a Palm Pilot from the database which has been downloaded to a computer hard drive.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
7.2.1	<b>DATABASE TYPE, Electronic:</b> Technical Data, physical, chemical and toxicological properties (See Appendix E, Chart # 7)	I Program		R	R	R
7.2.2	GUIDEBOOK TYPE, Electronic: Intervention, incident handling, hazard assessment. (See Appendix E, Chart # 8)	1 Program		R	R	R
7.2.3	<b>SPECIALTY TYPE, Electronic</b> : Special topics (i.e. rail tank car cross sections, pesticides, etc.) or specific information (i.e. incompatibility). (See Appendix E, Chart # 9)	1 Program		R	R	NA
7.2.4	WMD Chemical / Biological Substances; Electronic: Technical data, some guidelines, some first aid information. (See Appendix E, #10)	1 Program		R	NA	NA

## 7.3 Plume Air Modeling, Program Support [Sub-category]

Plume air modeling provides the ability to simulate, predict, and/or monitor the movement of an airborne chemical release. This modeling provides the ability to determine populations at risk, and assists in determining protective action needs. Requires keyboard input into a computer program of typical on-scene weather conditions, container size, leak rate, and some other influencing factors. Some databases include physical and chemical property data (i.e. Cameo), although this too can in some cases be inputted. Some programs can display the calculated plume over a generic grid, or over compatible mapping programs (i.e. Cameo/Marplot). Some programs can only be displayed in a grid/plume fashion or in a chart display and are not compatible with any mapping program (i.e. EPI Code) and are considered "stand alone" plume display programs. Some complete programs allow for the input of "live" real time data from outside remote weather sensors.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
7.3.1	AIR MODELING, Database Software, basic platform:	1 Program		R	R	Opt
7.3.2	AIR MODELING, Overlay / Plume Display Software: Compatible with basic database program (#7.3.1 above)	1 Program		R	R	Opt
7.3.3	<b>AIR MODELING, Overlay / Mapping Software:</b> Compatible with basic database program (#7.3.1 above)	1 Program		R	R	Opt
7.3.4	<b>AIR MODELING, Stand-Alone:</b> Not compatible with any mapping system. Generates quick plumes, and prints grid or chart formats.	1 Program		Opt	Opt	Opt
7.3.5	REAL TIME Data Downfeed: Compatible with computer and air modeling software (This downfeed capability and supporting software usually comes with the particular type of weather station purchased. See Section 8.5 for weather station descriptions)	1 Capability		Opt	Opt	NA

## 7.4 Computer, Support Hardware, Software [Sub-Category]

Computers provide technical ability to access, analyze, document, print, download, and transmit detailed information critical to all phases on a hazardous materials emergency, particularly hazard assessment and logistics management. There is a wide range of special software programs and database support available for such use. The computer system can range from the very basic stand-alone laptop to a very sophisticated multi-tier system.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
7.4.1	<b>COMPUTER:</b> One (1) desktop or laptop, mounted in vehicle with battery backup, and with flexibility to accommodate noted "Requirements" for a complete system. Basic "system" for all three team types must include all peripherals as noted under "Requirement" column. Additional peripherals and programs are required for Type II and Type I teams as noted below. (Rev2008)	7.4.2 – Printer capability 7.4.3 – Scan capability 7.4.4 – Duplication capability 7.4.8 – Graphics Hardware 7.4.11 – CD/DVD Drive		R	R	R
7.4.2	PRINTER, Color: Inkjet or laser or equal color print at rate of at least 10 pages per minute (black and white). This function can be combined with Scanner (item #7.4.3) and Duplication (item 7.4.4) requirements. (Rev2008)	All teams need ability to perform all 3 functions. (Rev2008)  PRINT SCAN		R	R	R
7.4.3	SCAN Capability: Ability to SCAN documents in color, and save to hard drive or peripheral (in PDF or JPG format). This function can be combined with Printer (item 7.4.2) and Duplication (item # 7.4.4) requirements. (Rev2008)			R	R	R (Rev2008)
7.4.4	DUPLICATION Capability: Ability to reproduce 8 ½ x 11 documents, black and white minimum. This function can be combined with Printer / Fax / Scanner. (Rev2008)	DUPLICATE  Separate components or combination		R	R	R
7.4.5	COMBINATION UNIT: Inkjet or laser color printer / scanner / duplicator (known as "3-in-1 units" or "4-in-1" units). (Rev2008)	components acceptable		Opt	Opt	Opt
7.4.6	ACCESS To INTERNET, Wireless: Hardware, connections and ports to provide ability to utilize radio or telecommunications network for computer to access the Internet, is Broadband capable, has wireless internet card or device in order to enable computer to transmit and receive e-mail. (Rev2008)	1 Capability		R	R	Opt
7.4.7	ACCESS To INTERNET, Hard Wire: Ability to tap into standard telephone hardwire access to the internet for computer; This may require maintaining extra modem/telephone cable suitable for and approved by telephone or cable company to be hooked up to their system(s) upon request.	1 Capability		Opt	Opt	Opt (Rev2009)
7.4.8	HARDWARE, COMPUTER, GRAPHICS: Insure that a high quality graphics chip enhancement, or graphics board is included	1 Capability		R	R	R
7.4.9	HARDWARE, COMPUTER, MODEM: Insure that a high quality – high speed General Packet Radio Service (GPRS) modem is installed.	1 Capability		R	R	Opt
7.4.10	HARDWARE, Floppy Disc Drive, 2HD:	1 Capability		Opt	Opt	Opt
7.4.11	HARDWARE, CD-Rom or DVD drive: Numerous different formats available, unit should be multi-format capable	1 Capability		R	R	R
7.4.12	HARDWARE, COMPUTER, USB Port Compatible: Insure that proper connection is included for attachment or download of external electronic devices (i.e. thumb drives, digital cameras, etc). (Rev2008)	1 Capability		R	R	R
7.4.13	SOFTWARE, OPERATING SYSTEM: IBM/Windows or Apple MacIntosh basic operating system platform, operating system not to be more than two versions old at any time. (Rev2008)	1 Capability		R	R	R

7.4.14	SOFTWARE, DOCUMENT PROCESSING: a) Must have a word processing type software program that can create basic files or documents such as letters, notes, logs, tables, etc., and that can download and display other imported files such as incident command forms, Incident Action Plans, Site Safety Plans, etc. (i.edoc, .wpd, .rtf). (Rev2008)  b) Must have a graphics processor type software program that can download and display graphics documents such as photos, maps, plume generation overlays in a variety of graphics file formats, (including .jpg). (Rev2008)	Must have these capabilities:  a) Word Processing  b) Photographics (Rev2008)	R	R	R
7.4.15	SOFTWARE, FORMAT CONVERSION: a) Ability to download, open, copy, and save files in various graphics formats (i.etiff, .bmp, .wmp, etc.) and convert them to a .jpg file. (Rev2008)  b) Ability to convert any document and graphics file to a .pdf file. (Rev2008)	Must have ability to convert files to:  a) .jpg b) .pdf (Rev2008)	R	R	Opt
7.4.16	SOFTWARE, PROTECTION: Installation of software and/or hardware to provide virus protection, Trojan horse protection, firewall, privacy protection, ad blocking, intrusion detection, upgrades, and removal of virus, Trojan horse, and spyware contamination.	1 Protective Setup	R	R	Opt

#### 8. SPECIAL CAPABILITIES

Additional capabilities that would augment a particular level or Type of company, and would provide beneficial assets utilizing highly specialized equipment. These instruments utilize various advanced technologies such as; 1) Ambient light amplification; 2) Infra-red light detection and thermal imaging; 3) Ground positioning systems (GPS) or other locator systems; 4) Ultra-sonic (ultra-high or ultra-low frequency) detection; And 5) digital wireless transmission

#### 8.1 Advanced Technologies; Vision, Heat, Sound [Sub-Category]

Light amplification (night vision) support instruments improve operations in dark environments by enhancing the ability to see. Night vision technology is based upon military development, and relies only on existing night ambient light (starlight, moonlight, or objects highlighted from a long distance by a flashlight). Electronic circuitry amplifies background light 5,000 to over 85,000 times, depending upon quality of device. Civilian level devices are usually referred to as "Generation I". Industrial, emergency services, and rescue needs are better suited to select at least "Generation II". Military needs are "Generation III", and are the most expensive.

Infra-red technologies include two types of instruments: 1) Devices that detect excessive heat radiating from a point source night or day and usually displays temperature in degrees F or C; 2) Devices that are used as binoculars, probes, or spotting scopes to detect a narrower range of infra-red light (i.e. body heat) as in thermal imaging for search and rescue.

Ultra-sonic detection device. Leak detection from pipes focuses on ultra-high frequency generation or ultra-low frequency generation of sound, creating inaudible harmonics, that is produced by the escaping gas. Can be extremely sensitive, detecting very slow leaks or leaks that are very tiny.

Digital wireless data transmission includes the latest in video miniaturization technologies, remote wireless transmission of data, and includes electronic support equipment for portable electronic weather stations for stand-alone use, or in support of any of the above sub-categories. Digital wireless data transmission can be combined with any of these other systems. For digital still cameras, handheld, see Category # 3, **PHOTO**, **ASSESSMENT and RECONNAISSANCE KIT, Digital**.

lnv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
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8.1.1	LIGHT AMPLIFICATION, SCOPE, BASIC; Hand-held, portable stand-alone device for diminished light environments (Night Vision); Some configurations available include: Monoculars and binoculars, usually with built-in zoom capability. Does not allow for interchangeable lenses. Item # 8.1.2 is acceptable to meet this requirement.	1 Unit	Generation II or III Technology	R	R	Opt (Rev2009)
8.1.2	LIGHT AMPLIFICATION, SCOPE, INTERCHANGEABLE, Body Only; Hand-held, portable stand-alone device for diminished light environments (Night Vision); Usually single lens (monocular) only; Lenses are interchangeable, and usually incorporate the high quality of a variety of interchangeable 35mm cameral lenses, including standard view, wide angle, telephoto, and zoom-telephoto.	1 Unit - Meets requirement for 8.1.1	Generation II or III Technology	Opt	Opt	Opt
8.1.3	<b>LIGHT AMPLIFICATION, LENSES, INTERCHANGEABLE LENSES, Wide Angle:</b> Interchangeable cameral lens, usually in the range of 25 to 35 mm.	1 Lens		Opt	Opt	Opt
8.1.4	<b>LIGHT AMPLIFICATION, LENSES, INTERCHANGEABLE LENSES, Standard:</b> Interchangeable cameral lens, usually in the range of 45 to 65 mm.	1 Lens		Opt	Opt	Opt
8.1.5	<b>LIGHT AMPLIFICATION, INTERCHANGEABLE LENSES, Telephoto:</b> Interchangeable cameral lens, usually in the range of 125 to 225 mm.	1 Lens		Opt	Opt	Opt
8.1.6	<b>LIGHT AMPLIFICATION, INTERCHANGEABLE LENSES, Zoom:</b> Interchangeable cameral lens; Popular ranges are 35 to 100 mm, 75 to 150 mm, and 100 to 250 mm.	1 Lens		Opt	Opt	Opt
8.1.7	<b>LIGHT AMPLIFICATION, CAMERA, MINIATURIZED:</b> Very small night-vision technology camera (approximate size i.e. ball point pen); Attachable to helmet, goggles, glasses; Transmits image back to receiving station.	1 Unit		Opt	Opt	Opt
8.1.8	INFRA-RED, SCOPE, Temperature Sensing Only: Handheld, portable scope; with L.E.D. direct temperature reading display, nominal from -25° F to + 1000° F.	1 Scope		R	R	Opt (Rev2009)
8.1.9	<b>INFRA-RED, SCOPE, Hand-Held, Imaging:</b> Hand-held camera-like device, provides image of viewing area in infrared light only (not ambient visual light).	1 Scope		Opt	Opt	Opt
8.1.10	<b>INFRA-RED, SCOPE, Mountable, Imaging:</b> Camera-like device which provides image of viewing area in infra-red light only (not ambient visual light); Mountable to helmet and can provide image to the wearer, and/or transmit image back to a receiving station.	1 Scope		Opt	Opt	Opt
8.1.11	<b>INFRA-RED, PROBE, Imaging:</b> Hand-held device, with infra-red cameral lens on end of probe; Probe may be extendable; Lens may be moveable or pivotal.	1 Probe		Opt	Opt	Opt
8.1.12	<b>INFRA-RED, CAMERA, MINITURIZED, Imaging:</b> Very small infra-red vision technology camera (approximate size i.e. ball point pen); Attachable to helmet, goggles, glasses; Transmits image back to receiving station; could be for further image manipulation and re-transmission.	1 Unit		Opt	Opt	Opt
8.1.13	PERSONAL IDENTIFICATION BEACON, Infra-Red: L.E.D. Personal Identification Beacon, for night or severely diminished light survey and monitoring of entry team personnel; Flashing light is in infra-red range, is invisible to naked eye; (Requires Night Vision Scope or an Infra-Red Imaging camera to detect)	1 for each assigned member		Opt	Opt	Opt
8.1.14	<b>PERSONAL TRACKER:</b> A transmitter is worn by the employee; sends an ultra-sonic signal. A hand held receiver receives signal; LED readout on receiver shows strength of signal and can track through smoke, flame and debris.	1 for each assigned member		Opt	Opt	Opt
8.1.15	<b>SOUND SENSING, Ultra-Sonic:</b> Leak detection device for escaping gas, detecting variations in inaudible harmonic sounds; Selectable dB range down to 30 dB and selectable frequency; Nominal frequency range 15 to 100 kHz	1 Unit		R	R	Opt (Rev2009)
8.1.16	<b>CAMERA, VIDEO, Digital:</b> Portable hand-held color video camera, with laser pointer, microphone, mountable on tripod; May have built-in compass, timer.	1 Unit	UL Standard 1604	R	Opt (Rev2009)	Opt (Rev2009)

8.1.17	<b>CAMERA, VIDEO, PROBE, Wireless:</b> Portable hand-held color video camera, with telescoping probe; Wireless transmitter to receiver in CP.	1 Unit	Opt	Opt	Opt
8.1.18	CAMERA, MINIATURIZED, Video Imaging: Very small video technology camera (approximate size i.e. ball point pen); Attachable to helmet, goggles, glasses; Transmits image back to receiving station; could be for further image manipulation and re-transmission.		Opt	Opt	Opt

#### 8.2 Advanced Technologies; Weather, GPS [Sub-Category]

Portable weather stations can provide all pertinent atmospheric data that may influence conditions at an incident such as change in temperature, prediction of rain, wind velocities, etc. Some of these units can be set up and data transmitted via wire or wireless to computer, data is imported into plume modeling programs such as CAMEO, CHARM, and others. Portable or satellite supported GPS systems can be used to locate, monitor, and keep track of the movement of personnel engaged in assessment or intervention tasks where visual contact is seriously compromised by obstacles, solid objects, or vapor clouds. Positioning receiving devices can also send a wireless signal to a base monitor that displays location of (moving) transmitter over a grid system or over-lay plot plans, maps, blueprint images or floor plans.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III	
8.2.1	<b>WEATHER STATION, Basic Kit:</b> Tripod or mounting bracket, wind monitor (up to 100 mph), barometer (+ or – 3 mBars), air temperature sensor (-20 to +120 degrees F), internal compass, humidity sensor (0 to 100%); Hardwire connections allow use of vehicle or generator power, and sends data back to digital receiver and a host computer; All data upgraded nominally every second.	1 complete kit: Either one as describe will		R	R	Opt	
8.2.2	WEATHER STATION, Wireless Digital Support: Upgrades unit to include transmitter as part of unit, and transmits data up to 5 miles to digital receiver and host computer. Enables weather station to function either by hardwire or wireless.	suffice					
8.2.3	WEATHER STATION, Software Support: Sometimes included as part of basic kit, or may need to be purchased separately depending upon manufacturer; Allows for plume on-screen display, and/or allows for data to be compatible with other plume generation programs such as CAMEO, EIS, CHARM, SAFER.	1 support system		Opt	Opt	Opt	
8.2.4	GPS Personal Receiver/Transmitter: A receiver-transmitter worn by the employee; sends signal to GPS receiver grid (i.e. satellites), which calculates location, and re-transmits position to a receiver station (Requires receiver station), and displayed on computer monitor.	1 for each assigned member		Opt	Opt	Opt	

#### 9. INTERVENTION

Includes the following: Employment of chemical means such as neutralization and encapsulation; Employment of environmental means such as absorption, dams, dikes, channeling, and placement of booms; and Employment of mechanical means of intervention to contain and control, including: plugging, patching, off-loading, tank stabilization

#### 9.1 Chemical Intervention [Sub-Category]

Neutralization agents are used to create a neutral compound or non-polluting salt as an end product. Encapsulation is another option where a silicon based chemical agent traps the liquid within a granular substance, retains it, and prevents it from migrating out.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III	
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9.1.1	<b>NEUTRALIZATION – Acids:</b> for <b>concentrated</b> Acid <b>spills of</b> up to <b>5</b> gallons: <b>Should be</b> neutral salt producing and non-polluting; Granular Sesquicarbonate <b>recommended</b> .	An amount sufficient to neutralize 5 gallon spill		R	R	Opt
9.1.2	<b>NEUTRALIZATION – Alkali (Bases):</b> for <b>concentrated</b> Alkali <b>spills</b> , up to <b>5</b> gallons; <b>Should be</b> neutral salt producing and non-polluting; Powdered Citric Acid <b>recommended</b> .	An amount sufficient to neutralize 5 gallon spill		R	R	Opt
9.1.3	ENCAPSULATING SPREADABLE POWDER – General Purpose (and suitable for Pesticides): Must be NON-CLAY BASED. Granular, spreadable, and pourable; Acceptable for POLAR and NON-POLAR based solvents including pesticides. Nominal size 5-10 lbs dispenser box or bag. (Rev2008)	1 Container ( <b>Not</b> "kitty litter" or diatomaceous earth) (Rev2008)	OSHA 29CFR 1910.119, or EPA 40CFR170 (Rev2008)	R	R	Opt
9.1.4	<b>ENCAPSULATING SPREADABLE POWDER - Formaldehyde:</b> Granular spreadable / pourable, popular for formaldehyde solvents encapsulation; Nominal size – 5 gallon pail kit or 5 lbs of spreadable powder. (Rev2008)	An amount sufficient to encapsulate a 5 gallon spill (Rev2008)		R	R	Opt
9.1.5	ENCAPSULATING SPREADABLE POWDER – Non-Polar Solvents: Granular spreadable / pourable, suitable for hydrocarbon based solvents (not water based solvents), fuels, oil based poisons. Encapsulates and solidifies into a solid; Nominal size – 2 gallon pail. (Rev2008)	1 Container	EPA RCRA Burial Regulations	R	R	Opt
9.1.6	FIRE EXTINGUISHER, CLASS "D", Sodium Chloride formulation: Capacity 30 Lbs; suited for metal fires of magnesium, sodium, potassium, uranium, aluminum	Must have at least ONE.	FM Approval			
9.1.7	FIRE EXTINGUISHER, CLASS "D", Copper compound formulation: Capacity 30 Lbs minimum; suited for lithium, lithium alloys.	Any one from these two types will satisfy.	FM Approval	R	R	R

# 9.2 Environmental Intervention [Sub-Category]

Environmental control methods involve the use of absorbent/adsorbent pads, rolls, pigs, socks, booms, sponges, sweeps, and pillows, as well as the application of flow control technology such as over-flow and under-flow dams, skimming and channeling, in order to control spill migration, and reduce or eliminate hazardous environments.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
9.2.1	ABSORBENT NON-POLAR SOLVENT, - Pads or Roll: Repels polar solvents (water), absorbs non-polar solvents (straight chain hydrocarbons, oils, some freon liquids, carbon tetrachloride); Nominal pad size 18" x 18"; or roll 12" to 15" wide x 150' long. (Rev2008)	150 square feet of coverage	40CFR 300.915(g)	R	R	R
9.2.2	ABSORBENT GENERAL PURPOSE or POLAR SOLVENT, - Pads or Roll: Absorbs polar solvents (water, acids, alkalis). If General Purpose type also will absorb non-polar solvents (straight chain hydrocarbons, oils, benzene ring compounds) Nominal pad size 18" x 18"; or roll 12" to 15" wide x 150' long. (Rev2008)	150 square feet of coverage	40CFR 300.915(g)	R	R	R
9.2.3	ABSORBENT NON-POLAR SOLVENT MINI-BOOMS - Pigs, Socks: Repels polar solvents (water), absorbs non-polar solvents (straight chain hydrocarbons, oils, some freon liquids, carbon tetrachloride); Nominal Dia. 3 to 6"; Nominal Length 4 – 12' each. (Rev2008)	40 feet total length	40CFR 300.915(g)	R	R	R
9.2.4	ABSORBENT GENERAL PURPOSE or POLAR SOLVENT MINI-BOOMS - Pigs, Socks: Absorbs polar solvents (water, acids, alkalis). If General Purpose type also will absorb non-polar solvents (straight chain hydrocarbons, oils, benzene ring compounds). Nominal Dia. 3 to 6"; Nominal Length 4 – 12' each. (Rev2008)	40 feet total length	40CFR 300.915(g)	R	R	R

9.2.5	ABSORBENT NON-POLAR SOLVENT, - Pillows: Repels polar solvents (water), absorbs non-polar solvents (straight chain hydrocarbons, oils, some freon liquids, carbon tetrachloride); Nominal size – 2 to 3 gallon absorption capacity each pad. (Rev2008)	10 Gallon Absorption	40CFR 300.915(g)	R	R	Opt
9.2.6	ABSORBENT GENERAL PURPOSE or POLAR SOLVENT, - Pillows: Absorbs polar solvents (water, acids, alkalis). If General Purpose type also will absorb non-polar solvents (straight chain hydrocarbons, oils, benzene ring compounds). Nominal Dia. 3 to 6"; Nominal size – 2 to 3 gallon absorption capacity each pad. (Rev2008)	25 Gallon Absorption	40CFR 300.915(g)	R	R	Opt
9.2.8	ABSORBENT SPONGE – Mercury Kit: Consists of two basic parts; Mercury absorbing sponges, and approx. 500 gram container of Mercury absorbing powder. Some kits also include a hand operated suction pump. (Rev2008)	1 Kit		R	R	Opt
9.2.9	BOOM, CONTAINMENT, Non-Absorbing: For calm water corralling of a floating solvent/oil only, not for absorption; Buoyancy to weight ration 6:1; Grab tensile strength of 500 lbs and tongue tear strength of 150 lbs. Nominal size – 4" float x 6" skirt x 25' long.	100 feet	OPA-90 Calm Water	Opt	Opt	Opt
9.2.10	BOOM, CONTAINMENT, Oil Absorbing: Will not absorb water; For corralling and absorption of floating solvent/oil; No skirts; Will not sink; Linkable; Nominal size – 5" to 8" dia. X 10 to 25' long; Nominal absorption capacity 5 to 15 gallons per 10 foot section deployed, depending on diameter.	100 feet; and 50 gallons Absorption		Opt	Opt	Opt
9.2.11	PIPE, PLASTIC: Assortment of various sizes and lengths to aid in construction of over-flow and under-flow dams; Nominal sizes include 8' lengths of 12" dia.; 8" dia.; 6" dia.; 4" dia.	One 8' length of at least 3 sizes		R	R	R

# 9.3 Mechanical Intervention [Sub-Category]

Spill containment equipment and leak control devices are commercially available in pre-assembled kits or individual items. These include specially designed kits for controlling leaks in rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Туре	Type II	Type III
9.3.1	CHLORINE "A", Kit: For repair or plugging leaks in chlorine gas cylinders.	1 Kit, Complete	Chlorine Institute	R	R	NA
9.3.2	<b>CHLORINE "B"</b> , <b>Kit:</b> For repair or plugging of leaks in chlorine one ton cylinders.	1 Kit, Complete	Chlorine Institute	R	R	NA
9.3.3	<b>CHLORINE "C"</b> , <b>Kit:</b> For repair or plugging of leaks in chlorine rail tank cars or highway tank trucks.	1 Kit, Complete	Chlorine Institute	R	R	NA
9.3.4	<b>CHLORINE TRAINING PROP, One Ton:</b> Training facsimile of one ton cylinder to allow application of the "B" Kit.	1 Kit, Complete	Chlorine Institute	Opt	Opt	NA
9.3.5	<b>SULFUR DIOXIDE UPGRADE For Kit "A":</b> Allows for use of Chlorine Kit "A" for sulfur dioxide gas cylinders by providing special parts and gaskets.	1 Upgrade Kit, Complete	Chlorine Institute	R	R	NA
9.3.6	<b>SULFUR DIOXIDE UPGRADE For Kit "B":</b> Allows for use of Chlorine Kit "B" for sulfur dioxide one ton cylinders by providing special parts and gaskets.	1 Upgrade Kit, Complete	Chlorine Institute	R	R	NA
9.3.7	<b>SULFUR DIOXIDE UPGRADE For Kit "C":</b> Allows for use of Chlorine Kit "C" for sulfur dioxide rail tank cars by providing special parts and gaskets.	1 Upgrade Kit, Complete	Chlorine Institute	R	R	NA
9.3.8	ANHYDROUS AMMONIA "A", Kit: For repair or plugging leaks in anhydrous ammonia gas cylinders.	1 Kit, Complete		Opt	Opt	NA
9.3.9	MIDLAND RAIL TANK CAR, Three Part Kit: Advertised to be "universal", but does not fit all dome valve assemblies; Functional for repair or plugging leaks in predominantly LPG rail tank cars, but can fit some sulfur dioxide and hydrogen sulfide tank cars; Consists of three (3) separate large kit boxes.	1 Kit, Complete		Opt	Opt	NA

PATCH AND REPAIR, PIPE, LIQUIDS, Standard, Kit: Consists of (at a minimum) externally applied single bolt or dual bolt (preferable) steel pipe clamps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 1/2" dia. pipe to at least 4" dia. pipe; with extra 1/8" neoprene material.	1 Kit		R	R	R			
PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit: Consists of (at a minimum) externally applied dual bolt steel pipe clamps, with rubber sheeting lining; Three or more different pipe sizes ranging from 4 1/2" dia. pipe to at least 8" dia. pipe; with extra 1/8" neoprene material.	1 Kit		Opt	Opt	Opt			
PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) high ferrous steel, nickel plate, or stainless steel externally applied dual bolt or quadruple bolt (preferable) pipe clamps, with rubber sheeting lining; Ten or more different sizes ranging from 1" dia. pipe to at least 5" dia. pipe; with extra 1/8" neoprene material. Pipe clamps of this design range up to 18" in diameter.	1 Kit		Opt	Opt	Opt			
<b>CLAMP, PIPE, GAS, Line, Mechanical:</b> Used for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter, mechanically operated.	1 Kit		R	R	NA			
<b>PATCH, PIPE, GAS, Line, Hydraulic:</b> Heavy Duty squeeze tool for squeezing shut natural gas lines of 1" to approx. 3 ½" in diameter, hydraulically operated.	1 Kit		Opt	Opt	NA			
PATCH, PIPE, LIQUID, Pneumatic, Flange: Large heavy duty rubber bandage type device nominal 8" x 36" long, slips over leaking pipe from 2" to 8" in dia, pipe flange, or pipe valve connection, then inflated. Requires air source, air hose, regulator.	1 Kit	Air source, hose, regulator, ratcheting straps from one kit can be used for another kit if of same manufacturer and compatible (Do not need to duplicate) (Rev2008)	R	R	R			
<b>PATCH, PIPE, LIQUID, Pneumatic, Bandage:</b> Heavy duty rubber bandages of nominal 36" long x 8" wide, and 70" long x 8" wide; wrapped around leaking pipe from 2" to 19" in dia., then inflated. Requires air source, air hoses, regulator.	1 Kit		Opt	Opt	Opt			
<b>PATCH, TANKER, LIQUID:</b> Large foam and plastic patch 12" x 7 " with 6 feet of ratchet strap for 55 gallon drums. Extendable to 25 feet with extra strapping for highway tanker patching capability.	1 Kit		be used for another kit if of same manufacturer and compatible (Do not need to duplicate) (Rev2008)  ne will sfy	be used for another kit if of same	be used for another kit if of same	R	R	R
PATCH, TANKER, LIQUID, Side: Pneumatic operated leak sealing patch or bag, with straps and ratchets to hold in place. Compressed air expands patch (nominal size 24" x 12") to seal leak in side of large tanks, tank cars, or tankers. Requires air hoses, regulator, air source usually supplied as part of kit.	1 Kit: Either one will satisfy			R	R	R		
PATCH, TANKER, LIQUID, Side, Drainage Control: Identical to previous item, but rubber patch is heavy duty construction, with internal plumbing attached to allow for controlled drainage or bleed-off of liquid.	requirement							
PATCH, TANKER, LIQUID, End: Pneumatic operated leak sealing patch or bag, with straps and ratchets to hold in place. Compressed air expands special patch (nominal size 24" x 12") with four eye hooks at corners to seal leak on curved end of large tanks, tank cars, or tankers. Requires air source; air hoses, regulator usually supplied as part of kit, and is an up-grade of previous kit.	1 Kit		Opt	Opt	Opt			
<b>PATCH, TANKER, LIQUID, Magnetic:</b> Nominal 15" x 32" stainless steel backing, with eight magnets, for ferrous metal highway tank trucks, and other low gravity ferrous metal tank leaks.	1 Unit		Opt	Opt	Opt			
<b>PATCH, TANKER, LIQUID, Suction Cup:</b> Nominal 18" x 32" stainless steel backing, with eight EPDM suction assemblies, for use on non-ferrous tanks and tank trucks.	1 Unit		Opt	Opt	Opt			
<b>PATCH, DRUM, LIQUID, Magnetic:</b> A 2" foam and plastic patch approx. 10" x 6" attached to a 32" x 10' pliable metal backing, equipped with two strong magnets on both ends. Magnets hold patch in place on ferrous metal drums and highway tank trucks.	1 Unit		Opt	Opt	Opt			
	Consists of (at a minimum) externally applied single bolt or dual bolt (preferable) steel pipe clamps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 1/2" dia. pipe to at least 4" dia. pipe; with extra 1/8" neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit: Consists of (at a minimum) externally applied dual bolt steel pipe clamps, with rubber sheeting lining; Three or more different pipe sizes ranging from 4 1/2" dia. pipe to at least 8" dia. pipe; with extra 1/8" neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) high ferrous steel, nickel plate, or stainless steel externally applied dual bolt or quadruple bot stainless steel externally applied dual bolt or quadruple bot (preferable) pipe clamps, with rubber sheeting lining; Ten or more different sizes ranging from 1" dia. pipe to at least 5" dia. pipe; with extra 1/8" neoprene material. Pipe clamps of this design range up to 18" in diameter.  CLAMP, PIPE, GAS, Line, Mechanical: Used for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter, mechanically operated.  PATCH, PIPE, LIQUID, Pneumatic, Flange: Large heavy duty rubber bandage type device nominal 8" x 36" long, slips over leaking pipe from 2" to 8" in dia, pipe flange, or pipe valve connection, then inflated. Requires air source, air hose, regulator.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: Heavy duty rubber bandages of nominal 36" long x 8" wide, wrapped around leaking pipe from 2" to 19" in dia, then inflated. Requires air source, air hose, regulator.  PATCH, TANKER, LIQUID: Large foam and plastic patch 12" x 7" with 6 feet of ratchet strap for 55 gallon drums. Standable to 25 feet with extra strapping for highway tanker patching capability.  PATCH, TANKER, LIQUID, Side: Pneumatic operated leak sealing patch or bag, with straps and ratchets to hold in place. Compressed air expands patch (nominal size 24" x 12") with four eye hooks at corners to se	Consists of (at a minimum) externally applied single bolt or dual bolt (preferable) stee lippe clamps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 1/2" dia. pipe to at least 4" dia. pipe; with extra 1/8" neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit: Consists of (at a minimum) externally applied dual bolt steel pipe clamps, with rubber sheeting lining; Three or more different pipe sizes ranging from 4 1/2" dia. pipe to at least 8" dia. pipe; with extra 1/8" neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) high ferrous steel, nickel plate, or stainless steel externally applied dual bolt or quadruple bolt (preferable) pipe clamps, with rubber sheeting lining; Ten or more different sizes ranging from 1" dia. pipe to at least 5" dia. pipe; with extra 1/8" neoprene material.  LCLAMP, PIPE, GAS, Line, Mechanical: Used for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter.  CLAMP, PIPE, GAS, Line, Hydraulic: Heavy Duty squeezer tool for squeezing shut natural gas lines of 1" to approx. 3 ½" in diameter, hydraulically operated.  PATCH, PIPE, GAS, Line, Hydraulic: Heavy Duty squeezer tool for squeezing shut natural gas lines of 1" to approx. 3 ½" in diameter, hydraulically operated.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: Heavy duty rubber bandage type device nominal 8" x 36" long, slips over leaking pipe from 2" to 8" in dia, pipe flange, or pipe valve connection, then inflated. Requires air source, air hose, regulator.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: Heavy duty rubber bandages of nominal 36" long x 8" wide, and 70" long x 8" wide; wrapped around leaking pipe from 2" to 19" in dia., then inflated. Requires air source, air hoses, regulator.  PATCH, TANKER, LIQUID, Side: Pneumatic operated leak sealing patch or bag, with straps and ratchets to hold in place. Compressed air expands special patch (nominal size 24" x 12") to seal leak in side of la	Consists of (at a minimum) externally applied single bolt or dual bolt (preferable) steel pipe clamps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 1/2" dia. pipe to at least 4" dia. pipe; with whextra 1/8" neceporen material.  PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit: Consists of (at a minimum) externally applied dual bolt steel pipe clamps, with rubber sheeting lining; Three or more different pipe sizes ranging from 4 1/2" dia. pipe to at least 8" dia. pipe; with extra 1/8" neoperen material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) high ferrous steel, nickel plate, or stainless steel externally applied dual bolt or quadruple bolt (preferable) pipe clamps, with rubber sheeting lining; Ten or more different sizes ranging from 1" dia. pipe to at least 5" dia. pipe; with extra 1/8" neoperen material. Pipe clamps of this design range up to 18" in diameter.  PATCH HPIE, GAS, Line, Mechanical: Used for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter, mechanically operated.  PATCH, PIPE, GAS, Line, Mechanical: Used for squeezing shut natural gas lines of 1" to approx. 3 ½" in diameter, hydraulically operated.  PATCH, PIPE, LIQUID, Pneumatic, Flange: Large heavy duty rubber bandages of nominal 36" long x 8" wide, and 70" long via diameter, hydraulically operated.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: Heavy duty rubber bandages of nominal 36" long x 8" wide, and 70" long x 8" wide, and x 9" long x 9"	Consists of (at a minimum) externally applied single both or dual bott (preferable) steel pipe camps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 12° diapple to at least 4° dia. pipe; with extra 1/8° neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit. Consists of (at a minimum) sizes ranging from 41°2° dia. pipe to at least 8° dia, pipe; with extra 1/8° neoprene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit. Consists of (at a minimum) high ferrous steel, nickel plate, or stainless steel externally applied dual both or quadruple both (preferable) pipe clamps, with rubber sheeting lining; Ten or nore different sizes ranging from 1° dia, pipe to at least 5° dia, pipe; with extra 1/8° neoprene material. Pipe clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They clamps of this design range up to 18° in diameter. They design range up to 18° in diameter. They design range up to 18° in diameter. They design range up to 18° in dia, pipe falling, they can be used to range they device nominal 8° x 36° long, slips over leaking pipe from 2° to 8° in dia, pipe falling, they can be used for another kit if of same and they connection, then inflated. Requires air source, air hose, regulator.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: They have been diagned by the design pine to 18° to 8° in dia, pipe falling, they have been diagned by device wrapped around leaking pipe from 2° to 18° in dia, pipe to 18°	Consists of (at a minimum) externally applied single bolt or dual bott (preferable) steel pipe clamps, with rubber sheeting lining; Ten or more different pipe sizes ranging from 1/2" dia. pipe to at least 5" dia. pipe; with extra 1/8" neopene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Extended, Kit: Consists of (at a minimum) externally applied dual bolt steel pipe clamps, with rubber sheeting lining; Three or more different pipe sizes ranging from 4 1/2" dia. pipe to at least 5" dia. pipe; with extra 1/8" neopene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) extra 1/8" neopene material.  PATCH AND REPAIR, PIPE, LIQUIDS, Heavy Duty, Kit: Consists of (at a minimum) extra 1/8" neopene material. Pipe clamps of this design range up to 18" in diameter.  PATCH, PIPE, GAS, Line, Mechanicat: Used for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter, mechanically operated.  PATCH, PIPE, GAS, Line, Hydraulic: Heavy Duty squeeze tool for squeezing shut natural gas lines on the low pressure (residence) side of utility regulator; Nominal 2" pipe diameter, mechanically operated.  PATCH, PIPE, LIQUID, Pneumatic, Flange: Large heavy duty rubber bandage stype device nominal 6" x 36" long, sign over leaking pipe from 2" to 8" in dia, pipe flange, or pipe valve connection, then initiated. Requires air source, air hoses, regulator.  PATCH, PIPE, LIQUID, Pneumatic, Bandage: Heavy duty rubber bandage sof nominal 36" long x 8" wide, and 70" long x wide, wand paternal paterna			

9.3.24	PATCH, DRUM, LIQUID, Pneumatic, Kit: Small rubber patches of nominal 4" x 4", 4" x 9", and 7" x 7", held in place by straps and ratchets, patch inflated to stop leak. Requires air hose, air source, and regulator; Can be part of or additional accessories of previous kits if these inflatable patches are included in another kit (i.e. 9.3.15 or 9.3.17 or 9.3.18). (Rev2008)	1 Kit	Air source, hose, regulator, ratcheting straps from one kit can be used for another kit if of same manufacturer and compatible (Do not need to duplicate) (Rev2008)	R	R	R
9.3.25	PATCH, DRUM, LIQUID, Suction Cup: Same as previous Item but has two adjustable suction cups on both ends for use on non-ferrous drums and tank trucks.	1 Unit		Opt	Opt	Opt
9.3.26	PATCH, DRUM, LIQUID, Compression, Kit: Consists of 6 different sizes of tapered plug; 2 different sizes ball plug; 2 different sizes "T" plug, all with butterfly nuts; 8 different sizes wood dowels, and other parts as described.	6 – tapered plugs, 2 – ball plugs, diff. 2 – "T" bolt patch, 8 – wood dowels, 1 – 8" x 12" rubbel	sizes diff. sizes diff. sizes	R	R	R
9.3.27	<b>PATCH, DRUM, LIQUID, Cribbing,:</b> Separate stainless steel plate and soft neoprene closed cell foam nominal 8" x 12"; With hardwood cribbing, secured with two 22' nylon straps and ratcheting buckles.	1 System		Opt	Opt	Opt
9.3.28	PLUGS, STOPPER, LIQUID, Compression, Replacement: Individual replacement 6 piece compression stopper plugs for holes from ½" up to 2" dia., with butterfly nut, for Drum, Liquid, Compression kit.	1 each of 2 sizes		Opt	Opt	Opt
9.3.29	PLUGS, TAPERED STOPPER, LIQUID, Compression, Extra Large: Individual compression stopper plugs for holes 3" to 4" dia., with butterfly nut; Sizes as indicated. (Complements and enhances Kit Item # 9.3.26). (Rev2008)	1 each of 2 sizes	Must Consist Of One – 3" dia tapered plug, and One – 4" dia. tapered plug (Rev2008)	R	R	R
9.3.30	PLUGS, TAPERED STOPPER, LIQUID, Compression, Replacement: Individual tapered, ball or half-round stopper plugs for holes up to 2" dia., with butterfly nut, for Drum, Liquid, Compression kit	1 each of 2 sizes		Opt	Opt	Opt
9.3.31	PLUGS, BALL or HALF-ROUND, LIQUID, Compression, Extra Large: Individual tapered, ball or half-round stopper plugs for holes 3 to 4 " dia., with butterfly nut; Sizes as indicated. (Compliments and enhances Kit Item #9.3.26). (Rev2008)	1 each of 2 sizes	Must Consist Of Ball or Half- Round: One – 3" One – 4" (Rev2008)	R	R	R
9.3.32	PLUGS, "T" BOLT, LIQUID, COMPRESSION, Extra Large: Stainless steel curved plate and 3/4" soft neoprene closed cell foam for irregular slits up to 3" long; Sizes as indicated. (Compliments and enhances Kit item # 9.3.26). (Rev2008)	1 each of 2 sizes	Must Consist Of Two – 3" or larger, square curved plate	R	R	R
9.3.33	PLUGS, CONICAL, LIQUID, Drain: Kit consisting of three 10" to 13" long tapered plastic plugs with eye bolts, ranging in sizes from 2 ½" to 8" dia. for holes, drains, gravity flow pipes. (Rev2008)	Set of at least 3 sizes		R	R	R
9.3.34	PLUGS, TAPERED, LIQUID, Pneumatic: Kit often comes with at least 3 different types of rubber plugs; Round tapered to 4" dia and 10" long; Narrow wedge tapered 2 ½" wide, Wide wedge tapered 4 ½" wide; Includes quick-connect/quick-disconnect application lance; Requires air source, air hoses, regulator.	Set of at least 3 sizes	Air source, hose, regulator, ratcheting straps from one kit can be used for another kit if of same manufacturer and compatible (Do not need to duplicate) (Rev2008)	R	R	R
9.3.35	PLUGS, EXPANSION, LIQUID, Standard, Kit: Kit consisting of plumber's style expansion plugs with wing nut;	Mix or match set of at least				

9.3.36	PLUGS, EXPANSION, LIQUID, Vented, Kit: Kit basically same as previous, but consisting of special plumber's style expansion plugs with wing nut; 1", 1 ¼", 1 ½", 1 ¾", 2", 2 ½", 3", 3 ½", 4", all of which have ¼" copper vent pipe incorporated through plug, with threaded end; For drains or open butt pipe. Kit commercially available but often is "home derived", assembling pipe plugs from local plumbing distributor.				
9.3.37	PLUGS, EXPANSION, LIQUID, Specialized, Kit: Kit consisting of plumber's style expansion plugs with turn nut and 4" long shaft handle but for extra small style plumbing typically found in laboratories; ¼", 3/8" ½", 5/8", 3/4" for drains or open butt pipe. Kit often is "home derived", assembling pipe plugs from specialty tubing and plumbing distributor.	One set of at least 4 different sizes	Opt	Opt	Opt
9.3.38	PLUGS, EXPANSION, LIQUID, Heavy Duty, Kit: Kit consisting of plumber's style extra-large commercial expansion plugs with wing nut or bolt; 5", 6", 7", 8", 10", 12", 14" for drains or open butt pipe. Some come with open pipe down center with valve, to control leak or flow once plug is in place. Kit often is "home derived", assembling pipe plugs from fire sprinkler or sewer plumbing distributor.	Selection of various sizes for local needs	Opt	Opt	Opt
9.3.39	PLUGS, INFLATABLE, LIQUID, Small Pipe, Kit: Kit consisting of smaller diameter pipe (½", ¾", 1", 1 ¼", 1 ½"), sometimes known as "Test Ball" or "Test Tube", inflatable rubber tubes inserted into open butt pipe or drain; One type uses domestic water to inflate, another type uses compressed air from bicycle pump to inflate; Have bleed valves, Nominal lengths 4" to 12".	Selection of various sizes for local needs	Opt	Opt	Opt
9.3.40	PLUGS, INFLATABLE, LIQUID, Large Pipe, Kit: Kit consisting of very large heavy duty inflatable rubber tubes or balls, usually by air; Variety of sizes available (4", 5", 6", 8", 10", 12", 15", 18", 22"). Kit often is "home derived", assembling plugs from sewer or water main plumbing distributors or suppliers; Popular with Water Utility Departments.	Selection of various sizes for local needs	Opt	Opt	Opt
9.3.41	PLUGS, INFLATABLE, LIQUID, Drain and Sewer: Kit consists of 3 to 7 inflatable plug bags of heavy duty construction, capable of being inserted into storm drains, pipes ranging from 5" to 55" in dia. Inflation air supplied by SCBA tank; Kit should be complete with air hoses, manifold, and pressure regulator.	Selection of various sizes for local needs	Opt	Opt	Opt
9.3.42	PLUGS, END CAP, LIQUID, Kit: Also known as "Jim Caps", rubber cap fitting over open butt end of pipe, and has metal tightening band with screw (Similar to radiator clamp tightening band); Nominal sizes 1", 1 ½", 1 ½", 1 ¾", 2", 2 ½", 3", 3 1/3", 4"; Kit often is "home derived", assembled from devices from local plumbing distributor.	Selection of at least 7	R	R	R
9.3.43	PLUGS, END CAP, LIQUID, Specialized, Kit: Also known as "Jim Caps", same as previous item, but have center plumbing and valve to control flow; Nominal sizes 1", 1 ¼", 1 ½", 1 ¾", 2", 2 ½", 3", 3 1/3", 4"; Kit often is "home derived", assembled from devices from commercial plumbing distributor.	different sizes		.,	
9.3.44	<b>PLUGS, DOWELS, LIQUID, Assortment:</b> Long tapered round wood, rubber, or plastic plugs ranging from 1" dia to 5" dia, and 3" long to 10 " long	Assortment to satisfy 1" to 5" full range	R	R	R
9.3.45	<b>PLUGS, DOWELS, LIQUID, Extra Large:</b> Long tapered round wood, rubber, or plastic plugs ranging from 4" dia to 8"" dia.	Assortment to satisfy local needs	Opt	Opt	Opt
9.3.46	<b>PLUGS, WOOD WEDGES, LIQUID, Assortment:</b> Long tapered flat wood, rubber, or plastic wedges ranging from 1" w x 10" long to 3" w x 10 " long.	Assortment to satisfy local needs	Opt	Opt	Opt
9.3.47	PLUGS, BOILER, THREADED: Round tapered steel plugs, threaded, 1/8" to ¾" nominal diameter, by about 2" long.	1	Opt	Opt	Opt

9.3.48	<b>DOME LID LOCK, Screw Clamp:</b> Secures or tightens highway tanker "manway" lids; Adjustable for width with sliding clamp tongs, and large center screw bolt for tightening.		Set of 4, mix or			
9.3.49	DOME LID LOCK, Spring Loaded: Secures or tightens highway tanker "manway" lids; Spring loaded side tongs adjust to width of lid, and large center screw bolt for tightening.			ĸ	ĸ	R

#### 10. DECONTAMINATION

Each company type must be self-sufficient and maintain the ability to provide decontamination for members of their own entry team. Further, this the decontamination must be appropriate for the typing level of that company. A Type III company must be capable of providing decon for known chemical substances for not less than liquid splash and solid particulate contact. Type II and Type I companies must be capable of providing decon for unknown solid, liquid and vapor industrial chemical substances. A Type I Type company must be capable of providing decon for WMD Chemical/Biological solid, liquid and vapor threat contact. Sufficient sizes, types, and quantities of adapters, nozzles, hose, wands, manifolds and other tools must be on hand to support at least one gross de-con shower station, and at least two additional rinse stations.

#### 10.1 Ground Protection [Sub-Category]

Ground protection provides a barrier between the decontamination area and the environment. This protection can capture and contain contaminants within a controlled area. Catch basins can be commercially purchased or grossly made to provide a way to capture the decontamination run-off as to protect the environment.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
10.1.1	TARPS, PLASTIC, Ground Cover: At least 12' x 12" each, to protect ground and aids in identifying decontamination corridor; Also can be used for tool lay-out, shade, and other utilities.	2		R	R	R
10.1.2	<b>TARPS, CARRY-ALL, Small:</b> Nominal 6' by 6', a small tarp, or carry-all (has handles) for contaminated equipment drop at De-Con first station.	1		R	R	R
10.1.3	<b>SHEETING, PLASTIC, ROLL, Heavy Duty:</b> Nominal size 5' wide x 100' length, unfolds to nominal 20' wide, water repellent polyethylene.	1 Roll		R	R	R
10.1.4	<b>CATCH BASIN:</b> Nominal six feet square, 18" high, with rigid sides; Nominal 120 gallon capacity. Sometimes is a separate item, or sometimes supplied with a Gross De-Con Shower system or kit.	1	This item might be part of the de-con shower system item #10.1.5 and satisfies this requirement (Rev2008)	R	R	R
10.1.5	SHOWER, GROSS DECONTAMINATION: Usually utilized at first "station" in a decontamination corridor process; Can be homemade, many commercial styles available; Water supplied by garden hose or 1 ½" fire department connections; Fits into Catch Basin or comes with its own Catch Basin as a kit.	1		R	R	R
10.1.6	<b>EYE WASH, Station</b> : Portable, nominal 7 gallon capacity with 0.4 gpm flow rate. (Rev2008)	1	ANSI Z-358.1 (2004)	R	R	R
10.1.7	<b>POOL, PORTABLE, LARGE:</b> Nominal 60 to 80 gallon capacity, utilizing an expandable – collapsible spring hoop ring to support plastic sheeting for pool; Or, inflatable sidewalls; Nominal 60" diameter. Liners are disposable and replaceable.	3		R	R	R

#### 10.2 Support Tools for Decontamination [Sub-Category]

Utilization of improvised equipment such as ladders and pike-poles for the purpose of supporting the decontamination process, as well as identifying other tools and equipment needed to assist the decontamination team. Use of stiff bristled brushes should be avoided as they can do damage to the outer film layer of a CPC.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
10.2.1	STOOLS, Portable: Plastic, stackable or folding.	4		R	R	R
10.2.2	<b>BRUSHES, LONG HANDLE, SOFT BRISTLE:</b> Toilet type: nominal 16" long, with plastic bristles	4		R	R	R
10.2.3	<b>BRUSHES, SHORT HANDLE, SOFT BRISTLE:</b> Toilet type: Plastic bristles	2		Opt	Opt	Opt
10.2.4	<b>BRUSHES, SHORT HANDLE, Rat Tail:</b> Carpenter type, synthetic bristles	2		R	R	R
10.2.5	BRUSHES, CAR WASH TYPE, Long Handle: Soft bristled wand type brush, with nominal or extendable length to 3 feet minimum. May come with garden hose connection to supply a flow of water at brush end.	2		R	R	R
10.2.6	<b>SPONGE</b> , <b>SET</b> : Nominal 3 to 5" wide by 4 to 6" long x 4" deep,	Set of 4		R	R	R
10.2.7	<b>TOWELS, ABSORBENT, DRYING:</b> Commercial laundry towels, cotton, nominal 20" x 40"	8		R	R	R
10.2.8	<b>TOWELS, ABSORBENT, DISPOSABLE:</b> Paper towels, usually in rolls.	1 Roll		R	R	R
10.2.9	BLANKETS, DISPOSABLE:	4		R	R	R
10.2.10	CADAVER BAGS: Non-transparent	1	CDC	Opt	Opt	Opt
10.2.11	<b>CLOTHING, MODESTY:</b> Usually light weight disposable Tyvek® or equal, an array in various sizes; Complete with booties or foot protection.	Minimum of 12 sets		R	R	R
10.2.12	<b>TRAFFIC CONES, Ordinary:</b> Nominal 18" to 28" high, fluorescent red.					
10.2.13	<b>TRAFFIC CONES, Ordinary, Reflective</b> : Nominal 18" to 28" high fluorescent red, with reflective bands, or warning bands "DO NOT ENTER" or "KEEP OUT".	Minimum of 6		R	R	R
10.2.14	TRAFFIC CONES, Miniature: Nominal 4" to 6" high	Ten to Twenty		Opt	Opt	Opt
10.2.15	<b>SOAP or DETERGENT, SOFT, Biodegradable:</b> In dispense containers.	1 pint		R	R	R
10.2.16	<b>CHEM-TAPE:</b> Nominal 2" wide in rolls of 50'. Similar to Duct Tape but has chemical resistant outer layer.	2 Rolls		R	R	R
10.2.17	<b>CLOTHING REMOVAL TOOLS</b> : Such as scissors, shears, etc.	One		R	R	R
10.2.18	<b>PERSONAL PROPERTY TRACKING</b> : Kit to consist of forms, tags, receipts, sealable baggies, labels, etc., to document personal property collected such as jewelry, wallets, pagers, cell phones, and documents personal information of owner.	Sufficient to manage 12 individuals minimum		R	R	R

## 10.3 Water Supply, Distribution Tools [Sub-Category]

Decontamination requires a supply and distribution of water. This can be accomplished by utilizing lengths of hose from a water source to the decontamination area (i.e. fire hose), using a manifold device with multiple discharges to smaller hoses with individual shut-offs, and wand or applicator capabilities to the individual decontamination stations. Fire hose in 2  $\frac{1}{2}$ " and 1  $\frac{1}{2}$ " sizes is often supplied by engine companies on the scene. Arrangements should always be made to insure that the fire hose is available through some source. Some haz-mat and/or decontamination companies carry their own.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III	
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10.3.1	ADAPTOR, 1 ½" to Garden Hose Reducer(s):	2		R	R	R
10.3.2	MANIFOLD, HEAVY DUTY: All metal construction (steel / bronze) with 1 ½" female fire hose inlet swivel coupling, and four to six brass ¾" garden hose discharge ball gates; Tested to 250 psi; Mountable on a sturdy platform.	1 of either				
10.3.3	MANIFOLD, LIGHT DUTY: Plastic PVC construction with 1 ½" female fire hose inlet swivel coupling, and three to six brass ¾" garden hose discharge gates; Mountable on a sturdy platform; Commercially available, or often home derived.	type listed (10.3.2 or 10.3.3)		R	R	R
10.3.4	<b>HOSE, GARDEN:</b> May be in nominal minimum 12' to 24' lengths, may be collapsible – flat type, ½" dia.	3		R	R	R
10.3.5	HOSE, GARDEN, SHUT-OFF, In Line: Separate detachable and replaceable ¼ - turn valve. Might be attached to and included with the car wash applicator (item #10.2.5). (Rev2008)	Total of 3 On hand	Might be attached to and included with Item # 10.2.5. (Rev2008)	R	R	R
10.3.6	WRENCH, HYDRANT, UNIVERSAL:	1		R	R	R
10.3.7	APPLICATOR, NOZZLE, Garden Hose Adjustable: Wash / Spray Nozzles	2		R	R	R
10.3.8	APPLICATOR, PRESSURE, Garden Sprayer: Hand Pressurized pump sprayer.	1		R	R	R

### 10.4 Collection [Sub-Category]

Equipment needed to aid the Decontamination team with the cleaning and/or collecting of contaminated equipment, clothing, tools and substance samples in containers removed from the exclusion zone.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
10.4.1	<b>BUCKETS:</b> Ordinary plastic, 5 gallon capacity, with or without lids	4		R	R	R
10.4.2	BAGS, HEAVY DUTY YARD, Large: Nominal 32" wide x 48" long, 3 mil thick, 42 gallon capacity, with tie straps or loc-ties.	Ten		R	R	R
10.4.3	<b>BAGS, HEAVY DUTY YARD, medium:</b> Nominal 28" wide x 36" long, 3 mil thick, 33 gallon capacity, with tie straps or locties.	Ten		R	R	R
10.4.4	<b>DEBRIS COLLECTION UNIT:</b> 35 to 65 gallon capacity, light duty and light weight polyethylene drums, or collapsible mylar drum liners; Suitable for collection of debris and soiled clothing only, for De-Con zone, not recommended for transfer operations and other containment activities.	Must Have		R	R	R
10.4.5	DRUM, CONTAINMENT UNIT, 85 to 95 Gallon: Steel or polyethylene drum with removable lid, suitable for multiple uses such as debris collection in De-Con zone, containment for leaking 55 gallon drum and other secondary containment, or catch reservoir for transfer operations. Must have at least one. (Rev2009)	One – 10.4.5 One – 10.4.6 And Any one of the three as	Must Meet: 49 CFR 173.3(c) (Rev2008)	В	В	В
10.4.6	DRUM, OVER-PACK UNIT, 110 Gallon: Heavy duty polyethylene drum with screw lid, suitable for multiple uses such as debris collection in De-Con zone, containment for leaking 55 gallon drum or other secondary containment, salvage operations, or catch reservoir for transfer operations. Must have at least one.	described, for a total of 3.	described, for #10.4.4, #10.4.5,	R	R	R
10.4.7	DRUM, LINER, 85 to 95 Gallon: Heavy duty polyethylene	10		R	R	R

### 11. COMMUNICATIONS

Personnel utilizing chemical, vapor or liquid splash protective clothing, shall utilize and maintain communications of sufficient type and quality as to provide for safe communications between the entry team leader and members of the team, as well as between one another. Other communication devices include: Cellular phones and satellite phone capability for the purpose of verbal, data and imagery exchange.

### 11.1 Radio [Sub-Category]

One portable radio per assigned member of the company, and hands-free capability for entry, back-up and decontamination personnel. Components must maintain an intrinsically safe certification, and all be adaptable to accommodate attachable devices such as ear-muff style headphone sets with boom mic, and ancillary communication devices for use inside CPC ensembles. Recommended that these portable radios be equipped with separate tactical frequency channels not replicated elsewhere in the agency's communication plan to insure and encourage private, confidential, and uninterrupted communications between team members and their respective Team Leaders Team Leader communication capability should also include access to operational frequencies. Secure voice communications are preferred, but not required.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
11.1.1	RADIO, PORTABLE, Intrinsically Safe (I.S.): Walkie Talkie style, with carrying case, and appropriate support hardware to be worn on person; Those assigned for use insuit to be equipped with separate private tactical channels. UL or FM "I.S." label must be on unit, and "I.S." battery must be of correct model compatible with unit, and neither can be interchanged with non-I.S. components. (Rev2008)	1 for each assigned member	Must Be: Intrinsic to Underwriter's Laboratory #913	R	R	R
11.1.2	<b>RADIO, PORTABLE, Voice Scrambler:</b> Secure Voice hardware and interfacing	Each Portable Unit		Opt	Opt	Opt
11.1.3	RADIO, PORTABLE, Headphone Set (NOT for in-suit use): Complete with boom mic, ear mic, bone mic, or throat mic, and necessary attachable hardware to walkie talkie. One for each member for field use. (Rev2008)	1 for each assigned member		<b>Opt</b> (Rev2008)	Opt (Rev2008)	<b>Opt</b> (Rev2008)
11.1.4	RADIO, PORTABLE, In-Suit Communications: Complete with earphone system, microphone system (i.e. built into SCBA facepiece, or throat mic, or bone mic, or ear mic, etc), remote "Push-To-Talk" switch, and necessary attachable hardware and support connector system. Designs and configurations will vary and are influenced by support systems provided by portable radio manufacturer, and manufacturer of SCBA. See also 12.1.6.	6 – Type I 4 – Type II 4 – Type III		R	R	Opt
11.1.5	RADIO, PORTABLE, Hands-Free "Voice Actuated": Hardware and support connector system, switchable between "Push-To-Talk" mode and "Voice Activated" mode, for in-suit use.	1 for each assigned member		Opt	Opt	Opt
11.1.6	RADIO, PORTABLE, Interchangeable battery, Intrinsically Safe (I.S.): Two batteries assigned per unit, the second set for back-up; Certified intrinsically safe.	2 for each portable unit	Must Be: Intrinsic to UL # 913	R	R	R

#### 11.2 Cellular Phone [Sub-Category]

Voice and data communication in support of on-going hazard assessment and incident management needs can be vastly improved by the provision of cellular phone capability. New technologies allow for the following functions to be included into cell phone specifications and are highly recommended, or required as noted:

**Standard Cell Phone:** <u>CPAS</u> (Cellular Priority Access Service) - Allows priority access during a crisis or a disaster to ensure critical emergency response services can be provided by the government; <u>BROADBAND</u> - Referring or pertaining to an analog circuit that provides more bandwidth than a voice grade telephone line. Broadband channels are used for high-speed voice and data communications, radio and television broadcasting, some local and data networks; <u>PCS</u> (PERSONAL COMMUNICATION SYSTEM) — a digital, wireless, wide-band technology that can provide phone, fax, modem, and pager in one hand-set, and with one phone number. Digital, voice, and data transmissions can be encrypted and scrambled to allow information being transmitted securely without being intercepted by a third party; <u>ROAMING</u> — a feature that allows you to receive a call when you move into another cellular area. Incoming calls include long distance to the city you are roaming in unless callers use the local roaming access numbers. When using a cellular phone outside of the area which the phone is registered, the caller is considered to be "roaming".

**Satellite Cell Phone:** <u>MDPS</u> (Mobile Packet Data Service) capability; <u>INMARSAT –R</u> (International Telecommunications Satellite Consortium) service which allows users to share 64 kbit/s satellite channels; <u>ISDN</u> (Integrated Services Digital Network) service should be specified which guarantees transmission speed of 64kbit/s without interruption and by using a dedicated channel (better than INMARSAT), provides dial on demand; <u>UDI</u> (Unrestricted Digital Information) to support digital faxing and videoconferencing;

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
11.2.1	<b>PHONE, CELLULAR:</b> Priority access service capable; Analog and digital function; CPAS, BROADBAND, PCS and ROAMNG enabled;	1 per Company	IEEE 1512.3 IEEE 269	R	R	R
11.2.2	PHONE, Satellite: INMARSAT-B minimum, ISDN preferable which increases high speed data flow to 64,000 bps; UHF. INTELSAT; and UDI support. Complete with portable high gain directional antenna, base transmit unit, interface frequencies.	1 per Company		Opt	Opt	Opt

#### 12. RESPIRATORY PROTECTION

Respiratory protection shall be of an approved type in compliance with Cal/OSHA regulations so as to provide personnel adequate respiratory protection when utilizing chemical protective clothing. Only SCBA can be used in environments involving unknown respiratory hazards, known respiratory hazards in excess of IDLH, and known or unknown respiratory hazards in excess of TLV-STEL where there is no on-going and continuous monitoring for the specific airborne threat. Only when continuous monitoring for the specific airborne threat is in place and functioning, and the detected threat is declared to be below IDLH but above TLV-STEL, can respiratory protection be downgraded from SCBA to APR or PAPR.

#### 12.1 Self-Contained [Sub-Category]

SCBA provide the highest level of respiratory protection for unknown environments where the atmosphere contains agents or contaminants at immediately dangerous to life and health (IDLH). SCBA are tested for a number of performance criteria that apply to general industrial applications. SCBA shall comply with 42 CFR part 82, NFPA 1981 and NIOSH CBRN (chemical, biological, radiological and nuclear) criteria.

Supporting umbilical air systems are OPTIONAL (not required). However, when incorporated into an agency's use inventory, Cal/OSHA requires the following: 1) The high pressure breathing air hose line from the breathing air cascade manifold to the "high pressure" side of the step-down pressure regulator cannot exceed 1,000 feet in length, and must comply with "high pressure" hose regulations; 2) The breathing air hose line (up to four) distributed from the "low pressure" side of the step-down pressure regulator cannot exceed a length of 300 feet, each, and must comply with "low pressure" hose regulations; 3). All devices and parts, from the cascade system to the user's face piece, must be of the same manufacturer (i.e., high pressure regulator on the cascade system, high pressure umbilical air hose, step-down regulator, low pressure umbilical air hose, pass-through in a chemical protective garment, breathing regulator, and the self-contained breathing apparatus). New NIOSH testing requirements for the face-piece of SCBA must comply with NIOSH CBRN chemicals testing, and must pass for NIOSH certification.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
12.1.1	<b>SCBA, COMPLETE, STRUCTURAL, 1 Hour Rating:</b> With bottle; unit must be NFPA and NIOSH certified for routine fire fighter use.	1 for each assigned member	NFPA; NIOSH	NA	R	R
12.1.2	SCBA, COMPLETE, WMD CBRN, 1 Hour Rating: With bottle; unit must be NFPA structural fire fighting compliant and NIOSH certified for WMD CBRN threat atmospheres	1 for each assigned member	NFPA; NIOSH CBRN	R	NA	NA
12.1.3	MASK, FULL-FACE, STRUCTURAL: NFPA and NIOSH compliant for structural fire fighter use.	1 for each assigned member	NFPA; NIOSH	NA	R	R

12.1.4	MASK, FULL-FACE, WMD CBRN: Facepiece must be NFPA structural fire fighting compliant and NIOSH certified for WMD CBRN threat atmospheres.	1 for each assigned member	NFPA; NIOSH CBRN	R	NA	NA
12.1.5	MASK, HEADS-UP-DISPLAY: Light emitting diode (LED) display within facepiece to monitor numerous ancillary inputs such as remaining air time, air pressure, ambient temperature, etc.; Usually available as add-on option from manufacturer.	1 for each assigned member	NIOSH	Opt	Opt	Opt
12.1.6	MASK, BUILT-IN COMMUNICATIONS Interface; Built-in microphone or bone mic, with earphone or built-in head phone set, complete with interface wire harness to portable radio, and push-to-talk (PTT) switch. Satisfies 11.1.4.	1 for each assigned member		Opt	Opt	Opt
12.1.7	<b>BOTTLE, Spare:</b> Extra replacement air bottle of same type, and size.	1 spare bottle for each assigned SCBA	DOT	R	R	R
12.1.8	SUPPORT, UMBILICAL AIR: Air from outside source (cascade system or portable air cart) supplied to wearer via umbilical hose system and manifold; Manifold to supply low pressure source to four users; Minimum of 600 feet of low pressure hose required; This system Is often used to provide interior suit cooling as an option. (SEE also Section 6.4.)	System to accommodate four users, 150' low pressure air hose each	NIOSH, OSHA	<b>Opt</b> (Rev2007)	<b>Opt</b> (Rev2007)	NA

#### 12.2 Air Purifying Respirator [Sub-Category]

Operational limits not for use in the IDLH, unknowns, flammable, explosive environments or oxygen deficient. Gasses with poor warning properties and which generate heat in filter cartridges. Contaminants must be known, canisters must be the approved type for known contaminants, and must not exceed the IDLH. The shelf life of the cartridges shall be recorded. Employers shall have a respiratory protection program in place including, fit testing and training.

Air Purifying Respirator (APR), and Powered Air Purifying Respirator (PAPR), can be used only in toxic environments or confined space environments where there is no oxygen deficiency, and where the threat vapor is below IDLH, per Cal/OSHA requirements. Further, all APR, and PAPR devices, and all filter canisters designed to be used with these devices, must meet NIOSH testing criteria. Cartridges must be of the same manufacturer as the mask and unit for which their use is intended (mixing and matching of different manufacturer's cartridges is not allowed).

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
12.2.1	<b>MASK and UNIT, APR, INDUSTRIAL:</b> Full facepiece, single or dual cartridge style, speaking diaphragm, certified for use in industrial chemical threat atmospheres only.	1 for each assigned member	NIOSH	R	Opt	Opt
12.2.2	MASK and UNIT, APR, CBRN: Full facepiece, single or dual cartridge style, speaking diaphragm, for use in industrial chemical threat atmospheres AND CBRN atmospheres.	1 for each assigned member	NIOSH - CBRN	R	NA	NA
12.2.3	MASK and UNIT, PAPR, INDUSTRIAL: Full facepiece, single or multi cartridge style, speaking diaphragm, pump, air line, certified for use in industrial chemical threat atmospheres only. Meets 12.2.1 requirement	1 for each assigned member	NIOSH	Opt	Opt	Opt
12.2.4	MASK and UNIT, PAPR, CBRN: Full facepiece, single or multi cartridge style, speaking diaphragm, pump, air line, certified for use in industrial chemical threat atmospheres AND CBRN atmospheres. Meets 12.2.2 requirement	1 for each assigned member	NIOSH - CBRN	Opt	NA	NA
12.2.5	CARTRIDGES, APR or PAPR, INDUSTRIAL: Cartridges certified only for industrial chemical threat atmospheres; Cartridges to be multi-gas and organic vapor protective, with solid particulate and liquid aerosol protection.	Multi-gas cartridge set for each APR	NIOSH	R	Opt	Opt
12.2.6	CARTRIDGES, APR or PAPR, CBRN: Cartridges are certified for WMD CBRN threat atmospheres.	CBRN cartridge set for each APR	NIOSH - CBRN	R	NA	NA

## 13. TOOLS / OTHER

Hand tools may be used in all phases of hazardous materials mitigation. Hand tools may be used to collect samples, contain/control materials and runoff, move drums, boxes cylinders, recover victims, transport equipment.

### 13.1 General Purpose, Hand Tools, Large [Sub-Category]

Various hand tools necessary to complete jobs such as sample collection, containment and controlling of hazardous materials and run-off, transportation of equipment, movement of drums and victim recovery.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
13.1.1	SHOVEL, Round Point, Steel; long handle	1		R	R	R
13.1.2	<b>SHOVEL, Round Point, Polypropylene plastic:</b> Or equal: long handle	1		Opt (Rev2008)	Opt (Rev2008)	Opt (Rev2008)
13.1.3	SHOVEL, Square Point, Steel: long handle	1		R	R	R
13.1.4	<b>SHOVEL, Square Point, Polypropylene plastic:</b> Or equal, long handle	1		R	R	R
13.1.5	SHOVEL, Scoop, Polypropylene plastic: Or equal,	1		R	R	R
13.1.6	BROOM, Street, Stiff Polypropylene Bristle: With handle	1		R	R	R
13.1.7	DRUM "Up-Ender":	1		R	R	R
13.1.8	HAMMER, Sledge: (7 – 10 Lbs)	1		R	R	R
13.1.9	BAR, WRECKING: - 36" or >	1		R	R	R
13.1.10	<b>COOLER, Rehydration:</b> Industrial quality five to 10 gallon capacity with spigot, carrying handle. Some come with a cup dispenser, 5 – 20 gallon	1		R	R	R
13.1.11	<b>MEGAPHONE:</b> Battery operated, 16 watt with 800' range; Adjustable volume.	1		R	R	R
13.1.12	<b>FIRST AID, Kit – Large:</b> Includes majority of gauze pads, wipes, tape, ointments, bandages, splints, tourniquets, and appropriate tools (i.e. scissors)	One of each		R	R	R
13.1.13	FIRST AID, TRAUMA, Kit: Contains equipment to augment standard first aid kit; resuscitator, variety of airways, burn sheets, cervical collar, cold packs, eyewash solutions, etc.	combination kit (Rev2008)	ANSI Z-308.1 (Rev2008)	R	R	R
13.1.14	<b>MEDICAL MONITORING, Kit:</b> For both Pre- and Postentry to monitor baseline vitals; Includes stethoscope, aneroid gage sphygmomanometer, thermometer unit, and scale; Should include forms for documentation.	1 Kit		R	R	R
13.1.15	FIRST AID, BLOOD PRESSURE MONITOR, Digital: Battery operated, utilizing a finger cuff receptacle; Digital readout.	1 Unit		Opt	Opt	Opt
13.1.16	<b>ZONE MARKING, Kit:</b> Contains all tools necessary to help set up and identify various hazardous work zones; Barrier tape – 1000 feet rolls, yellow marked "CAUTION – DO NOT ENTER" or equal, and 1000 feet rolls, red marked; DANGER – HAZARDOUS CHEMICAL" or equal; Carpenter's chalk – powdered yellow and red, in 12 to 16 oz dispenser; Carpenter's heavy duty crayons, yellow and red.	1		R	R	R
13.1.17	<b>BARRICADE TAPE, CADDY:</b> A hand held carrier which may either dispense tape (3" wide x 1000 feet), assist in rewinding tape, or do both.	1 Caddy		Opt	Opt	Opt
13.1.18	<b>SCOPE, Spotting:</b> Includes binoculars; Adjustable telephoto spotting scope or binoculars with adjustable focus.	1 per company		R	R	R

## 13.2 General Purpose, Hand Tools, Small [Sub-Category]

Various hand tools necessary to complete routine jobs and small mechanical chores such as assembly, disassembly, tightening, loosening, bending, cutting, scraping, temperature observation. For hand tool items also listed in Section 13.3 that are "Non-Sparking" and required, they will be acceptable in lieu of the equivalent hand tool listed in Section 13.2 (as indicated), and thus there will be no need to duplicate.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Туре	Type II	Type III
13.2.1	HAMMER, Dead Blow: 36 to 45 oz.	1		R	R	R
13.2.2	HAMMER, Claw: 20 to 24 oz.; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.7 Acceptable (Rev2008)	R	R	R
13.2.3	HAMMER, Engineer: 36 to 40 oz.; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.8 Acceptable (Rev2008)	R	R	R
13.2.4	HAMMER, Ball Peen: 16 to 40 oz.; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.9 Acceptable (Rev2008)	R	R	R
13.2.5	SCREWDRIVER, CHISEL, KIT: To consist of at least <u>any</u> three of the following, in either short or long handle: Standard chisel tip— Small, medium, large, extra-large; Non-Sparking acceptable. (Rev2008)	1 Kit of 3 different	Item #13.3.10 Acceptable (Rev2008)	R	R	R
13.2.6	SCREWDRIVER, PHILLIPS, KIT: To consist of at least any three of the following, in either short or long handle: Phillips No. 1, 2, 3, 4.; Non-Sparking acceptable. (Rev2008)	1 Kit of 3 different	Item #13.3.11 Acceptable (Rev2008)	R	R	R
13.2.7	PLIERS, ORDINARY, Utility: Available in various sizes, 6", 7", 8", with square blunt end; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.12 Acceptable (Rev2008)	R	R	R
13.2.8	PLIERS, WIRE, Side Cutting; Non-Sparking acceptable.	1	Item #13.3.13 Acceptable (Rev2008)	R	R	R
13.2.9	PLIERS, LONG-NOSE, Needle – Between 7" to 10"; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.14 Acceptable (Rev2008)	R	R	R
13.2.10	PLIERS, COMBINATION, Kit: To consist of <u>any three</u> of the following: Slip Joint, medium– 8", Slip joint heavy duty – 12", groove joint – 12", channel lock – 12"; Non-Sparking acceptable. (Rev2008)	1 Kit of 3 different	Item #13.3.15 Acceptable (Rev2008)	R	R	R
13.2.11	PLIERS, LOCKING, Vice Grip Type, Kit: To consist of any four of the following: Adjustable chain wrench, welding clamp, curved jaw locking, straight jaw locking, long nose locking, "C" clamp locking, sliding bar locking; Non-Sparking acceptable. (Rev2008)	1 Kit of 4 different	Item #13.3.16 Acceptable (Rev2008)	R	R	R
13.2.12	WRENCH, ALLEN, Complete Set, English (~9 piece)	1 Kit		R	R	R
13.2.13	WRENCH, ALLEN, Complete Set, Metric (~9piece)	1 Kit		R	R	R
13.2.14	WRENCH, CRESCENT, Adjustable, Kit: Kit to include any two of the following: Adjustable 12", 15", 22" 24"; Non-Sparking acceptable. (Rev2008)	1 Kit of 2	Item #13.3.18 Acceptable (Rev2008)	R	R	R
13.2.15	WRENCH, CRESCENT, Adjustable, Heavy Duty: 26" to 36", aluminum or steel; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.19 Acceptable (Rev2008)	Opt	Opt	Opt
13.2.16	WRENCH, PIPE, Adjustable, Kit: Kit to include any two of the following: House – 16", Standard - 18", Medium – 22", large – 28"; Non-Sparking acceptable. (Rev2008)	1 kit of 2	Item #13.3.20 Acceptable (Rev2008)	R	R	R
13.2.17	<b>WRENCH, Pipe, Adjustable, Heavy Duty:</b> Available in sizes from 32" to 46"; Non-Sparking acceptable	1	Item #13.3.21 Acceptable (Rev2008)	Opt	Opt	Opt
13.2.18	WRENCH, UNIVERSAL, Bung Cap: Several styles available, but should be able to function on 5 or more different bung caps and plugs; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.17 Acceptable (Rev2008)	R	R	R

13.2.19	WRENCH, COMBINATION, Ordinary, Kit: (Open end and Box end), Set, to include any 10 of the following: 3/8", 7/16", ½", 9/16", 5/8", 11/16", ¾", 7/8", 1", 1 1/8", 1 ¼", 1 3/8"; Non-Sparking acceptable. (Rev2008)	1 kit of 10	Item #13.3.22 Acceptable (Rev2008)	R	R	R
13.2.20	WRENCH, COMBINATION, Industrial, Kit: (Open end and Box end), Set, to include any 5 of the following: 1 ½", 1 5/8", 1 ¾", 1 7/8", 2", 2 ¼", 2 ½"; Non-Sparking acceptable. (Rev2008)	1 kit of 5	Item #13.3.23 Acceptable (Rev2008)	Opt	Opt	Opt
13.2.21	<b>WRENCH, SOCKET, Kit:</b> Socket set to include any 10 of the following: 3/8", 7/16", ½", 9/16", 5/8", 11/16", ¾", 7/8", 1", 1 1/8", 1 ¼", 1 3/8"; Non-Sparking acceptable. (Rev2008)	1 kit of 10	Item #13.3.24 Acceptable (Rev2008)	Opt	Opt	Opt
13.2.22	WRENCH, SOCKET, Industrial, Kit: Socket set to include any 5 of the following: 1 ½", 1 5/8", 1 ¾", 2", 2 ¼", 2 ½"; Non-Sparking acceptable. (Rev2008)	1 kit of 5	Item #13.3.25 Acceptable (Rev2008)	Opt	Opt	Opt
13.2.23	<b>CHISEL, COLD, Standard or Hex</b> – One of either of the following sizes: $3/4$ " x 9", 1" x 9", 1" x 12".	1 Chisel		R	R	R
13.2.24	PUNCH, PIN – 7" x 3/8"	1		Opt	Opt	Opt
13.2.25	PUNCH, PIN – 12" x 5/8"	1		Opt	Opt	Opt
13.2.26	PUNCH, PIN, Spring Loaded	1		R	R	R
13.2.27	TAPE, MEASURING, Retractable, Metal: 24' or greater.	1		R	R	R
13.2.28	TAPE, MEASURING, Re-Wind, Non-Metallic: 50 feet minimum, must be non-conductive. (Rev2008)	1		R	R	R
13.2.29	KNIFE, PUTTY, Scraping: – 2' wide; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.26 Acceptable (Rev2008)	R	R	R
13.2.30	<b>KNIFE, GENERAL UTILITY, Cutting:</b> Any heavy duty knife including carpet cutting type:	1		R	R	R
13.2.31	SHEARS, Cutting: Any heavy duty shears suitable for cutting sheet metal, heavy carpet, plastic sheeting; Non-Sparking acceptable. (Rev2008)	1	Item #13.3.27 Acceptable (Rev2008)	R	R	R
13.2.32	STRAPS, RATCHET, Tie down: Nominal 1" x 20', 1000 lbs. Nominal minimum rating.	2		R	R	R
13.2.33	STOP WATCH:	1		R	R	R

## 13.3 Special Purpose Hand Tools [Sub-Category]

Special purpose tools, such as non-sparking implements, extra - heavy duty large socket sets for rail tank cars, grounding cables, and power and hydraulic tools, are a necessity to augment and broaden a response teams' intervention and control capabilities. Non-sparking small hand tools can be part of an inventory in lieu of regular ferrous iron small hand tools, as noted.

Inv. #:	Item Name and Description	Requirement	Certification Or Standard	Type I	Type II	Type III
13.3.1	<b>GROUNDING, CABLE:</b> Insulated or non-insulated 3/16" or better carbon steel, 25 feet minimum, equipped with either "C" clamp / screw bolt or 3/4" pin point hand clamps.	75 feet minimum		R	R	R
13.3.2	<b>GROUNDING, ROD:</b> Nominal length 4 feet to 6 feet minimum, and nominal dia. 3/8" to ½". (Rev2008)	1 (Rev2009)		R	R	R
13.3.3	VESTS, I.C.S., Haz-Mat Group: For all of the positions within the HM Group (Haz-Mat Group Supervisor, Asst. Safety Officer, Entry Team Leader, De-Con Team Leader, Site Access Control Leader, Technical Specialist, Safe Refuge Area Manager)	1 Set	ANSI 107 and FIRESCOPE	R	R	R
13.3.4	<b>LIGHT PROBE, Fluorescent:</b> Nominal 25 watt, 36" long wand handle, insertable through bung hole of 55 gallon drum, and other confined spaces.	1	Intrinsically Safe	Opt	Opt	Opt
13.3.5	AIR BAG, LIFTING, High Pressure, Kit: Kit, operated by SCBA air bottle, to consist of one or a variety of air inflatable bags, with manifold and hose hardware, capable of lifting a nominal 30 tons to 12 inches	1 Kit		Opt	Opt	Opt

13.3.6	NON-SPARKING, Hammer, Sledge: 7 to 10 pound.	1	R	R	R
13.3.7	NON-SPARKING, HAMMER, Claw: 20 to 24 oz.; Also meets # 13.2.2	1	R	R	R
13.3.8	NON-SPARKING, HAMMER, Engineer: 36 to 40 oz.	1	Opt	Opt	Opt
13.3.9	NON-SPARKING, HAMMER, Ball Peen: 16 to 40 oz.	1	Opt	Opt	Opt
13.3.10	NON-SPARKING, SCREWDRIVER, CHISEL, Kit: To consist of at least <u>any three</u> of the following, in either short or long handle: Standard chisel tip— Small, medium, large, extralarge.	1 Kit of 3 different	R	R	R
13.3.11	<b>NON-SPARKING, SCREWDRIVER, PHILLIPS, Kit:</b> To consist of at least any three of the following, in either short or long handle: Phillips No. 1, 2, 3, 4.	1 Kit of 3 different	R	R	R
13.3.12	<b>NON-SPARKING, PLIERS, ORDINARY, Utility:</b> Available in various sizes, 6", 7", 8", with square blunt end.	1	R	R	R
13.3.13	NON-SPARKING, PLIERS, WIRE, Side Cutting:	1	R	R	R
13.3.14	NON-SPARKING, PLIERS, LONG-NOSE, Needle:	1	R	R	R
13.3.15	NON-SPARKING, PLIERS, COMBINATION, Kit: To consist of <u>any three</u> of the following: Slip Joint, medium– 8", Slip joint heavy duty – 12", groove joint – 12", channel lock – 12".	1 Kit of 3 different	Opt	Opt	Opt
13.3.16	NON-SPARKING PLIERS, LOCKING, Vice Grip Type, Kit: To consist of any four of the following: Adjustable chain wrench, welding clamp, curved jaw locking, straight jaw locking, long nose locking, "C" clamp locking, sliding bar locking.	1 Kit of 4 different	Opt	Opt	Opt
13.3.17	<b>NON-SPARKING, WRENCH, BUNG,</b> Universal: Several styles available, but should be able to function on 5 or more different bung caps and plugs.	1	R	R	R
13.3.18	NON-SPARKING, WRENCH, CRESCENT, Adjustable, Kit: Kit to include any two of the following: Adjustable 12", 15", 22" 24".	1 Kit of 2	R	R	R
13.3.19	NON-SPARKING, WRENCH, CRESCENT, Adjustable, Heavy Duty: 26" to 36", aluminum or steel.	1	Opt	Opt	Opt
13.3.20	<b>NON-SPARKING, WRENCH, PIPE, Adjustable, Kit</b> : Kit to include any two of the following: House – 16", Standard - 18", Medium – 22", Large – 28".	1 kit of 2	R	R	R
13.3.21	NON-SPARKING, WRENCH, Pipe, Adjustable, Heavy Duty: Available in sizes ranging from 32" to 46".	1	Opt	Opt	Opt
13.3.22	NON-SPARKING, WRENCH, COMBINATION, Ordinary, Kit: (Open end and Box end), Set, to include any 10 of the following: 3/8", 7/16", ½", 9/16", 5/8", 11/16", ¾", 7/8", 1", 1 1/8", 1 ¼", 1 3/8"	1 kit of 10	Opt	Opt	Opt
13.3.23	NON-SPARKING, WRENCH, COMBINATION, Industrial, Kit: (Open end and Box end), Set, to include any 5 of the following: 1 $\frac{1}{2}$ ", 1 5/8", 1 $\frac{3}{4}$ ", 1 7/8", 2", 2 $\frac{1}{4}$ ", 2 $\frac{1}{2}$ "	1 kit of 5	Opt	Opt	Opt
13.3.24	NON-SPARKING, WRENCH, SOCKET, Kit: Socket set to include any 10 of the following: 3/8", 7/16", ½", 9/16", 5/8", 11/16", ¾", 7/8", 1", 1 1/8", 1 ¼", 1 3/8"	1 kit of 10	Opt	Opt	Opt
13.3.25	NON-SPARKING, WRENCH, SOCKET, Industrial, Kit: Socket set to include any 5 of the following: 1 ½", 1 5/8", 1 ¾", 2", 2 ¼", 2 ½".	1 kit of 5	Opt	Opt	Opt
13.3.26	NON-SPARKING, KNIFE, PUTTY, Scraping: – 2' wide	1	R	R	R
13.3.27	NON-SPARKING, SHEARS, Cutting: Any heavy duty shears suitable for cutting sheet metal, heavy carpet, plastic sheeting.	1	R	R	R
13.3.28	RADIANT HEAT SURFACE Temperature Reading: Direct contact (i.e. magnetic, spring clip, etc.), with nominal range +350° to +750° F. (spring operated thermometers)	One, or One complete set	Opt	Opt	Opt

13.3.29	RADIANT HEAT SURFACE SENSING, Temperature: Temperature sensitive crayon kit, 10 crayons, each sensitive to a different temperature range; Usually melt at specified temperature, and might change color; Overall range nominal from +150° F to +800° F.	1 Kit	Opt	Opt	Opt
13.3.30	<b>REFRIGERATOR, UTILITY, Small:</b> Installed onboard response unit, of nominal 18" wide by 18" tall by 12" deep	1	R	R	Opt

Jurisdiction: Amador County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
		HazCat Kit -1		4 pick up trucks	Decon Trailer

## Jurisdiction <u>Calaveras County</u>

No. and type of Level A HazMat Suits	Detection /Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (i.e. ammonia/chlorine Kits, WMD)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
8 DuPont	Infra Red Mass Spectrometer	Haz-Cat	1 - Chlorine Kit	32' Walk-in HAZMAT Response Vehicle	2 – 12' Trailers equipped to each manage 100 persons for decontamination (showers, pools, PPE, etc.)
	2 – PHD CGI monitors	Infra Red Mass Spectrometer		1 – 28' Bomb Squad Response Truck	Robot
	3 – PID Monitors			2 - 12' Incident Support Trailers (Incident Command)	2 – Remote Portable Video Cameras
	1 - Hazmat CAD				3 – X-Ray Equipment (film) 1 – X-Ray Equipment (Real time imaging)
	2 – Radiological Meters (Alpha, Beta and Gamma)				J.

Jurisdiction: Nevada County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
Life Guard Chem Suit	Gas detector	1 x Hazcat Kits	Spills booms and pads		
			Acid neutralizer		

Jurisdiction: El Dorado County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
10 Trellchem	2 x Multirae Gas	2 x Hazcat Kits	2 x A Chlorine Kit	2, Ford Vans	2, Mass
	Detectors				Decontamination
					Trailers

Jurisdiction: Placer County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
(2)Tychem 10000	(4) Area Rae w/	Sulphur Dioxide	Chlorine A, B, C Kits	2001 American	MCI/Mass Decon
w/flash/umbilical-	remote monitor,	CMS (Chip Meas.		LaFrance/ FL70	Trailer (w/tent,
Level A	vibration alarms	System)		Hazmat Unit	generator)
(2)Tychem 10000	(1) Industrial	Chlorine CMS	Anhydrous Ammonia	Features: Bauer	Zumro 400 Mass
w/flash- Level A	Scientific 4-gas		response kit	Cascade Air Fill	Decon Tent System
				Station	
(6)Trellchem VPS	(1) APD 2000	Nitrus Gases CMS	Vetter pneumatic patch	10000 W PTO	MCI Cache in Mass
Level A	Nerve/Radiation		systems	Generator	Decon Trailer for
					100+
(10)Tychem TK-	(1) Ludlum Radiation	Nitrogen Dioxide	Tank and drum spill	Scene Light Tower	
Level A	Detec.	CMS	control + overpack	10000 lb. Winch	
	(1) Multi-Rae Plus	Phosgene CMS	Airbags	1 Ton Utility pickup	
	4-gas detector			truck	
	(14) Radiation	Acetic Acid CMS	Pipe Repair kit		
	Dosimeters				
	(1) manual pump air sampler	Vinyl Chloride CMS			

Jurisdiction: Placer County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
	(1) Drager Chip	Ammonia CMS			
	Meas. System				
	Chemical Agent for	Carbon Dioxide			
	liquid contamination	CMS			
	Chemical Agent	Hydrocyanic Acid			
	Detector Kit	CMS			
	Chemical Agent	Haz Cat			
	Nerve Vapor				
	Hazmat Smart Strips	Nerve agent ID			
		(APD 2000)			
		Spilfyter Chemical			
		Classifier Strips			

## Jurisdiction City of Roseville

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
11 Responders	CGI	HazCat	20/20	HazMat 1	Decon Trailer at
					Station #8
1 Responder 2	PID	IR/Ahula FCA	Chlorine A		
	Radiological Area	20/20	Chlorine B		
	RAE				
	Dosimeter	Draeger	Chlorine C		
	CHP Kit		Ammonia A,B, C		
	pH pater		Sulfur dioxide A,B C		
			Microscope		
			Midland		
			Vetter Bags		
			Overpack Drum		
			Plugs, Redwood Air		
			Hydrocarbon pads		

Emergenc	v Respon	se Eaui	pment
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# Jurisdiction Sacramento County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
18	5	2	2	2	2

Jurisdiction: <u>Sacramento Metro</u>

No. and type of Level A HazMat Suits	Detection /Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine Kits, WMD)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
Level A Kappler Responder plus (4)	SAIC radiation dosimeters	Hazcat Basic kits w/ Meth option	(2) ea.Chlorine A, B & C Kits	1 HM vehicle 1 (reserve) vehicle 1 (reserve)squad	(1) type 1 decon vehicle (1) util. Trailer with 3 tents ensembles
Level A Dupont- Tychem TKXF91 Flash protection (10)	Canberra dosimeters	Hazcat WMD kits	MC 306 Stinger kit		
Level A Dupont Tychem TKXFB Butyl glove (14)	Canberra radiation Isotope detector	Hazcat Anthrax kits	Misc. Berylium tools		
Level A Dupont Tychem TKXFV Viton Glove (14)	Ludlum survey meters 2241 (A, B & G)	Hazcat Microcat microscope	Dome Clamps		
Level A Dupont Level A Dupont Tychem TKX NFPA 1994 WMD standard (6)	M256A1 kits	Alexter Guardian	Pro mag Magnetis patch kit.		
Splash Tychem BR Fully Encaps. (20)	M8 tape	Draeger CMS chip kit	Vetter Pipe sealing kit		
Splash Tychem CPF 4 (30)	M9 paper	Draeger Civil defense / Hazmat simultest kit	Vetter Leak sealing kit		
Splash Tychem CPF 3 (30)	SensIr Infrared spectrometry	Draeger Clan lab kit	Vetter Mini sealing lance kit		

Jurisdiction: <u>Sacramento Metro</u>

No. and type of Level A HazMat Suits	Detection /Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine Kits, WMD)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
Splash Metro Pack Tyvek F (150)	Meso Systems Bio atmospheric capture kit	Draeger Hazmat colormetric response kit	Edwards Cormwell Hazmat universal spill A-E kit		
Splash Tyvek White coverall (50)	Rae systems Pro rae remote wireless air monitors laptop and software		Edwrads Cormwell Hazmat universal spill C-2 kit		
	Area Rae monitor GPS (LEL, O2,H2S, CO & PID)		Mercury Spill kits		
	Multi Rae w/ same as above		Edwards Cormwell Hazmat universal spill kit C-1		
	PPB Rae PID in Parts per billion		Earsystems wireless camera		
	Q-Rae (LEL, CO, O2, H2S)		Weatherpac weather station w/ wireless capability		
	Mini Rae PID in Part per Million		Dyn-optic heat sensor		

Jurisdiction: San Joaquin County

No. and type of Level A HazMat Suits	Detection /Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine Kits, WMD)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
Trellborg 30 (OES) Trellborg 3 (Tracy) 4 Trellchem (Ripon)	Various Draeger Tubes Draeger tubes (Tracy) Draeger (Ripon)	HazMat ID system	Chorine A, B, C Chorine A, B, C (Tracy)	Freight Liner truck	2 each trailers
	Ludlum Response Kit	HazCat HazCat (Ripon) HazCAt (Tracy)	Various over pack drums	Ford F350 carry waste product	
	Pulse Rate Meter	APD 2000	Absorbent Booms	Response Vehicle (Ripon)	
	Pancake Probe	Asbestos Kit	Non-sparking tools	Van (one seat)(Tracy)	
	AIM 601 Gas AIM 4601 (Ripon)	5-Step (Tracy)	Rail Car Ammonia		
	Dosimeters Canary dosimeters x2 (Ripon)		Response computer		
	Micro Rem Meter		Mark I Nerve Agent Kit		
	Heat Sensor		Air Bags		
	Ion Chamber Meter		Lid Locks		
	Ludlum 2241-2 (Ripon) Gas Tech x2 (Tracy)		FireTrax personnel accountability system		
	, ,,,				
	pH paper (Tracy) CO monitor (? Juris)				
	Oxygen monitor (?Juris)				

## Jurisdiction Stanislaus County

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
25 Ist Defender Level A suits	5 x Innova FV 4 Gas CGI	4 HazCat Kits	2 x A Kits	3 full size HazMat Response vehicles	2 x Decon trailers 3 x Mass decon tents
	2 xTVA-1000B-FID	25 – 5 step kits	2 x B Kits	HM 91 HM 98 HM93	
	6 x FH 40 G-L Radimeter Scintillaot		1 x C Kit		
	FHZ 672M Scintillator		256 Kits M8, M9 Paper		
	Miran Sapphire Gas Analyzer				
	6 x PI-101 PID				
	3 x Multirae PID/4 gas CGI APD 2000 Chemical Agent				
	detector				
	STX 70 NH3 detector				
	40 x PD 101 Personal dosimeters				
	12 xRad Alert Monitors				

## Jurisdiction **Tuolumne County**

No. and type of Level A HazMat Suits	Detection/ Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine kits)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
	7 CGI				1 Trailer

Jurisdiction: Yolo County

No. and type of Level A HazMat Suits	Detection /Monitoring Equipment	Product Identification (e.g. HazCat, 5-step, Anthrax)	Specialized Response Equipment (ie ammonia/chlorine Kits, WMD)	HazMat Response Van/Trailer or other vehicles	Specialized Decon (Mass Decon trailer/vehicle)
5-Trellchem HPS Level A Suits	3-MultiRae Gas Monitors	4-HazCat Kit	2-Chlorine "A" Kit	1994 Ford/Marion Hazmat Response Unit	5 Pool Decon Station
6- Responder Plus Level A Limited Use	2-Ludlum Geiger Mueller Radiation Survey Meter 1 Rad Meter	1-HazCat WMD Kit	2-Chlorine "B" Kit	Trailer (Health)	Mass Decon with Decon Support Trailer includes water heater
Kappler Responder	1-Pump Style	1 -Travel IR	IAFD 2600 (?)		
Level A suits	Automatic Halogen Leak Detector				
Kappler CPF3	1-Set Clandestine	HazMat Computer			
Level B suits	Lab Drager Tubes	database			
	Draeger Tubes -Box 1 Ammonia 2/a 1 Formaldehyde 0.2/a 1 Chlorine 0.3/b 1 Sulfur Dioxide 0.1/a 1 Polytest 1 Cyanide 2/a				
	1 SAM 935				
	1 V-Roe 1 Mini Rae				
	Multi-gas monitoring equipment				

# LEPC Region IV Remediation Contractors, Clean-Up & Hazardous Waste Contractors\*\*

Hazardous Materials Incident Response Companies				
Environmental Logistics/Filter Recycling, Inc 13992 Catalina Street San Leandro, Ca 94577 (888) 641-3940 www.environmentallogistics.org	NRC, Inc 6701 32nd Street, Suite K&L North Highlands, CA 95660 (800) 33-SPILL www.nrces.com	PSC 11855 White Rock Blvd Rancho Cordova, Ca 95742 (877) 577-2669 www.pscnow.com		
ABE Arens Brothers Environmental 3987 Missouri Flat Rd, #340-107 Placerville, CA 95667 (530) 621-3044	PARC Specialty Contractors 1400 Vinci Ave Sacramento, CA 95838 (916) 992-5405	Clean Harbors Environmental Services, Inc. 3201 Evergreen Ave West Sacramento, CA 95691 (800) OIL-TANK or (800) 645-8265 www.cleanharbors.com		
PSC 395 W. Channel Rd. Benicia, CA 94510 (877).5PSC-NOW www.pscnow.com	DECON Environmental Services 23490 Connecticut Street Hayward, California 94545 (510) 475-2901 www.deconenv.com	RAH Environmental, Inc 4645 Raley Blvd Sacramento, CA 95838 (800) 234-7241 www.rahenv.com		
Ecology Control Industries 255 Parr Boulevard Richmond, CA 94801 (800) 236-7324 www.ecologycontrol.com	Romic Environmental Tech Corp 1679 Enterprise Blvd West Sacramento, CA 95691 (916) 376-8445	NRC Environmental Services 701 Galveston West Sacramento, CA 95691 (800) 337-7455 www.nrces.com		

The above companies may be capable of performing hazardous materials incident response, cleanup, removal and disposal.

This list is provided as a convenience and is not an endorsement or certification of their services. It is your responsibility to ensure the contractor is bonded and has an appropriate, valid license for the work to be performed (California State License Board (800) 321-2752.

\*\*LEPC does not endorse any contractors on this list. Use of these contractors is based on availability of resources, as well as specific needs.