CLARK COUNTY
LOCAL EMERGENCY PLANNING COMMITTEE

HAZARDOUS MATERIALS EMERGENCY RESPONSE PLAN

MESQUITE
HENDERSON
LAS VEGAS
BOULDER CITY
CLARK COUNTY
NORTH LAS VEGAS

This Plan is a Clark County Local Emergency Planning Committee project coordinated by the Office of Emergency Management in cooperation with the participating agencies listed in the Agencies section of the plan.

January 2015

Clark County Local Emergency Planning Committee

January 2015

LETTER OF PROMULGATION

This is the **Hazardous Materials Emergency Response Plan** for the Clark County Local Emergency Planning District. This plan is the product of cooperative efforts by the members of the Local Emergency Planning Committee (LEPC), and fulfills a federal requirement of the Superfund Amendments and Reauthorization Act of 1986 (SARA) under Title III, "Emergency Planning and Community Right-To-Know".

This document provides guidance for hazardous materials emergency response and represents a consensus by the LEPC upon which to base future planning and training. It also reflects recommendations and suggestions made by local government officials, industry representatives, emergency managers, environmental organizations, and members of the public actively concerned with hazardous materials preparedness, response, and prevention.

To the extent that the execution of this plan involves various private and public-sector organizations, it references letters of agreement signed by officials of these organizations. The authority and responsibility for implementing this plan begins immediately upon the notification of authorities by any person discovering a hazardous materials release.

This plan is but one important step in a comprehensive program of implementing the Emergency Planning and Community Right-To-Know aspects of SARA.

Sincerely,

John Steinbeck
Chair, Clark County
Local Emergency Planning Committee (LEPC)

TABLE OF CONTENTS

TELEPHONE DIRECTORY

RESPONSE

ABBREVIATIONS

DEFINITIONS

APPENDICES

TABLE OF FIGURES

BASIC PLAN

HOW TO USE THIS PLAN

General Public and Private Industry

In accordance with the "Emergency Planning and Community Right-To-Know Act of 1986," the Clark County Local Emergency Planning Committee (LEPC) prepared this plan. This plan represents Clark County's proactive approach to managing possible releases of hazardous substances.

Private industry shall report all releases of reportable quantities to the Local Emergency Planning Committee. Reportable quantities notification telephone numbers can be found in Telephone Number section, page 1.

To report emergency spills go to the Telephone Number section, page 1 and call the number listed for your area. The Hazardous Materials Emergency Assistance Telephone Directory numbers are listed by city. If you are not sure of which number to call, dial 9-1-1.

For non-emergency spills with reportable quantities, go to the Telephone Number section, page 1 and use the Hazardous Materials Emergency Assistance Telephone Directory section entitled "Reportable Quantities Notifications."

Always remember to call (800) 227-2600 before you dig a hole in the ground. This simple step can prevent accidents involving underground storage and transportation gas lines and power lines.

Mandatory Planning Criteria

The following crosswalk indicates where the plan satisfies the criteria established in the document NRT-1. NRT-1 is planning guidance published by the National Response Team (1987).

Criterion 1: Identification of Facilities	Appendix A, Pages 1-67
Criterion 2: Response Methods	Response, Pages 1-27
Criterion 3: Emergency Mgmt. Coordinator	Telephone Directory, Page 3
Criterion 4: Notification Procedures	Response, Page 2-4
Criterion 5: Determining Release Events	Response, Page 1-2
Criterion 6: Emergency Equipment	Appendix B; Pages 1-32
Criterion 7: Evacuation Plans	Evacuation, Pages 1-13
Criterion 8: Training Programs	Response, Page 33-34
Criterion 9: Exercise Programs	Response, Page 34-35

This plan contains the best information available at the time of its publication. Every effort has been made to ensure accuracy. If errors are found, please forward corrections to:

Clark County LEPC
Attention: Plan
P.O. Box 551713
Las Vegas, NV 89155-1713

PLANNING STANDARDS

PURPOSE

The purpose of this Hazardous Materials Emergency Response Plan is to establish common guidelines for responding to hazardous materials incidents anywhere within Clark County, and to meet the statutory requirements of the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499), "SARA Title III."

PLAN RESPONSIBILITY

The Local Emergency Planning Committee (LEPC), established by the provisions of SARA Title III, is responsible for the development and update of this plan. The LEPC members are appointed by and serve at the discretion of the LEPC Chair. The LEPC Chair can appoint a new member if that member is an employee or representative of one of the member organizations indicated on the enabling resolution passed by the Clark County Board of Commissioners. If it is necessary to augment LEPC membership, then Board approval to amend the resolution is required.

OBJECTIVES OF THE PLAN

- Ensure alignment with the National Response Framework and the State of Nevada Hazardous Materials Response Plan.
- Use the information provided by industry to identify the facilities and transportation routes where hazardous substances are present.
- Establish emergency response procedures, including evacuation plans, for dealing with accidental chemical releases.
- Set up notification procedures for those who will respond to an emergency.
- Establish methods for determining the occurrence and severity of a release and the areas and populations likely to be affected.
- Establish ways to notify the public of a release.
- Identify the emergency equipment available in the community, including equipment at facilities.
- Contain a program and schedules for training local emergency response and medical workers to respond to chemical emergencies.
- Establish methods and schedules for conducting "exercises" (simulations) to test elements of the emergency response plan.
- Designate a community coordinator and facility coordinators to carry out the plan.

SCOPE

This plan applies to all persons responding to a hazardous materials incident within Clark County, Nevada.

Hazardous Materials

The materials may include, but are not limited to, explosives, flammables, combustibles, compressed gases, cryogenics, poisons and toxins, reactive and oxidizing agents, radioactive materials, corrosives, carcinogenics, or etiological agents, or any combination thereof.

Hazardous Materials Incident

This plan covers any hazardous material incident associated with any mode of transportation, industrial processing and/or storage sites, waste disposal procedures, and illegal usage and disposal.

GUIDING PRINCIPLE

The primary responsibility for the control of hazardous materials rests with the owner, user, shipping agent, carrier, or other individuals who have custody of the material. However, in the event of an incident or accident resulting in loss of control of a hazardous material by the responsible party, the local government must take action and seek assistance as necessary to limit the effects on LIFE, PROPERTY, and THE ENVIRONMENT.

AUTHORITIES

Federal

Civil Defense Act of 1950

Public Law 100-707 Robert T. Stafford Disaster Relief and Emergency Assistance Act (amended earlier. Public Law 93-288)

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980

National Oil and Hazardous Substances Pollution Contingency Plan (Section 105, CERCLA)

RCRA - Resource Conservation and Recovery Act Hazardous and Solid Waste Amendments of 1984

Superfund Amendments and Reauthorization Act of 1986 (SARA Title III)

Emergency Planning Community Right to Know (EPCRA)
Clean Air Act - Section 112 (r) requires facilities to develop a risk management plan program to prevent and mitigate the effects of chemical accidents, and to document the program in a Risk Management Plan (RMP).

State of Nevada - Nevada Revised Statutes (NRS)

NRS 244.335 - Grants power to regulate business

NRS 244.2961- Grants power to maintain a fire department, establish a fire code, and regulate the storage of explosive, combustible, and inflammable material

NRS 414 (all) Authorizes local emergency management programs

NRS 459 (all) Governs the storage and transportation of hazardous materials

NRS 474.160 - Grants fire departments/districts the power to regulate the hazards of fires and explosion relating to the storage, handling and use of hazardous substances, materials or devices

NRS 455.80 - 455.180 Nevada One Call Law. This law requires Nevadans to call 800-227-2600 before they start digging, blasting, drilling, or any other kind of excavating.

Local

Clark County Code
City of Las Vegas Municipal Code
City of North Las Vegas Municipal Code
City of Henderson Municipal Code
City of Boulder City Municipal Code
City of Mesquite Municipal Code

Mutual Aid

Fire Mutual and Automatic Aid Plan

Other References

Nevada Comprehensive Emergency Management Plan
Nevada Hazardous Materials Incident Contingency Guide
Clark County Emergency Operations Plan
Comprehensive Emergency Management Plans for the cities of Boulder City, Henderson, Las Vegas, North Las Vegas and Mesquite

Mandated Agency Responsibilities

See the RESPONSE section of the plan.

Letter of Agreements

Numerous agreements exist in the form of Mutual Aid Agreement, Automatic Aid Agreement, Interlocal Agreement, and Memoranda of Agreement and/or Understanding. These agreements among the many jurisdictions in Clark County allow for response regardless of jurisdictional boundaries.

RELATIONSHIP TO OTHER PLANS

This plan is the Hazardous Materials Annex of the Clark County Emergency Operations Plan (EOP). Additionally, the Comprehensive Emergency Management Plans for the cities of Boulder City, Henderson, Las Vegas, North Las Vegas, and Mesquite refer to the Clark County LEPC Hazardous Materials Emergency Response Plan for hazardous materials incident response.

The State of Nevada, Comprehensive Emergency Management Plan Emergency Support Function #10, is designed to provide state support to response as outlined in this Plan and the State of Nevada's Hazardous Materials Response Plan.

This plan also supports the Clark County Medical Surge Plan and the Standardized EOC Operations Plan.

ASSUMPTIONS

All facilities covered under SARA Title III requirements must submit the required documents (minimum of Tier II Reporting) to the local Fire Department having jurisdiction, the Clark County LEPC, and the State Emergency Response Commission (SERC).

Facilities that must comply with SARA Title III will be identified through:

1. SARA Title III required reports;
2. Nevada State Fire Marshal consolidated report and associated permits;
3. Surveys and licenses in the local jurisdiction or State of Nevada licenses;
4. Clean Air Act, Section 112 (r).

Facilities that have fulfilled the requirements to report under the provisions of SARA Title III and have Extremely Hazardous Substances (EHS's) stored on site in amounts that exceed Threshold Planning Quantities (TPQ's) are included in this plan. See table in Appendix 1.

The Clark County LEPC may also identify facilities subject to additional risk due to their close proximity to transportation routes and/or facilities that have hazardous chemicals.

PLANNING FACTORS

Hazard Analysis

This section summarizes information about likely hazards that pose risks to people and property in Clark County. Detailed information about specific hazards is available from the responsible agency.

A hazard analysis contains information about community conditions that can affect people and property adversely. These conditions exist because industrial and commercial activities produce hazards that potentially threaten people. Also, human activities can conflict with natural forces and can result in hazardous materials emergencies.

A hazard analysis benefits the County and its municipalities because it:

1. Provides information for elected officials and citizens.
2. Establishes a basis for emergency planning.
3. Meets legal requirements.

This analysis reviews hazards in two major classifications: technological and natural.

Technological Hazards usually result from chemical emergencies and nuclear accidents. These hazards pose the most risk to people and are difficult to manage.

Natural Hazards result from geologic, weather, or seismic events. Researchers project that nationally; losses from these hazards will increase over the next ten years.

As the population moves into vulnerable areas, the risk to people and property increases. Local government uses a hazard analysis to plan for emergencies. Plans address specific functions critical to emergency response and recovery. The functions apply to any emergency regardless of the type of hazard:

- Management
- Communications
- Warning
- Information
- Evacuation
- Shelter
- Medical Care
- Public Works
- Law Enforcement
- Fire Protection
- Rescue
- Support Resources
- Human Services
- Continuity of Government
- Damage Assessment
- Hazardous Materials Protection

Clark County Physical Description

Clark County encompasses almost 8,000 square miles at the southern tip of Nevada. Boundaries exist with: 1) Nye County and Lincoln County, Nevada; 2) Mohave County, Arizona; and 3) San Bernardino County and Inyo County, California.

At the eastern county boundary, Hoover Dam and Davis Dam impound the Colorado River to form Lakes Mead and Mohave respectively. These navigable bodies of water are completely within the Lake Mead National Recreation Area and are under the administration of the National Park Service, U.S. Department of the Interior.
Two rivers, the Muddy and the Virgin, flow into northeastern Clark County and discharge into Lake Mead.

The topography consists of lowland basins, like the Las Vegas Valley, nested among north-south mountain ranges.

Inventory of Existing Conditions

- County Demographics -

The Las Vegas Valley is made up of unincorporated Clark County, City of Las Vegas, City of North Las Vegas, and City of Henderson. The City of Boulder City and the City of Mesquite are municipalities outside the urban valley. Clark County's towns range from the small Arizona border community of Laughlin, 95 miles south of Las Vegas, to the ranching and farming communities of the Virgin and Muddy River Valleys, 80 miles to the north.

- Clark County's population continues to increase.
- Tourism's economic impact in 2009 2013 was $36.7 $32 billion. As of 2013, there are 150,593 hotel and motel rooms in Clark County.
- According to 2013 population estimates, Clark County responds to the needs of 883,149 residents in the urban unincorporated area. The City of Las Vegas services 607,876 606,762 residents, City of Henderson 278,047 residents, City of North Las Vegas 229,314 residents, Boulder City 15,850 residents and Mesquite 17,718 residents.

Hazards Identification

This section of the Clark County Local Emergency Planning Committee (LEPC) Hazardous Materials Emergency Response Plan (LEPC Haz/Mat Plan) provides an overview of the information provided by industry to identify the facilities and transportation routes where hazardous substances are present.

The County is subject to a variety of natural and technological manmade, hazards. The primary hazards, listed alphabetically, are:

Natural Hazards:

Avalanche
Drought
Earthquake
Epidemic
Fires
Floods
Storms & Severe Heat
Volcanic Ash Fallout

Technological Hazards:

Aircraft Accidents
Civil Disturbance
Cyber terrorism
Dam Failure
Explosions
Fire
Fuel & Utilities Shortages and Disruptions
Hazardous Materials
Radiological
Terrorism (including biological)
Water System Failures

In the unlikely event of a threat of nuclear attack, measures to protect residents and minimize their exposure to effects from the blast, shock wave, thermal radiation, and radioactive fallout would be implemented. Actions include, but are not limited to, the designation of evacuation routes and evacuation sites, and the establishment of shelters. In the event of a nuclear explosion, steps to determine exposure rates by using radiological survey instruments would be put into place. For additional information please refer to the Clark County EOP "Overview of Clark County and Hazards Occurrence."

Hazardous Materials

In November of 1986, Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA), a law designed to help America's communities deal safely and effectively with the many hazardous substances that are used throughout our society. A copy of the EPA's "Chemicals in Your Community, A Guide to the Emergency Planning and Community Right-To-Know Act," is on file at the Clark County Office of Emergency Management.

In brief, the law requires the Clark County LEPC to exercise, review annually, and update the LEPC's emergency response plan. A copy of the Clark County LEPC Hazardous Emergency Response Plan is on file at the Clark County Office of Emergency Management, 575 East Flamingo Road Las Vegas, NV 89119 Phone: (702) 455-5710. A copy of the plan is available on Clark County's website in PDF format at http://www.clarkcountynv.gov/depts/fire/oem/Pages/LEPC.aspx.

A list of Extremely Hazardous Substances (EHS) identified by the Environmental Protection Agency (EPA) as having immediate health effects and hazardous properties serve as the primary focus for the Clark County LEPC's emergency response planning effort.

There are three classification levels for hazardous materials incidents. They are designated as Level I, II, and III Hazardous Materials Incidents. Refer to the Clark County LEPC Hazardous Materials Emergency Response section for specific information on each classification level.

Transportation

Major Highways

There are four major highways in Clark County: Interstate Highway I-15, U.S. Highway 95, U.S. Highway 93, and I-215 known as the Beltway. The Interstate I-15 connects the Las Vegas Valley with St. George & Salt Lake City, Utah toward the northeast and Barstow & San Bernardino, California toward the southwest. U.S. Highway 95 connects the Las Vegas Valley with Indian Springs and the Nevada National Security Site (NNSS) to the North West and Laughlin Nevada toward the South. U.S. Highway 93 connects the Las Vegas Valley with Ely & Caliente Nevada toward the north and Hoover Dam (U.S. 515) & the City of Boulder City and Kingman, Arizona toward the west. The I-215 Beltway consists of three connected segments (northern, western, and southern) that together form a freeway ring or loop around a major portion of the Las Vegas Valley. The interchange between Interstate Highway I-15 and U.S. Highway 95 is commonly known as the Spaghetti Bowl.

A hazardous commodity flow survey was conducted in 2008 to identify and document the type and volumes of hazardous materials moving within, to, through, and from specific geographic locations. The following information is from that document.

Figure 1. Route Potential for Truck HAZMAT Flows- Clark County

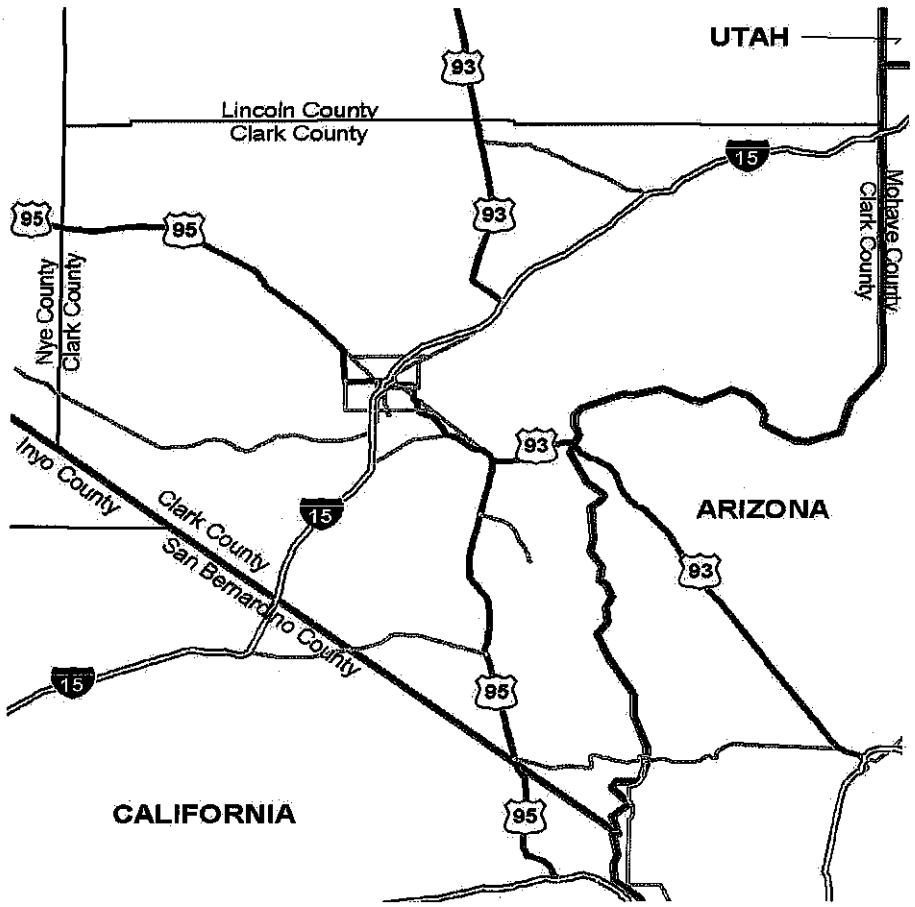


Figure 2.1, 2.2 & 2.3. Proportional Truck HAZMAT Routing Distribution Clark County, 2005 & 2008

Figure 2.1

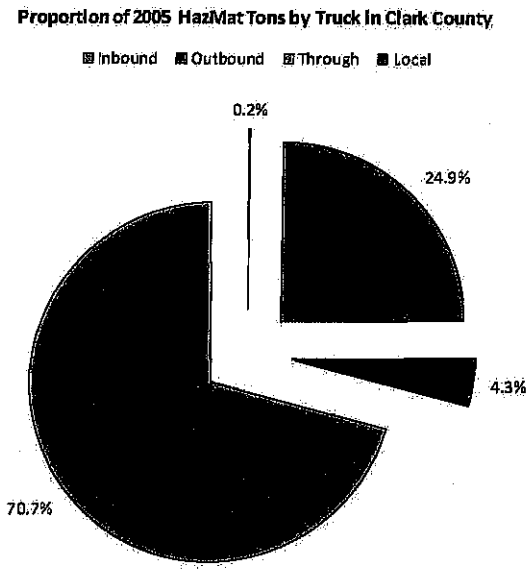


Figure 2.2

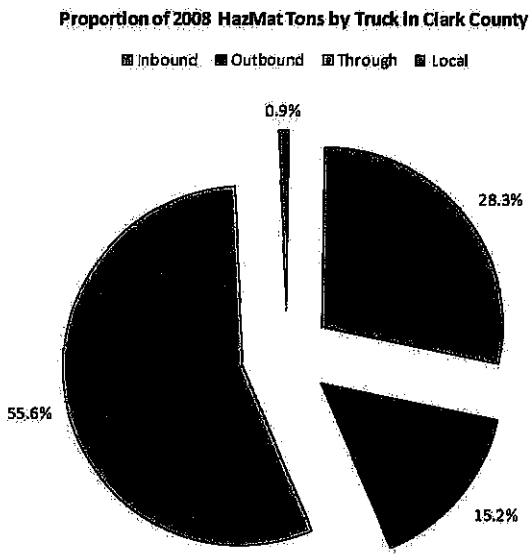


Figure 2.3

Direction	Tons (2005)	Tons (2008)	Loads (2005)	Loads (2008)	% Tons (2005)	% Tons (2008)	% Loads (2005)	% Loads (2008)
Inbound	1,473,659	752,464	61,915	33,460	24.9%	28.3%	22.5%	26.9%
Outbound	255,328	404,884	12,190	16,424	4.3%	15.2%	4.4%	13.2%
Through	4,185,906	1,481,020	200,309	73,717	70.7%	55.6%	72.9%	59.2%
Local	9,455	23,727	422	945	0.2%	0.9%	0.2%	0.8%
Total	**5,924,348**	**2,662,094**	**274,836**	**124,546**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

The most frequent mode for transportation of hazardous materials is on one of our four major highway systems. All shipments of radioactive materials, whether from industry or government, must be packaged and transported according to strict federal regulations. These regulations protect the public, transportation workers, and the environment from potential exposure to radiation.

The types of packaging used are determined by the activity, type, and form of the radioactive materials to be shipped. Depending on these factors, radioactive materials are shipped in one of three types of containers: strong tight packages, type A packaging, or type B packaging, the latter being the highest test standard packaging used for relatively high level radioactive materials.

Industrial packages are used to transport materials that present low hazards because of their low concentrations of radioactive material. Examples are consumer goods, such as smoke detectors. Type A packages are used to transport small quantities of radioactive material. One example is radiopharmaceutical drugs used for medical procedures at

hospitals and universities. Materials with higher levels of radioactivity are transported in type B packages.

Distinctive markings and labels on packages identify radioactive material shipments. A placard on each side of the vehicle identifies certain types of radioactive shipments. Packages of radioactive materials are labeled with a Radioactive I, II, or III label depending on the activity levels of the materials. Radioactive material shipments are identified by diamond shaped placards on all four sides of the vehicle.

Figure 3.1 & 3.2. Clark County HAZMAT Proportional Volume by STCC Class, Clark County, 2005 & 2008

Figure 3.1

2005 Clark County Hazardous Commodities by Class

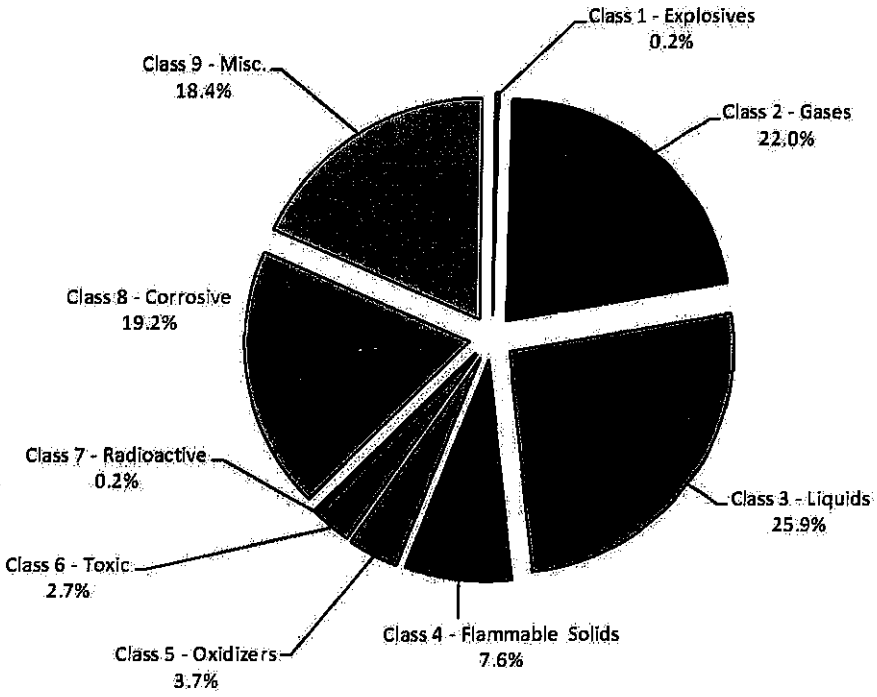
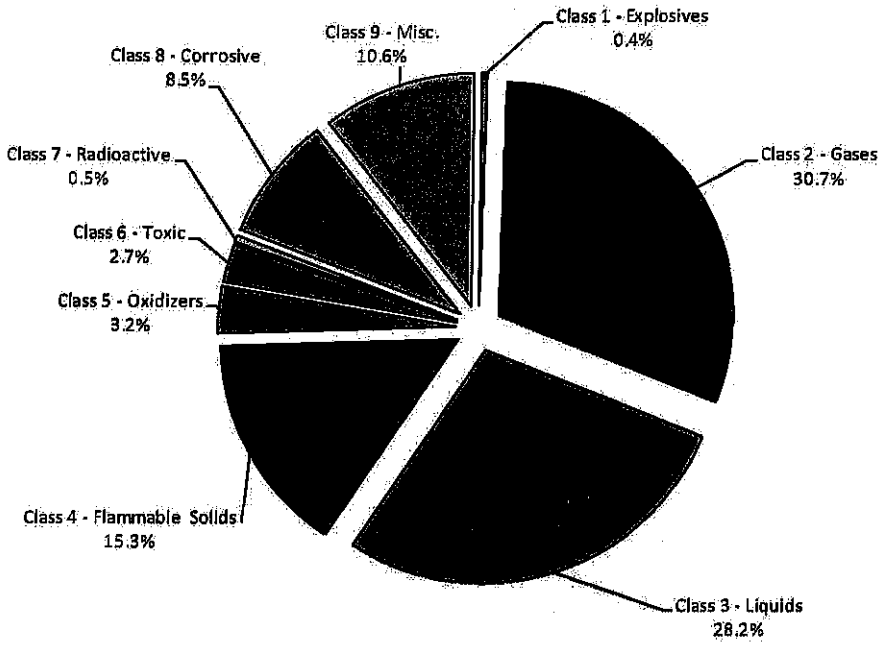


Figure 3.2

2008 Clark County Hazardous Commodities by Class



Transportation, use, and disposal of radioactive material creates problems because of the long life of most radioactive materials. Although precautions are taken in packaging the materials, there is still concern that transportation accidents and other hazards, such as earthquakes near disposal sites, could cause radiation exposure or pollution.

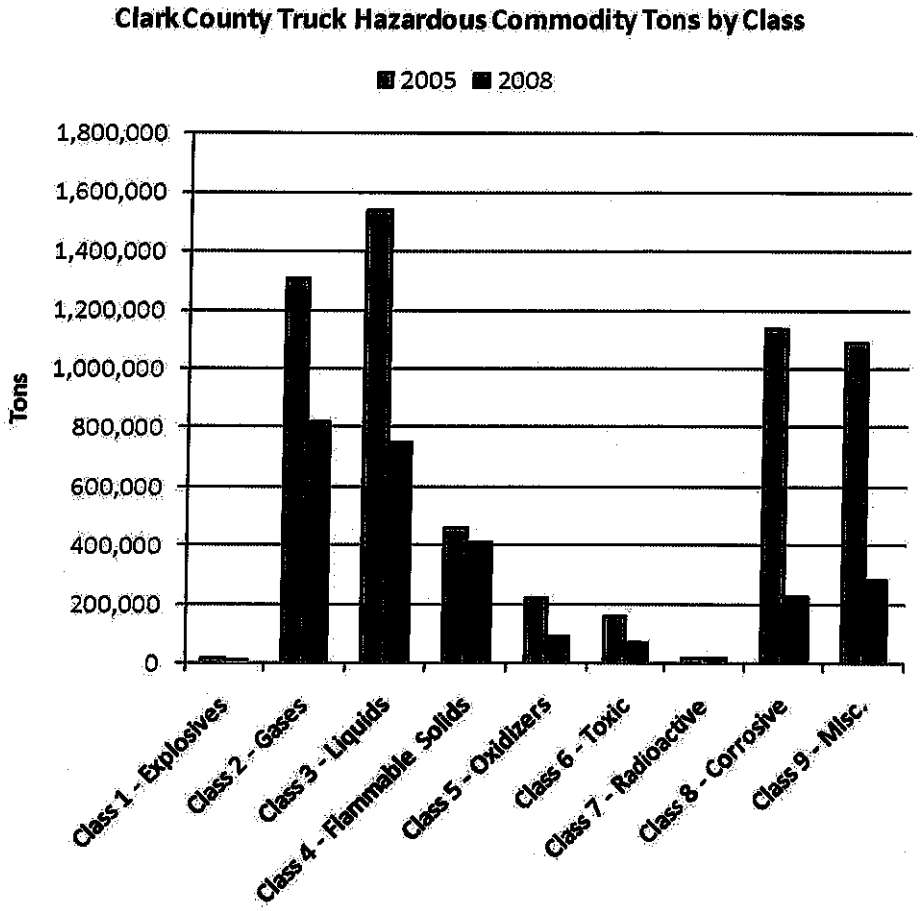
When someone is exposed to radioactive materials, the primary concern becomes the biological effects of ionizing radiation. Biological effects may include radiation sickness and death. Large "acute exposure" and long term "chronic exposure" may also result in cancer after a number of years have passed.

Local police and/or the Nevada Highway Patrol are usually the first on scene in the event of most transportation accidents. When such accidents involve radioactive materials, first responders implement radiation exposure reduction techniques including the use of time, distance and shielding principles.

For all nuclear waste incidents that occur anywhere within the State, the Radiological Health Section of Nevada Division of Public and Behavioral Health (NDPBH) has the primary authority in accordance with Nevada Revised Statutes (NRS) 459. The Radiation Control Program has offices in Carson City and Las Vegas and can be reached 24 hours daily by calling 1-877-438-7231. Nevada Highway Patrol dispatch is utilized for initial notification after hours.

Figure 4.1. Truck HAZMAT Tons, Loads by HM Class – Clark County, 2005 & 2008

Figure 4.1



The Clark County Department of Comprehensive Planning's Nuclear Waste Division commissioned the Hazardous Commodity Flow by Truck on Clark County Highways 2008 report. The report is on file at the Clark County Office of Emergency Management, 575 East Flamingo Road, Las Vegas, NV 89119. Phone: (702) 455-5710 and is available in PDF form online at: http://www.clarkcountynv.gov/Depts/comprehensive_planning/nuclear_waste/Documents/Studies/HazardousCommodityFlowsbyTruck.pdf

Railroad Transportation

Two Union Pacific (UP) Railroad main lines cross Nevada. The first runs across northern Nevada, linking central California with Salt Lake City. The other runs through the southern

part of the state, including the Las Vegas Valley. The southern line connects Los Angeles - Long Beach with Salt Lake City and UP's transcontinental line to eastern destinations.

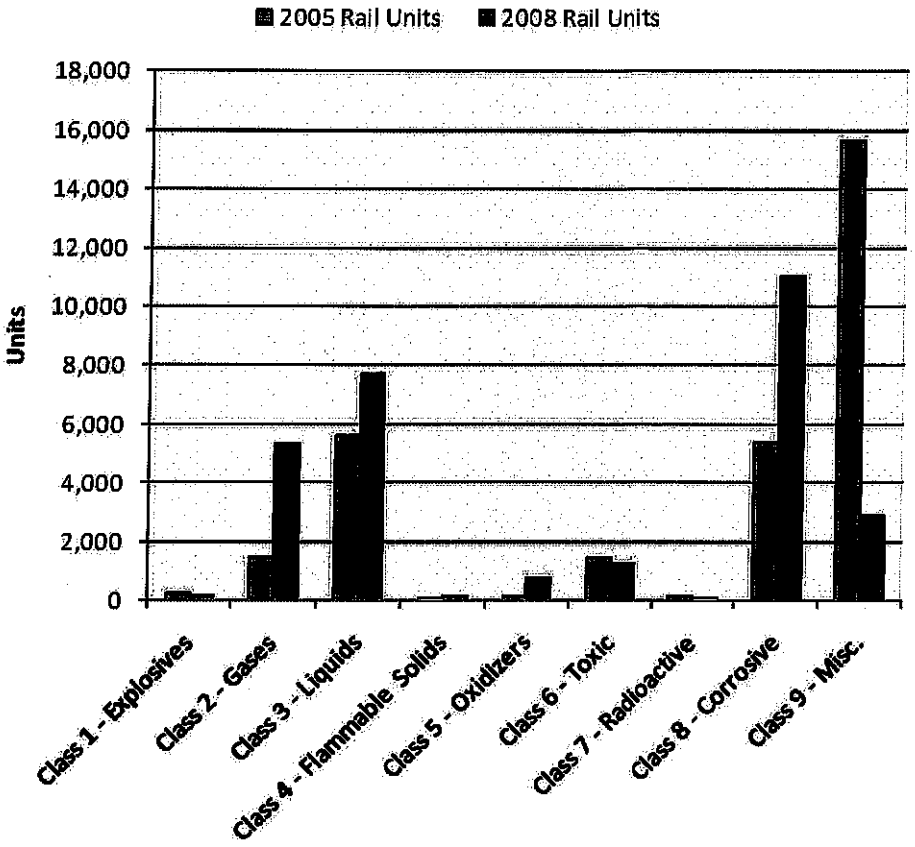
Major commodities handled by the railroad include coal, chemicals, aggregates, lumber, and consumer goods. In southern Nevada, Union Pacific plays a key role in the construction boom in Las Vegas since the railroad is the primary conduit for building materials. The UP Railroad is an important link to markets for the industrial complex at nearby Henderson. The railroad also serves the power plant in Moapa, Nevada. The railroads' top customers in Nevada include NV Energy, Olin Chlor Alkali Products, and General Motors. Union Pacific maintains crew change points and related facilities in Las Vegas.

Presently, there are plans to build a rail transfer station in the City of North Las Vegas at Lamont and El Compo Grande. The purpose of this station is to transfer bulk chemical packages from railway lines to truck ground transportation. It is anticipated that these chemicals will include highly corrosive acids that will impose a high threat for a hazardous materials incident.

Rail shipment information is available through Union Pacific Railroad. Please contact Benjamin Salo - Manager, Hazardous Materials at (402)544-4981. The following information on railroad shipments was generated from a Hazardous Commodity Flow Survey in 2008.

Figure 5.1. Rail HAZMAT Commodities, Units by Class – Clark County, 2005 & 2008

Figure 5.1 Clark County Rail hazardous Commodities Class Share (Units), 2005 and 2008



In Clark County we have three railway lines. The **Boulder Junction - Henderson, NV** is the line segment from the Southern Line of Union Pacific Railroad to Henderson and Boulder City. The **Las Vegas, NV - Daggett, CA** is the line segment of the Southern line of the Union Pacific railroad connects Las Vegas and Daggett, CA. The **Las Vegas, NV - Moapa, NV** is the line segment of the Northern line of Union Pacific Railroad connects Las Vegas and Salt Lake City, UT.

Airports

The Clark County Department of Aviation (DOA) operates the McCarran International Airport (McCarran) and five general aviation airports: the North Las Vegas Airport, Henderson Executive Airport, Jean Sport Aviation Center, Overton - Perkins Field, and the Searchlight Airfield.

According to the Airport Council International (ACI), McCarran is ranked eighth in the United States in terms of total passenger volume per year. In 2013, McCarran provided airport services to more than 42 million passengers.

In addition to DOA properties, there are five other general aviation airports located in the County. Boulder City Airport, City of Mesquite Airport, Bull Head City/Laughlin Airport, and Echo Bay which is a landing strip operated by the U.S. National Park Service.

The U.S. Air Force operates the Nellis Air Force Base (NAFB). This military base provides ongoing U.S. Air Force weapons and combat training in addition to other strategic military business. Additionally, NAFB is the home of the "Thunderbirds" precision flying team. The USAF also operates Creech Air Force Base at Indian Springs, home of the "Predator" unmanned aircraft. Contact the Command Post at Nellis AFB for emergency notifications to both Nellis and Creech Air Force Bases.

Pipelines

There are four (4) major petroleum product pipelines in Clark County, Nevada. The Kern River Gas Transmission Company is a high-pressure natural gas transmission pipeline. Southwest Gas Corporation operates another natural gas pipeline that supplies most of the Las Vegas Valley's natural gas needs. The UNEV (Utah-Nevada) Pipeline operates a transmission petroleum pipeline from Salt Lake City to Las Vegas. The Apex Terminal has multiple grades of gasoline and diesel fuel. Finally, Kinder Morgan CALNEV Pipeline operates a petroleum pipeline network that supplies McCarran International Airport and the Las Vegas Fuel Terminal Facility with diesel, multiple grades of gasoline, and aviation fuel. Swissport Fueling Services operates the Fuel Terminals at McCarran International Airport and they also supply aviation fuel to the surrounding general aviation airports in Clark County.

To prevent construction damage to existing pipelines, the Nevada One Call law was adopted. Nevada Revised Statues (NRS) 455.80 - 455.180 requires Nevadans to call 1-800-227-2600 before they start digging, blasting, drilling, or any other kind of excavating. Compliance with the law prevents new construction caused pipeline accidents.

Major Industrial Site

The Black Mountain Industrial (BMI) site also known as Basic Management Inc (BMI), was formerly known as Basic Magnesium Industrial complex. Located in a Clark County island surrounded by the City of Henderson the BMI site is home to Tronox (formerly Kerr-McGee Chemical Corporation LLC), Titanium Metals Corporation (TIMET), Olin Chlor Alkali Products, and Saguaro Power Company.

Other Fixed Facilities

Each fixed facility listed in table titled, *Locations of Extremely Hazardous Substances,* (Appendix 1), has the requirement to establish emergency response procedures, including evacuation plans for dealing with accidental chemical releases. The facility plan sets up the notification procedures for those facility personnel who will respond to an emergency. The plan establishes the method(s) for determining the occurrence and severity of a release and the areas and populations likely to be affected at the facility. The facility plan identifies the emergency response equipment, if any, available at the facility. The facility conducts training and exercise programs with a general training schedule for the facility responders. The facility identifies coordinators to carry out the facility plan. Finally, the facility plan provides the method for contacting or notifying the local first response agency that is, in most cases, the local Fire Department.

Facilities listed in Appendix 1 have provided the Clark County LEPC with a list of extremely hazardous substances, in amounts at or above the Threshold Planning Quantity (TPQ), present at their facility. This information was obtained from the Nevada Combined Hazardous Materials Reporting System. Facilities submit information on an annual basis to this online database system.

Wellheads

A major concern for water wells and water purveyors is the potential for spills of hazardous materials on top of the ground, and what those incidents might create in terms of hazards for water users. Information on this subject is in the Wellhead Protection Element to the Clark County Comprehensive Plan, produced and maintained by the Clark County Comprehensive Planning Department. This document is on file at the Clark County Office of Emergency Management, 575 East Flamingo Road, Las Vegas, NV 89119 Phone: (702) 455-5710 and is available in PDF form online at: http://www.clarkcountynv.gov/Depts/comprehensive_planning/advanced_planning/Documents/WellheadProtectionReport.pdf

Nevada National Security Site (NNSS) – Low-Level Radioactive Waste Shipments

A significant amount of low-level radioactive waste travels through Clark County during its journey to the Nevada National Security Site (NNSS). Potential dangers posed by radioactive waste are typically concentrated in the immediate vicinity of the disposal sites or along the transportation routes.

The NNSS is located approximately 65 miles north of Las Vegas, in Nye County, Nevada. The closest Clark County community to the NNSS is the rural unincorporated town of Indian Springs, about 20 miles from the NNSS. Under the terms of the current Nevada Test Site RCRA permit, mixed low-level waste disposal is limited to either 20,000 cubic meters (706,293.33 cubic feet) of low-level radioactive material or until December 2010, a permit application to construct a new mixed low-level waste for disposal beyond 2010 has been approved.

The DOE has pending two draft environmental impact statements, one for "Greater than Class C" waste as well as a Site Wide environmental impact statement (SWEIS) which is considering various alternatives for uses of the NNSS. The actions resulting from those environmental impact statements are likely to increase shipment frequency and/or volume over the next decade. According to the Greater than Class C EIS, there is a potential for 12,600 total truck shipments. In addition, the DOE plans approximately 403 (many overweight) shipments of U-233 to the NNSS over the next decade. Using the Expanded Alternative (worst case scenario) in the SWEIS, over the period covered in the SWEIS, Clark County can expect to experience 81,000 shipments, approximately 130 trucks per along U.S. 95, to transport 37 million cubic feet of low level waste, 11 million cubic feet of mixed low level waste, and 9,600 cubic feet of transuranic waste.

During FY 2012, the cumulative LLW volume received at the NNSS was 785,579 cubic feet and the cumulative mixed low-level waste volume received was 41,531 cubic feet.

The NNSS expects to receive approximately 284,276 cubic feet of low-level and mixed low-level waste for disposal during the first quarter of FY2013 with a projected volume of just over 910,000 cubic feet. The outlook for FY2014 estimates 843,071 cubic feet of low level waste, including 245,798 of mixed low level waste.

Transport of High Level Radioactive Waste Through Clark County

In 2002, the United States Congress overrode the Governor of Nevada's veto of the selection of Yucca Mountain as the site for a high radioactive waste repository. If the site is ever licensed by the U.S. Nuclear Regulatory Commission, the Yucca Mountain site will be used to store 77,000 metric tons high level radioactive waste and spent nuclear fuel currently located at nuclear reactor sites across the county as well as defense nuclear waste. On June 3, 2008, the U.S. Department of Energy (DOE) submitted a license application seeking authorization to build a geologic repository to the Nuclear Regulatory Commission. On February 1, 2010, the Obama Administration released the Federal Fiscal Year 2011 national budget, which included the elimination of all funding for continuation of the project. On March 3, 2010, the DOE filed a Motion to Withdraw the license application. Currently, activities related to the license application, transportation, and public safety and security plans have been suspended. The future of the project remains uncertain at this time. The Nuclear Regulatory Commission has suspended all work on the license application citing budget constraints, In January 2011, the Blue Ribbon Commission on America's Nuclear Future identified a path forward and the U.S. Department of Energy is moving forward with developing plans based on those recommendations. The U.S. Congress has not funded the Yucca Mountain Project for the past three fiscal years. Final action on whether or not to proceed with licensing of the Yucca Mountain site as a nuclear waste repository will be decided by the United States Congress through the appropriations process, and/or DC Circuit Court of Appeals some time in the coming year.

If the project moves forward, it is the U.S. Department of Energy's (DOE) intent was to transport most of the waste by railroad, although is likely that large quantities of this waste would also be transported through Clark County.

The DOE's transportation plan is vague when describing specific routes, exact quantities of waste and the percentage of waste that would be transported via truck or rail. The Caliente Corridor Record of Decision (ROD) completed in 2004 and the DOE's application to the U.S. Surface Transportation Board for authorization to construct a 319-mile rail line through Nevada to Yucca Mountain remains pending.

Until such time as the Nuclear Waste Policy Act of 1987 is repealed, Southern Nevada remains the singular designated final storage site for military and civilian high-level nuclear waste.

Incident Command for Hazardous Materials Incidents

The use of the Incident Command System (ICS), in accordance with the National Incident Management System (NIMS), is the protocol for hazardous materials incident response. First on scene response units will establish incident command, regardless of discipline. A transfer of command should be conducted to the lead agency having jurisdiction once they arrive. While a transfer of command to a lead agency will be conducted, the possible use of Unified Command with other lead agencies using ICS/NIMS should be considered.

The Incident Commander/Unified Command will receive their authority, policy, mission, and strategic direction from agency executives or senior officials of the jurisdictions having authority. Lead agencies are identified in the Response section of this plan.

The Fire Department having jurisdiction will accept and provide the position of Incident Commander for the scene of all hazardous materials incidents. The fire department will coordinate and direct within its control all fire department activities within its jurisdiction and responsibility to include, but not be limited to, rescue and first aid, product identification, scene stabilization and management, suppression activities, protection of exposures, containment, agency notification, scene isolation, personnel protection, and decontamination. Fire Department actions may be supported by designated, trained hazardous materials response teams.

The City of Las Vegas Fire Department and the Henderson Fire Department maintains a specially trained Hazardous Material Response Team (HMRT) for the specific purpose of responding to chemical emergencies. This HMRT, in association with any developing HMRT, can provide expertise and equipment especially developed to help control and abate a hazardous material incident.

The captain of the Hazardous Materials Response Team will report to and function through the Incident Commander or Unified Command.

AGENCY DUTIES

AGENCY DUTIES

ORGANIZATIONAL ROLES AND RESPONSIBILITIES

COUNTY AND MUNICIPAL GOVERNMENTS

The functions of Emergency Coordinators, Fire Departments, Law Enforcement, Health Districts, and other Public Agencies are outlined in the Response Section.

OFFICIALS OF FIXED FACILITIES AND/OR TRANSPORTATION COMPANIES

1. Several private companies within the County possess specialized expertise and equipment for hazardous materials emergencies. These companies are identified in the Emergency Assistance Telephone Directory and/or Resource Management Section.

2. The Emergency Planning and Community Right-to-Know Act of 1986 (SARA Title III) imposes certain State and Local community notification and emergency planning requirements on firms manufacturing, using, or transporting extremely hazardous substances. The LEPC and each jurisdiction's Fire Departments work closely with firms subject to these requirements. Facilities subject to community notification and emergency planning requirements, specifically those reporting Extremely Hazardous Substances (EHS's) over Threshold Planning Quantities (TPQ's) are required to maintain emergency operations plans and those plans are available at each facility.

NEIGHBORING COUNTIES OR MUNICIPALITIES

This plan and its updates are coordinated by the LEPC with neighboring counties to ensure that they are supportive.

INDIAN TRIBES

The Paiute, Moapa, and Fort Mohave Indian Tribes within Clark County are invited to voluntarily take part in emergency preparedness by participating in the Clark County LEPC.

STATE GOVERNMENT

1. Nevada Division of Emergency Management (NDEM): The NDEM is, under Nevada Law, the coordinating agency for State emergency response. Assistance for hazardous materials releases from State and Federal sources can be obtained by contacting the NDEM through the local Office of Emergency Management. In addition, NDEM is the point of contact for requesting the Nevada 92nd Civil Support Team (CST). The mission of the CST is to respond to chemical, biological, radiological and nuclear events; however, they have personnel and resources that can assist local jurisdictions when handling a hazardous materials incident.

2. Nevada Division of Environmental Protection (NDEP): the NDEP regulates hazardous waste, provides advice on environmental matters, conducts sampling for chemical tests, and makes final decisions on clean-up operations. Also, NDEP can

assist in environmental crime investigations. In addition, NDEP has the Chemical Accident Prevention Program (CAPP) which regulates facilities that produce, use or store highly hazardous substances.

3. Nevada Division of Public and Behavioral Health (NDPBH): The Division of Health is responsible for public health and can be utilized to test for contamination resulting from chemicals or organisms. In addition, there are two other sections of this Division that can be of assistance:

A. Radiological Health is responsible for incidents involving radioactive materials.
B. Emergency Medical Services can assist in the coordination of emergency medical responses when local resources cannot cope.

4. Nevada Division of Industrial Relations (DIR), Department of Business and Industry which is in the DIR has an enforcement section – Nevada Occupational Safety and Health Administration (Nevada OSHA) and a consultation section – Nevada Safety Consultation and Training Section (SCATS), they operate the occupational safety and health program for all public and private sector employees. Almost every business uses or stores chemicals that are classified as hazardous materials. Nevada OSHA enforces Federal safety regulations – like Process Safety Management (PSM) as well as State regulations – like explosive storage, asbestos, and ammonium perchlorate.

5. Nevada Department of Transportation (NDOT): NDOT has highway maintenance yards throughout the state with heavy equipment and other resources. NDOT has the power to close highways under its jurisdiction to traffic.

6. Nevada Department of Motor Vehicles and Public Safety (DMV): DMV controls the licensing and regulation of commercial carriers throughout the state. The Nevada Highway Patrol (NHP) is part of this Department and enforces highway transportation regulations in the state. NHP also controls the State Law Enforcement Communications Net that may be used for emergency communications.

7. State Emergency Response Commission (SERC): SERC is a source of state and federal funding specific to the maintenance of LEPC's and planning, training, equipping and exercising of local hazardous materials response teams and plans. Amongst administrative requirements for funding eligibility is the annual review and updating of local hazardous materials response plans.

FEDERAL GOVERNMENT

1. Environmental Protection Agency (EPA): The EPA is responsible for environmental matters at the Federal level. Support available to Nevada includes; sending technical teams and on-scene coordinators to the sites of releases or dumps, providing advice, and enforcing violations of environmental laws. EPA clean-up teams – Regional Response Teams (RRT) and Environmental Response Teams (ERT) can be utilized to clean-up areas of immediate concern to life and the environment. The Radiation and Indoor Environments National Laboratory located in Las Vegas can provide teams to respond to potential radiological emergencies. The Radiation and

Indoor Environments National Laboratory can also provide a completely self-contained mobile laboratory. The laboratory is capable of providing a wide range of radiation analyses.

2. Federal Bureau of Investigation (FBI): The FBI environmental crime unit is available in Clark County. The unit can bring other FBI resources to support state and local jurisdictions if a criminal case warrants such support.

3. Department of Homeland Security (DHS), through its Federal Emergency Management Agency (FEMA): FEMA provides coordination on the Federal level and funds training classes. FEMA provides grants for training under the provisions of Title III. In addition, DHS regulates certain hazardous materials through its Chemical Facility Anti-Terrorism Standard (CFATS) program. CFATS has inspectors that can assist local jurisdictions in identifying facilities that need to be regulated by this program.

4. Department of Transportation (DOT): The DOT publishes many hazardous materials publications that are available to local responders. The Coast Guard, under the DOT, provides hazardous materials response teams in some cases. The team serving Clark County is the Pacific Strike Team.

5. Department of Defense (DOD): The primary support available from DOD is in the area of explosive ordinance disposal (EOD).

6. National Nuclear Security Administration and Nevada Site Office (NNSA/NSO): The NNSA, Nevada Site Office (NNSA/NSO), by agreement with NDEM, provides radiological assistance to the State when requested. DOE/NV also provides radiological training to the NHP and selected law enforcement and fire depts. The Nevada Operations Office (NVOO) has limited chemical cleanup abilities as well.

7. Drug Enforcement Administration (DEA): The DEA provides specialists to investigate suspected drug laboratories or chemical dumps.

8. National Weather Service (NWS): The NWS provides weather sensitive Decision Support Services (DSS) by providing daily forecasts and weather warning services. The NWS constantly monitors weather conditions 24 hours a day weather, every day of the year. The NWS can provide forecasts for hazardous materials dispersion and well as for local weather conditions that can cause detriment for the incident itself or affect incident response. The NWS can provide services ranging from remote support during an incident scaling up to direct on-site support as the incident and weather conditions warrant.

PREDETERMINED ARRANGEMENTS

The formal agreements between agencies, the County and the State, or between Departments, are maintained at those Departments or Agencies.

OUTSIDE RESOURCES

Local jurisdictions must coordinate requests for State and Federal resources through Clark County Office of Emergency Management and Homeland Security. The Nevada Division of Emergency Management will coordinate requests to the Federal level and coordinate deployment of State resources.

AGENCY RESPONSIBILITIES

FIRE AND RESCUE

Approach the scene in accordance with Department guidelines for hazardous materials incidents. Assume incident command, or if responding at the request of the Lead Agency, report following the guidelines of the Incident Command System in accordance with the National Incident Management System.

Determine or verify the type of material(s) involved and the exact nature of the hazard. Several major fire departments in the Las Vegas Valley utilize HazmatIQ which is designed for fire fighters and other first responders, not at the technician level, to determine whether or not the scene is safe for entry.

Notify appropriate Emergency Management Coordinator about the status and nature of the emergency.

Identify and communicate resource needs to Emergency Operations Center liaison (if EOC is activated).

Notify required support agencies to report to the incident according to ICS procedures.

Perform necessary stabilization, containment, decontamination, or fire-fighting procedures as required.

Maintain control of incident until emergency phase is over.

Notify the responsible party (if known) for clean-up and removal of any waste. (This will be addressed in Department guidelines)

Maintain records of costs for future recovery from responsible parties.

LAW ENFORCEMENT

Respond to the scene and perform duties in accordance with Department guidelines for hazardous materials incidents and in accordance with the guidelines of the Incident Command System as prescribed in the National Incident Management System.

Conduct evacuations as defined in department guidelines.

Control traffic, secure the perimeter of evacuated areas, and protect property where practical and safe.

Maintain records of costs for future recovery from responsible parties.

REGIONAL TRANSPORTATION COMMISSION

Respond to the incident per department guidelines and report following the guidelines of the Incident Command System in accordance with the National Incident Management System.

Assist law enforcement personnel in the transportation of persons away from any areas identified for emergency evacuation.

SOUTHERN NEVADA HEALTH DISTRICT AND ENVIRONMENTAL HEALTH

Respond to the incident per department guidelines and report following the guidelines of the Incident Command System in accordance with the National Incident Management System.

Evaluate the hazards to surrounding residents, looking for possible secondary hazards to the community.

Determine, evaluate, and offer advice on airborne hazards, water contamination, solid waste, hazardous containment or other similar hazards, and provide advice to prevent further contamination.

Assist in the activation of State or Federal resources for environmental clean-ups.

Notify water system users (Waste Water Plants, Public Works, Water District) when contamination is entering their waterways.

Maintain records of costs for future recovery from responsible parties.

COMMUNITY EMERGENCY MANAGEMENT COORDINATOR (INVOLVED JURISDICTION)

Activate the Emergency Operations Center (EOC) when warranted by the incident/disaster; or when responding to a request by an Incident Commander.

Determine whether all appropriate and concerned agencies have been notified, and notify them if they have not.

Provide advice and support to the jurisdiction's governing body and Chief Executive Officer or their designee.

Notify the Clark County Office of Emergency Management and Homeland Security if requesting County, State or Federal assistance.

Notify the National Response Center if applicable.

Assist in the coordination of involved agencies. Coordinate mitigation of the incident until completed.

Assist local agencies in preparing and submitting claims for cost recovery where applicable.

Maintain records of costs for future recovery from responsible parties.

COUNTY AND CITY GOVERNMENTS

City Councils and the Board of County Commissioners are responsible for policy issues. In addition, they are responsible for declarations of emergencies, proclamations regarding emergencies, and for pursuing State and Federal Assistance in the event of a disaster.

PUBLIC WORKS

Provide heavy equipment, sand, traffic control devices, and other materials available.

CLARK COUNTY SCHOOL DISTRICT

Provide for the safety of schools in a hazardous materials incident by coordinating with the Incident Commander and then executing evacuation procedures or in-place sheltering as previously practiced in school drills.

May open schools outside the affected area for use as evacuation centers, care centers, and other needs.

May provide buses and drivers for use by the Incident Commander in the evacuation of the general public.

AMERICAN RED CROSS

Provide assistance to evacuees. Operate evacuation centers per existing agreements.

Assist evacuees with material, personal, and family needs through coordination with other human services agencies.

Coordinate available resources with volunteer organizations.

Other duties as appropriate and available.

CLARK COUNTY SOCIAL SERVICE DEPARTMENT

Provide social service assistance to victims of a hazardous materials incident. Coordinate with other human services agencies.

CORONER'S OFFICE

Coordinate with the lead agency in implementing procedures for handling an incident with one or more fatalities.

Provide identification and next-of-kin notifications and other services related to coroner activities.

Join forces with Incident Command staff to determine when it is safe for death investigators to perform their duties.

WATER RECLAMATION/SANITATION DEPARTMENTS

Coordinate with the lead agency to prevent contamination of sewer systems.

FLOOD CONTROL DISTRICT/MUNICIPAL STORMDRAIN SYSTEM

Coordinate with lead agency to prevent contamination of the storm drain system or flood control facilities.

WATER DISTRICT AND MUNICIPAL WATER SYSTEMS

Coordinate with the lead agency to prevent contamination of municipal water supplies.

POWER COMPANIES

Coordinate with the lead agency and be prepared to shut off service to affected areas as requested by the Incident Commander.

GAS COMPANIES

Coordinate with the lead agency and be prepared to shut down gas lines at the request of the Incident Commander.

Provide combustible-gas meters as needed.

TELEPHONE/COMMUNICATIONS COMPANIES

Coordinate with the lead agency and be prepared to set up temporary phone lines for a command post, or provide other phone services upon request and if available.

PRIVATE COMPANIES

Private companies with chemical response capabilities or technical expertise may provide those services to the Incident Commander upon request.

ALL AGENCIES

All Agencies and Departments should maintain records of their costs for future recovery from responsible parties.

INTERNAL GUIDELINES

Each entity participating in this plan will develop its own internal operating guidelines that support this plan. Those operating guidelines will be maintained at the individual entities.

TELEPHONE DIRECTORY

HAZARDOUS MATERIALS EMERGENCY ASSISTANCE TELEPHONE DIRECTORY

AGENCY	GENERAL #	24 HOUR #
EMERGENCY SPILL REPORTING FROM		
METROPOLITAN LAS VEGAS AREA		911
BOULDER CITY / HENDERSON / NORTH LAS VEGAS		911
MESQUITE		911
LAUGHLIN		911
TTY		911
RURAL AREAS		
BLUE DIAMOND / MT. SPRINGS		911
CAL-NEV-ARI		911
INDIAN SPRINGS		911
JEAN / GOODSPRINGS / PRIMM		911
LOGANDALE / MOAPA / OVERTON / GLENDALE		911
MT. CHARLESTON		911
NELSON / SEARCHLIGHT/COTTONWOOD COVE		911
SANDY VALLEY		911
BUNKERVILLE		911
MOAPA RIVER INDIAN RESERVATION TRIBAL POLICE		(702) 397-9111
NEVADA HIGHWAY PATROL		911
INTERSTATE/STATE HIGHWAYS	(702) 486-4100	(775) 688-2830
REPORTABLE QUANTITIES NOTIFICATIONS:		
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)		(702)382-3000
John Steinbeck, CHAIRMAN	(702) 455-5710	(702) 219-7859
(ALERT THE LEPC THROUGH THE CLARK COUNTY OFFICE OF EMERGENCY MANAGEMENT STAFF)		
STATE EMERGENCY RESPONSE COMMISSION (SERC)		(775) 684-7511
NATIONAL RESPONSE CENTER AND TERRORIST HOTLINE		(800)424-8802
CHEMICAL RELEASE INTO SANITARY SEWER/STORM DRAIN		(702)668-8354
NEVADA ADMIN. CODE 445 SPILL REPORTING FOR ANY QUANTITY		
NEVADA DIVISION OF EMERGENCY MANAGEMENT	(775) 687-0300	(775) 687-0400
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION	(775) 687-4670	(888) 331-6337
LAS VEGAS OFFICE	(702) 486-2850	(800) 992-0900
AGRICULTURE Spill or a RADIATION Incident		
Nevada Agriculture Division		(702) 668-4570
Nevada Radiological Health		(877) 438-7231
SUSPICIOUS ACTIVITY		
Southern Nevada Counter-Terrorism Center (SNCTC)		(702) 828-8386

AGENCY	GENERAL #	24 HOUR #
RELATED AGENCIES		
ALCOHOL, TOBACCO, AND FIREARMS, U.S.	(702) 347-5930	(702) 347-5930
BUREAU OF LAND MANAGEMENT, U.S.	(702) 515-5000	(702) 293-8998
Fire Dispatch		(702) 631-2350
DEPARTMENT OF ENERGY, U.S.		(202) 586-8100
NNSA/NSO(NEVADA SITE OFFICE)		(702) 295-0295
DEPARTMENT OF TRANSPORTATION, U.S.		
AIRLINE CONCERNS (FAA)		(310) 725-3300
PIPELINE CONCERNS	(202) 366-4595	
RAILWAY CONCERNS (OMAHA, NEBRASKA)		(402) 366-4595
EMERGENCY RESPONSE (OMAHA, NE)		(888) 877-7267
DRUG ENFORCEMENT ADMINISTRATION, U.S.	(702) 759-8000	(702) 759-8000
E.P.A. REGION IX, PACIFIC SOUTHWEST REGION	(415) 947-8000	(800) 300-2193
E.P.A. Emergency Response Team West	(702) 784-8003	(732) 321-6660
FEDERAL BUREAU OF INVESTIGATION, U.S.		(702) 385-1281
FEDERAL EMERGENCY MANAGEMENT AGENCY, U.S.		
REGION IX, SERVING AZ, CA, GUAM, HI, NV		(510) 627-7100
TOXIC SUBSTANCE AND DISEASE REGISTRY		(770) 488-7100
NATIONAL RESPONSE CENTER		(800) 424-8802
POISON CONTROL CENTER		(800) 222-1222
HEALTH DISTRICT		(702) 759-1000
EMS	(702) 759-1050	(702) 759-1000
ENVIRONMENTAL HEALTH	(702) 759-0588	(702) 759-1000
SOLID WASTE & COMPLIANCE	(702) 759-0600	(702) 759-1000
EPIDEMIOLOGY	(702) 759-1300	(702) 759-1300
NURSING AND CLINICS	(702) 759-1301	(702) 759-1000
OFFICE OF PUBLIC HEALTH PREPAREDNESS	(702) 759-1211	(702) 759-1000
SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	(702) 759-1020	(702) 759-1020
AMBULANCE / EMS PROVIDERS:		
American Medical Response		(702) 384-3400
MedicWest Ambulance	(702) 650-9900	(702) 792-9111
Community Ambulance		(702) 222-9111
CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT	(702) 685-0000	

AGENCY	GENERAL #	24 HOUR #
EMERGENCY MANAGEMENT COORDINATORS		
BOULDER CITY		
EMERGENCY MANAGEMENT COORDINATOR	(702) 293-9228	(702) 293-9224
CLARK COUNTY		
EMERGENCY MANAGER	(702) 455-5710	(702) 455-5710
HENDERSON		
EMERGENCY MANAGEMENT COORDINATOR	(702) 267-2212	(702) 267-4913
LAS VEGAS		
EMERGENCY MANAGEMENT OFFICER	(702) 383-2888	(702) 229-0407
LAS VEGAS METROPOLITAN POLICE DEPT.	(702) 828-2831	(702) 828-3111
MESQUITE		
EMERGENCY MANAGEMENT COORDINATOR	(702) 346-2690	(702) 346-6911
NORTH LAS VEGAS		
EMERGENCY MANAGEMENT COORDINATOR	(702) 633-1125	(702) 229-0407
HUMAN SERVICES		
AMERICAN RED CROSS		(702) 791-3311
NELLIS AIR FORCE BASE	(702) 652-2106	
SALVATION ARMY		(702) 657-0123
CLARK COUNTY SOCIAL SERVICES	(702) 455-5722	
CLARK COUNTY CORONER		(702) 455-3210
MILITARY		
NELLIS AIR FORCE BASE & CREECH AIR FORCE BASE		
OPERATOR	(702) 652-1110	(702) 652-2446
NELLIS FD		(702) 652-9630
NELLIS COMMAND POST	(702) 652-1859	(702) 652-2446
NEVADA NATIONAL GUARD	(775) 887-7200	
92ND CIVIL SUPPORT TEAM (CST)	(702) 643-4270	(702) 643-4270
COAST GUARD, U.S. Pacific Strike Team	(415) 883-3311	(415) 883-3311

AGENCY	GENERAL #	24 HOUR #
RADIOLOGICAL ASSISTANCE		
STATE RADIOLOGICAL HEALTH		877-GET-RAD1
CARSON CITY	(775) 687-5394	(775) 688-2830
LAS VEGAS	(702) 486-5280	(775) 688-2830
UNITED STATES NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA) NEVADA SITE OFFICE		(702) 295-0925
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) RADIATION AND INDOOR ENVIRONMENTS NATIONAL LABORATORY		(800) 424-8802
RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE **(REACT/TS)**	(865) 576-3131	(865) 576-1005
MEDICAL RADIOBIOLOGY ADVISORY TEAM **(MRAT)**	(301) 295-0316	
STATE OF NEVADA		
DIVISION OF EMERGENCY MANAGEMENT	(775) 687-0300	(775) 688-0400
DIVISION OF ENVIRONMENTAL PROTECTION	(775) 687-4670	(888) 331-6337
DIVISION OF FORESTRY – CARSON CITY	(775) 684-2500	(775) 883-5995
DIVISION OF HEALTH STATE HEALTH OFFICER	(775) 684-4200	
DEPARTMENT OF TRANSPORTATION	(702) 385-6500	(702) 385-6594
HIGHWAY PATROL	(702) 486-4100	(775) 688-2830
LPG Board	(775) 687-4890	
STORAGE		
U.S. ECOLOGY INC. BEATTY	(775) 553-2203	
UNION PACIFIC RAILROAD		
ROBERT BAVIER, MANAGER, CHEMICAL/TRANSPORTATION HAZMAT (COLTON, CA TO LAS VEGAS)	(909) 879-6339	(888) 877-7267
ST. LOUIS, MO-RISK MANAGEMENT NOTIFICATION CENTER		(888) 877-7267
UNION PACIFIC RAILROAD POLICE - LAS VEGAS	(702) 388-9272	(888) 877-7267

AGENCY	GENERAL #	24 HOUR #
WEATHER SERVICE		
NATIONAL WEATHER SERVICE		(702) 263-9750
ADVICE ON CHEMICALS		
CHEMTREC		(800) 424-9300
CHEM-TEL, INC.		(800) 255-3924
INFOTRAC		(800) 535-5053
3E COMPANY		(800) 451-8346
MILITARY SHIPMENTS		
EXPLOSIVES/AMMUNITION INCIDENTS		(703) 697-0218
ALL OTHER DANGEROUS GOODS INCIDENTS		(800) 851-8061
TELEVISION STATIONS		
CHANNEL 3 KVBC (NBC)	(702) 642-3333	
NEWSROOM		(702) 657-3150
CHANNEL 5 (KVVU FOX 5)	(702) 435-5555	
NEWSROOM		(702) 436-8256
CHANNEL 8 KLAS (CBS)	(702) 792-8888	
NEWSROOM		(702) 792-8870
CHANNEL 10 KLVX (PBS)	(702) 799-1010	
CHANNEL 13 KTNV (ABC)	(702) 876-1313	
NEWSROOM		(702) 871-3345
COX CABLE		(702) 383-4000
CHANNEL 15 UNIVISION (SPANISH SPEAKING STATION)		
NEWSROOM	(702) 434-0015, EXT. 1030	
TELEMUNDO	(702) 258-0039	
CITY OF LV CHANNEL	(702) 229-2222	
CLARK COUNTY TV	(702) 455-3546	
OSHA		
DIVISION OF INDUSTRIAL RELATIONS OCCUPATIONAL SAFETY & HEALTH ENFORCEMENT	(702) 486-9020	

AGENCY	GENERAL #	24 HOUR #
LAS VEGAS METROPOLITAN POLICE		
DISPATCH OFFICE	(702) 828-3111	311
EMERGENCY		911
CLARK COUNTY SCHOOL DISTRICT		
EMERGENCY ACTION LINE		(702) 799-4357
CLARK COUNTY SCHOOL DISTRICT POLICE		(702) 799-4311
EMERGENCY OPERATIONS CENTERS		
CITY OF BOULDER CITY	(702) 293-9228	(702) 293-9224
CITY OF HENDERSON	(702) 267-2270	(702) 267-4913
CITY OF LAS VEGAS	(702) 229-0370	(702) 382-3000
CITY OF NORTH LAS VEGAS	(702) 633-1019	(702) 382-3000
CLARK COUNTY	(702) 455-5710	(702) 382-3000
LAS VEGAS METROPOLITAN POLICE		(702) 828-3111
HOSPITALS		
POISON CONTROL CENTER		(800) 222-1222
BOULDER CITY HOSPITAL		(702) 293-4111
EMERGENCY DEPARTMENT		(702) 294-5751
CENTENNIAL HILLS HOSPITAL		(702) 835-9700
EMERGENCY DEPARTMENT		(702) 629-1210
DESERT SPRINGS HOSPITAL		(702) 733-8800
EMERGENCY DEPARTMENT		(702) 369-7647
NORTH VISTA HOSPITAL		(702) 649-7711
EMERGENCY DEPARTMENT		(702) 657-5512
MESA VIEW REGIONAL HOSPITAL		(702) 346-8040
EMERGENCY DEPARTMENT		(702) 346-4270
MIKE O'CALLAGHAN FEDERAL HOSPITAL		(702) 653-2343
MOUNTAIN VIEW HOSPITAL		(702) 255-5000
EMERGENCY DEPARTMENT		(702) 255-5025
ST. ROSE DE LIMA CAMPUS		(702) 616-5000
EMERGENCY DEPARTMENT		(702) 616-4600
ST. ROSE SAN MARTIN CAMPUS		(702) 492-8000
EMERGENCY DEPARTMENT		(702) 492-8600
ST. ROSE SIENA CAMPUS		(702) 616-5000
EMERGENCY DEPARTMENT		(702) 616-5600
SOUTHERN HILLS HOSPITAL		(702) 880-2100
EMERGENCY DEPARTMENT		(702) 880-2800
SPRING VALLEY HOSPITAL		(702) 853-3000
EMERGENCY DEPARTMENT		(702) 853-3630

AGENCY	GENERAL #	24 HOUR #
SUMMERLIN HOSPITAL		(702) 233-7000
EMERGENCY DEPARTMENT		(702) 233-7200
PEDS		(702) 233-7868
SUNRISE HOSPITAL		(702) 731-8000
EMERGENCY DEPARTMENT		(702) 731-8080
TRAUMA		(702) 731-8001
PEDS		(702) 731-8181
UNIVERSITY MEDICAL CENTER (UMC)		(702) 383-2000
EMERGENCY DEPARTMENT		(702) 383-2211
TRAUMA		(702) 383-3969
PEDS		(702) 383-3734
VALLEY HOSPITAL		(702) 388-4000
EMERGENCY DEPARTMENT		(702) 388-4500
VETERAN'S ADMINISTRATION		
EMERGENCY DEPARTMENT		(702) 791-9000
MEDICAL EVALUATION EMERGENCY		791-9000 x 13214

RESOURCES FOR CLEANUP AND DISPOSAL

COMPANY	TELEPHONE	CAPABILITIES
Republic Services	(702) 734-5400	Biohazard*
State RAD-SAFE Team	(775) 687-4622	Radioactive
National Nuclear Security Administration (NNSA)	(702) 295-0925	Radioactive
Safety-Kleen	(702)296-8096 (702) 271-1568	Flammable and Combustible Liquids
H_2O Environmental	(702) 396-4148 (866) 426-7745	Hazardous Materials Except: Radioactive
Logistical Solutions	(702) 596-2021	Biohazard
Double Barrel	(702) 735-9761 (877) 324-9628	Hazardous Materials Except: Radioactive
Clean Harbors	(702) 258-0109 (800) 645-8265	Hazardous Materials Except: Radioactive
Stericycle	(877)577-2669	Biohazard/Medical

*Republic Services is not licensed to handle Category A infections substances. Category A infections substances are regulated by the U.S. Department of Transportation. Republic Services recommends that licensed companies such as Stericycle must be contracted with separately according to established waste management procedures and protocols established by the Center For Disease Control.

SPECIAL AGENCIES

AGENCY	General #	24 hour #
So. Nevada Center for Independent Living Deaf and Hard of Hearing Advocacy Center	(702) 889-4216 Voice & TDD (702) 363-3323 (711) Relay	
District Court Interpreter	(702) 671-4578	
Las Vegas Valley Water District	(702) 258-3915	(702) 258-7101
McCarran Control Center		(702) 261-5201
NV Taxicab Authority NHP Las Vegas	(702) 486-6532 (702) 486-4100	 (775) 688-2830
Regional Transportation Commission	(702) 676-1500	(702) 676-1822
ATC/VanCom Inc. CAT Bus System	 (702) 228-7433	(702) 636-0623
CLARK COUNTY WATER RECLAMATION DISTRICT 8354	(702)434-6600	(702)668-

RESPONSE

RESPONSE

CONCEPT OF OPERATIONS

All field responses shall follow NIMS principles and be conducted using the Incident Command System (ICS) as outlined in the National Response Framework. In 2004, Clark County adopted the National Incident Management System and the Incident Command System outlined therein. On-going efforts shall be maintained to educate all responding agencies to the workings of ICS. EOC operations reflect the day-to-day management structure of the jurisdiction.

On-scene command at a hazardous materials incident shall be the responsibility of the Lead Agency having jurisdiction. The Lead Agency may establish a unified incident command with other agencies and departments, but will retain overall responsibility until the incident is brought to a conclusion.

The Lead Agency shall manage and coordinate a hazardous materials incident under NIMS. The Lead Agency shall be responsible for the identification of the incident resources and needs, the procurement and the coordination of these resources, so as to abate the incident and protect life, property, and the environment.

The Incident Commander will have the authority to request the activation of the jurisdiction's Emergency Operations Center (EOC). The EOC (when activated) shall provide support and coordination for various agencies, technical, and specialized resources. The EOC shall see that any necessary actions are carried out as needed. On-scene decisions are to be made with assistance of technical specialists.

Communication among responders within Clark County shall follow established procedures for the existing systems.

Cellular phones are added tools for emergency responders. A cellular phone list is available to all emergency response personnel. (This phone list is available only to emergency response personnel obtained through individual departments)

RESPONSE FUNCTIONS

METHODS FOR DETERMINING RELEASES AND POPULATION AFFECTED

Methods used in Clark County for determining that a release of hazardous material has occurred will generally be:

1. Human Detection:
   a. Visual indicators (regular inspections, unusual plumes or clouds, leaking containers, etc.)
   b. Unusual odor

2. Mechanical Detection:
   a. Leak detection alarms
   b. Smoke alarms

c. Electronic measurement devices

3. Inspection:
   a. Regular inspections by facility personnel
   b. Inspections by Fire Department
   c. Inspections by authorities having jurisdiction

4. Alarm reports and visual sightings will be coordinated and verified through 911 Communications and the Fire/EMS Communication Center or the Local Emergency Planning Committee as referenced.

Determination of the population likely to be affected by a release:

1. Fixed Facility
   a. Use of specific information from facility contingency plans.
   b. Use of information listed in Appendix A.
2. Transportation Incidents and Other Facilities
   a. Identification of materials and characteristics.
   b. Quantity and release rates.
      1. Physical State
      2. Quantity Released
      3. Pressure under which material is stored
   c. Determination of environmental conditions (weather, wind direction, drainage, etc.)
   d. Determination of nearby population and special facilities
   e. Computer-generated chemical dispersion plume models
   f. Hazards analysis conducted by the local jurisdiction

INITIAL NOTIFICATION OF RESPONSE AGENCIES

Upon discovery of a hazardous materials (HAZMAT) leak, release, or spill, the spiller must follow incident notification procedures required by statute.

Emergency Assistance numbers are listed in the Telephone Directory.

Chapter 116, Title 42, United States Code

Title III, Superfund Amendments and Reauthorization Act of 1986, (SARA Title III), sec. 304 (b)(1-2), and (c).

Requires:

Immediate notice after a release to the community emergency coordinator and the State Emergency Response Commission (SERC). Clark County's Local Emergency Planning Committee (LEPC) designated the Emergency Management Coordinator of each jurisdiction as the community emergency coordinator. The Nevada Division of Emergency Management serves as the contact point for the SERC.

Specific items of information concerning a particular release are:

- identity of substance
- determination if it is an extremely hazardous substance
- estimated quantity released
- time and duration of release
- medium in which release occurred
- known health risks; advice regarding medical attention for exposed people
- precautions to take
- facility contact person and number

Follow-up written notice must describe:

- update of original report
- response and containment actions taken
- health risks
- advice regarding medical attention

2012 International Fire Code (IFC)

Requires:

The immediate reporting of a release of toxic materials to the **fire department.**

Specific information to report:

- name and title of person reporting
- location of the hazardous materials release
- identity and estimated amount of substance released, to the best available knowledge
- any known injuries
- environmental medium (air, water, ground) into which the release escaped
- any remedial actions taken

Nevada Administrative Code, Chapter 445

Requires:

Any party experiencing a release of any hazardous materials in any amount to notify the Nevada Division of Emergency Management and the Nevada Division of Environmental Protection.

INCIDENT COMMAND AND LEAD AGENCY

Incident Commander

The Fire Department having jurisdiction shall accept and provide the position of INCIDENT COMMANDER for the scene of all hazardous materials incidents within its jurisdiction. The Incident Commander (IC) responsible for mitigating the hazards at the scene of hazardous materials incident. The IC shall be responsible for the identification of incident resources and needs. Upon arrival, the IC shall secure and maintain immediate on-scene control until the situation has abated.

The fire department shall coordinate, direct, and control all fire department activities within its jurisdiction and responsibility to include, but not be limited to, rescue and first aid, product identification, scene stabilization and management, suppression activities, protection of exposures, containment, agency notification, scene isolation, personnel protection, and decontamination.

The officer-in-charge of any responding Hazardous Materials Response Team (HMRT) shall report to and function through Incident Command or Unified Command.

Unified Incident Command

Unified Incident Command will be practiced and may be adopted at the scene of each hazardous materials incident by the Incident Commander of the agency having jurisdiction and by the Hazardous Materials Response Team. Unified Incident Command shall include a minimum of the following designated agencies at all hazardous materials incidents:

a. Fire Department having jurisdiction
b. Law Enforcement agency having jurisdiction

The EMERGENCY OPERATIONS CENTER staff is not responsible for the operational component of the incident, but shall oversee and coordinate these procedures as they are carried out, and coordinate resource allocation and public information when needed. The EOC can recommend or request activation of an appropriate Incident Management Team (IMT).

Lead Agency

The LEAD AGENCY is responsible for overall management and coordination of a hazardous materials incident. The LEAD AGENCY shall be responsible for the IC and the possible establishment of a Unified Command, the procurement, and the coordination of incident resources, so as to abate the incident and protect life, property, and the environment.

Unincorporated Areas of Clark County

The Clark County Fire Department, on behalf of the County Manager and Board of County Commissioners, shall assume the role of LEAD AGENCY for hazardous material incidents within the unincorporated areas in Clark County.

Incorporated Cities

The respective city fire departments shall assume the role of LEAD AGENCY for hazardous material incidents within their jurisdiction.

State Roads and Highways

The Nevada Highway Patrol is the lead agency for any hazardous materials incident on any state road or highway. Each agency will be responsible for their current jurisdictions.

The Nevada Highway Patrol will respond to all accidents/incidents (regardless of jurisdiction) when requested by an agency that has jurisdiction over a particular roadway. The request should clarify if they are requesting assistance only or complete scene management.

- State Parks - Nevada Division of Parks
- State Forests - Nevada Division of Forestry
- National Forests - U.S. Forest Service
- Public Lands - Bureau of Land Management (BLM)
- Federal Parks and Recreational Areas - National Park Service
- U.S. Air Force Bases - U.S. Air Force
- Indian Reservations - Tribe
- Colorado River - Appropriate Federal Agency in accordance with the Colorado River Oil and Hazardous Substance Spill Contingency Plan.

HAZARDOUS MATERIALS INCIDENT CLASSIFICATION

There are three (3) hazardous materials incident classification levels.

Level I Incident (Known as a LEVEL I - H.M.I.)

- Spills, leaks, ruptures, and/or fires involving hazardous materials that can be contained, extinguished, and/or abated utilizing equipment, supplies, and resources immediately available to the local fire department. Excluding clean-up activities on Level-1 or Level-2 incidents.

- Hazardous material incidents that do not require evacuation of citizens.

- Reference Figure 1, Response – 10.

Level II Incident (Known as Level II - H.M.I.)

Any Fire Department Officer can upgrade a Level I HMI to a Level II HMI.

Hazardous materials incidents that:

- Can only be identified, tested, sampled, contained, extinguished, and/or abated utilizing the resources from Las Vegas Fire & Rescue (LVFR) or the Henderson Fire Department (HFD) Hazardous Materials Response Team (HMRT);

- Require the use of chemical-protective gear and specialized equipment.

- Require evacuation of citizens.

- Involve hazardous materials fires that are permitted to burn for a controlled period of time, or are allowed to consume themselves.

- Reference Figure 2, Response – 11.

Level III Incident (Known as Level III - H.M.I.)

The officer of the HMRT, or the Incident Commander, can upgrade a LEVEL II HMI to a LEVEL III HMI.

- Spills, leaks, and/or ruptures that can be contained and/or abated utilizing the highly specialized equipment and supplies available to environmental or industrial response personnel; excluding cleanup activities during levels 1 & 2 incidents;

Fires involving hazardous materials that:

- Are allowed to burn due to ineffectiveness or dangers of the use of extinguishing agents, or the unavailability of water;

- Pose a real threat of large container failure;

- Involve an explosion, detonation, BLEVE, or container failure;

Hazardous materials incidents that:

- Require evacuation of civilians extending across jurisdictional boundaries;

- Cause serious civilian injuries and/or deaths;

- Require additional Hazardous Materials Response Teams;

- Require decontamination of citizens;

- Involve multi-agency responses.

- Reference Figure 3, Response - 12

The Incident Commander has the discretion to establish a hazardous material incident level, based on experience, training, and unpredictable and shifting variables, for example:

Level of technical expertise required to abate the incident.
Extent of municipal, county, and state government involvement.
Extent of evacuation of civilians.
Extent of injuries and/or deaths.
Extent and involvement of decontamination procedures.

SCENE MANAGEMENT FOR RESPONSE PERSONNEL

Hazardous Materials Response Team

The City of Las Vegas – Las Vegas Fire and Rescue and the Henderson Fire Department will maintain a specially trained Hazardous Material Response Team for the specific purpose of responding to chemical emergencies. This HMRT, in association with any developing HMRT, can provide expertise and equipment especially developed to help control and abate a hazardous material incident.

It shall be the responsibility of the HMRT officer or Incident Commander to:

Identify and establish a HAZARD ZONE when necessary, and enforce it.

Upgrade a LEVEL II HMI to a LEVEL III HMI through proper dispatch procedures when:

The incident is beyond the capabilities of that HMRT (not to include clean up procedures).

The HMRT officer wants a second HMRT to respond.

The HMRT officer wants the EMERGENCY MANAGEMENT COORDINATOR to respond.

Work with, and be subordinate to, the Incident Commander of the agency having jurisdiction.

Control Zones

A. *Evacuation Zone*

1. The EVACUATION ZONE shall be designated to define an area where some potential or real danger exists to the public or the environment.

2. Identification of a EVACUATION ZONE shall be done by the first arriving agency officer.

   Access shall be limited to those members of agencies on scene who are appropriately protected and directly engaged in rescue, control, and preliminary stabilization measures.

B. *Hazard Zone*

1. The HAZARD ZONE shall be designated as necessary to identify and define an area of exceptional danger, including extreme threat to life safety.
2. Identification of a HAZARD ZONE shall be done by the HMRT, the Incident Commander, or designee.

Access shall be controlled by the HMRT, the Incident Commander, or designee. Only personnel of the HMRT and other designated personnel of necessity will be allowed access.

C. *Decontamination Zone/Area (Decontamination Corridor)*

1. The DECONTAMINATION ZONE (or CORRIDOR) shall be designated as necessary to establish a procedure to decontaminate personnel, civilians, and equipment in an effort to reduce or stop the spread of suspected contaminants.

2. Identification and the set-up of a DECON ZONE or CORRIDOR shall be done by the HMRT, Incident Commander, or designee.

3. Access into the DECON ZONE of contaminated people shall be coordinated by HMRT. Only an officer of the HMRT or the Incident Commander may allow anyone to exit the DECON ZONE.

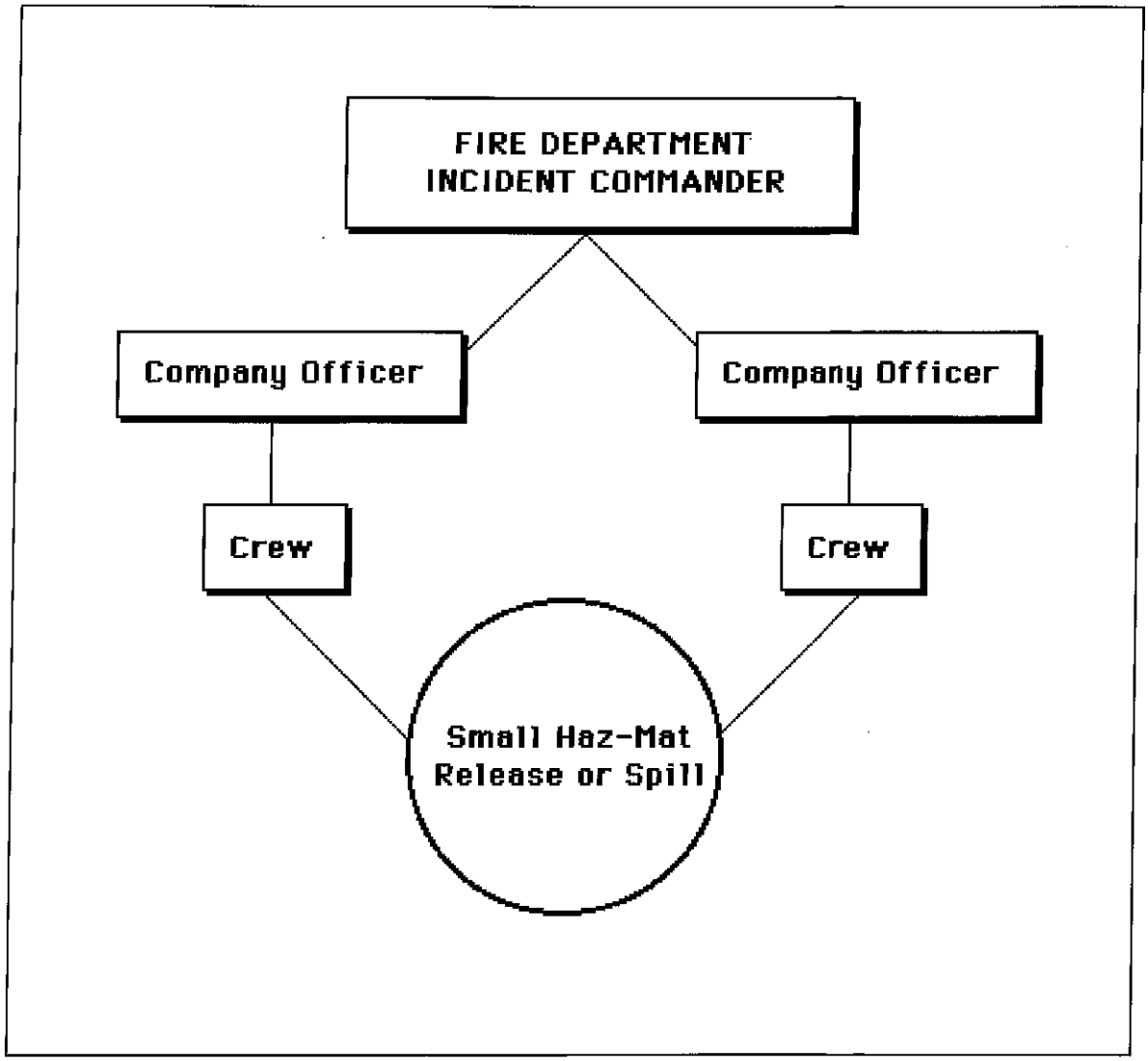
4. Workers entering the DECON ZONE to assist in procedures shall do so only as directed by the HMRT or the Incident Commander, and only when appropriately protected.

5. DECON procedures shall be effected and/or directed by HMRT personnel.

It is the responsibility of the Incident Commander to see that the duties of a Hazardous Materials Safety Officer are carried out at a Level 1 incident, and to assign a Hazardous Materials Safety Officer at Level 2 and 3 incidents.

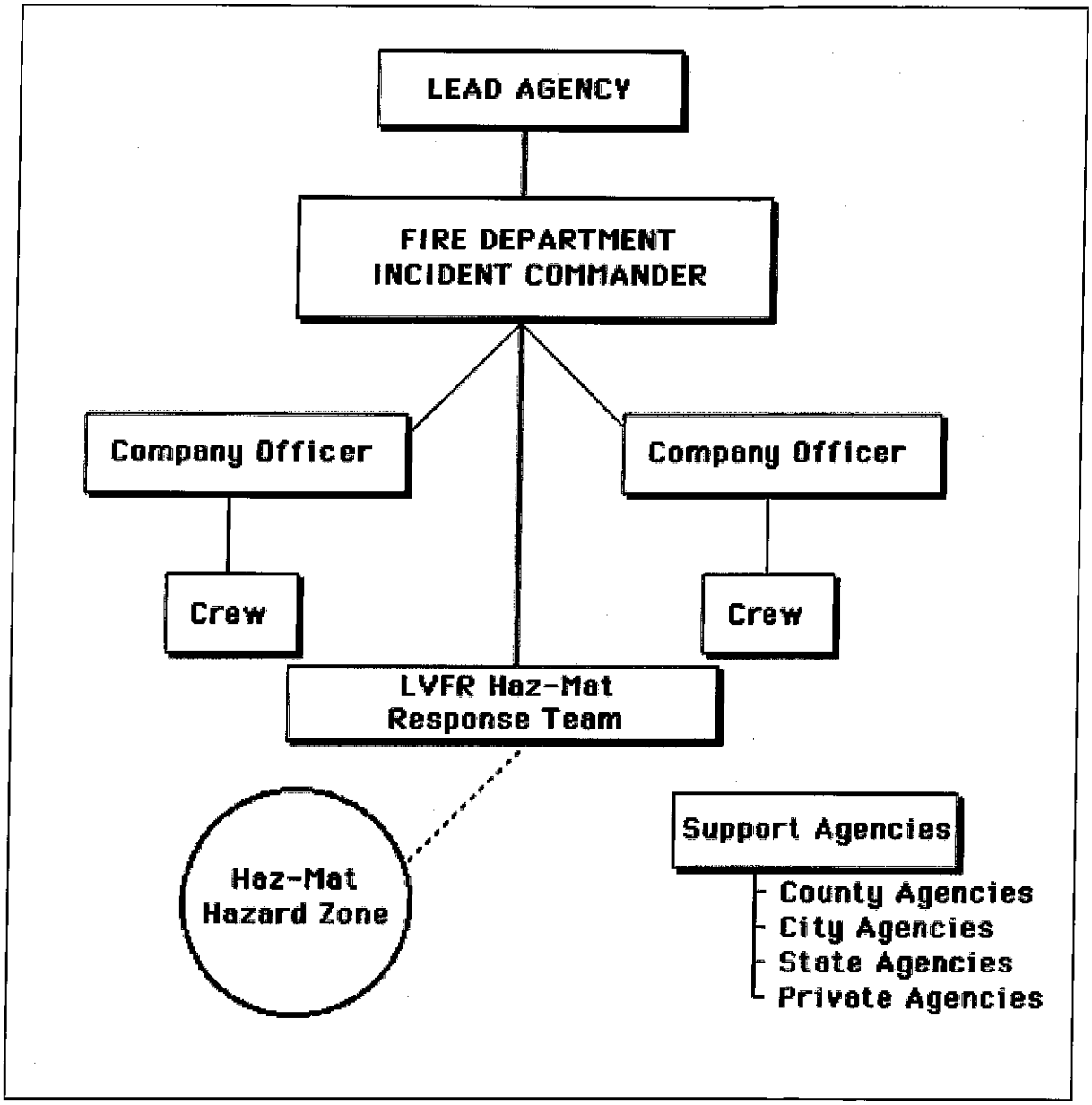
The Hazardous Materials Safety Officer or designee shall be responsible for maintaining hot, decon, and cold zones, determining the level of protection for a given incident, tracking the amount of time personnel are in a hot zone and other duties appropriate to the incident.

Figure 6. Example of a Level I Hazardous Materials Incident



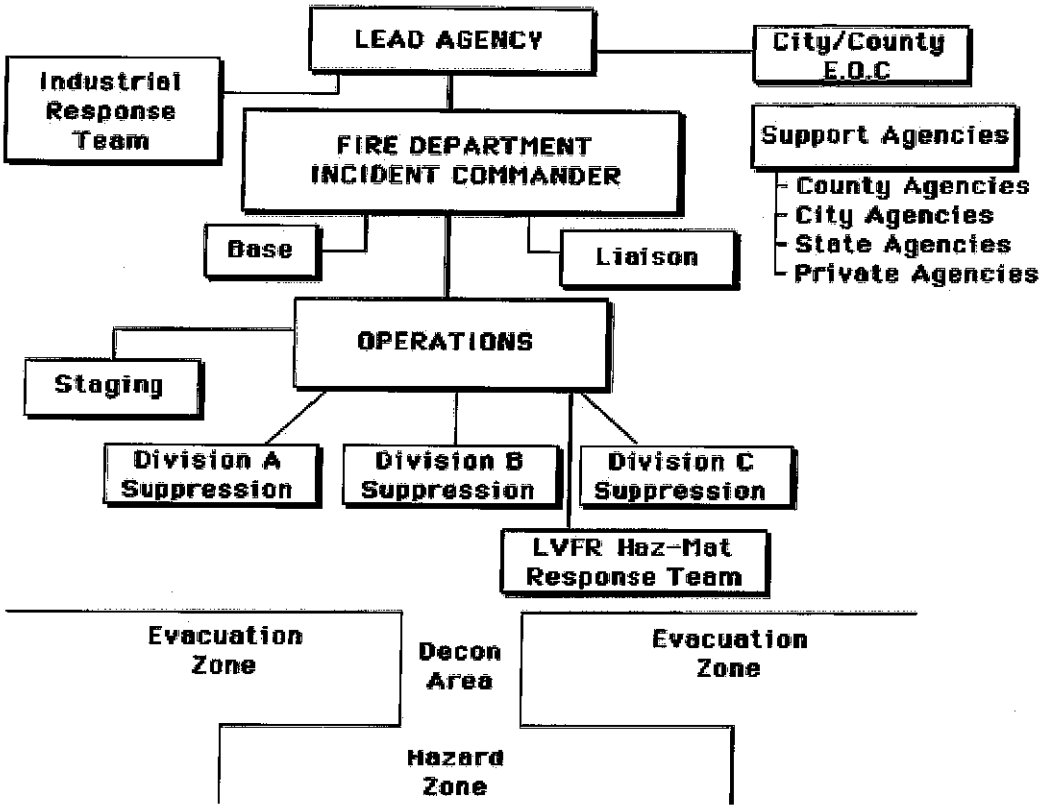
[1] Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

Figure 7. Example of a Level II Hazardous Materials Incident



[1] Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

Figure 8. Example of a Level III Hazardous Materials Incident



[1] Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

Protection of Citizens

The protection of the general public is of primary concern in a hazardous materials incident. When an incident is expected to have an impact over a large area and affect perhaps a multitude of people it is the responsibility of the Incident Commander to determine and communicate to the public the best method of protection, using the guidelines outlined in "Warning Systems." In general there are two courses of action:

Evacuation

This is an extremely difficult process involving cooperation and pre-planning on the part of the responsible agencies. Evacuation is defined as the systematic removal of persons from a POTENTIALLY hazardous situation or environment, and is usually performed by police agencies in cooperation with objectives set by the Incident Commander. Rescue is the removal of persons from a situation that has become

hazardous and is usually performed by Fire Departments or other agencies which have Self Contained Breathing Apparatus at their disposal.

Shelter In Place

This is an option that has proven extremely successful throughout the world. When the public is notified to shelter in place, they would close all doors and windows in their house, shut down all air handling appliances; if time allows and depending on the chemical problem, may place wet towel under doors, or duct tape crevices on windows and doors, and seek shelter in an interior room.

This option is based on studies that indicate if the above procedures are followed, the concentration of a chemical inside the house will be about 10% of the outside concentration.

Both Evacuation and Shelter in Place require timely activation of public information resources and education about the methods and procedures involved prior to their use.

Announcements for Shelter in Place, Evacuation, and School Evacuation are located in this plan.

Decontamination Procedures

I. INTRODUCTION

A. Purpose: The purpose of the Decontamination Procedures is to assure that any potential harmful or dangerous residue, on persons or equipment, are confined within a defined area (the Hazard Zone, Evacuation Zone, and Support Zone.) Decontamination is intended to prevent the spread of contaminants beyond the defined area - particularly to avoid carrying contaminants back to the fire station or to other environments.

The specific measures required to decontaminate personnel or equipment will vary with the contaminating material involved and the circumstances and the level of contamination. These factors must be considered on a case-by case basis.

II. PLANNING BASIS

A. Objectives of Plan

1. Describes operational concepts, organization, and support systems required to implement decontamination procedures.

2. Identifies responsibilities and actions of local fire departments and private emergency health care agencies necessary to minimize danger to human health and property, and to aid in the process of decontamination.

III. ADMINISTRATION

A. Scope:

1. These procedures are to be used by fire department personnel and private emergency health care agencies whenever the need for decontamination occurs.

2. Geographical Factor:
   This procedure is concerned with hazardous material incidents which require decontamination within the boundaries of Clark County.

3. The Hazard:
   The hazard shall include actual or potential fires, spills, leaks, ruptures, or contamination, and any threat to life safety involving hazardous materials.

4. The Hazardous Materials:
   The material itself may include explosives, flammables, combustibles, compressed gases, cryogenics, poisons and toxins, reactive and oxidizing agents, radioactive materials, corrosives, carcinogenics, or etiological agents or any combination thereof.

5. The Incident:
   This procedure is for any hazardous material incident associated with the contamination of personnel and/or equipment.

B. Authority:

STATUTE	*RESPONSIBILITIES AUTHORIZED*
CFR 1910.120	Standard for the protection of personnel who respond to emergencies involving hazardous chemicals.
SARA Title III	Local officials must prepare Emergency Planning and contingency plans for Community Right-To-Know Hazardous Materials Act of 1986 community.

IV. PROCEDURES

The initial assessment of decontamination requirements must be based upon the specific needs of the situation. This must take into account the specific materials involved, the degree and type of exposure and the most appropriate methods. The assessment will require research and may involve consultation with toxicology resources.

One method of preventing or reducing the migration of contaminants is to delineate zones on the site in which prescribed operations occur. Movement of personnel and equipment between zones and onto the site itself would be limited by access control points. By these means, three contiguous zones are recommended. See Figure 9 Response – 27.

A. HAZARD ZONE

The Hazard Zone, the innermost of three areas, is the zone where contamination does or could occur. All people entering the Hazard Zone must wear prescribed levels of protection. An entry/exit check point must be established at the periphery of the Hazard Zone to regulate the flow of personnel and equipment into and out of the zone and to verify that the procedures established to enter and exit are followed.

B. DECONTAMINATION AREA/EVACUATION ZONE

Between the Hazard Zone and the Support Zone is the Decontamination Area/Evacuation Zone which provides a transition between contaminated and clean zones. Zone 2 serves as a buffer to further reduce the probability of the clean zone becoming contaminated or being affected by other existing hazards.

It provides additional assurance that the physical transfer of contaminating substances on people, equipment, or in the air is limited through a combination of decontamination, distance between Hazard and Support Zones, air dilution, zone restrictions, and work functions.

C. SUPPORT ZONE

The Support Zone, the outermost part of the site, is considered a non-contaminated or clean area. Support equipment, personnel, command post, etc. is located in this zone. Since normal work clothes are appropriate within this zone, potentially contaminated personnel clothing, equipment, and samples are not permitted, but are left in the Decontamination Area until they are decontaminated.

V. DECONTAMINATION

A. INTRODUCTION

Personnel responding to hazardous substance incidents may become contaminated in a number of ways including:

Contacting vapors, gases, mists, or particulates in the air.

Being splashed by materials while sampling or opening containers.

Walking through puddles of liquids or on contaminated soil.

Using contaminated instruments or equipment.

Protective clothing and Self Contained Breathing Apparatus (SCBAs) help prevent becoming contaminated or inhaling contaminants.

Good work practices help reduce contamination on protective clothing, instruments, and equipment.

Even with safeguards, contamination may occur. Harmful materials can be transferred into clean areas, exposing unprotected personnel. In removing contaminated clothing, personnel may contact contaminants on the clothing or inhale them. To prevent such occurrences, decontamination procedures must be implemented before anyone enters a site and must continue throughout site operations. See Figure 10, Response - 28.

B. CONTAMINATION REDUCTION CORRIDOR (DECON AREA)

An area within the Evacuation Zone is designated the Contamination Reduction Corridor enter. See Figure 11, Response – 29.

The Entry/Exit point controls access into and out of the Hazard Zone and confines decontamination activities to a limited area.

The size of the corridor depends on the number of stations in the decon procedure.

A recommended corridor of 75 feet by 15 feet should be adequate for full decontamination. Whenever possible, it should be a straight path.

Boundaries should be conspicuously marked. Personnel exiting the Hazard Zone must go through the Decon Area, including decon workers.

Anyone in the DECON AREA should be wearing the level of protection designated for decontamination crew.

A minimum of 3 feet between stations is recommended.
This Decon Area should provide a corridor leading away from the source of contamination towards the Exit, with stations along the way for deposit of tools, equipment, protective clothing and other items. Monitoring personnel and equipment should be appropriately placed along the path. A person traveling along the path should experience a decreasing level of contamination along the way.

When shower or spray nozzles are used, adequate space must be provided to avoid contamination of other areas or persons.

C. DECONTAMINATION AREA PRECAUTIONS

During the decontamination process, all personnel working in the Decontamination Area must be adequately protected from contaminants. The Decontamination Unit Leader will identify and require the appropriate protective equipment. These individuals and their equipment may also require decontamination after use.

Runoff or residue from decontamination procedures should be retained for proper disposal. Contaminated runoff should not be allowed to spread or escape. Diking may be necessary when using a shower and/or spray nozzles.

D. CONTAMINATED PATIENTS

If prompt life-saving first aid and medical treatment is required, decontamination procedures should be limited or omitted altogether. However, take necessary precautions which limit contamination of rescue and medical personnel.

Patients in need of medical treatment should be removed from the source of contamination as quickly as possible, but remain within a defined area (Hazard/Hot Zone). These patient(s) must not be allowed to contaminate further areas or persons. It may be necessary to bring treatment personnel (with adequate protective clothing) into the defined area (Hazard/Hot Zone) to deal with these patient(s), unless they can be rapidly and effectively decontaminated. Once decontaminated, the patient(s) and treatment personnel may leave the defined area (Decontamination Area).

E. DECONTAMINATION - PROCEDURE

Personnel protective equipment, sampling tools, and other equipment are usually decontaminated by scrubbing with mild soap solution using a soft-bristle brush followed by rinsing with copious amount of water.

Caution: (In a few cases, contaminants may react with water).

Six levels of decontamination are outlined. The Incident Commander or designee will determine which level is applicable for the substance involved, using any reference sources that may state the applicable level. In the absence of such sources, advice should be sought from experts in toxicology or chemistry. See Telephone Directory.

The recommended levels are:

A - for light hazards
B - for medium hazards
C - for extreme hazards
D - dry decontamination for water-reactive and certain substances
E - for etiologic agents and certain dry pesticides and poisons
R - for radioactive materials

NOTE: These are guidelines and are not mandatory requirements.

LEVEL A FOR LIGHT HAZARDS

Prior to returning to the Station

1. Wash down all protective clothing with a mild soap solution. Rinse with water.

2. Wash down SCBA cylinders and harnesses with a mild soap solution. Take care to wipe, not scrub, around regulator assembly. Rinse with water. If damage is suspected to any part of the unit, ensure it is sent for service.

3. Scrub hands and face with soap and water.

   NOTE: Where the scrubbing of the protective clothing may release harmful vapors caught in the fibers, it may be necessary to wear breathing apparatus while washing down protective clothing. In these cases, monitor the atmosphere around the washing area. Release of vapors may indicate an alternate commercial cleaning method is required.

LEVEL B FOR MEDIUM HAZARDS

Prior to returning to the Station

1. Do not remove SCBA face piece. Place helmet on back of neck.

2. Assistant to flush fire fighter downwards from head to toe with copious amounts of low pressure water. Include inside and outside of helmet, mask, harness, and inside of coat-wrists to the cuff.

3. Do not smoke, eat, drink, or touch face.

4. Place apparatus temporarily out of service.

5. Remove all protective clothing and accessories. If possible, remove liner from helmet. Scrub all items, including the helmet liner, inside and out with a mild soap solution. Then flush with copious water.

   NOTE: Where the scrubbing of the protective clothing may release harmful vapors caught in the fibers, it may be necessary to wear breathing apparatus while washing down protective clothing. In these cases, monitor the atmosphere around the washing area. Release of vapors may indicate commercial cleaning is required.

6. Scrub all other protective gear such as gloves and breathing apparatus items with a mild soap solution. Then flush with copious amounts of water. Be sure to flush out gloves with water. If SCBA is stored in its case while returning from incident, scrub the case also.

7. Remove all clothing worn at the scene, including underwear, and place in garbage/Hazard bag for determination of the proper cleaning method. Seek advice of experts as appropriate. Take all garbage bags with contaminated clothing to a place where they can be cleaned separately from other garments.

8. Shower, scrubbing all of the body with soap and water, with particular emphasis on areas around the mouth and nostrils and under fingernails. Shampoo hair and thoroughly clean mustache and beard if applicable.

9. Do not smoke, drink, eat, touch face, or void until step #8 completed.

10. Put on clean clothes.

11. Do not put apparatus back in service until clean-up procedures are completed.

To Change SCBA Cylinders at the Scene

Flush empty cylinder and surrounding area of fire fighter's back with copious amounts of low pressure water. Also flush face piece and breathing tube to prevent inhalation of harmful materials when regulator is disconnected.

LEVEL C FOR EXTREME HAZARDS

Prior to returning to the Station

1. Do not remove SCBA face piece. Place helmet on back of neck.

2. Assistant, wearing protective clothing and SCBA (plus disposable chemical suit wherever possible), to flush fire fighter downwards from head to toe with copious amounts of low pressure water. Include inside and outside of helmet, mask, harness, and inside of coat-wrists to the cuff.

3. Do not smoke, eat, drink, or touch face.

4. Put SCBA, used cylinders, and any equipment (including hoses and tarps) suspected or known to be contaminated in garbage/hazard bags. Where circumstances permit, remove and bag protective clothing also.

5. Strip completely. Place all clothing (protective clothing and personal clothing) in garbage/hazard bags. Place portable radios in a separate bag. Seal bags, place in designated area.

6. Arrange for the supply of a number of steel drums. Upon their arrival, seal garbage/hazard bags with contaminated items into drums/containers. Mark drums/containers and place in designated area.

7. Arrange for the drums/containers to be picked up and the contents analyzed. Some or all items may be destroyed; some may be able to be decontaminated and returned to use.

8. Shower, scrubbing all of the body with soap and water, with particular emphasis on areas around the mouth and nostrils and under fingernails. Shampoo hair and thoroughly clean mustache and beard if applicable.

SPECIAL ATTENTION FOR RADIOACTIVE INCIDENTS:

After showering, carefully and slowly scan entire body with a radiation contamination monitor, paying special attention to hair, hands, and fingernails. Hold monitor approximately 1 inch or 3 cm from body. If any reading beyond normal background level is detected, the fire fighter should shower again, scrubbing with more soap than before.

9. Put on clean clothes.

10. Report to hospital for medical examination as directed by Incident Commander or designee. Inform physician which hazardous material was involved.

To Change SCBA Cylinders at the Scene

Flush empty cylinder and surrounding area of fire fighter's back with copious amounts of low pressure water. Also flush face piece and breathing tube to prevent inhalation of harmful material when regulator is disconnected.

Place empty cylinder in black plastic garbage/hazard bag and seal for subsequent decontamination if necessary.

The person doing the flushing and cylinder-changing must wear protective clothing and SCBA, plus a disposable chemical suit if available.

LEVEL D FOR WATER-REACTIVE HAZARDS

Prior to returning to the Station

1. Set up an intrinsically safe vacuum cleaner with power supply. Provide a dry brush and a containment capture method for materials falling off the contaminated personnel. Assistants should don full protective clothing and SCBA, plus disposable chemical suits if available and appropriate.

2. If this is a radiation incident: The fire fighters suspected of being contaminated will be scanned carefully with a radiation monitor suitable for detecting surface contamination. All parts of their clothing and personal equipment will be scanned, including the soles of the boots. If no readings are found, the personnel that have been checked can leave the decontamination area.

3. If the fire fighter was found to be radioactively contaminated or contaminated with a water-reaction material: Stand fire fighter in center of containment area, clean helmet and place on back of neck, and then clean inside of helmet.

4. Commence cleaning from head downwards. Include all external areas. Slacken SCBA harness to allow cleaning behind straps and back plate.

5. When fire fighters have been fully vacuumed or brushed off, they will step out of the containment area. As they do so, their boots, including the soles, must be cleaned off so any contaminant will remain within the containment area.

6. Procedures will then continue as follows:

   - Radioactive incident--go to Level "R" routine.
   - Etiological or dry pesticide incident--go to Level "E" routine.
   - Other incidents--go to Level "B" routine (unless advice is received that Level "C" is more appropriate).

7. All used filters and collected waste are to be placed in a garbage/hazard bag, sealed and tagged, and disposed of in a manner acceptable to the agency having jurisdiction.

LEVEL E FOR ETIOLOGIC OR POISONS HAZARDS

Special Equipment Required

- A presentation spray can (such as used for pesticide spraying)
- biological neutralizing substance (such as bleach, commercial sterilizing agent, etc.)
- garbage bags
- black garbage bags
- sterilization bags as used by hospital laundries
- a box of surgical masks

Prior to returning to the Station

1. If using bleach, make up a 5% to 6% bleach solution in the spray can. Take note of the bleach concentrate percentage when calculating the make-up of the solution. Many brands as purchased in the store are already 6%. If using a commercial sterilizer, follow the manufacturer's directions.

2. Flush the fire fighter downwards from head to toe with low pressure water. SCBA face piece can now be removed. Place helmets in plastic garbage/hazard bag(s) and seal. Place HEPA mask or equivalent on fire fighter.

3. If using bleach, spray the fire fighter's boots (but not their bunker gear) and any tools, hoses, and other equipment used (except for portable radios) with the bleach solution in the spray can. Leave for 10 minutes, then flush with water.

   If using a commercial sterilizer, follow the manufacturer's instructions.

4. Remove SCBA. Place in plastic garbage/hazard bag and seal. Remove fire fighter's protective clothing (except boots) and gloves. Place in plastic garbage/hazard bag and seal. Remove any portable radio worn. Place in plastic garbage/hazard bag and seal. Discard HEPA masks or equivalent.

5. Do not smoke, eat, drink, touch face, or void until decontamination is complete.

6. Before leaving the scene, a fire fighter wearing an SCBA should attempt to spray as much of the ground exposed to the material and the wash-down water as possible with bleach solution. Then flush the outside of the spray can with clean water.

7. Before leaving the scene, seal the garbage/hazard bags and place into the Bio-hazard bags.

8. Place apparatus temporarily out of service if required.

9. One fire fighter should dress in protective clothing and SCBA, and in an outside area perform the following tasks:

   - Open the plastic garbage/hazard bags, wipe all helmets, portable radios, SCBA sets, and used cylinders with a rag lightly dampened with a 6% bleach solution. After 10 minutes, wipe these items again with a rag dampened with clean water. If using a commercial sterilizer, follow the manufacturer's directions.

   - Seal all used garbage/hazard bags and rags into another bag and put out for normal garbage pick-up. If using bleach, empty the spray can and flush out to remove bleach residue.

10. Remove all clothing worn at the scene, including underwear, and place in garbage/hazard bag for proper method of cleaning as determined by Incident Commander or designee.

11. All personnel should shower, scrubbing all of the body with soap and water, with particular emphasis on areas around the mouth and nostrils and under fingernails. Shampoo hair and thoroughly clean mustache and beard if applicable.

12. Put on clean clothes. Place apparatus back in service when decontamination is completed.

13. Arrange for the plastic garbage/hazard sterilization bags to be taken to a facility for cleaning and sterilization of the protective clothing, gloves, and any other garments as determined appropriate by technical experts and the Incident Commander or designee.

To Change SCBA Cylinders at the Scene

Flush empty cylinder and surrounding area of fire fighter's back with copious amounts of low pressure water. Also flush face piece and breathing tube to prevent inhalation of harmful material when regulator is disconnected.

Place empty cylinder in black plastic garbage bag and seal for subsequent decontamination.

The Person doing the flushing and cylinder-changing must wear protective clothing and SCBA.

LEVEL R FOR RADIOACTIVE HAZARDS

Prior to returning to the Station

1. Preparation

   A. Mark off a two part decontamination area.

   B. Make up a solution of detergent and water. Obtain scrub brushes.

   C. Set out a reserve air supply, preferably with a work line unit or otherwise with a spare SCBA.

   D. In the first part of the decontamination area, set up a runoff capturing method, either with wading pools or through the use of tarpaulins.

   E. If appropriate, a "walk-way" of polyethylene sheeting (weighted down if necessary) can be placed from the exit from the incident scene to the decontamination area, to prevent possible contamination of the ground.

2. The decontamination crew will don SCBA and, where available, disposable chemical suits.

3. The fire fighters suspected of being contaminated will be scanned carefully with a radiation monitor suitable for detecting surface contamination. All parts of their protective clothing and personal equipment will be scanned, including the soles of the boots. If no readings are found, the personnel that have been checked can leave the decontamination area.

4. Personnel found to be contaminated will be scrubbed down thoroughly with the mild soap solution by the decontamination crew. This is followed by a flushing off using low pressure water. Efforts should be made to capture the runoff.

5. The fire fighters will then move to the second part of the decontamination area, where they will be scanned again with the radiation monitor. If any readings are

found, they will return to the first part of the decontamination area and step 4 will be repeated.

6. When all personnel have been cleaned of contamination, the decontamination crew themselves will be hosed down. The matter of the captured runoff water will be discussed with environmental authorities and disposal arranged in a manner acceptable to them.

7. In the event fire fighters being decontaminated run out of breathing air, the reserve supply set out in step 1 will be passed to them. They should hold their breath while changing face pieces.

8. In the event that, despite repeated scrubbing, any fire fighters cannot be decontaminated, they will remove as much of their clothing as possible in the second part of the decontamination area, and don clean or spare clothing. The clothing that has been taken off will be sealed into garbage/hazard bags and left at the scene for proper disposal. This evolution must be executed in such a manner as not to contaminate the clean clothing.

To Change SCBA Cylinders at the Scene

Personnel emerging from the incident to have their breathing apparatus cylinder changed will be scanned with a radiation contamination monitor in a manner identical to step 3 above.

If no readings are found, the fire fighter can proceed to the SCBA cylinder change area and may then return to the incident with a fresh cylinder.

Personnel found to be contaminated may not return to the incident. They will be put through the full Level "R" decontamination procedure, and other fire fighters will be sent in to the incident to replace the fire fighters withdrawn.

Before the replacement fire fighters go in, they should attempt to obtain information as to where the other personnel might have received their contamination, in order to allow them to take the necessary caution when approaching that area.

NOTE: Steps 1 and 2 of the Level "R" procedure must be in place by the time the first fire fighter emerges from the incident. If circumstances permit, these preparations should be made before personnel even enter the incident area for the first time.

A. RECOMMENDED GUIDELINES FOR RECORD KEEPING WHEN RESPONDING TO HAZARDOUS MATERIALS INCIDENTS

A member of the crew responsible for performing the decontamination should maintain written records of the following:

- Individual's name, material involved, length of exposure
- Level of decontamination performed

- Any ill effects observed
- Where each individual went i.e.

    - returned to station
    - sent to rest area
    - removed to hospital
    - reassigned to other duties at the scene
    - etc.

At the station, entries should be made on the fire fighters' medical records of the incident date, material involved, and decontamination performed, where exposure is known or suspected.

If appropriate, records should also be kept of the length of time each chemical suit was exposed, and what substance it was exposed to. This will permit the tracking of cumulative degradation of the suit material due to exposure to one particular substance.

B. EMERGENCY DECONTAMINATION PROCEDURE

Decontamination should emphasize thoroughness, not speed. Under non-critical conditions certain common sense actions should be taken, such as decontaminating the fire fighter with the lowest air reserve first.

Speed is only important where a victim is involved and even then decontamination should be as thorough as is practicable.

Circumstances may dictate that emergency decontamination becomes necessary, examples of such situations being where a protective suit become split or damaged, or when a fire fighter is injured. Emergency decontamination may also be applicable when contaminated civilians or other emergency workers (police, ambulance, etc.) are involved.

Paragraphs 1 to 6 below, although arranged in a basic chronological order, do not necessarily have to be undertaken in the exact sequence outlined. The officer-in-charge should act in the most expedient manner appropriate without worsening the situation.

The procedure outlined should be carried out as quickly as possible.

To protect the ambulance crew and hospital staff as well as the victim, every attempt must be made to perform at least this emergency procedure prior to transporting the victim to the hospital.

1. Remove the victim from the contaminated area into the decontamination zone and provide a supply of uncontaminated air or oxygen.

2. Remove fire helmet if worn and immediately wash with flooding quantities of water any exposed parts of the body that may have been contaminated.

3. If the victim is wearing an SCBA, release the harness and remove the set leaving the face mask in position.

4. Remove all contaminated clothing (if necessary by cutting it off the victim) ensuring where practicable that the victim does not come into further contact with any contaminant. Maintain the washing of the victim while the clothing removal is taking place.

5. Remove the victim to a clean area. Render first aid as required, but do not apply mouth-to-mouth resuscitation. Send victim for medical treatment as soon as this emergency decontamination procedure has been completed.

6. Ensure hospital/ambulance personnel are informed of the contaminant involved.

C. DECONTAMINATION DURING MEDICAL EMERGENCIES

Part of overall planning for incident response is managing medical emergencies.

The plan should provide for:

Response team members fully trained in first aid and CPR.

Arrangements of medical facilities and ambulance companies for transportation and treatment of injured and for treatment of personnel suffering from exposure to chemicals.

Consultation services with a toxicologist.
Poison Control #800-222-1222

Treatment personnel must have adequate protective clothing to treat these patient(s).

<u>If prompt life-saving first aid and medical treatment is required, decontamination procedures should be omitted</u>. However, take necessary precautions which limit contamination of rescue and medical personnel.

D. TRANSPORTATION

If it is necessary to transport contaminated patient(s) to medical facilities, the receiving hospital should be notified in advance of the nature of the contamination, or lack of information concerning the contaminants in order to make necessary preparations. These patient(s) must not be allowed to contaminate further areas or persons. It may be necessary to bring treatment personnel (with adequate protective clothing) to treat these patient(s). The ambulance will be considered contaminated and will have to be decontaminated before being used to transport any non-contaminated persons. The ambulance

should be prepared by draping exposed surfaces with visquene or polyethylene covers.

E. EMERGENCY ASSISTANCE

The Toxic Substance and Disease Registry is a division of the Center for Disease Control. To reach someone 24 hours please call #770-488-7100 and ask for the Toxic Substance and Disease Registry. In an emergency, you can get a Toxicologist, Chemist, and Trauma Doctor to assist you in Emergency Care and Decontamination of the injured.

Figure 9. Access Control Points

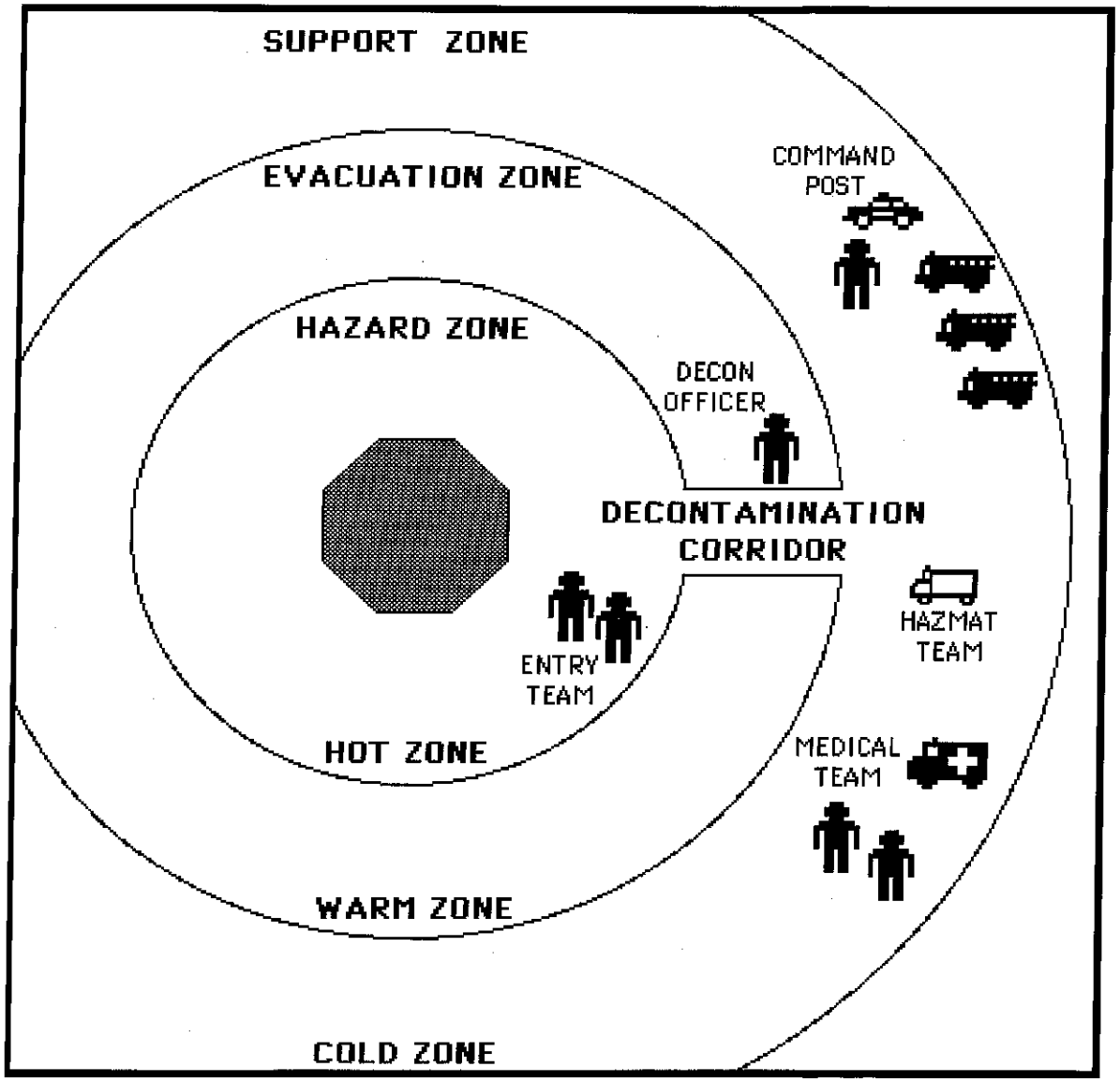


Figure 10. Site Operations Decontamination

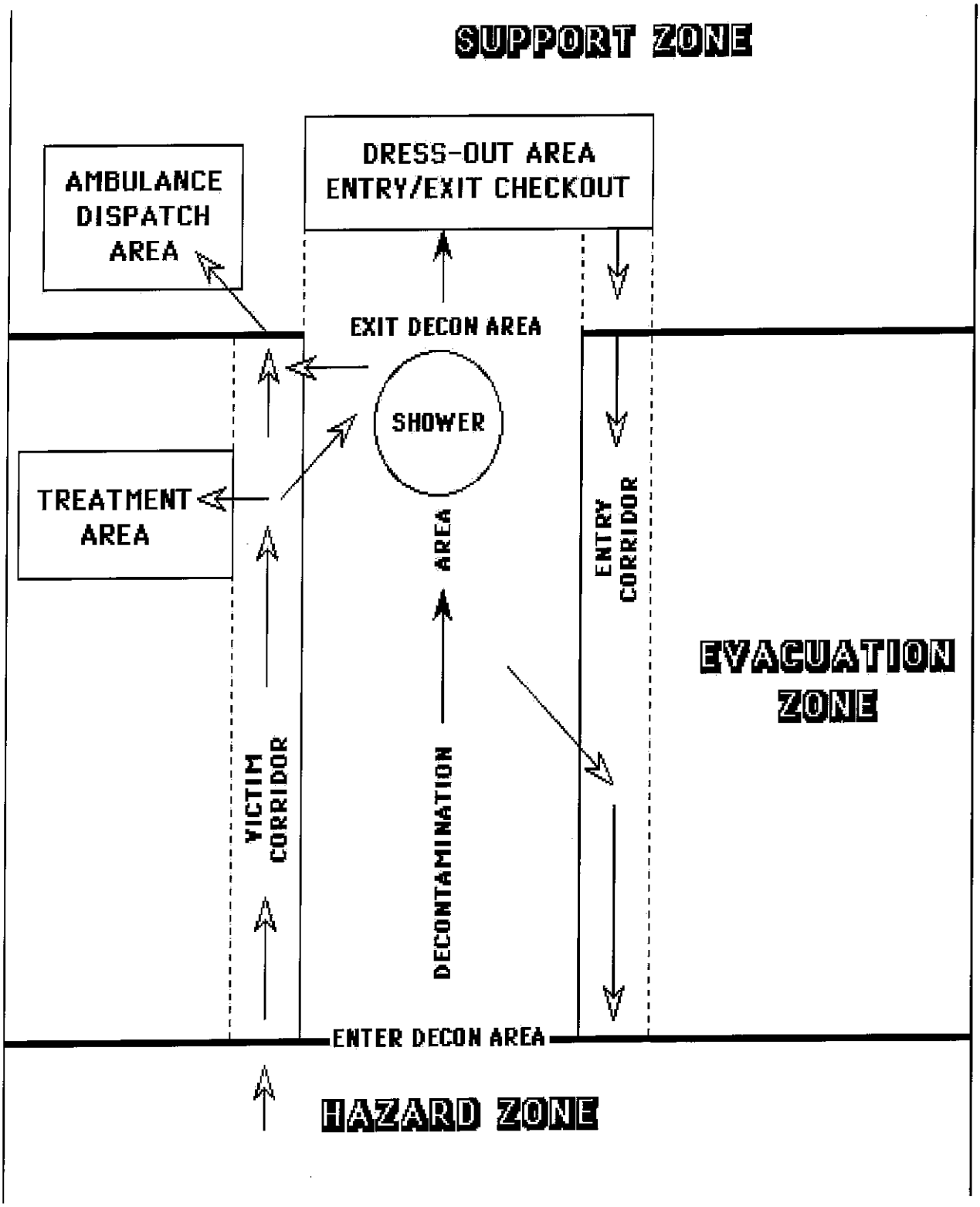
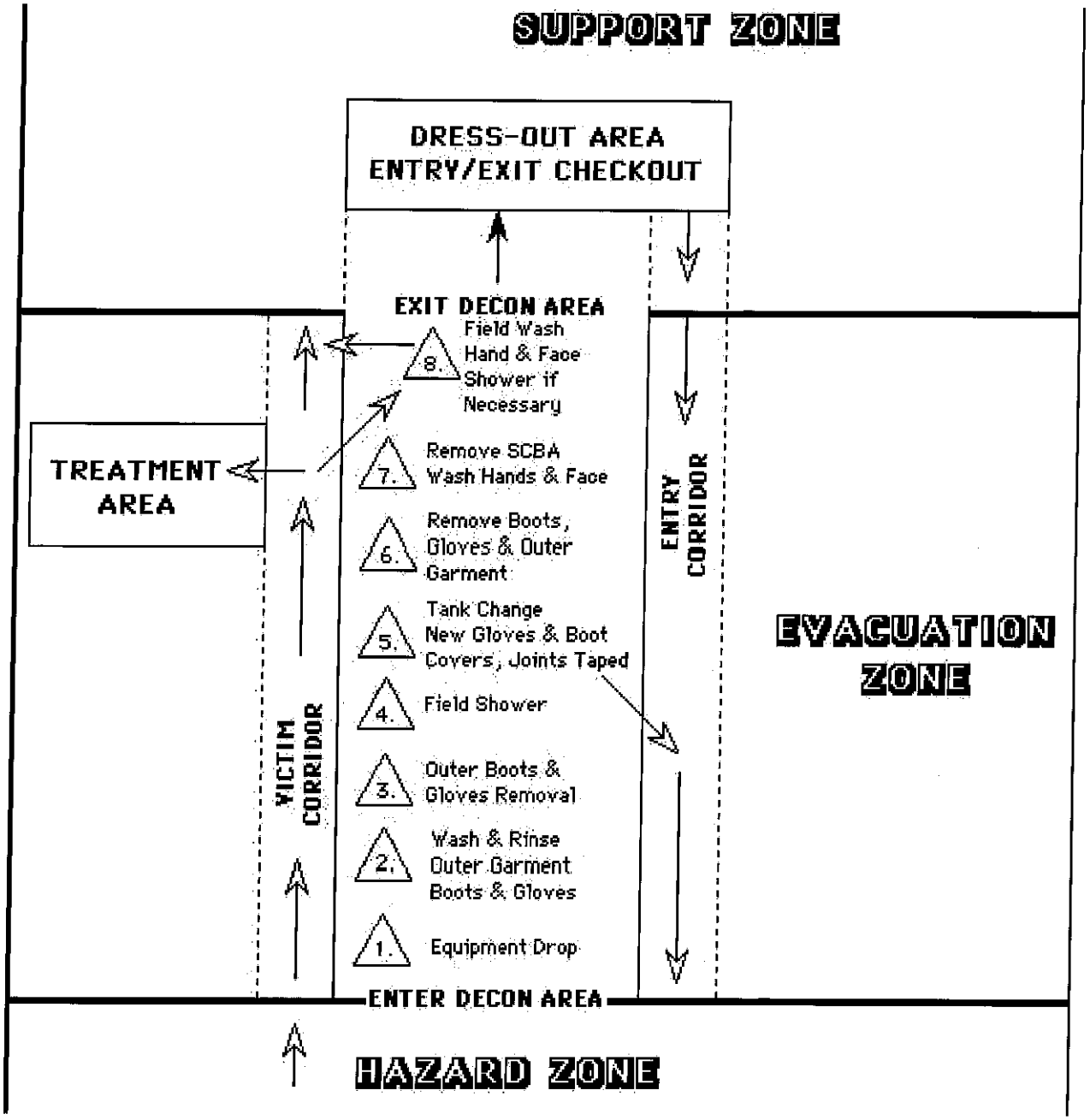


Figure 11. Contamination Reduction Corridor



RESOURCE MANAGEMENT

Resource Management occurs as a function in the Incident Command System.

EMERGENCY AND SPECIAL EQUIPMENT

Las Vegas Fire & Rescue and the Henderson Fire Department maintains a hazardous materials response team (HMRT) whose members are trained to the Hazardous Materials Technician Level. The team is equipped with specialty equipment including sensing devices, entry suits, decontamination equipment, computer systems, and much more. All Fire Departments maintain Paramedic Rescue Units, Fire Engines, Trucks (Ladders), and a great deal of other equipment available to them in emergency situations.

Other agencies and their specialty resources can be requested and made available to local responders through the jurisdiction's EOC:

Nellis Air Force Base - Hazardous Materials Team
Nevada National Security Site - Radiation Response Team
Army Reserve - Chemical Decontamination Unit
92nd Civil Support Team- CBRNE/HazMat Response
National Park Service - Rangers and Response Personnel
Nevada Division of Forestry - Firefighters
Nevada LPG Board- Propane Emergencies
Bureau of Land Management - Rangers, Firefighters, and a Hazardous Materials section
FBI - Special Investigators in Hazardous Materials Crimes
ARMOR- CBRNE/HazMat Response
EPA ERT West- CBRNE/HazMat Response
OSHA- Catastrophe Response Team
Public Utility Commission of Nevada – Electricity, Gas, Railroad, Water & Telephone
Public Works Departments (all)
Water Reclamation/Water Treatment agencies

Other local specialized equipment and personnel are available to assist local responders in handling specific hazardous materials releases:

Air Products - Cryogenic Accidents
Suburban/AmeriGas Propane - Propane Accidents
UNEV/Kinder Morgan Pipeline/Swissport - Fuel Spills
NVEnergy
Southwest Gas
Kern River - Natural Gas Pipeline Accidents
Olin Chlor Alkali Products- Corrosive/Chlorine Accidents
Tronox - Oxidizer Accidents
TIMET - Class D "Special Metal" Accidents
Union Pacific Railroad - Train Accidents

UNIVAR, USA. - Pesticides

See Telephone Directory for public and private resources for hazardous materials clean up and disposal assistance.

FOLLOW-UP

DOCUMENTATION AND INVESTIGATION FOLLOW-UP

Any jurisdiction may find it necessary to undertake a major response action due to a spill or discharge of hazardous materials. Therefore, it is of vital importance to ensure that a careful record is maintained of what happened and what was done in response.

It is the responsibility of the Lead Agency in a hazardous materials response to:

Assign responsibility for real-time and post-incident documentation of the accident/disaster and resulting response actions.

Coordinate the development of appropriate reporting forms and procedures.

Collect the records from various sources in a central and safe location.

Keeping detailed records can help in:

Attempting to recover response costs and damages from the responsible party.

Reviewing the effectiveness and efficiency of response actions.

Preparing for future incident responses.

Verifying facts, actions, injuries, equipment used, etc., for the purpose of legal proceedings, insurance claims, budget requests, and public inquiries.

In addition to written documentation of an incident, it is a good idea to draw diagrams or sketches of containers, vehicles, structures, streets, containment techniques, etc. Photographs and videotapes should also be taken and kept on file for reference purposes.

PROCEDURES FOR TESTING AND UPDATING PLAN

TESTING

The Local Emergency Planning Committee (LEPC) will ensure that at least one (1) annual Hazardous Materials simulation will take place; systematically exercising at least one or more sections of the nine (9) mandatory planning criteria identified by the NRT-1. Refer to the Basic section of this Hazmat plan to identify the location of the nine planning criteria and to identify the specific elements/factors that could be evaluated.

UPDATING

The Local Emergency Planning Committee (LEPC) will form a subcommittee of members or designees to yearly review, change, and update this plan. This subcommittee will initially be made up of those persons responsible for the first edition; and as personnel change, the original members will assign a permanent replacement to attend meetings and participate in updating this plan.

TRAINING

SARA Title III mandates that all emergency personnel that may have to respond to a hazardous materials incident be trained to the level that they will be expected to perform. The following training programs list the minimum requirements set by OSHA for various levels of training. The LEPC has recognized NFPA 471 and 472 as an acceptable training standard and will recognize any training program that meets or exceeds those standards. NFPA 471 and 472 meet the minimum requirements set by OSHA.

TRAINING ASSUMPTIONS

It is assumed that all departments/agencies will train their personnel to the level mandated for their particular function and maintain documentation of those training programs taught and the names of all personnel who have successfully completed the programs, and make those records available to the LEPC upon request.

TRAINING PROGRAMS

The OSHA standard sets minimum requirements for training emergency response personnel who may be required to respond to hazardous materials incidents. These personnel are required to complete training that is based on the duties and functions they will perform at hazardous materials incidents. Prior to the effective date of this standard, personnel shall receive training to meet the objectives of the skill level at which they will be expected to function. All new employees must receive training prior to being permitted to take part in actual emergency operations at an incident involving hazardous materials. There are five training and competency levels recommended by NIMS/ICS.

- First Responder Awareness
- First Responder Operational
- Hazardous Materials Technician
- Hazardous Materials Specialist (deleted from new NFPA 472 standard, still recognized by OSHA)
- On-Scene Incident Commander

Hazardous Materials training is an on-going activity within all of the Clark County jurisdictions and includes such subject areas as the Awareness, Operations, and Technician levels of hazardous materials training, incident command, responder safety,

decontamination, radiological monitoring, Emergency Medical Services (EMS Level 01 and Level 02) and more.

Courses are taught both by in-house personnel and through outside contract arrangements. Curricula and schedules change over time and are updated regularly. For the purpose of this plan, current training information can be coordinated and obtained through the Clark County Office of Emergency Management or obtained directly from Fire Training Divisions as follows:

FIRE TRAINING CENTER	TELEPHONE
City of Boulder City Fire Department	(702) 293-9228
City of Henderson Fire Department	(702) 267-2280
City of Las Vegas Fire Department	(702) 229-0470
City of North Las Vegas Fire Department	(702) 633-1102
Clark County Fire Training Center	(702) 455-7700
Mesquite Fire Department	(702) 346-2690
Clark County Emergency Management	(702) 455-5710

EXERCISES

Exercises to test this plan are conducted annually within Clark County jurisdictions in the form of tabletop, functional, and full-scale exercises. Multi-jurisdictional full-scale exercises may also be performed on an annual basis. Final evaluations or critiques may be available from the responding agency(ies).

Specific exercise plans and schedules can be obtained from the Clark County Office of Emergency Management at #702-455-5710.

COMMUNITY RELATIONS

EXISTING PROGRAMS

The Community Right-to-Know Subcommittee of the LEPC developed and maintains a pamphlet entitled "Hazardous Chemical Emergency, What to Do". Each LEPC member entity may make the pamphlet available, as well as other publications and web based information for public education purposes.

The TIMET Corporation, which is located on the Black Mountain Industrial (BMI) complex, coordinates bi-monthly meetings of the CAER (Community Awareness and Emergency Response) group. The participants include employees from the four major industrial facilities, the Henderson Fire and Police Department, the Clark County Fire Department and Las Vegas Metropolitan Police Department, St. Rose De Lima Hospital, and smaller facilities located on the BMI complex that could be affected by a chemical release. The members discuss recent accidents / incidents, upcoming construction projects / training / tours / exercises, and the weekly communication radio test of the CAER radio network. In addition, CAER is constantly trying to identify ways of communicating with the emergency responders and the general public – use of the NXT

Communication System at the City of Henderson Communication Center (communication alerts sent to specific individuals) when a Non-Routine (maintenance/non-emergency) incident occurs or when an EMERGENCY occurs and has the potential to have affect other facilities on the BMI complex and have an off-site impact, giving CAER radios to emergency responders, use of the reverse 911 system to alert the general public and surrounding businesses. Many years ago CAER put together an informational pamphlet on all the hazardous chemicals in use at the BMI complex. The information was given out during Earth Day, Henderson Industrial Days, and other community functions.

The Henderson Industrial Community Advisory Panel (HICAP) is group of individuals which meets bi-monthly and includes a facilitator, the plant managers from the four industrial facilities at BMI, Henderson area business owners, Henderson community representatives, Henderson Chamber of Commerce, and Henderson and Clark County Fire Departments. The facility members discuss what happening at the various facilities – scorecard (Safety, Environment, Process, Distribution, and Other Items of Interest), the CAER meeting report is given, upcoming Henderson community events are discussed and finally a guest speaker.

Clark County Television (CCTV), City of Las Vegas Cox Cable Channel 2, and Vegas PBS Channel 10 provide access for emergency management programming for educational and emergency alert purposes.

WARNING METHODS

WARNING METHODS

WARNING SYSTEMS AND PUBLIC NOTIFICATION

The purpose of this section is to describe how to alert people at risk during emergencies and to inform them about protective measures to be taken.

Authority

County Manager/City Manager, or designee of affected jurisdiction, makes the decision to activate the community-wide warning systems.

Responsibility

Local Office of Emergency Management: As authorized, activates the warning systems and, if necessary, the Emergency Alert System (EAS).

Support Agencies

Boulder City Fire Department
Boulder City Police Department
~~City of Henderson Communication Center~~
Combined Las Vegas Fire and EMS Communications Center
Clark County Fire Department
Henderson Fire Department
Henderson Police Department
Las Vegas Fire Rescue
Las Vegas Metropolitan Police Department
Mesquite Fire Department
Mesquite Police Department
North Las Vegas Fire Department
North Las Vegas Police Department
Health
Water Rec agencies

Immediate Tasks

Emergency Management: Gather background information from requesting agency, such as:

Person reporting
Time
Type of Emergency
Location
Incident Magnitude
Best or Worst Case
Evaluate threat, danger, or risk levels with reporting agencies and Incident Commanders.

Report information to the County/City Manager or designee, with a recommendation for activating warning systems, if necessary.
Prepare a warning message that specifies:

- The type of emergency
- Time of impact and expected duration
- The threatened geographic area
- Protective actions people should take

Choose method(s) to disseminate warnings

Distribute warning by chosen method(s)

GENERAL WARNING METHODS

These methods alert and warn the general public about situations that may threaten areas of Clark County. The selection of the method(s) depends on such factors as: population at risk, speed of message dissemination, and area covered.

Emergency Alert System (EAS) - is the primary warning system in Clark County. The Mayor, County Commission Chair, County Manager, County Emergency Management Director, County Public Information Officer, or the County Special Projects Manager authorizes activation of the EAS. Procedures for EAS activation are found in the EAS Plan located with each authorized individual.

Emergency Notification System (ENS) – is a tool capable of launching notification calls to pre-programmed groups as well as improvised call groups such as residences and businesses in a defined evacuation or shelter-in-place zone. Call receivers will hear a recorded message providing specific instructions to evacuate or shelter-in-place and to monitor broadcast stations for additional updated information.

Sirens and Loudspeakers - on public safety vehicles.

Southern Nevada Counter-Terrorism Center (SNCTC) – also known as the Fusion Center is an all-hazard 24/7 public-private collaboration that is supported by different agencies from federal, state, and local government all working together towards one goal – To Keep Residents and Tourist Safe. The SNCTC works closely with the private sector, including the facilities at the BMI complex, hotels and casinos, and the general public to collect reports about suspicious activities and to share information. (702) 828-8386

Intra-Building Systems - Hotel staff and the Las Vegas Convention and Visitors Authority disseminate warnings through the buildings' public address systems, personal contact, and in-house television. The McCarran Control Center issues warning messages throughout the terminal.

Travelers Information Station - The McCarran Control Center adds a message for broadcast upon request. Coverage is limited to a 2.5 mile radius around McCarran Airport.

Media Reports- Broadcast and print media report on incidents and can disseminate warning information on request.

Door-to-door- sweeps through areas.

Web-Based Alert Systems – Clark County maintains an alert system through the website http://mystateusa.com/ which provides emergency alert notifications to general public subscribers as well as targeted subscriber groups. Alerts for pre-selected hazards are disseminated via email, land line, cell phone, and text message. All local governments within Southern Nevada support https://sonevada.onthealert.com. The City of Las Vegas and the City of Henderson maintains systems, which provides emergency alert and warning for all hazards to members of the public community wide or in targeted areas.

National Weather Service - Authorized agency representatives can contact the National Weather Service for information dissemination via NOAA Weather Radio All-Hazards (NWR). Messages can be sent with or without EAS activation.

SPECIAL FACILITIES WARNING METHODS

Schools

Call the School District Police at the 24-hour emergency number #702-799-5411.

Hospitals

Request that the combined Las Vegas Fire and EMS Communications Center simultaneously warn the hospitals of a hazardous materials incident. Call hospitals individually on the telephone (see Telephone Directory) or through the 800 MHz radio All Call System and or by using HAvBED.

The State of Nevada, Division of Public and Behavioral Health (DPBH), Public Health Preparedness Program (PHP), has a viable, statewide, bed tracking, availability, and alerting/information system in place throughout Nevada. "HAvBED," is a reliable system with access via the internet, used to track bed availability, hospital capacity/status (surge), along with tracking hospital, Coroner, Mortuary, and healthcare facility storage of decedents. HAvBED is a "closed-system," requiring User/Password entry before access is permitted. The system is intended for healthcare professionals, first responders, law enforcement, and critical infrastructure agencies. In the near future, the State of Nevada plans to enhance HAvBED, with the purchase of a patient tracking system, enabling all hospitals to track patients electronically, to include tracking of movement within Nevada and within the western Region of the United States.

Transportation Facilities

Contact Nevada Taxicab Authority at 702-486-6532 to notify taxi dispatch centers. After hours, contact the Nevada Highway Patrol Office 775-688-2830 to notify the taxi dispatch centers.

Contact the Regional Transportation Commission, Public Information Operator at 702-676-1500 or #702-676-1822 or ATC/VanCom, Public Information Operator at 702- 636-0623 to reach Citizens Area Transit (CAT) Bus System.

Nursing Homes, Major Industries, Institutions

Use telephone notification, public safety vehicle sirens and loudspeakers, and personal contact.

SPECIAL GROUPS WARNING METHODS

Hearing-impaired Persons

Call the Southern Nevada Center for Independent Living at 702-889-4216 (Voice) and TDD or the Deaf and Hard of Hearing Advocacy Center at 702-363-3323 (711) Relay.

Non-English Speaking Groups

Contact Radio Station KDOX (Spanish language station) at 702-732-1664, and Univision TV Station, Channel 15 at 702-434-0015 which broadcasts in English and Spanish.

District Court Interpreter

Call the District Court Interpreter at 702-671-4578. The District Court Interpreter has contract translators for 118 languages. Contractors charge a range of fees for translation service depending on the technical difficulty of a message. The predominant foreign languages of local citizens are: Spanish, Cambodian, Laotian, Chinese, Vietnamese, Russian and Korean. Visitors' languages are predominantly French, Portuguese, Japanese, Russian, and German.

Municipal Court Interpreter

The Las Vegas Municipal Court (Constable) interpreter services use a SpeechGuard Language Devices this is a handheld language translation device originally developed in 2003 by the Department of Defense for use by American soldiers abroad. Las Vegas Municipal Court uses them to communicate with non-English speaking persons.

EVACUATION

EVACUATION
Nicole discussed various changes to this section.
PURPOSE

The purpose of this section is to provide guidelines to conduct an evacuation of citizens in a geographic area during an emergency incident. The potential for evacuation should be considered during all emergency incidents. The key to an organized and manageable evacuation is to develop an Incident Management System early and initiate a plan and to continually update the plan.

1. A plan for evacuation should address the following factors:
   - A command structure.
   - Need for evacuation versus in-place sheltering.
   - Early notification of the police department.
   - Identification of an area to be evacuated, perimeters, etc.
   - Resources needed.
   - Speed of evacuation, time frames.
   - Identification of shelter sites and preparation of these sites.
   - Estimation of the duration of the evacuation.
   - Planning the re-entry of those evacuated.
   - Information about hazard and evacuation presented to evacuees.
   - Follow-up with evacuees on re-entry.
   - Security of the area evacuated.

2. Other areas that will need to be considered also include:
   - Assignment of a Police Liaison Officer.
   - Communications.
   - Information Officer.
   - Establishing a Transportation Branch/Group for evacuees.
   - Communicating evacuation plan and shelter sites to the Command organizations of all agencies involved.

AREA OF EVACUATION

The area of evacuation should be identified by the Incident Commander and documented by the Planning Section. The evacuation boundaries should follow streets and established roadways. A map should be utilized and distributed to all officers and agencies involved and provided to the Evacuation Branch. Maps need to be provided to the police department.

In some situations, in-place sheltering can be used to protect the public rather than to initiate an evacuation. In-place sheltering can be considered during the following circumstances:

- The hazardous material has been identified as having a low or moderate level of health risk.
- The material has been released from its container and is dissipating.
- Leaks can be controlled rapidly and before evacuation can be completed.
- Exposure to the product is expected to be short-term and pose a low health risk.

- The public can be protected adequately by staying indoors.

Command may need to provide instructions to the affected public regarding the need to stay indoors and to employ protective measures such as shutting down their Heating Ventilation Air-Conditioning (HVAC) systems and sealing their buildings.

LEVELS OF EVACUATION

There are three levels of evacuation. Each requires a different resource commitment. They include:

1. ***Site Evacuation*** - Site evacuation involves a small number of citizens. This typically includes workers at the site and persons from adjacent occupancies or the perimeter area. Evacuation holding times are typically short, generally less than an hour or two, and citizens are permitted to return to their businesses or homes.

2. ***Intermediate Level Evacuation*** - Intermediate level evacuation involves larger numbers of citizens and/or affects a larger area. This level affects off-site homes and businesses and normally affects fewer than 100 persons. Persons may remain out of the area for two to four hours or more. Evacuation completion times will be somewhat longer but generally rapid. Collecting, documenting and controlling the evacuees becomes more difficult. Off-site collection sites or shelter areas will need to be determined and managed. Some evacuees will leave the area on their own or be sent home by employers. Site perimeters become larger and perimeter security requires more resources. Close coordination with the police department and other agencies will be required.

3. ***Large-Scale Evacuation*** - A large or concentrated release of a hazardous substance may cause a large off-site evacuation. Thousands of citizens could be evacuated. Rapid initiation of the evacuation process may be required. Evacuees may be out of their homes and businesses for many hours if not days. Evacuation completion time frames will be extended. Evacuation shelters will need to be located, opened and managed. Documentation and tracking of evacuees becomes more important as well as more difficult. Very close coordination with the police and other agencies will be required. Site and evacuation perimeters become extended and require much more resources to maintain. Security of the evacuated area is always a concern. In some cases, the Emergency Operating Center (EOC) will be opened to support the evacuation and site operations.

   There are no precise parameters differentiating one level of evacuation from another. The IC must implement organizational elements that meet the needs of each particular incident.

DURATION OF EVACUATION

The evacuation should be sustained as long as the risk continues in the evacuated area. Caution should be taken when deciding to allow residents to return to the homes to ensure that the situation is truly under control. Re-evacuating is difficult to complete because many residents will not want to leave a second time. It can also be extremely

hazardous. Evacuees must be updated with information as soon as possible and periodically throughout the incident.

SHELTER SITE

When developing the evacuation plan, shelter sites must be identified early.

1. Site selection must occur at the time the evacuation is ordered or very soon afterward.

COMMAND STRUCTURE

The Planning Section is responsible for all planning associated with the evacuation. The evacuation plan is communicated to the Incident Commander for approval or modification. The actual evacuation process would normally be managed in the Operations Section as an Evacuation Branch or Group. The Evacuation Branch must be provided with sufficient resources to effectively complete the task. Group or Division assignments within the Evacuation Branch will be assigned as necessary.

The Evacuation Branch Director may be a police officer. Branches will be implemented as needed. Branch Directors receive the plan and objectives from Command. Branch Directors ensure completion of the plan and its objectives. Separate radio channels may be required.

Group/functions to be considered include:

1. Geographic Groups (Multiple Groups)
2. Transportation Group
3. Shelter Groups
4. Other Groups as necessary
5. Staging
6. Liaison Officer
7. Information Officer

COMMAND RESPONSIBILITIES

Command responsibilities include the following items:

1. Rapidly size up the situation to determine the need to evacuate.
2. Develop Evacuation Plan.
3. Request a police supervisor to the command post.
4. Determine evacuation perimeters.
5. Determine the number and location of shelter sites and communicate the locations to the Command organization.
6. Order evacuation.
7. Provide resources required.
8. Establish police liaison.
9. Develop a unified command post.
10. Order the alert of other appropriate agencies.
11. Expand the command organization to meet the incident/evacuation needs.
12. Establish an evacuation plan and communicate the plan to branches, groups, divisions, and liaison.

13. Monitor, support and revise the evacuation process as necessary.
14. Evacuate persons from the greatest danger first.
15. Assign specific areas to evacuate in order to avoid duplication or missed areas.
16. Provide the transportation necessary for evacuees.
17. Provide continuing command of the evacuation, demobilization and return of evacuees.

LAW ENFORCEMENT RESPONSIBILITIES

The police department will be an integral part of the evacuation process, as the police department usually accomplishes a large portion of the evacuation. Police responsibilities include:

1. Provide a ranking officer to the Incident Command Post.
2. Provide a ranking officer to the Evacuation Branch/Group.
3. Develop and maintain a Law Enforcement Branch within the established ICS organization.
4. Provide a communication system for police resources.
5. Provide police resources needed for evacuation.
6. Provide-traffic control and traffic routing.
7. Provide perimeter security.
8. Provide evacuation zone security.
9. Identify transportation needs.

COMMUNICATIONS

A separate radio frequency should be used for the Evacuation Branch. This should be assigned as early in the incident as possible.

PUBLIC INFORMATION OFFICER RESPONSIBILITIES

1. Establish Information Office.
2. Notify the news media and provide status reports and updates as necessary.
3. Provide the media with consistent and accurate evacuation instructions as provided by Command.
4. Utilize the media and coordinate evacuation notices through news media.

MEDIA SUPPORT

The Incident Information Officer should be informed of the evacuation plan so that the media is aware of the areas to be evacuated and shelter sites and any evacuation instructions to the public. The Information Officer should make every effort to assemble the media at the scene to keep them away from hazards and out of the evacuation area. Residents may receive information from the media during the evacuation, so it is critical that the media information be accurate.

Also needed is a single phone number that should be released to the public for information.

WHO SHOULD BE EVACUATED

All residents living/working in the area identified should be evacuated. In the event that a resident decides not to evacuate, they should be specifically informed of the risk and, if they still refuse, left to stay. The Evacuation Branch is to be notified and a note of the citizen's address made for further follow-up.

EVACUATION BRANCH RESPONSIBILITIES

On large-scale evacuations, a Branch-level position on a separate radio channel should be considered. Various sub-level groups and divisions will also need to be established and reported to the Evacuation Branch Director.

Typically, a large commitment of police officers will be required to accomplish an evacuation. The Evacuation Branch Director may be either a police or fire officer. The Evacuation Branch must obtain a ranking police official at his/her location in order to closely coordinate evacuation efforts. An appropriate commitment of police resources must be obtained. Evacuation responsibilities include:

1. Obtain resources needed to evacuate.
2. Obtain ranking police officer as liaison.
3. Provide a ranking fire officer to the Branch Director.
4. Establish divisions and groups as needed.
5. Provide division and group objectives and specific areas to evacuate.
6. Provide divisions and groups with shelter locations and instructions.
7. Provide divisions and groups with evacuation instruction pads and written evacuation information for evacuees if possible.
8. Provide divisions and groups with private vehicle routing instructions (out of the area).
9. Obtain/provide ambulances, buses or other transportation for those requiring transportation out of the area.
10. Evacuate those at greatest risk first.
11. Evacuate the greatest concentrated areas next (i.e. apartment complex).
12. Consider individual divisions or groups for large population occupancies (i.e., multi-story buildings, large apartment complexes, schools, etc.).
13. As individual divisions and groups complete their evacuations, terminate the divisions or groups identity and reassign resources to other developing divisions and groups (for large-scale evacuation).
14. Closely document and maintain records of the evacuation process to avoid duplication or missed areas.
15. Document addresses and times for those refusing to leave.

INFORMATION AND NOTIFICATION

The police and fire departments should be used for resources/staffing to conduct a walk-through or drive-through in the area to be evacuated. The officers should provide residents with information about the situation and be told that they are being evacuated, to where, and why. It is necessary to inform the residents of shelter areas being established to minimize confusion and anxiety.

ON-SITE NOTIFICATION TO EVACUATE

Door-to-door notification is time-consuming. In many cases, adequate resources and time are not available to do this type of face-to-face notification. Use of sirens, air horns, and PA systems will speed the alert process.

- When making door-to-door evacuations:
  1. Be in uniform.

- Face-to-face notification should include the following instructions:
  1. There is an emergency.
  2. You are in danger.
  3. Leave immediately.
  4. Go to shelter (location).
  5. Identify routes out of the area.
  6. Do you need transportation?
  7. Give the citizen the evacuation instruction sheet.
  8. Consider multi-lingual needs.

- Evacuees should be advised to take the following items:
  1. Wallet/Purse
  2. House and Car Keys
  3. Money
  4. Eyeglasses
  5. Medications
  6. Proper/Warm Clothing

- In other situations, where immediate and rapid evacuation makes door-to-door notification impossible, use the following notification method:
  1. Use three (3) five-second blasts of the siren while on the "YELP" setting.
  2. Follow with the standard evacuation instruction over PA system (see instructions above).
  3. Use maximum volume on PA system.
  4. Proceed slowly to maximize notification.
  5. Initiate notification at the beginning of each block and each 50 yards after that.

- Once each assigned grid of objectives is complete report completion to the Evacuation Branch/Group.

- An information phone line may need to be set up to provide an information source for citizens with concerns about the incident. This information would be for family members affected by the evacuation or medical information for Haz/Mat incidents and general information about the evacuation.

REFUSAL TO LEAVE

Some citizens may refuse to leave. A few methods of persuasion to leave include:

1. Be in uniform.
2. Wear SCBA and face piece (air hose may not need to be connected) when advising the citizen to leave.

3. Ask for next of kin and a phone number.
4. Write the next of kin information down.
5. Refusals should be noted and reported to the Evacuation Branch/Group by radio.

Evacuations follow somewhat of a triage philosophy to evacuate the greatest number for the greatest benefit. Individual refusals will be left to fend for themselves. There simply may not be enough time or resources to initiate forced removal of persons from their homes. However, documentation of the refusal should be done. Write the address down (or if radio traffic permits, radio the address to the Evacuation Branch/Group).

TRANSPORTATION BRANCH/GROUP RESPONSIBILITIES

A Transportation Branch/Group should be established within the evacuation branch. Ambulances and other transport vehicles and buses should be staged in the event that a citizen may need transportation to a shelter or other location. Non-ambulatory people must be located and information provided to the Transportation Branch/Group so that they are not overlooked in the evacuation. Responsibilities include:

- Obtain buses (start with a minimum of two) and other vehicles that can be used for transportation.
- Stage all transportation resources.
- Put one firefighter (or police officer) on each vehicle equipped with a fire or police department radio.
- Coordinate with the Evacuation Branch/Group the pick-up points or addresses of those citizens needing transportation.

EMERGENCY OPERATING CENTER (EOC) OPERATIONS

- If a significant or major evacuation occurs, the Emergency Operating Center (EOC) may go into operation. The EOC will collect department heads and senior staff from the fire, police, manager's office, public works and other County departments to the EOC. The EOC's objective is to use the County's resources to support the incident.

- Command should be prepared for this support and potential policy direction in regards to the incident and evacuation operations.

- If the EOC is in operation, the Planning Section is responsible for briefing and maintaining communication with the EOC.

- Responsibilities of the Planning Section's EOC Liaison Officer are:
  1. Obtain a radio communication link with the EOC (through Combined Fire & EMS Communications Center on a separate channel).
  2. Obtain a cellular telephone or other communications link with the EOC.
  3. Obtain an immediate status report from Command and provide that report to the EOC fire officer.
  4. Provide an immediate report to the EOC on any changes in plans, strategy, problems encountered, etc.
  5. Provide progress reports every 30 minutes unless the EOC requires more frequent reports.

6. Act as the communications link from EOC to Command.
7. Provide Command with direction, policy information, etc., that is communicated from the EOC.

- For the duration of the evacuation Command will maintain an EOC liaison and a communication link with the EOC throughout the evacuations, including demobilization and return of evacuees.

RETURN EVACUEES

- The decision to return evacuees to their homes will be the sole responsibility of the fire department Incident Commander when the EOC is not operating. If the EOC is operating, the decision to return evacuees will be made by the EOC staff. No other County agency will be authorized to order the return.

- The Planning Section will jointly develop a return plan for evacuees.

- Returning evacuees may require some transportation be provided. A Transportation Group should be reactivated to organize these needs.

HOME SHELTER
We talked about updating this message.

Sample EAS Message #I

Take Shelter EAS Announcement

The following message has been released by the _____
Emergency Operations Center:

1. The _____ has announced that an emergency presently exists at _____. Persons living or working within an approximate _____mile radius of this location are requested to take sheltering actions.

2. There is no need for residents to leave the area in order to take sheltering action.

3. Persons who have taken shelter should observe the following procedures:

   A. Close all doors and windows.
   B. Disconnect air conditioners or fans.
   C. Lower the thermostat setting of any heater or turn off air conditioner/evaporative cooler to minimize the intake of external air.
   D. Keep pets inside, and to extent possible, bring farm animals under covered facilities.

4. People living, working or traveling in the following areas are affected by this request:

   (Repeat the list of areas one time, then continue the message.)

5. Persons living, working or traveling in this area should take sheltering action. Persons traveling to home or work should proceed to their destination in an orderly fashion obeying all traffic regulations. Non-residents traveling in motor vehicles should clear the area in an orderly fashion.

6. All persons traveling in the area in motor vehicles should roll up windows, close air vents, and turn off air conditioners. If in an automobile, or when sheltering is not immediately available, improvised respiratory protection may be taken. Place a handkerchief, towel, or other similar item snugly over the nose and mouth until indoors.

7. You are asked <u>not</u> to do the following: (Read statement a., below, if school is in session.)

   A. You are requested not to telephone or go to the school your children are attending. They are in a covered protected environment and will be bused home when it is safe to do so.

B. Do not telephone city, county, state or federal officials directly involved. They will keep you informed of the situation through this station. Do not use the telephone except for medical emergencies.

8. The preceding has been an announcement by the _____ Emergency Operations Center. It calls for all persons living or working within a _____ mile radius of _____to take shelter. For further information, stay tuned to this station.

(Thereafter, this message shall be repeated every five minutes until the station is informed by the EOC to end transmission.)

EVACUATION
We talked about updating this message.

Sample EAS Message #2

Evacuation EAS Announcement

The following message has been released by the _____ Emergency Operations Center:

1. The _____ has announced that an emergency condition exists at _____ and recommends the evacuation of all persons living or working within an approximate _____ mile radius of this location.

2. This advisory affects persons living in the following area:

   (Repeat the list of affected areas one time, then continue the message.)

3. Please use the following evacuation routes for your neighborhood. If you will need a place to stay, report to the mass care center located at _____.

   (Repeat the list of affected areas one time, then continue the message.)

4. If you have housebound persons or invalids in your home and require assistance in moving them, contact the_____ Emergency Operations Center at _____.

5. Please cooperate by checking on persons who may live alone in your neighborhood. If they have no way of providing for their own transportation, please assist them if possible.

6. Persons affected by this evacuation advisory should prepare to spend a minimum of three days away from home and should have with them sufficient quantities of clothing, sleeping bags or blankets, personal care items and prescription drugs for at least this period. Persons evacuating to mass care centers will be provided with food and sanitary facilities. Pets will not be allowed inside the mass care centers.

7. Farmers/ranchers affected by this evacuation advisory should shelter their animals and contact their County USDA agricultural agent, 388-6311, for further instructions regarding protection of livestock, foodstuffs, and regaining access to the evacuated area.

8. Persons planning to evacuate are reminded to take the following steps prior to leaving:

   A. Secure your home and property.
   B. Turn off all lights and electrical appliances.

C. Turn down any heating systems (or turn off air conditioning systems).
D. Proceed calmly to your destination, obeying all traffic laws and driving carefully.
E. Please obey the police and others who will be directing traffic along the evacuation routes.

9. The preceding has been an announcement by the _____ Emergency Operations Center regarding recommendation by the _____ for the evacuation of all persons living within a _____ mile radius of the _____. For further information, please stay tuned to this station.

SCHOOL EVACUATION
We talked about updating this message.

Sample EAS Message #3

School Evacuation EAS Announcement

1. The following message has been released by the _____ Emergency Operations Center. It supplements instructions given to the public concerning the evacuation announcement for an approximate _____ mile radius of _____.

2. Parents with children attending schools within a _____ mile radius of _____ are advised that their children are subject to a separate evacuation plan while school is in session. These schools are _____. Children at these schools will be taken directly to shelter areas. Parents are to meet their children at these shelter areas outside the emergency zone. I repeat, children will be taken directly to areas outside the risk area where parents are to meet their children. Parents are not to report to their children's schools.

3. Children attending the schools in the risk area will be taken to the following areas where they may be picked up:

   School Evacuation Area

   (Repeat list one time and continue the message.)

4. Parents are urged not to telephone or to go to the schools their children attend. To do so will only create confusion. Parents are to meet their children at the previously announced evacuation areas. I repeat, parents are urged not to telephone or to go to the schools that their children attend, but to meet their children at the evacuation areas.

5. The preceding has been an announcement by the _____ Emergency Operations Center giving parents instructions on where to meet their children who are attending schools within an approximate _____ mile radius of _____.

   (Repeat entire message one time.)

ABBREVIATIONS

ABBREVIATIONS

The following is a list of some of the acronyms that are commonly encountered when dealing with hazardous materials.

AAR	Association of American Railroads
ANSI	American National Standards Institute
ARMOR	All Regional Multiagency Operations & Response
API	American Petroleum Institute
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
ASME	American Society of Mechanical Engineers
ASME CODE	American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Sections VIII & IX, 1977
ASTM	American Society for Testing and Materials
ATA	American Trucking Association
BOE	Bureau of Explosives
BLEVE	Boiling Liquid Expanding Vapor Explosion
BMI	Black Mountain Industrial or Basic Management, Inc.
BMG	Nevada Bureau of Mines
CAA	Clean Air Act of 1990, As Amended
CAB	Civil Aeronautics Board
CAER	Community Awareness and Emergency Response - Developed by CMA
CAMEO	Computer Aided Management of Emergency Operations
CAS	Chemical Abstract Service
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CEPP	Chemical Emergency Preparedness Program (EPA)

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980, As Amended ("Superfund" Act)
CFR	Code of Federal Regulations
CGA	Compressed Gas Association
CHARM	Chemical Hazard Air Release Model
CHEMNET	A mutual aid network between chemical shippers and for-hire contractors that will provide advice and assistance at the scene of serious chemical distribution incidents
CHEMTREC	Chemical Transportation Emergency Center
CHLOREP	Chlorine Emergency Plan
CHRIS	Chemical Hazards Response Information System
CMA	Chemical Manufacturers Association
COFC	Container on Flat Car
CPC	Chemical Protective Clothing
CPSC	Consumer Product Safety Commission
CRC	Chemical Reduction Corridor (decontamination)
CVCF	Commercial Vessel Casualty File
CWA	Clean Water Act of 1990, As Amended
DEA	U.S. Drug Enforcement Administration
DECON	Decontamination
DEM	Division of Emergency Management
DEP	Division of Environmental Protection - Hazardous Waste
DFO	Disaster Field Office
DHHS	U.S. Department of Health and Human Services
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOI	U.S. Department of the Interior

DOT	U.S. Department of Transportation
DSR	Disaster Survey Report
EAS	Emergency Alert System
EEL	Emergency Exposure Limit
EENET	FEMA's Emergency Education Network
EHS	Extremely Hazardous Substance
EIS	Emergency Information Systems
EM	Emergency Measures
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EODA	Explosive and Other Dangerous Articles Act of 1921, As Amended
EPA	U.S. Environmental Protection Agency
EPA"400"List	The November 1986 EPA published list of 402 substances subject to the reporting and emergency planning requirement of the Superfund Right-To-Know Act
EPCRA	Emergency Planning and Community Right-To-Know Act of 1986 (Title III created from SARA)
ESD	Emergency Services Director
ESF	Emergency Support Functions
EWS	Early Warning System
FAA	Federal Aviation Administration
FARS	Fatal Accident Reporting System
FDA	U.S. Food & Drug Administration
FEMA	Federal Emergency Management Agency
FFDCA	Federal Food, Drug, and Cosmetic Act
FHA	Federal Housing Administration

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FR	Federal Register
FRA	Federal Railroad Administration
FRERP	Federal Radiological Emergency Response Plan
FWPCA	Federal Water Pollution Control Act of 1972, As Amended
GAR	Governor's Authorized Representative
GPM	Gallons Per Minute
HAvBED	Hospital Available Beds for Emergencies and Disasters
HAZMAT	Hazardous Materials
HAZOP	Hazard and Operability Study
HAZWOPER	OSHA Hazardous Waste Operations and Emergency Response Standard
HICAP	Henderson Industrial Community Advisory Panel
HLNW	High-Level Nuclear Waste
HMC	Hazardous Materials Coordinator
HMGL	HazMat Group Leader
HMIG	Hazardous Materials Identification Guide
HMIS	Hazardous Materials Information Systems (DOT-OHMT)
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HZ	Hot Zone
IAEA	International Atomic Energy Agency
IATA	International Air Transport Association
IC	Incident Commander

ICAO	International Civil Aviation Organization
ICBO	International Congress of Building Officials
ICC	Interstate Commerce Commission
ICRP	International Council on Radiation Protection
ICS	Incident Command System
ID	Identification
IDLH	Immediately Dangerous to Life and Health
IIHS	Insurance Institute for Highway Safety
IM	Intermodal (intermodal tank)
IMDG CODE	International Maritime Dangerous Goods Code, Volumes I, II, III and IV, 1977
IME	Institute of Makers of Explosives
IMO	International Maritime Organization
IMT	Incident Management Team
JIC	Joint information Center
LC	Lethal Concentration
LD	Lethal Dose
LEPC	Local Emergency Planning Committee
LEVEL A	Personal protective equipment to be selected when the greatest level of skin, respiratory, and eye protection is required
LEVEL B	Personal protective equipment to be selected when the highest level of respiratory protection is necessary, but a lesser level of skin protection is needed
LEVEL C	Personal protective equipment to be selected when the concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met
LEVEL D	A work uniform affording minimal protection; used for nuisance contamination only

LFL/LEL	Lower Flammable (Explosive) Limit
LLNW	Nuclear Wastes
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LSA	Low Specific Activity
LUST	Leaking Underground Storage Tank
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
MTB	Materials Transportation Bureau (DOT)
NOS	Not Otherwise Specified
NA/UN	North American/United Nations - Hazardous Materials Codes
NACA	National Agricultural & Chemical Association
NACE	National Association of Corrosive Engineers
NASS	National Accident Sampling System
NASTTPO	National Association of Sara Title III Program Officials
NCI	National Cancer Institute
NCP	National Contingency Plan
NCRIC	National Chemical Response & Information Center
NCRP	National Council on Radiation Protection and Measurement
NDC	National Drug Code
NDF	Nevada Division of Forestry
NDOT	Nevada Department of Transportation
NFPA	National Fire Protection Association
NHP	Nevada Highway Patrol

NHTSA	National Highway Traffic Safety Administration
NIEHS	National Institute of Environmental Health Sciences
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NMFC	National Motor Freight Classifications
NNSA	National Nuclear Security Administration
NPAC	National Poison Antidote Center
NPCA	National Paint and Coating Association
NRC	U.S. Nuclear Regulatory Commission
NRC	National Response Center
NRS	Nevada Revised Statutes
NRT	National Response Team
NTP	National Toxicology Program
NTSB	National Transportation Safety Board
NTTCI	National Tank Truck Carriers, Inc.
NVOO	DOE Nevada Operations Office
NWPA	Nuclear Waste Policy Act of 1982
NWR	NOAA Weather Radio All Hazards
NWS	National Weather Service
OHM-TADS	Oil and Hazardous Materials Technical Assistance Data System
OHMT	Office of Hazardous Materials Transportation, Research and Special Programs Administration (DOT)
OPD	Over Pack Drum or Recovery Drum
OPPSD	Organic Peroxide Producers Safety Division
OPS	Operations Chief

ORM	Other Regulated Materials
OSC	On-Scene Coordinator or Operations Support Center
OSHA	Occupational Health and Safety Act of 1970
OTA	U.S. Office of Technology Assessment
PA	Public Address
PATRAM	Packaging and Transportation of Radioactive Materials
PEL	Permissible Exposure Limit (OSHA)
PIO	Public Information Officer
PIRS	Pollution Incident Reporting System
PL	Public Law
PPE	Personal Protective Equipment
PPM	Parts Per Million
PSIA	Pounds Per Square Inch, Absolute
PSIG	Pounds Per Square Inch, Gauge
PSTM	Pesticide Safety Team Network
RACES	Radio Amateur Civilian Emergency Services
RAT	Radiological Assistance Team (DOE)
RCRA	Resource Conservation and Recovery Act of 1976, As Amended
REMSA	Regional Emergency Medical Service Authority
RFCD	Regional Flood Control District
RHMRT	Regional Hazardous Materials Response Team
RMP	Risk Management Plan
RQ	Reportable Quantity
RRC	Regional Response Center
RRT	Regional Response Team or Radiological Response Team

RSPA	Research and Special Programs Administration (DOT-OHMT)
RTK	Right To Know
SADT	Self Accelerating Decomposition Temperature Test (published by OPPSD)
SARA	Superfund Amendments and Re-Authorization Act of 1986 (See EPCRA)
SBA	Small Business Administration
SCBA	Self Contained Breathing Apparatus
SCF	Standard Cubic Foot
SERC	State Emergency Response Commission
SFHA	Special Flood Hazards Area within Clark County
SHMED	State Hazardous Materials Enforcement Development Program (U.S. DOT)
SIC	Standard Industrial Codes
SNCTC	Southern Nevada Counter-Terrorism Center also known as the Fusion Center
SOP	Standard Operating Procedure
SQG	Small Quantity Generator
STC	Single Trip Container
STCC	Standard Transport Commodity Code (ICC)
STEL	Short Term Exposure Limit
TECP SUIT	Totally Encapsulated Chemical Protective Suit
TIER I/II	Title III reporting requirements of hazardous chemicals that must submit for each applicable OSHA category of health and physical hazard of chemicals at each location
TITLE III	Part of SARA known as Emergency Planning and Community Right-To-Know Act of 1986
TLV/TWA	Threshold Limit Value/Time Weighted Average

TOFC	Trailer on Flat Car (piggy back)
TPQ	Threshold Planning Quantity
TRADE	Training Resources and Data Exchange
TRU	Transuranic Elements
TSC	Transportation Systems Center (DOT)
TSCA	Toxic Substances Control Act, 1976
TSDF	Treatment, Storage and Disposal Facility
TSI	Transportation Safety Institute
TTMA	Truck Trailer Manufacturers Association
USC	United States Code
UFC	Uniform Freight Classification
UFL/UEL	Upper Flammable (Explosive) Limit
UN/NA	United Nations/North American - Hazardous Materials Code
UNK	Unknown
UP	Union Pacific
USCG	United States Coast Guard
WCSC	Waterborne Commerce Statistics Center (U.S. Army Corps of Engineers)
WT	Water Tight

DEFINITIONS

DEFINITIONS

Authority Having Jurisdiction. The "authority having jurisdiction" is the organization, office or individual responsible for "approving" equipment, an installation or procedure.

CAER. Community Awareness and Emergency Response: local group of manufacturers or users with public involvement (by Chemical Manufacturers Association).

CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (or Superfund): regarding hazardous substance releases into the environment and the cleanup of inactive hazardous waste disposal sites.

CHEMTREC. Chemical Transportation Emergency Center: operated by Chemical Manufacturers Association and can be reached 24 hours a day at (800) 424-9300.

Cold Zone. This area contains the command post and such other support functions as are deemed necessary to control the incident. This is also referred to as the clean zone or support zone in other documents.

Competence. Possessing knowledge, skills and judgment needed to perform indicated objectives satisfactorily.

Confinement. Those procedures taken to keep a material in a defined or local area.

Container. Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous material.

Contaminant/Contamination. A substance or process that poses a threat to life, health, or the environment.

Control. The procedures, techniques, and methods used in the mitigation of a hazardous materials incident, including containment, extinguishment, and confinement.

Control Zones. The designation of areas at a hazardous materials incident based upon safety and the degree of hazard. Many terms are used to describe the zones involved in a hazardous materials incident. For purposes of this standard, these zones shall be defined as the hot, warm and cold zones.

Coordination. The process used to get people, who may represent different agencies, to work together harmoniously in a common action or effort.

Cyberterrorism. The premeditated, politically motivated attack against information, computer systems, computer programs, and data which result in violence against noncombatant targets by sub-national groups or clandestine agents.

Decontamination (Contamination Reduction) The physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a hazardous materials incident.

Decontamination Area. The area, usually located within the warm zone, where decontamination takes place.

Degradation. A chemical action involving the molecular breakdown of a protective clothing material due to contact with a chemical. The term degradation may also refer to the molecular breakdown of the spilled or released material to render it less hazardous.

Demonstrate. To show by actual use. This may be supplemented by simulation, explanation, illustration, or a combination of these.

Describe. To explain verbally or in writing using standard terms recognized in the hazardous materials response community.

ESF10

Evacuation. The systematic removal of person(s) from a potentially hazardous situation or environment. (Outside the designated contaminated area.)

Hazard/Hazardous. Capable of posing an unreasonable risk to healthy, safety, or the environment; capable of doing harm.

Hazard Division. That function of an overall Incident Command System that deals with the actual mitigation of a hazardous materials incident. It is directed by a division supervisor and principally deals with the technical aspects of the incident.

Hazard Division Supervisor. The person responsible for the management of the hazard division.

Hazardous Material. A substance (gas, liquid, or solid) capable of creating harm to people, property, and the environment.

(a) *Hazardous Materials.* The United States Department of Transportation (DOT) uses the term *hazardous materials*, which covers eight hazard classes, some of which have sub-categories called classifications, and a ninth class covering other regulated materials (ORM). DOT includes in its regulations hazardous substances and hazardous wastes as an ORM-E, both of which are regulated by the Environmental Protection Agency (EPA), if their inherent properties would not otherwise be covered.

(b) *Hazardous Substances.* EPA uses the term *hazardous substances* for chemicals which, if released into the environment above a certain amount, must be reported and, depending on the threat to the environment, federal involvement in handling the incident can be authorized. A list of the hazardous substances is published in 40 CFR Part 302, Table 302.4.

(c) *Extremely Hazardous Substances.* EPA uses the term *extremely hazardous*

substance for the chemicals which must be reported to the appropriate authorities if released above the threshold reporting quantity. Each substance has a threshold reporting quantity. The list of extremely hazardous substances is identified in Title III of Superfund Amendments and Reauthorization Act (SARA) of 1986 (40 CFR Part 355).

(d) *Toxic Chemicals.* EPA uses the term *toxic chemical* for chemicals whose total emissions or releases must be reported annually by owners and operators of certain facilities that manufacture, process, or otherwise use a listed toxic chemical. The list of toxic chemicals is identified in Title III of SARA.

(e) *Hazardous Wastes.* EPA uses the term *hazardous wastes* for chemicals that are regulated under the Resource, Conservation and Recovery Act (40 CFR Part 261.33). Hazardous wastes in transportation are regulated by DOT (49 CFR Parts 170-179).

(f) *Hazardous Chemicals.* The United States Occupational Safety and Health Administration (OSHA) uses the term *hazardous chemical* to denote any chemical that would be a risk to employees if exposed in the work place. Hazardous chemicals cover a broader group of chemicals than the other chemical lists.

(g) *Hazardous Substances.* OSHA uses the term *hazardous substance* in 29 CFR Part 1910.120, which resulted from Title I of SARA and covers emergency response. OSHA uses the term differently than EPA. Hazardous substances, as used by OSHA, cover every chemical regulated by both DOT and EPA.

The classes of hazardous materials, as defined by the U.S. Department of Transportation, are:

1. Explosives - Compounds, mixtures, or devices designed to function with substantially instantaneous releases of gas and heat.
2. Compressed Gas - Materials or mixtures in a container under pressure.
3. Flammable Liquids - Liquids that give off ignitable vapors at temperatures of 200 degrees Fahrenheit or less.
4. Flammable Solids -Solid materials other than explosives that are liable to cause fires through friction, retained heat from manufacturing or processing, or that can be ignited readily.
5. Oxidizers - Materials that yield oxygen readily to stimulate combustion.
6. Poisons - Materials that can harm living organisms - specifically people, but also animals and plants -through inhalation (breathing), absorption through the skin, or by ingesting (eating).
7. Etiologic Agents - Germs or toxins that may cause disease in humans.
8. Irritants - Materials that cause discomfort, but usually not death.
9. Radioactive Materials - These are materials that spontaneously emit ionizing radiation.
10. Corrosives - Materials that cause destruction of human skin tissue.
11. Other Regulated Materials - (ORM) Materials which require appropriate packaging and handling under certain conditions.

Hazardous Materials Response Team. A group of trained response personnel operating under an emergency response plan and appropriate standard operating procedures to control or otherwise minimize or eliminate the hazards to people, property, or the environment from a released hazardous material.

High Temperature Protective Clothing. Protective clothing designed to protect the wearer for short-term high temperature exposures. This type of clothing is usually of limited use in dealing with chemical commodities.

Hot Zone. Area immediately surrounding a hazardous materials incident, which extends far enough to prevent adverse effects from hazardous materials releases to personnel outside the zone. This zone is also referred to as the exclusion zone or restricted zone in other documents.

Identify. To physically select, indicate, or explain verbally or in writing using recognized standard terms.

Incident. A fire involving a hazardous material or a release or potential release of a hazardous material.

Incident Command System. An organized system of roles, responsibilities, and standard operating procedures used to manage and direct emergency operations.

Incident Commander. The person responsible for all decisions relating to the management of the incident. The Incident Commander is in charge at the incident.

Listed. Equipment or materials included in a list published by an organization acceptable to the "authority having jurisdiction" and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

> *NOTE:* The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The "authority having jurisdiction" should utilize the system employed by the listing organization to identify a listed product.

Local Emergency Planning Committee. The local body responsible for carrying out the provisions of Title III.

Safety Data Sheet (SDS). Provided by manufacturers and compounders (blenders) of chemicals, with minimum information about chemical composition, physical and chemical properties, health and safety hazards, emergency response, and waste disposal of the material as required by OSHA 1910.1200.

Monitoring Equipment. Instruments and devices used to identify and quantify

contaminants.

National Incident Management System (NIMS). The NIMS integrates existing best practices into a consistent, nationwide approach to domestic incident management that is applicable at all jurisdictional levels and across functional disciplines in an all-hazards context.

National Response Framework The *National Response Framework (NRF)* is a guide to how the Nation conducts all-hazards response. It is built upon scalable, flexible, and adaptable coordinating structures to align key roles and responsibilities across the Nation, linking all levels of government, nongovernmental organizations, and the private sector. It is intended to capture specific authorities and best practices for managing incidents that range from the serious but purely local, to large-scale terrorist attacks or catastrophic natural disasters.

Objective. A goal that is achieved through the attainment of a skill, knowledge, or both, which can be observed or measured.

Packaging. Any container that holds a material (hazardous or non-hazardous). Packaging includes non-bulk and bulk packaging.

(a) *Non-bulk Packaging.* Any packaging having a capacity meeting one of the following criteria:

(1) Liquid - internal volume of 118.9 gallons (450 L) or less;
(2) Solid - capacity of 881.8 pounds (400 kg) or less; or
(3) Compressed gas - water capacity of 1000 pounds (453.6 kg) or less.

(b) *Bulk Packaging.* Any packaging, including transport vehicles, having a capacity greater than described above under non-bulk packaging. Bulk packaging for transportation can be either placed on or in a transport vehicle or vessel or is constructed as an integral part of the transport vehicle.

Penetration. The movement of a material through a suit's closures, such as zippers, buttonholes, seams, flaps, or other design features of chemical protective clothing, and through punctures, cuts and tears.

Permeation. A chemical action involving the movement of chemicals, on a molecular level, through intact material.

Personal Protective Equipment. The equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that may be encountered at a hazardous materials incident.

Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing. Personal protective equipment includes both personal protective clothing and respiratory protection.

Protective Clothing. Equipment designed to protect the wearer from heat and/or

hazardous materials contacting the skin or eyes. Protective clothing is divided into three types:

(a) structural fire fighting protective clothing;
(b) chemical protective clothing; and
(c) high temperature protective clothing.

Qualified. Having satisfactorily completed the requirements of the objectives.

RCRA. Resource Conservation and Recovery Act (1976). Established a framework for the proper management and disposal of all wastes. RCRA directed EPA to identify hazardous wastes, both generically and by listing specific wastes and industrial process waste streams. Generators and transporters are required to use wastes with a manifest system. Owners and operators of treatment, storage and disposal facilities also must comply with standards, which are generally implemented through permits issued by EPA or authorized states.

Release. Spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any "toxic chemical".

Rescue. The systematic removal of person(s) from a hazardous situation or environment. (Inside the designated contaminated area).

Respiratory Protection. Equipment designed to protect the wearer from the inhalation of contaminants. Respiratory protection is divided into three types:

(a) positive pressure self-contained breathing apparatus;
(b) positive pressure self-contained air respirators; and
(c) air purifying respirators.

Response. That portion of incident management in which personnel are involved in controlling a hazardous materials incident.

Safely. To perform the objective without injury to self or others, property, or the environment.

Shall. Indicates a mandatory requirement.

Should. Indicates a recommendation or that which is advised but not required.

Stabilization. The period of an incident where the adverse behavior of the hazardous material is controlled.

State Emergency Response Commission (SERC). The state-level organization for the handling of Title III administrative duties, plans, and information. The SERC appoints members to the Local Emergency Planning Committee.

Storage. Refers to the bulk handling of hazardous materials before and after they are transported to the general geographical area of use.

Termination. That portion of incident management in which personnel are involved in documenting safety procedures, site operations, hazards faced, and lessons learned from the incident. Termination is divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident.

Title III. Emergency Planning and Community Right-To-Know portion of SARA.

Transportation. Refers to the movement of hazardous materials by rail, road, air, and pipeline.

Understanding. The process of gaining or developing the meaning of various types of materials or knowledge.

Usage. Refers to the handling of hazardous materials on a consumable basis.

Warm Zone. The area where personnel and equipment decontamination and hot zone support takes place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. This is also referred to as the decontamination, contamination reduction, or limited access zone in other documents.

BIOLOGICAL WARFARE AGENTS

Acetylcholinesterase. An enzyme that hydrolyzes the neurotransmitter acetylcholine. The action of this enzyme is inhibited by nerve agents.

Aerosol. Fine liquid or solid particles suspended in air, for example, fog or smoke.

Antibiotic. A substance that inhibits the growth of or kills microorganisms.

Antisera. The liquid part of blood containing antibodies.

Atropine. A medication used as an antidote for nerve agents.

Bacteria. Single-celled organisms that multiply by cell division and that can cause disease in humans, plants, or animals.

BDO - Battle Dress Over garment. Multi-piece suit used by the military for protection against chemical warfare agents.

Biochemical's. The chemicals that make up or are produced by living things.

Biological Warfare. The intentional use of biological agents as weapons to kill or injure humans, animals, or plants, or to damage equipment.

Biological Warfare Agents. Living organisms or the materials derived from them that cause harm to or disease in humans, animals, or plants, or cause

deterioration of material. Biological agents may be used as liquid droplets, aerosols, or dry powders.

Bioregulators. Biochemical's that regulate bodily functions. Bioregulators that are produced by the body are termed "endogenous." Some of these same bioregulators can be chemically synthesized.

Blister Agents. Substances that cause blistering of the skin. Exposure is through liquid or vapor contact with any exposed skin (eyes, skin, lungs). For example, mustard gas.

Blood Agents. Substances that injure a person by interfering with cell respiration (the exchange of oxygen and carbon dioxide between blood and tissues).

Casualty (toxic) Agents. Substances that produce incapacitation, serious injury, or death and include the choking, blister, nerve, and blood agents.

Causative Agent. The organism or toxin that is responsible for causing a specific disease or harmful effect.

Chemical Agent. A chemical substance that is intended for use in military operations to kill, seriously injure, or incapacitate people through its physiological effects. Excluded from consideration are riot control agents and smoke and flame materials. The agent may appear as a vapor, aerosol, or liquid; it can be either a casualty/toxic agent or an incapacitating agent.

Choking Agents. Substances that cause physical injury to the lungs. Exposure is through inhalation. In extreme cases, membranes swell and lungs become filled with liquid. Death results from lack of oxygen; hence the victim is "choked."

CNS. Pertaining to the central nervous system.

CNS Depressants. Compounds that have the predominant effect of depressing or blocking the activity of the central nervous system. The primary mental effects include the disruption of the ability to think, sedation, and lack of motivation.

CNS Stimulants. Compounds that have the predominant effect of flooding the brain with too much information. The primary mental effect is loss of concentration, causing indecisiveness and an inability to act in a sustained, purposeful manner.

Contagious. Capable of being transmitted from one person to another.

Culture. A population of microorganisms grown in a medium.

Cutaneous. Pertaining to the skin.

CWA- Chemical Warfare Agents. One of three types of non-conventional warfare (see N.B.C.).

Decontamination. The process of making any person, object, or area safe by absorbing, destroying, neutralizing, making harmless, or removing the hazardous material.

Fungi. Any group of plants mainly characterized by the absence of chlorophyll, the green-colored compound found in other plants. Fungi range from microscopic single-celled plants (such as mold and mildews) to large plants (such as mushrooms).

G-Series Nerve Agents. Chemical agents of moderate to high toxicity developed in the 1930s. Examples are tabun (GA), sarin (GB), and soman (GD).

Host. An animal or plant that harbors or nourishes another organism.

IDLH. Concentrations immediately dangerous to life and health.

Incapacitating Agents. Substances that produce temporary physiological and/or mental effects via action on the central nervous system. Effects may persist for hours or days, but victims usually do not require medical treatment. However, such treatment does speed recovery.

Industrial Agents. Chemicals developed or manufactured for use in industrial operations or research by industry, government, or academia. These chemicals are not primarily manufactured for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for use by man. Hydrogen cyanide, cyanogen chloride, phosgene, chloropicrin and many herbicides and pesticides are industrial chemicals that also can be chemical agents.

Infectious Agents. Biological agents capable of reproducing in an infected host.

Infectivity. (1) The ability of an organism to spread. (2) The number of organisms required to cause an infection to secondary hosts. (3) The capability of an organism to spread out from the site of infection and cause disease in the host organism. Infectivity also can be viewed as the number of organisms required to cause an infection.

Level A Protection. The level of protective equipment in situations where the hazardous material is considered acutely vapor toxic to the skin or hazards are unknown. Full encapsulation, airtight chemical suit with SCBA or SABA.

Level B Protection. The level of protective equipment in situations where the environment is not considered acutely vapor toxic to skin but may cause respiratory effects. Chemical splash suit or full coverage non-airtight chemical suit with SCBA or SABA.

Level C Protection. The level of protective equipment required to prevent respiratory exposure but not to exclude possible skin contact. Chemical splash suit with cartridge respirator.

Level D Protection. The level of protective equipment required when the atmosphere contains no known hazard, when splashes, immersions, inhalation, or contact with hazardous levels of any chemical is precluded. Work uniform such as coveralls, boots, leather gloves, and hard hat.

Liquid Agent. A chemical agent that appears to be an oily film or droplets. The color ranges from clear to brownish amber.

Mycotoxin. A toxin produced by fungi.

Microorganism. Any organism, such as bacteria, viruses, and some fungi, that can be seen only with a microscope.

Mustard (Vesicants) Agents. See Casualty agents.

N.B.C. - Nuclear, Biological, and Chemical. The three forms of non-conventional warfare.

Nerve Agents. Substances that interfere with the central nervous system. Exposure is primarily through contact with the liquid (skin and eyes) and secondarily through inhalation of the vapor. Three distinct symptoms associated with nerve agents are pinpoint pupils, an extreme headache, and severe tightness in the chest. (See also Casualty agents.)

Non-persistent Agent. An agent that upon release loses its ability to cause casualties after 10 to 15 minutes. It has a high evaporation rate and is lighter than air and will disperse rapidly. It is considered to be a short-term hazard. However, in small unventilated areas, the agent will be more persistent.

Organism. Any individual living thing, whether animal or plant.

Organophosphorus Compound. A compound, containing the elements phosphorus and carbon, whose physiological effects include inhibition of acetylcholinesterase. Many pesticides (malathion and parathion) and virtually all nerve agents are organophosphorus compounds.

Parasite. Any organism that lives in or on another organism without providing benefit in return.

Pathogen. Any organism (usually living) capable of producing serious disease or death, such as bacteria, fungi, and viruses.

Pathogenic Agents. Biological agents capable of causing serious diseases.

PEL - Permissible Exposure Limit. An occupational health term used to describe exposure limits for employees. Usually described in time weighted averages (TWA) or short-term exposure limits (STEL).

Percutaneous Agent. Substance that is able to be absorbed through the skin.

Persistent Agent. An agent that upon release retains its casualty-producing effects for an extended period of time, usually anywhere from 30 minutes to several days. A persistent agent usually has a low evaporation rate and its vapor is heavier than air. Therefore, its vapor cloud tends to hug the ground. It's considered to be a long-term hazard. Although inhalation hazards are still a concern, extreme caution should be taken to avoid skin contact as well.

Precursor. A chemical substance required for the manufacture of chemical agent.

SABA. Supplied air breathing apparatus.

SCBA. Self-contained breathing apparatus.

Spore. A reproductive form some microorganisms can take to become resistant to environmental conditions, such as extreme heat or cold, while in a "resting phase."

Tear Agents. Substances that produce irritating or disabling effects that rapidly disappear within minutes after exposure.

Terrorism. The unlawful use of force or violence against people or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Domestic terrorism involves groups or individuals whose terrorist activities are directed at elements of the U.S. government or population without foreign direction. International terrorism involves terrorist activity committed by groups or individuals who are foreign-based and/or directed by countries or groups outside the United States or whose activity transcends national boundaries.

Toxicity. A measure of the harmful effect produced by a given amount of toxin on a living organism. The relative toxicity of an agent can be expressed in milligrams of toxin needed per kilogram of body weight to kill experimental animals.

Triage. A sorting technique of establishing rescue, decontamination, treatment, and transportation priorities in any event where the number of casualties overwhelms the resources of the emergency response organizations.

V-Series Nerve Agents. Chemical agents of the moderate to high toxicity developed in the 1950s. They are generally persistent.

Vaccine. A preparation of killed or weakened microorganism products used to artificially induce immunity against a disease.

Vapor Agent. A gaseous form of a chemical agent. If heavier than air, the cloud will be close to the ground; if lighter than air, the cloud will rise and disperse more quickly.

Virus. An infectious microorganism that exists as a particle rather than as a complete cell. Particle sizes range from 200 to 400 nanometers (one-billionth of a meter). Viruses are not capable of reproducing outside of a host cell.

Volatility. A measure of how readily a substance will vaporize.

Vomiting Agents. Substances that produce nausea and vomiting effects; can also cause coughing, sneezing, pain in the nose and throat, nasal discharge, and tears.