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.

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January 2008

Clark County Local Emergency Planning Committee

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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,

Jim, O'Brien
Chair, Clark County
Local Emergency Planning Committee (LEPC)

500 S. Grand Central Pkwy • Box 551713 • Las Vegas, NV 89155-1713 • (702) 455-5710

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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 1-22
Criterion 2: Response Methods	Response, Pages 1-34
Criterion 3: Emergency Mgmt. Coordinator	Telephone Directory, Page 3
Criterion 4: Notification Procedures	Response, Page 2-3
Criterion 5: Determining Release Events	Response, Page 1-2
Criterion 6: Emergency Equipment	Appendix C; Pages 1-24
Criterion 7: Evacuation Plans	Evacuation, Pages 1-13
Criterion 8: Training Programs	Response, Page 33-34
Criterion 9: Exercise Programs	Response, Page 34

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

- 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.

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. Additionally, the LEPC maintains copies of State Fire Marshal consolidated reports.

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 is one of the fastest-growing areas in the country, with more than 5,000 people moving here each month.
- Tourism's economic impact in 2005 was $36.7 billion. In 2005, there were 133,186 hotel and motel rooms in Clark County.
- There are over 38,930 licensed businesses in Clark County.
- Clark County responds to the needs of about 828,406 residents in the urban unincorporated area. The City of Las Vegas services 591,536 residents, City of Henderson 256,390 residents, City of North Las Vegas 202,520 residents, Boulder City 15,790 residents and Mesquite 18,012 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
Earthquake
Epidemic
Fires
Floods
Storms & Severe Heat
Volcanic Ash Fallout
Water Shortages

Technological Hazards:

Aircraft Accidents
Civil Disturbance
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, 500 S. Grand Central Parkway, 6th floor, Las Vegas, NV 89106. Phone: (702) 455-5710 and is available in PDF format at http://www.co.clark.nv.us/Administrative_services/oem/Plans.htm web site.

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 Test Site (NTS) 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 2007 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, 2005

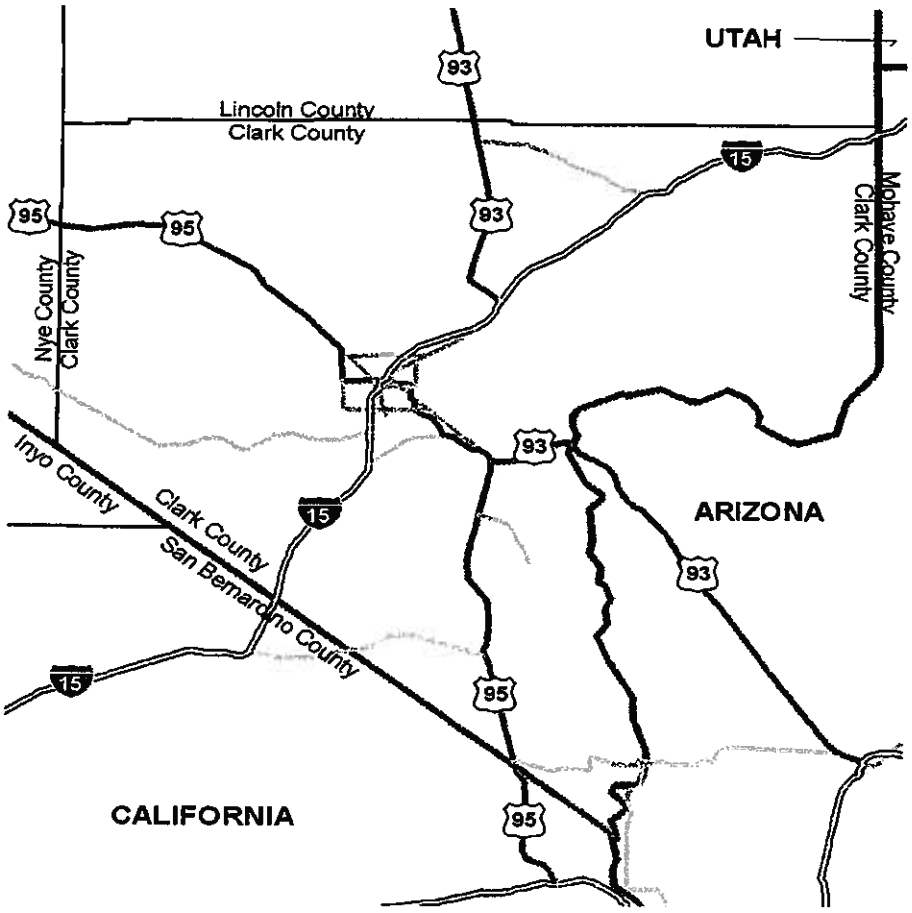
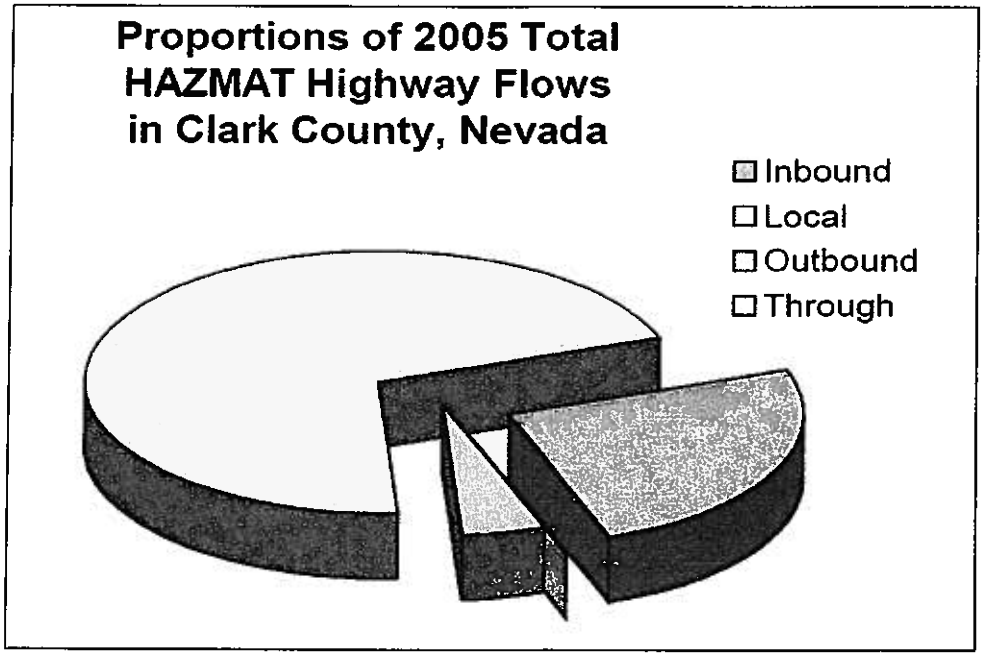


Figure 2. Proportional Truck HAZMAT Routing Distribution Clark County, 2005



Direction	HM-Tons	HM-Loads	% Tons	% Loads
Inbound	1473659	61915	24.9	22.5
Local	9455	422	0.2	0.2
Outbound	255328	12190	4.3	4.4
Through	4185906	200309	70.7	72.9
Total	**5924348**	**274836**	**100**	**100**

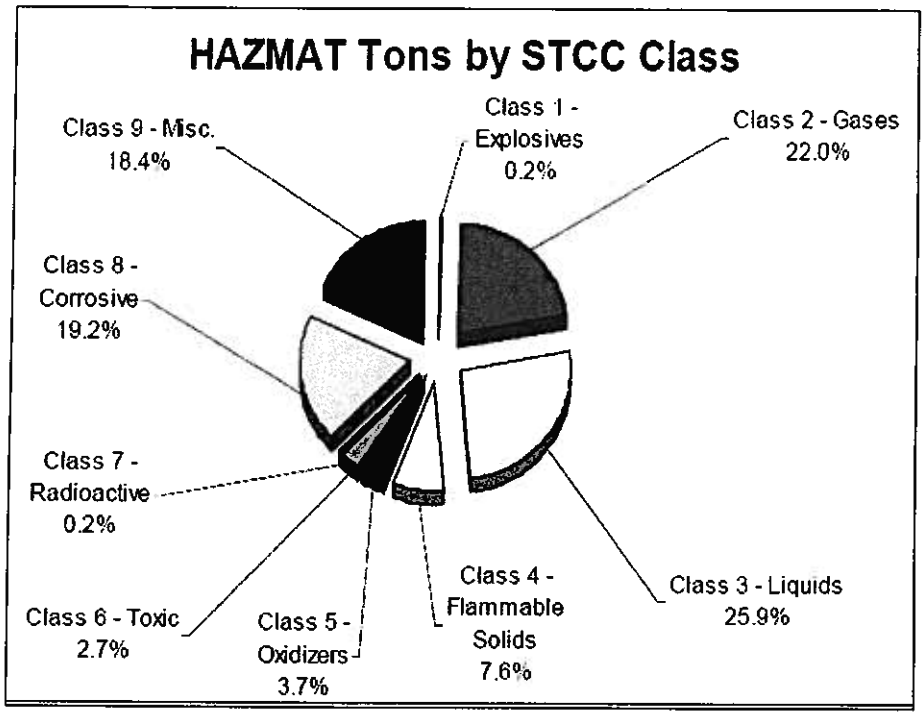
The most frequent mode for transportation of hazardous materials is on one of our four major highway systems. All shipments of radioactive materials, whether from industry or government, must be packaged and transported according to strict federal regulations. These regulations protect the public, transportation 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. Clark County HAZMAT Proportional Volume by STCC Class, 2005



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 the State Health Division has the primary authority in accordance with Nevada Revised Statutes (NRS) 459. The Radiological Health Section has offices in Carson City and Las Vegas and can be reached 24 hours daily by calling (775) 688-2830. Nevada Highway Patrol dispatch is utilized for initial notification after hours.

Truck HAZMAT Tons, Loads by HM Class & Division – Clark County, 2005

Table 13: Truck HAZMAT Tons and Loads by HM Class and Division – Clark County, 2005

HAZMAT Commodity Description	HAZMAT Truck Tons	HAZMAT Truck Loads
Division 1.1 and 1.2 Hazardous Materials	1118.6	52.7
Division 1.3 Explosives	11481.5	818.3
Division 1.4 and 1.5 Explosives	839.9	41.1
Division 2.1 Flammable Gases	870685.5	37972.0
Division 2.2 Nonflammable Gases & Gas Mixtures	174320.2	8979.7
Division 2.3 Poisonous or Corrosive Gases	260640.4	12809.2
Class 3 Flammable Liquids	1297187.2	61579.6
Combustible Liquids	239839.2	10385.3
Division 4.1 Flammable Solids	218011.6	8690.9
Division 4.2 Spontaneously Combustible and 4.3 Dangerous when Wet	234799.4	9403.0
Division 5.1 Oxidizers	218216.6	10749.7
Division 5.2 Organic Peroxides	71.8	3.5
Division 6.1 Poisonous Material. Hazard Zone A	735.3	36.4
Division 6.1 Poisonous Material. Other Commodities	93279.0	4477.5
Division 6.1 Poisonous Material. Packing Group III	50444.6	2478.7
Division 6.2 Etologic Agents. Infectious Substances	14449.2	650.7
Class 7 Radioactive Materials	13831.4	744.5
Class 8 Corrosive Materials	1136605.9	56360.4
Class 9 Environmentally Hazardous. Other Commodities	59684.8	2935.2
Division 9.1 Environmentally Hazardous Commodities	779767.0	33580.7
Division 9.2 Environmentally Hazardous Commodities	90117.0	4278.6
Freight All Kinds. Hazardous Materials	16235.8	779.1
ORM-D	141985.6	7028.8

The Clark County Department of Comprehensive Planning's Nuclear Waste Division commissioned the Hazardous Commodity Flow by Truck on Clark County Highways 2007 report. The report was prepared by Urban Environmental Research and is on file at the Clark County Office of Emergency Management, 500 S. Grand Central Parkway, 6th floor, Las Vegas, NV 89106. Phone: (702) 455-5710 and is available in PDF form online at:
http://www.co.clark.nv.us/comprehensive_planning/NuclearWaste/DocsandReports.htm.

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 Nevada Power Company, Pioneer Americas, 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.

The following information on railroad shipments was generated from a report from Union Pacific Railroad. The Union Pacific Railroad Shipment Data for the Las Vegas Valley provides a summary of Union Pacific Railroad activity for 2006. 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. **CAR LOADS** refers to a RAIL CAR size shipment of the chemical listed. **INTER LOADS** refers to an INTERMODAL PORTABLE TANK size shipment of the chemical listed.

Boulder Junction to Henderson

	CAR LOADS	INTER LOADS	TOTAL LOADS
CHLORINE	1,084	0	1,084
FLUOROSILICIC ACID	29	0	29
SULFURIC ACID	81	0	81
HYDROCHLORIC ACID	423	0	423
BISULFITES, AQUEOUS SOLUTIONS, N.O.	1	0	1
TITANIUM TETRACHLORIDE	3	0	3
SODIUM HYDROXIDE SOLUTION	2,307	0	2,307
ELEVATED TEMPERATURE LIQUID, N.O.S.	3	0	3
TOTALS	**3,931**	**0**	**3,931**

Las Vegas to Daggett, CA

	CAR LOADS	INTER LOADS	TOTAL LOADS
WASTE FLAMMABLE LIQUIDS, N.O.S.	16	0	16
WASTE COMBUSTIBLE LIQUID, N.O.S.	2	0	2
WASTE COMBUSTIBLE LIQUID, N.O.S.	2	0	2
WASTE TOXIC LIQUIDS, CORROSIVE, ORG	1	0	1
WASTE TOXIC LIQUID, CORROSIVE, INOR	6	0	6
WASTE DICHLOROMETHANE	2	0	2
WASTE RADIOACTIVE MATERIAL, LOW SPE	17	0	17
WASTE RADIOACTIVE MATERIAL, LOW SPE	1	0	1
FREIGHT ALL KINDS, HAZARDOUS WASTES	0	16	16
FREIGHT ALL KINDS, HAZARDOUS WASTES	0	1	1
HAZARDOUS WASTE, LIQUID, N.O.S.	1	0	1
ROCKET MOTORS	3	0	3
ROCKET MOTORS	1	0	1
FIREWORKS	0	2	2
ARTICLES, PYROTECHNIC	0	1	1
SIGNALS, RAILWAY TRACK, EXPLOSIVE	0	1	1
ARTICLES, PYROTECHNIC	0	3	3
FIREWORKS	0	193	193
FIREWORKS	0	1	1
FIREWORKS	0	3	3
AMMONIA, ANHYDROUS	12	0	12
AEROSOLS	0	1	1
1,1,1,2-TETRAFLUOROETHANE	0	1	1
ARGON, REFRIGERATED LIQUID	1	0	1
CARBON DIOXIDE, REFRIGERATED LIQUID	6	0	6
OCTAFLUOROPROPANE	0	2	2
CARBON DIOXIDE	2	0	2
HELIUM, COMPRESSED	0	4	4
CHLORODIFLUOROMETHANE	0	1	1
HEPTAFLUOROPROPANE	0	4	4
PETROLEUM GASES, LIQUEFIED	1	0	1
PROPANE	207	0	207
BUTANE	28	0	28
ISOBUTANE	29	0	29
AEROSOLS	0	1	1
DIMETHYL ETHER	1	0	1
LIGHTERS	0	6	6
DIMETHYL ETHER	1	0	1
PETROLEUM GASES, LIQUEFIED	801	2	803
PROPYLENE	78	0	78
BUTANE	20	0	20
PROPANE	199	0	199
METHYL ACRYLATE, STABILIZED	0	2	2
DICYCLOPENTADIENE	3	0	3
FLAMMABLE LIQUIDS, N.O.S. (PIPERYLE	0	1	1
STYRENE MONOMER, STABILIZED	1	0	1
FLAMMABLE LIQUIDS, TOXIC, N.O.S.	0	1	1
HYDROCARBONS, LIQUID, N.O.S.	2	0	2
DIMETHYLAMINE, SOLUTION	33	0	33

ACETONE	46	1	47
CYCLOPENTANE	0	1	1
GASOLINE	62	0	62
PETROLEUM DISTILLATES, N.O.S. (OCTA	2	0	2
PENTANES	14	0	14
ALCOHOLS, N.O.S.	1	0	1
ETHANOL	2	0	2
FLAMMABLE LIQUIDS, N.O.S. (TERT-BUT	0	1	1
FLAMMABLE LIQUID, N.O.S. (ETHANOL,	270	0	270
ALCOHOLS, N.O.S.	2,878	0	2,878
ETHANOL	14	1	15
ETHYL ACETATE	1	0	1
HEPTANES	1	0	1
ISOPROPANOL	51	6	57
FUEL, AVIATION, TURBINE ENGINE	20	0	20
FLAMMABLE LIQUIDS, N.O.S.	0	9	9
METHANOL	7	0	7
ETHYL METHYL KETONE	2	0	2
ALPHA-PINENE	0	5	5
N-PROPANOL	1	0	1
PYRIDINE	0	2	2
PETROLEUM DISTILLATES, N.O.S.	4	0	4
PAINT	0	1	1
ALCOHOLIC BEVERAGES	30	0	30
FLAMMABLE LIQUIDS, N.O.S.	0	1	1
ADHESIVES	0	4	4
ADHESIVES	0	1	1
COATING SOLUTION	0	1	1
PAINT RELATED MATERIAL	0	1	1
PAINT RELATED MATERIAL	0	3	3
KETONES, LIQUID, N.O.S.	1	0	1
FLAMMABLE LIQUIDS, N.O.S.	0	8	8
FLAMMABLE LIQUIDS, N.O.S. (XYLENE,	0	1	1
PAINT	0	7	7
PETROLEUM DISTILLATES, N.O.S.	63	0	63
RESIN SOLUTION	3	17	20
RESIN SOLUTION	5	0	5
TOLUENE	0	1	1
PERFUMERY PRODUCTS	0	1	1
FLAMMABLE LIQUIDS, N.O.S. (CONTAINS	0	1	1
CHLOROBENZOTRIFLUORIDES	0	6	6
FUEL OIL	3	0	3
PAINT	0	4	4
ADHESIVES	0	7	7
ISOPROPENYLBENZENE	0	3	3
FLAMMABLE LIQUIDS, N.O.S. (XYLENE,	0	1	1
COMBUSTIBLE LIQUID,N.O.S.	0	1	1
COMBUSTIBLE LIQUID, N.O.S. (PARAFFI	7	0	7
N-AMYL METHYL KETONE	1	0	1
FUEL OIL	71	0	71
DIESEL FUEL	2	0	2

EXTRACT, FLAVORING,LIQUID	0	1	1
PETROLEUM DISTILLATES, N.O.S.	6	0	6
COMBUSTIBLE LIQUID,N.O.S. (DIMETHYL	0	1	1
COMBUSTIBLE LIQUID,N.O.S.	2	14	16
SELF-HEATING SOLID, INORGANIC, N.O.	0	2	2
ALUMINUM SMELTING BY-PRODUCTS	7	0	7
CALCIUM CARBIDE	21	0	21
FLAMMABLE SOLID, ORGANIC, N.O.S. (D	0	1	1
FLAMMABLE SOLIDS, ORGANIC, N.O.S.	0	1	1
FUSEE	0	4	4
MATCHES,SAFETY	0	1	1
AMMONIUM NITRATE BASED FERTILIZER	77	0	77
AMMONIUM NITRATE	1	0	1
TRICHLOROISOCYANURIC ACID, DRY	0	10	10
NITRITES, INORGANIC, N.O.S.	0	24	24
PERMANGANATES, INORGANIC, AQUEOUS S	0	3	3
AMMONIUM PERSULFATE	0	1	1
SODIUM CHLORATE	1	0	1
NITRATES, INORGANIC, N.O.S.	0	2	2
POTASSIUM NITRATE	0	18	18
POTASSIUM PERMANGANATE	0	14	14
SODIUM NITRITE	0	6	6
SODIUM PERSULFATE	0	1	1
OXIDIZING SOLID, N.O.S. (SODIUM PER	0	2	2
OXIDIZING SOLID, N.O.S.	0	2	2
OXIDIZING SOLID, N.O.S.	0	2	2
HYDROGEN PEROXIDE, AQUEOUS SOLUTION	0	1	1
OXIDIZING SOLID, N.O.S.	0	3	3
AEROSOLS	0	1	1
METHYL BROMIDE	1	0	1
CHLORINE	1,413	0	1,413
CHLOROPICRIN	11	0	11
TOLUENE DIISOCYANATE	4	0	4
SODIUM CYANIDE, SOLID	1	0	1
SELENATES	0	1	1
BARIUM COMPOUNDS, N.O.S.	0	3	3
ETHYL OXALATE	0	1	1
TRICHLOROETHYLENE	0	1	1
FURFURYL ALCOHOL	0	1	1
ORGANOPHOSPHORUS PESTICIDES, LIQUID	0	4	4
ORGANOPHOSPHORUS PESTICIDES, LIQUID	0	2	2
PESTICIDES, SOLID, TOXIC, N.O.S.	0	1	1
ORGANOPHOSPHORUS PESTICIDES, SOLID,	0	3	3
TOXIC LIQUIDS, ORGANIC, N.O.S.	0	3	3
TOXIC SOLIDS, ORGANIC, N.O.S.	0	4	4
ORGANOPHOSPHORUS PESTICIDES, SOLID,	0	2	2
RADIOACTIVE MATERIAL, LOW SPECIFIC	45	0	45
RADIOACTIVE MATERIAL, LOW SPECIFIC	40	0	40
RADIOACTIVE MATERIAL, LOW SPECIFIC	6	0	6
RADIOACTIVE MATERIAL, EXCEPTED PACK	0	13	13
HYDROFLUORIC ACID	2	0	2

FLUOROSILICIC ACID	40	0	40
SULFURIC ACID	1,006	0	1,006
SULFURIC ACID, SPENT	57	0	57
NITRIC ACID	6	0	6
HYDROCHLORIC ACID	426	1	427
PHOSPHORIC ACID SOLUTION	694	2	696
PHOSPHORIC ACID SOLUTION	1	1	2
CORROSIVE LIQUIDS, FLAMMABLE, N.O.S	0	1	1
AMINES, LIQUID, CORROSIVE, N.O.S. (	0	1	1
CORROSIVE SOLID, ACIDIC, INORGANIC,	0	131	131
CORROSIVE LIQUID, ACIDIC, INORGANIC	84	0	84
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	48	48
CORROSIVE LIQUID, ACIDIC, INORGANIC	0	2	2
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	1	1
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	1	1
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	3	3
CORROSIVE LIQUID, BASIC, INORGANIC,	28	0	28
CORROSIVE LIQUID, BASIC, INORGANIC,	26	0	26
ALKYL SULFONIC ACIDS, LIQUID	0	3	3
BATTERY FLUID, ACID	0	2	2
FERROUS CHLORIDE,SOLUTION	125	0	125
FERRIC CHLORIDE, SOLUTION	35	0	35
SULFAMIC ACID	0	13	13
BISULFITES, AQUEOUS SOLUTIONS, N.O.	31	0	31
TITANIUM TETRACHLORIDE	3	0	3
CAUSTIC ALKALI LIQUIDS, N.O.S.	21	0	21
AMINES, LIQUID, CORROSIVE, FLAMMABL	0	12	12
TETRAETHYLENEPENTAMINE	0	2	2
CAUSTIC ALKALI LIQUIDS, N.O.S.	0	2	2
POTASSIUM HYDROXIDE,SOLID	0	6	6
POTASSIUM HYDROXIDE, SOLUTION	6	0	6
SODIUM HYDROXIDE, SOLID	0	45	45
SODIUM HYDROXIDE SOLUTION	2,330	0	2,330
CORROSIVE LIQUID, BASIC, INORGANIC,	0	2	2
HYDROXYLAMINE SULFATE	0	2	2
CORROSIVE LIQUID, BASIC, ORGANIC, N	0	4	4
AMMONIA SOLUTIONS	9	0	9
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	7	7
AMINES, LIQUID, CORROSIVE, N.O.S.	0	27	27
ISOPHORONEDIAMINE	0	1	1
CORROSIVE LIQUIDS, TOXIC, N.O.S.	0	2	2
MALEIC ANHYDRIDE	22	0	22
COPPER CHLORIDE	6	0	6
CHLORITE SOLUTION	8	0	8
CORROSIVE LIQUIDS, N.O.S.	0	4	4
BATTERIES, WET, FILLED WITH ACID	0	20	20
BATTERIES, WET, FILLED WITH ALKALI	0	1	1
DISINFECTANTS, LIQUID, CORROSIVE, N	0	1	1
BATTERIES, WET, FILLED WITH ACID	0	2	2
CORROSIVE LIQUIDS, N.O.S.	0	2	2
OTHER REGULATED SUBSTANCES, LIQUID,	0	2	2

POLYMERIC BEADS, EXPANDABLE	0	141	141
VEHICLE, FLAMMABLE LIQUID POWERED	0	16	16
FAK-HAZARDOUS MATERIALS	4	5	9
FAK-HAZARDOUS MATERIALS	0	7,984	7,984
FAK-HAZARDOUS MATERIALS	24	3,103	3,127
MIXED LOAD (CONTAINING POISON GAS C	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	3	3
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	51	15	66
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	7	7
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	3	3
ELEVATED TEMPERATURE LIQUID, N.O.S.	34	0	34
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	28	0	28
FUMIGATED UNIT	0	4	4
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	7	0	7
ENGINES, INTERNAL COMBUSTION	0	2	2
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	42	0	42
ELEVATED TEMPERATURE LIQUID, N.O.S.	3,254	0	3,254
ELEVATED TEMPERATURE LIQUID, N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	66	0	66
CHEMICAL KITS	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	2	2
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ELEVATED TEMPERATURE LIQUID,N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID,N.O.S.	44	0	44
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	19	0	19
OTHER REGULATED SUBSTANCES, SOLID,	4	0	4
OTHER REGULATED SUBSTANCES, SOLID,	5	0	5
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	480	0	480
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	160	0	160
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	15	0	15
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
AIR BAG MODULES	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
TOTALS	**15,885**	**12,145**	**28,030**

Las Vegas to Moapa

	CAR LOADS	INTER LOADS	TOTAL LOADS
WASTE FLAMMABLE LIQUIDS, N.O.S.	9	0	9
WASTE COMBUSTIBLE LIQUID, N.O.S.	2	0	2
WASTE COMBUSTIBLE LIQUID, N.O.S.	2	0	2
WASTE TOXIC LIQUIDS, CORROSIVE, ORG	1	0	1

WASTE TOXIC LIQUID, CORROSIVE, INOR	6	0	6
WASTE DICHLOROMETHANE	2	0	2
WASTE RADIOACTIVE MATERIAL, LOW SPE	17	0	17
WASTE RADIOACTIVE MATERIAL, LOW SPE	1	0	1
FREIGHT ALL KINDS, HAZARDOUS WASTES	0	16	16
FREIGHT ALL KINDS, HAZARDOUS WASTES	0	1	1
HAZARDOUS WASTE, LIQUID, N.O.S.	1	0	1
ROCKET MOTORS	3	0	3
ROCKET MOTORS	1	0	1
FIREWORKS	0	2	2
ARTICLES, PYROTECHNIC	0	1	1
SIGNALS, RAILWAY TRACK, EXPLOSIVE	0	1	1
ARTICLES, PYROTECHNIC	0	3	3
FIREWORKS	0	193	193
FIREWORKS	0	1	1
FIREWORKS	0	3	3
AMMONIA, ANHYDROUS	11	0	11
AEROSOLS	0	1	1
1,1,1,2-TETRAFLUOROETHANE	0	1	1
CARBON DIOXIDE, REFRIGERATED LIQUID	5	0	5
OCTAFLUOROPROPANE	0	2	2
CARBON DIOXIDE	2	0	2
HELIUM, COMPRESSED	0	4	4
CHLORODIFLUOROMETHANE	0	1	1
HEPTAFLUOROPROPANE	0	3	3
PETROLEUM GASES, LIQUEFIED	1	0	1
PROPANE	211	0	211
BUTANE	28	0	28
ISOBUTANE	29	0	29
AEROSOLS	0	1	1
DIMETHYL ETHER	1	0	1
LIGHTERS	0	6	6
DIMETHYL ETHER	1	0	1
PETROLEUM GASES, LIQUEFIED	653	2	655
PROPYLENE	71	0	71
BUTANE	20	0	20
PROPANE	189	0	189
METHYL ACRYLATE, STABILIZED	0	2	2
DICYCLOPENTADIENE	3	0	3
FLAMMABLE LIQUIDS, N.O.S. (PIPERYLE	0	1	1
STYRENE MONOMER, STABILIZED	1	0	1
FLAMMABLE LIQUIDS, TOXIC, N.O.S.	0	1	1
HYDROCARBONS, LIQUID, N.O.S.	2	0	2
DIMETHYLAMINE, SOLUTION	33	0	33
ACETONE	46	1	47
CYCLOPENTANE	0	1	1
GASOLINE	70	0	70
PETROLEUM DISTILLATES, N.O.S. (OCTA	2	0	2
ALCOHOLS, N.O.S.	26	0	26
ETHANOL	2	0	2
FLAMMABLE LIQUIDS, N.O.S. (TERT-BUT	0	1	1

FLAMMABLE LIQUID, N.O.S. (ETHANOL,	428	0	428
ALCOHOLS, N.O.S.	4,245	0	4,245
ETHANOL	14	1	15
ISOPROPANOL	51	6	57
FUEL, AVIATION, TURBINE ENGINE	3	0	3
FLAMMABLE LIQUIDS, N.O.S.	0	9	9
METHANOL	21	0	21
ETHYL METHYL KETONE	2	0	2
ALPHA-PINENE	0	5	5
PYRIDINE	0	2	2
PETROLEUM DISTILLATES, N.O.S.	4	0	4
PAINT	0	1	1
ALCOHOLIC BEVERAGES	29	0	29
FLAMMABLE LIQUIDS, N.O.S.	0	1	1
ADHESIVES	0	4	4
ADHESIVES	0	1	1
COATING SOLUTION	0	1	1
PAINT RELATED MATERIAL	0	1	1
PAINT RELATED MATERIAL	0	3	3
PAINT	0	1	1
KETONES, LIQUID, N.O.S.	1	0	1
FLAMMABLE LIQUIDS, N.O.S.	0	8	8
FLAMMABLE LIQUIDS, N.O.S. (XYLENE,	0	1	1
PAINT	0	7	7
PETROLEUM DISTILLATES, N.O.S.	63	0	63
RESIN SOLUTION	3	17	20
RESIN SOLUTION	2	0	2
FLAMMABLE LIQUIDS, N.O.S. (CONTAINS	10	0	10
TOLUENE	0	1	1
PERFUMERY PRODUCTS	0	1	1
FLAMMABLE LIQUIDS, N.O.S. (CONTAINS	0	1	1
FLAMMABLE LIQUIDS, N.O.S.	1	0	1
CHLOROBENZOTRIFLUORIDES	0	6	6
FUEL OIL	3	0	3
PAINT	0	4	4
ADHESIVES	0	7	7
ISOPROPENYLBENZENE	0	3	3
FLAMMABLE LIQUIDS, N.O.S. (XYLENE,	0	1	1
COMBUSTIBLE LIQUID,N.O.S.	0	1	1
N-AMYL METHYL KETONE	1	0	1
FUEL OIL	290	0	290
DIESEL FUEL	2	0	2
EXTRACT, FLAVORING,LIQUID	0	1	1
PETROLEUM DISTILLATES, N.O.S.	6	0	6
COMBUSTIBLE LIQUID,N.O.S. (DIMETHYL	0	1	1
COMBUSTIBLE LIQUID,N.O.S.	2	14	16
SELF-HEATING SOLID, INORGANIC, N.O.	0	2	2
ALUMINUM SMELTING BY-PRODUCTS	7	0	7
CALCIUM CARBIDE	20	0	20
FLAMMABLE SOLID, ORGANIC, N.O.S. (D	0	1	1
FLAMMABLE SOLIDS, ORGANIC, N.O.S.	0	1	1

FUSEE	0	4	4
MATCHES,SAFETY	0	1	1
AMMONIUM NITRATE BASED FERTILIZER	77	0	77
AMMONIUM NITRATE	1	0	1
TRICHLOROISOCYANURIC ACID, DRY	0	10	10
NITRITES, INORGANIC, N.O.S.	0	24	24
PERMANGANATES, INORGANIC, AQUEOUS S	0	3	3
AMMONIUM PERSULFATE	0	1	1
SODIUM CHLORATE	1	0	1
NITRATES, INORGANIC, N.O.S.	0	2	2
POTASSIUM NITRATE	0	18	18
POTASSIUM PERMANGANATE	0	14	14
SODIUM NITRITE	0	6	6
SODIUM PERSULFATE	0	1	1
OXIDIZING SOLID, N.O.S. (SODIUM PER	0	2	2
OXIDIZING SOLID, N.O.S.	0	2	2
OXIDIZING SOLID, N.O.S.	0	2	2
HYDROGEN PEROXIDE, AQUEOUS SOLUTION	0	1	1
OXIDIZING SOLID, N.O.S.	0	3	3
AEROSOLS	0	1	1
METHYL BROMIDE	1	0	1
CHLORINE	400	0	400
CHLOROPICRIN	11	0	11
TOLUENE DIISOCYANATE	1	0	1
SODIUM CYANIDE, SOLID	1	0	1
SELENATES	0	1	1
BARIUM COMPOUNDS, N.O.S.	0	3	3
ETHYL OXALATE	0	1	1
TRICHLOROETHYLENE	0	1	1
FURFURYL ALCOHOL	0	1	1
ORGANOPHOSPHORUS PESTICIDES, LIQUID	0	4	4
ORGANOPHOSPHORUS PESTICIDES, LIQUID	0	2	2
ORGANOPHOSPHORUS PESTICIDES, SOLID,	0	3	3
TOXIC LIQUIDS, ORGANIC, N.O.S.	0	3	3
TOXIC SOLIDS, ORGANIC, N.O.S.	0	4	4
ORGANOPHOSPHORUS PESTICIDES, SOLID,	0	2	2
RADIOACTIVE MATERIAL, LOW SPECIFIC	45	0	45
RADIOACTIVE MATERIAL, LOW SPECIFIC	40	0	40
RADIOACTIVE MATERIAL, LOW SPECIFIC	6	0	6
RADIOACTIVE MATERIAL, EXCEPTED PACK	0	13	13
HYDROFLUORIC ACID	2	0	2
FLUOROSILICIC ACID	37	0	37
SULFURIC ACID	949	0	949
SULFURIC ACID, SPENT	57	0	57
NITRIC ACID	1	0	1
HYDROCHLORIC ACID	68	1	69
PHOSPHORIC ACID SOLUTION	693	2	695
PHOSPHORIC ACID SOLUTION	1	1	2
CORROSIVE LIQUIDS, FLAMMABLE, N.O.S	0	1	1
AMINES, LIQUID, CORROSIVE, N.O.S. (	0	1	1
CORROSIVE SOLID, ACIDIC, INORGANIC,	0	131	131

CORROSIVE LIQUID, ACIDIC, INORGANIC	84	0	84
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	48	48
CORROSIVE LIQUID, ACIDIC, INORGANIC	0	2	2
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	1	1
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	1	1
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	3	3
CORROSIVE LIQUID, BASIC, INORGANIC,	28	0	28
CORROSIVE LIQUID, BASIC, INORGANIC,	26	0	26
ALKYL SULFONIC ACIDS, LIQUID	0	3	3
BATTERY FLUID, ACID	0	2	2
FERROUS CHLORIDE,SOLUTION	125	0	125
FERRIC CHLORIDE, SOLUTION	67	0	67
SULFAMIC ACID	0	13	13
BISULFITES, AQUEOUS SOLUTIONS, N.O.	31	0	31
CAUSTIC ALKALI LIQUIDS, N.O.S.	21	0	21
AMINES, LIQUID, CORROSIVE, FLAMMABL	0	12	12
TETRAETHYLENEPENTAMINE	0	2	2
CAUSTIC ALKALI LIQUIDS, N.O.S.	0	2	2
POTASSIUM HYDROXIDE,SOLID	0	6	6
POTASSIUM HYDROXIDE, SOLUTION	6	0	6
SODIUM HYDROXIDE, SOLID	0	45	45
SODIUM HYDROXIDE SOLUTION	601	0	601
CORROSIVE LIQUID, BASIC, INORGANIC,	0	2	2
HYDROXYLAMINE SULFATE	0	2	2
CORROSIVE LIQUID, BASIC, ORGANIC, N	0	4	4
AMMONIA SOLUTIONS	9	0	9
CORROSIVE LIQUID, ACIDIC, ORGANIC,	0	7	7
AMINES, LIQUID, CORROSIVE, N.O.S.	0	27	27
ISOPHORONEDIAMINE	0	1	1
CORROSIVE LIQUIDS, TOXIC, N.O.S.	0	2	2
MALEIC ANHYDRIDE	22	0	22
CHLORITE SOLUTION	8	0	8
CORROSIVE LIQUIDS, N.O.S.	0	4	4
BATTERIES, WET, FILLED WITH ACID	0	20	20
BATTERIES, WET, FILLED WITH ALKALI	0	1	1
DISINFECTANTS, LIQUID, CORROSIVE, N	0	1	1
BATTERIES, WET, FILLED WITH ACID	0	2	2
CORROSIVE LIQUIDS, N.O.S.	0	2	2
OTHER REGULATED SUBSTANCES, LIQUID,	0	2	2
POLYMERIC BEADS, EXPANDABLE	0	160	160
VEHICLE, FLAMMABLE LIQUID POWERED	0	16	16
FAK-HAZARDOUS MATERIALS	2	5	7
FAK-HAZARDOUS MATERIALS	0	7,969	7,969
FAK-HAZARDOUS MATERIALS	24	3,102	3,126
MIXED LOAD (CONTAINING POISON GAS C	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	3	3
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	51	15	66
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	7	7
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	3	3
ELEVATED TEMPERATURE LIQUID, N.O.S.	34	0	34
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1

ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	28	0	28
FUMIGATED UNIT	0	4	4
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	7	0	7
ENGINES, INTERNAL COMBUSTION	0	2	2
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	42	0	42
ELEVATED TEMPERATURE LIQUID, N.O.S.	3,053	0	3,053
ELEVATED TEMPERATURE LIQUID, N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID, N.O.S.	66	0	66
CHEMICAL KITS	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	2	2
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ELEVATED TEMPERATURE LIQUID,N.O.S.	1	0	1
ELEVATED TEMPERATURE LIQUID,N.O.S.	44	0	44
OTHER REGULATED SUBSTANCES, LIQUID,	3	0	3
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	19	0	19
OTHER REGULATED SUBSTANCES, SOLID,	4	0	4
OTHER REGULATED SUBSTANCES, SOLID,	5	0	5
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	479	0	479
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	160	0	160
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	15	0	15
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
AIR BAG MODULES	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	0	1	1
ENVIRONMENTALLY HAZARDOUS SUBSTANCE	1	0	1
TOTALS	**14,123**	**12,147**	**26,270**

UNION PACIFIC RAILROAD SHIPMENT DATA FOR LAS VEGAS VALLEY

UP Line Segment	*Number of Loads*	*Hazardous Material Shipped*	*Comments:*
Boulder Junction – Henderson This is the line segment from the Southern Line of the Union Pacific Railroad to the Black Mountain Industrial (BMI) Complex.	2,488	Sodium Hydroxide Solution	Extremely Hazardous Substance (EHS)
	1,204	Chlorine	Extremely Hazardous Substance (EHS)
	464	Hydrochloric Acid	Extremely Hazardous Substance (EHS)
	44	Sulfuric Acid	Extremely Hazardous Substance (EHS)
	12	Titanium Tetrachloride	Extremely Hazardous Substance (EHS)
Las Vegas – Daggett This line segment of the Southern Line of the Union Pacific Railroad connects Las Vegas and Daggett, CA.	2,805	Sodium Hydroxide Solution	
	1,499	LPG	
	1,383	Chlorine	Extremely Hazardous Substance (EHS)
	589	Sulfuric Acid	Extremely Hazardous Substance (EHS)
	506	Hydrochloric Acid	Extremely Hazardous Substance (EHS)
	14	Sulfur Dioxide	Extremely Hazardous Substance (EHS)
	6	Anhydrous Ammonia	Extremely Hazardous Substance (EHS)
Las Vegas – Moapa This line segment of the Southern Line of the Union Pacific Railroad connects Las Vegas and Salt Lake City, Utah.	1,487	LPG	
	883	Sodium Hydroxide Solution	
	573	Sulfuric Acid	Extremely Hazardous Substance (EHS)
	340	Chlorine	Extremely Hazardous Substance (EHS)
	131	Hydrochloric Acid	Extremely Hazardous Substance (EHS)

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 twelfth in the world in terms of total passenger volume per year. In 2001, McCarran provided airport

services to more than 35 million passengers. There are thirty-one (31) airlines with fifteen (15) charter carriers operating more than 850 scheduled flights daily.

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 three (3) 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. Finally, Kinder Morgan CALNEV Pipeline operates a petroleum pipeline network that supplies the McCarran International Airport and the Las Vegas Terminal with diesel, multiple grades of gasoline, and aviation fuel.

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 is 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), Pioneer Americas Company, Inc., and Saguaro Power Company.

Other Fixed Facilities

Each fixed facility listed in table titled, *Locations of Extremely Hazardous Substances and Hazard Zones for Fixed Facilities by Chemical,* (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 State of Nevada Combined Agency Reporting form. Facilities submit forms on an annual basis to the State Fire Marshal, LEPC, and Local Fire Departments within appropriate jurisdictions.

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, 500 S. Grand Central Parkway, 6th floor, Las Vegas, NV 89106. Phone: (702) 455-5710 and is available in PDF form online at:
http://www.accessclarkcounty.com/comprehensive_planning/CompPlanElements/Wellhead/WellheadReport082107.pdf

Nevada Test Site – Low-Level Radioactive Waste Shipments

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

The NTS is located approximately 65 miles north of Las Vegas, in Nye County Nevada. The closest Clark County community to the NTS is the rural town of Indian Springs, about 20 miles from the NTS. The total cubic feet of low level radioactive waste shipped to the NTS has decreased from 3,991,762 in 2003 to 1,110,439 in 2006. The number of highway shipments has also dropped from 2630 to 972, over this same period of time. However, the number of shipments transported through Clark County (I-15 to NV -160 to US-95) has increased from 620 to approximately 830 shipments in 2006. No shipments through the Las Vegas Interchange (I-15 & US-93/95 "Spaghetti Bowl" during the latest reporting period (2006) have been reported. Shipments of low level radioactive waste to the NTS are expected to occur through at least 2009.

There were six shipments with a total of 1,118 cubic feet of transuranic waste from the NTS to the Waste Isolation Pilot Plant (WIPP) located in New Mexico in 2006. None of these shipments were transported through Clark County.

The Yucca Mountain Program and Clark County's Transportation System

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 level radioactive waste repository. If 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. While it is the U.S. Department of Energy's (DOE) intent to transport most of the waste by railroad, it is likely that large quantities of this waste will be transported through Clark County beginning as early as 2017. Before shipments can begin, the DOE will have to submit a license application to the Nuclear Regulatory Commission (NRC). Currently DOE plans to submit the license application in mid-2008. Once submitted the NRC will review the license application and if approved DOE will be issued a construction authorization.

The U.S. Department of Transportation default truck route for the waste is Interstate 15 from both the north and south. DOE's documents indicate the possibility that DOE plans to use the northern and western 215 beltways for shipments to Yucca Mountain. However, unless and until those portions of the beltways are constructed to Interstate standards, waste must travel through the US- 95/I-15 interchange and then use US 95 to travel northwest to Yucca Mountain.
DOE's transportation plan is vague when describing specific routes, exact quantities of waste and the percentage of waste that would be transported via rail or truck. The Caliente Corridor Record of Decision (ROD) completed in 2004 and the Mina route, another potential route recently added to DOE's plans for further study, indicate the DOE's intention to ship waste by "mostly" rail. The terms "mostly rail" and "mostly truck" have not yet been clearly defined, adding to the uncertainty concerning the volume of truck shipments which would most likely traverse Clark County. Additionally, the DOE's Supplemental Environmental Impact Statement (SEIS) clearly identifies Clark County rail and truck routes as still possible.

Due to these uncertainties, Clark County will continue to monitor the development of the Yucca Mountain program and will provide additional information as it becomes available.

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. The Incident Commander (IC) will be the designated fire department officer responsible for mitigating the hazards at the scene of a hazardous materials incident. Upon arrival, the Incident Commander will secure and maintain immediate control until the situation has been abated.

- 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.

- The Incident Commander will report to and function through the Fire Chief, if the Emergency Operations Center is activated.

The Clark County Fire Department and the City of Las Vegas Fire Department maintain specially trained Hazardous Material Response Teams for the specific purpose of responding to chemical emergencies. These 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 fire department Incident Commander.

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.

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.

3. Nevada Division of Health: 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 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.

5. 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.

6. State Emergency Response Commission: 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 the state 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 can be utilized to clean-up areas of immediate concern to life and the environment. The Radiation and Indoor Environments National Laboratory 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, 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.

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. 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.

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.

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.

Secure the area of the incident from public access. Allow only responding agencies or those persons with fire-line passes to gain access to the command post.

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.

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.

Perform Water, Air, and Soil sampling as required by the incident and the incident commander, using department guidelines.

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 (IE: Waste Water Plants, Public Works, Water District) when contamination is entering their waterways.

Maintain records of costs for future recovery from responsible parties.

Coordinate the Clark County Mass Casualty Incident (MCI) Plan when activated by an incident commander when large numbers of injured, sick, or exposed persons may be expected.

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

Mayors 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 of other volunteer organizations as Active in Disaster.

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 or make use of sewers for waste disposal as appropriate.

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 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

RECEIVED
FEB - 9 2009
Nevada SERC

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/SEARCHLIGHT/NELSON		911
SANDY VALLEY		911
BUNKERVILLE		911
MOAPA RIVER INDIAN RESERVATION TRIBAL POLICE		702 397-9111
INTERSTATE/STATE HIGHWAYS	Dial "0" and ask for Zenith 1-2000	911
NEVADA HIGHWAY PATROL	486-4100	775 688-2830
REPORTABLE QUANTITIES NOTIFICATIONS:		
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) JIM O'BRIEN, CHAIRMAN	455-5710	229-0407
(ALERT THE LEPC THROUGH THE CLARK COUNTY OFFICE OF EMERGENCY MANAGEMENT STAFF)		
STATE EMERGENCY RESPONSE COMMISSION (SERC)	775 687-6973	
NATIONAL RESPONSE CENTER AND TERRORIST HOTLINE		800 424-8802
NEVADA ADMIN. CODE 445 SPILL REPORTING FOR ANY QUANTITY		
NEVADA DIVISION OF EMERGENCY MANAGEMENT	775 687-0300	775 688-2830
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION	775 687-4670	888-331-NDEP
LAS VEGAS OFFICE	486-2850	800-992-0900

AGENCY	GENERAL #	24 HOUR #
RELATED AGENCIES		
ALCOHOL, TOBACCO, AND FIREARMS, U.S.	387-4600	925 479-7600
BUREAU OF LAND MANAGEMENT, U.S.	515-5000	293-8998
Fire Dispatch		631-2350
DEPARTMENT OF ENERGY, U.S.		202 586-8100
NNSA/NSO(NEVADA SITE OFFICE)		295-0295
DEPARTMENT OF TRANSPORTATION, U.S.		
AIRLINE CONCERNS (FAA)		310 725-3300
PIPELINE CONCERNS	202 366-4595	
RAILWAY CONCERNS (OMAHA, NEBRASKA)		
EMERGENCY RESPONSE (OMAHA, NE)		888-877-7267
DRUG ENFORCEMENT ADMINISTRATION, U.S.	759-8000	
E.P.A. REGION IX, PACIFIC SOUTHWEST REGION	415 947-8000	800-300-2193
E.P.A. Emergency Response Team West	784-8003	732 321-
6660		
FEDERAL BUREAU OF INVESTIGATION, U.S.		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		759-1000
EMS	759-1050	759-1000
ENVIRONMENTAL HEALTH	759-0588	759-1000
SOLID WASTE & COMPLIANCE	759-0600	759-1000
EPIDEMIOLOGY	759-1300	759-1300
NURSING AND CLINICS	759-0883	759-1000
OFFICE OF PUBLIC HEALTH PREPAREDNESS	759-1211	759-1000
SOUTHERN NEVADA PUBLIC HEALTH LABORATORY	759-1020	759-1020
AMERICAN MEDICAL RESPONSE		384-3400
MEDICWEST AMBULANCE	650-9900	792-9111
CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT	455-3139	

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AGENCY	GENERAL #	24 HOUR #
EMERGENCY MANAGEMENT COORDINATORS		
BOULDER CITY		
EMERGENCY MANAGEMENT COORDINATOR	293-9228	293-9224
CLARK COUNTY		
EMERGENCY MANAGER	455-5710	229-0407
HENDERSON		
EMERGENCY MANAGEMENT COORDINATOR	267-2212	267-4913
LAS VEGAS		
EMERGENCY MANAGEMENT OFFICER	383-2888	229-0407
MESQUITE		
EMERGENCY MANAGEMENT COORDINATOR	702 346-2690	702 346-6911
NORTH LAS VEGAS		
EMERGENCY MANAGEMENT COORDINATOR	633-1125	229-0407
HUMAN SERVICES		
AMERICAN RED CROSS		791-3311
NELLIS AIR FORCE BASE	652-2106	
SALVATION ARMY		657-0123
CLARK COUNTY SOCIAL SERVICES	455-5722	
CLARK COUNTY CORONER		455-3210
MILITARY		
NELLIS AIR FORCE BASE & CREECH AIR FORCE BASE		
OPERATOR	652-1110	652-2446
NELLIS FD		652-9630
NELLIS COMMAND POST	652-1859	652-2446
NEVADA NATIONAL GUARD 92ND CIVIL SUPPORT TEAM (CST)	775 887-7200	
COAST GUARD, U.S.	310-732-7380	

AGENCY	GENERAL #	24 HOUR #
RADIOLOGICAL ASSISTANCE		
STATE RADIOLOGICAL HEALTH		877-GET-RAD1
CARSON CITY	775 687-5394	775 688-2830
LAS VEGAS	486-5280	775 688-2830
UNITED STATES NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA) NEVADA SITE OFFICE		295-0925
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY RADIATION AND INDOOR ENVIRONMENTS NATIONAL LABORATORY		800 424-8802
STATE OF NEVADA		
DIVISION OF EMERGENCY MANAGEMENT	775 687-0300	775 688-2830
DIVISION OF ENVIRONMENTAL PROTECTION	775 687-4670	888-331-NDEP
DIVISION OF FORESTRY – CARSON CITY	775 684-2500	775 883-5995
DIVISION OF HEALTH		
STATE HEALTH OFFICER	775 684-4200	
DEPARTMENT OF TRANSPORTATION	385-6500	385-6594
HIGHWAY PATROL	486-4100	775 688-2830
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	388-9272	888 877-7267
WEATHER SERVICE		
NATIONAL WEATHER SERVICE		263-9750

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AGENCY	GENERAL #	24 HOUR #
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)	642-3333	
NEWSROOM		657-3150
CHANNEL 5 (KVVU FOX 5)	435-5555	
NEWSROOM		436-8256
CHANNEL 8 KLAS (CBS)	792-8888	
NEWSROOM		792-8870
CHANNEL 13 KTNV (ABC)	876-1313	
NEWSROOM		871-3345
COX CABLE		383-4000
CHANNEL 15 UNIVISION (SPANISH SPEAKING STATION)		
NEWSROOM	434-0015, EXT. 1030	
OSHA		
DIVISION OF INDUSTRIAL RELATIONS		486-9020
OCCUPATIONAL SAFETY & HEALTH ENFORCEMENT		
LAS VEGAS METROPOLITAN POLICE		
DISPATCH OFFICE	229-3111	311
EMERGENCY		911
CLARK COUNTY SCHOOL DISTRICT		
EMERGENCY ACTION LINE		799-4357
CLARK COUNTY SCHOOL DISTRICT POLICE		799-4357

AGENCY	GENERAL #	24 HOUR #
EMERGENCY OPERATIONS CENTERS		
CITY OF BOULDER CITY	293-9228	293-9224
CITY OF HENDERSON	267-2270	267-4913
CITY OF LAS VEGAS	229-0370	229-0407
CITY OF NORTH LAS VEGAS	633-1019	229-0407
CLARK COUNTY	455-5710	229-0407
LAS VEGAS METROPOLITAN POLICE		229-3111
HOSPITALS		
POISON CONTROL CENTER		800 222-1222
BOULDER CITY HOSPITAL		293-4111
EMERGENCY DEPARTMENT		294-5751
CENTENNIAL HILLS HOSPITAL		835-8700
EMERGENCY DEPARTMENT		629-1210
DESERT SPRINGS HOSPITAL		733-8800
EMERGENCY DEPARTMENT		369-7647
NORTH VISTA HOSPITAL		649-7711
EMERGENCY DEPARTMENT		657-5512
MESA VIEW REGIONAL HOSPITAL		702 346-8040
EMERGENCY DEPARTMENT		702 346-4270
MIKE O'CALLAGHAN FEDERAL HOSPITAL		653-2343
MOUNTAIN VIEW HOSPITAL		255-5000
EMERGENCY DEPARTMENT		255-5025
ST. ROSE DE LIMA CAMPUS		616-5000
EMERGENCY DEPARTMENT		616-4600
ST. ROSE SAN MARTIN CAMPUS		492-8000
EMERGENCY DEPARTMENT		492-8600
ST. ROSE SIENA CAMPUS		616-5000
EMERGENCY DEPARTMENT		616-5600
SOUTHERN HILLS HOSPITAL		880-2100
EMERGENCY DEPARTMENT		880-2800
SPRING VALLEY HOSPITAL		853-3000
EMERGENCY DEPARTMENT		853-3630
SUMMERLIN HOSPITAL		233-7000
EMERGENCY DEPARTMENT		233-7200
SUNRISE HOSPITAL		731-8000
EMERGENCY DEPARTMENT		731-8080
UNIVERSITY MEDICAL CENTER (UMC)		383-2000
EMERGENCY DEPARTMENT		383-2211
VALLEY HOSPITAL		388-4000
EMERGENCY DEPARTMENT		388-4500

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RESOURCES FOR CLEANUP AND DISPOSAL

COMPANY	TELEPHONE	CAPABILITIES
Republic Environmental Technologies Inc. 770 East Sahara Ave. Las Vegas, NV 89104	734-5400	Hazardous Materials Except: Radioactive
State RAD-SAFE Team	775 687-4622	Radioactive
National Nuclear Security Administration (NNSA)	295-0925	Radioactive
Safety-Kleen	649-7513	Flammable and Combustible Liquids
H_2O Environmental	866 426-7745	Hazardous Materials Except: Radioactive

EMERGENCY WARNING CONTACTS

AGENCY	General #	24 hour #
So. Nevada Center for Independent Living Deaf and Hard of Hearing Advocacy Center	889-4216 Voice & TDD 363-3323 (711) Relay	
District Court Interpreter	671-4578	
Las Vegas Transit/Grayline		384-1234
McCarran Control Center		261-5201
NV Taxicab Authority NHP Las Vegas	486-6532 486-4100	 775-688-2830
Regional Transportation Commission ATC/VanCom Inc. CAT Bus System	676-1500 228-7433	702-676-1822 702 636-0623
School District Police	799-4357	

RESPONSE

RESPONSE

CONCEPT OF OPERATIONS

All field responses shall be conducted using the Incident Command System (ICS). 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 from expert advisors and 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.)

Fire Line Passes have been issued to key personnel both on the County/City level and those employed by major facilities in Clark County. Law enforcement agencies in Clark County have been taught to recognize these passes to allow key personnel through roadblocks and into a command post or restricted area.

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 B, Vulnerable Facilities

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

Uniform Fire Code, Article 11, Section 11.301

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 local Fire Department shall accept and provide the position of INCIDENT COMMANDER for the scene of all hazardous materials incidents within its jurisdiction. The Incident Commander (IC) shall be the designated fire department officer 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 the fire department INCIDENT COMMANDER, who is responsible for on-scene management decisions made with assistance from expert advisors and specialists. The INCIDENT COMMANDER of the fire department shall provide direct control and authority over all fire department related activities at the scene of any hazardous materials incident.

Unified Incident Command

Unified Incident Command will be practiced and shall 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 consist of and include the following designated agencies at all hazardous materials incidents:

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

The INCIDENT COMMANDER shall report to and function through the Fire Chief, who represents the fire department in a Multi-Agency Coordination System if the Emergency Operations Center is activated.

The EMERGENCY OPERATIONS CENTER staff is not responsible for the detailed direction of technical or specialized procedures, but shall oversee and coordinate these procedures as they are carried out, and coordinate resource allocation and public information when needed.

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, 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 of the Clark County Fire Department Hazardous Material Response Team (HMRT) or the City of Las Vegas Fire Department 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 at least two 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

Incident Commander

The *Incident Commander* (I.C.) shall be the designated fire department officer responsible for mitigating the hazards at the scene of hazardous materials incident. Upon his arrival, he shall secure and maintain immediate control until the situation has been abated.

1. The Fire Department having jurisdiction shall accept and provide the position of INCIDENT COMMANDER for the scene of all hazardous materials incidents. The IC is responsible to Lead Agency, regardless if it is the fire department or another agency. The fire department shall 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.

2. The captain of the Hazardous Materials Response Team shall report to and function through the fire department INCIDENT COMMANDER.

3. The INCIDENT COMMANDER shall report to and function through the Fire Chief, if the Emergency Operations Center is activated.

Hazardous Materials Response Team

The Clark County Fire Department and the City of Las Vegas Fire Departments each maintain specially trained Hazardous Material Response Teams for the specific purpose of responding to chemical emergencies. These HMRT's, in association with any developing HMRT's, 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 designed 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, 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.

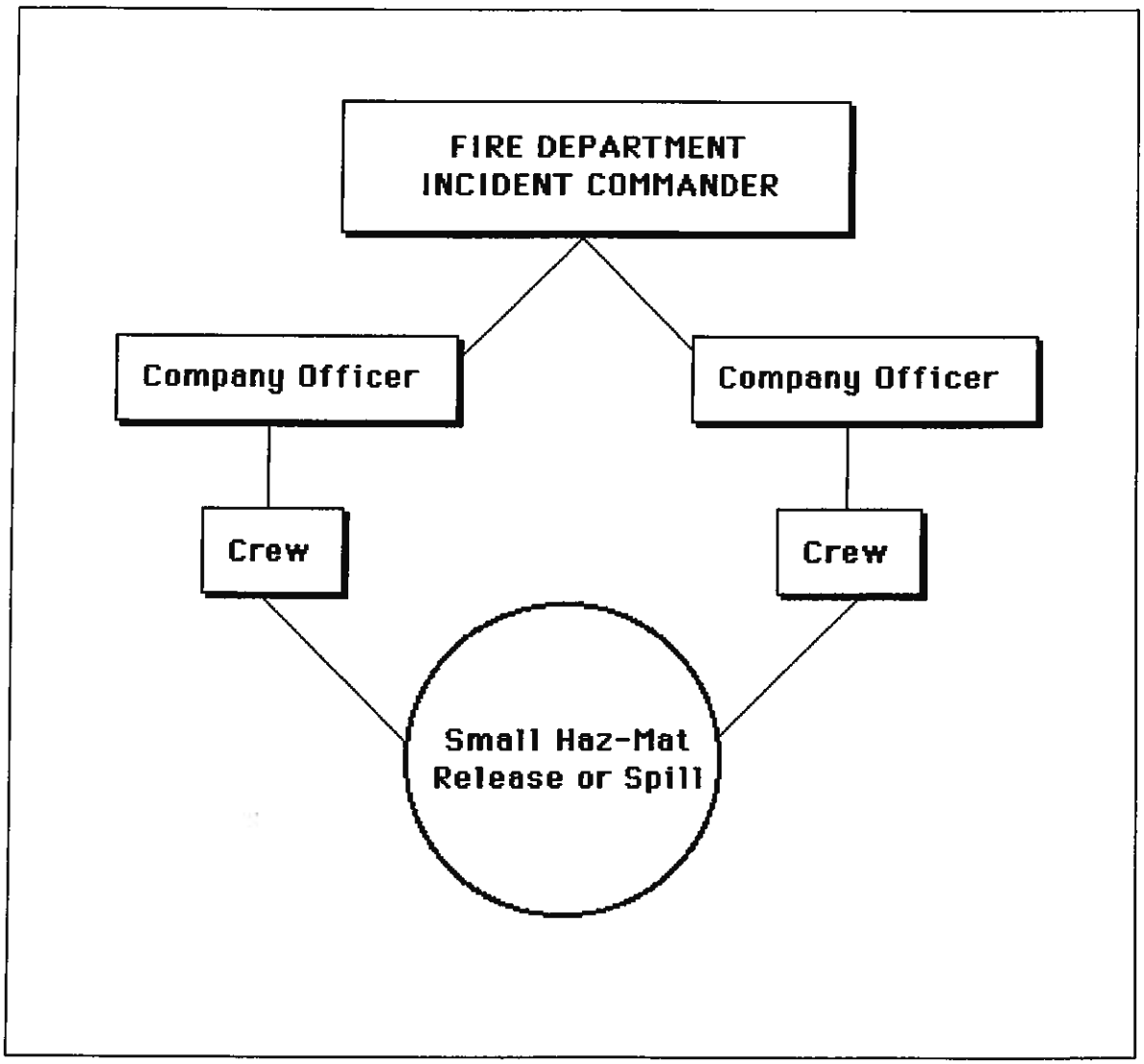
4. Workers entering the DECON ZONE to assist in procedures shall do so only as directed by the HMRT or the Incident Commander, and only when appropriately protected.

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.

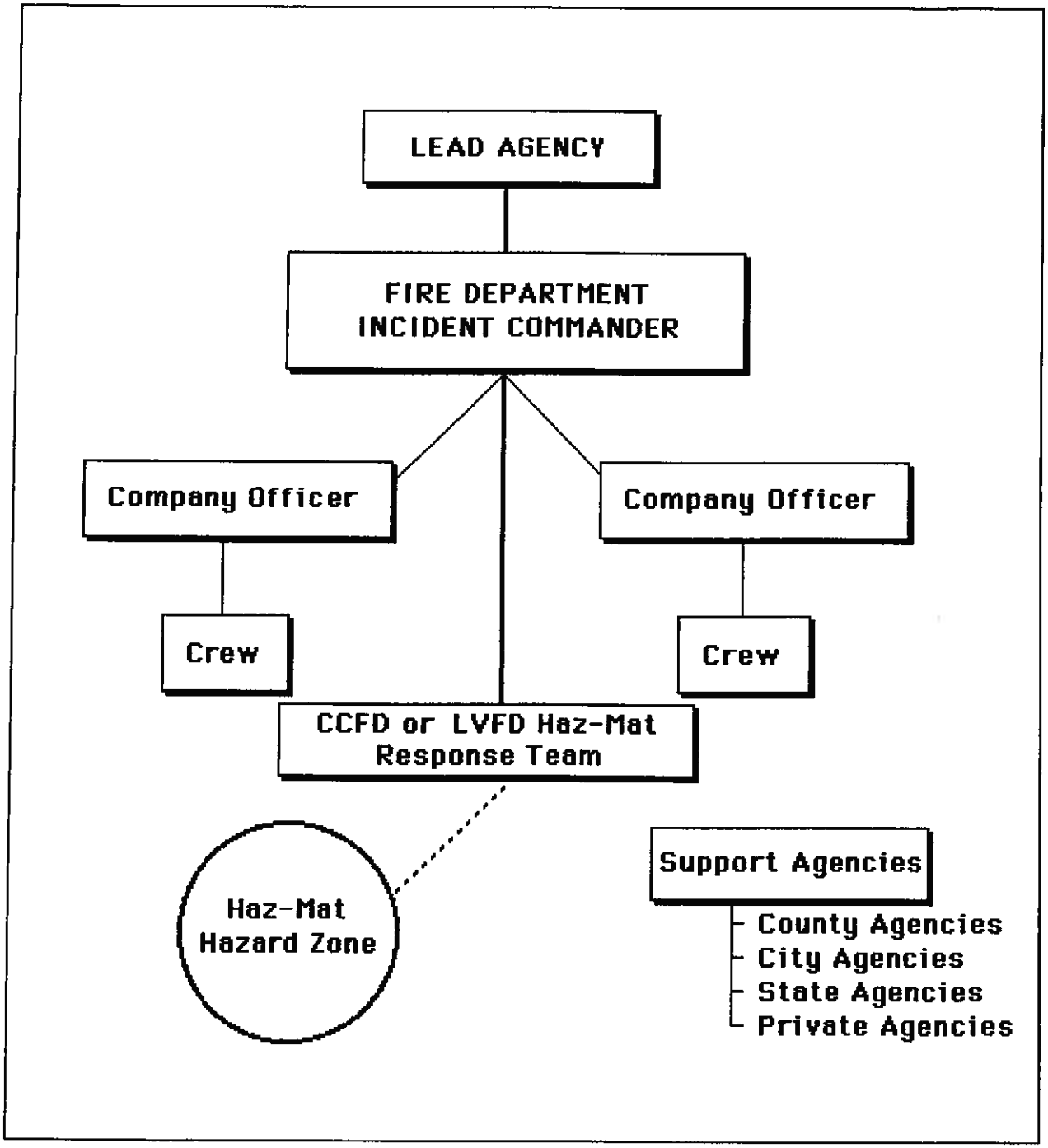
The Hazardous Materials Safety Officer or designee shall be responsible for maintaining hot, decon, and cold zones, determining the level of protection for a given incident, tracking the amount of time personnel are in a hot zone and other duties appropriate to the incident.

Figure 4. 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 5. Example of a Level II Hazardous Materials Incident



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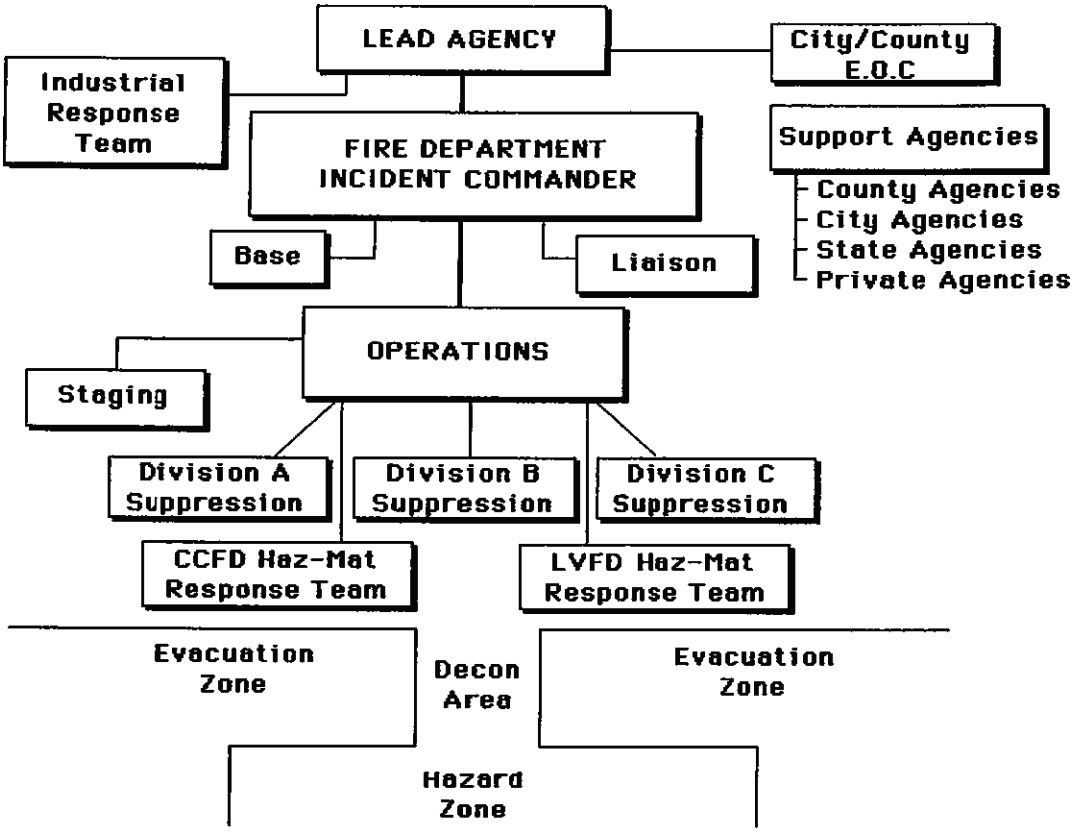
[1] Fire Department Incident Commander is the FD officer in-charge at the unified command post irrespective of who the Lead Agency is (these diagrams illustrate Fire/hazmat team ops).

Figure 6. 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 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.

In-Place Sheltering

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 In-Place Sheltering require timely activation of public information resources and education about the methods and procedures involved prior to their use.

Announcements for In-Place Sheltering (Take Shelter) 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 a 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 in their 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 4, Response – 28.

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 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 5, Response - 29.

B. CONTAMINATION REDUCTION CORRIDOR (DECON AREA)

An area within the Evacuation Zone is designated the Contamination Reduction Corridor enter. See Figure 6, Response – 30.

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 dry 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. (See Emergency Assistance Section J page 6-32). 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. 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 proximately 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 to 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, 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 surgical/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 surgical/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 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 "walkway" 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.

G. 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 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.

H. 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.
(See Telephone Directory).

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

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

I. 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.

J. 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. Refer to Telephone Directory for emergency contact numbers.

Figure 7. Access Control Points

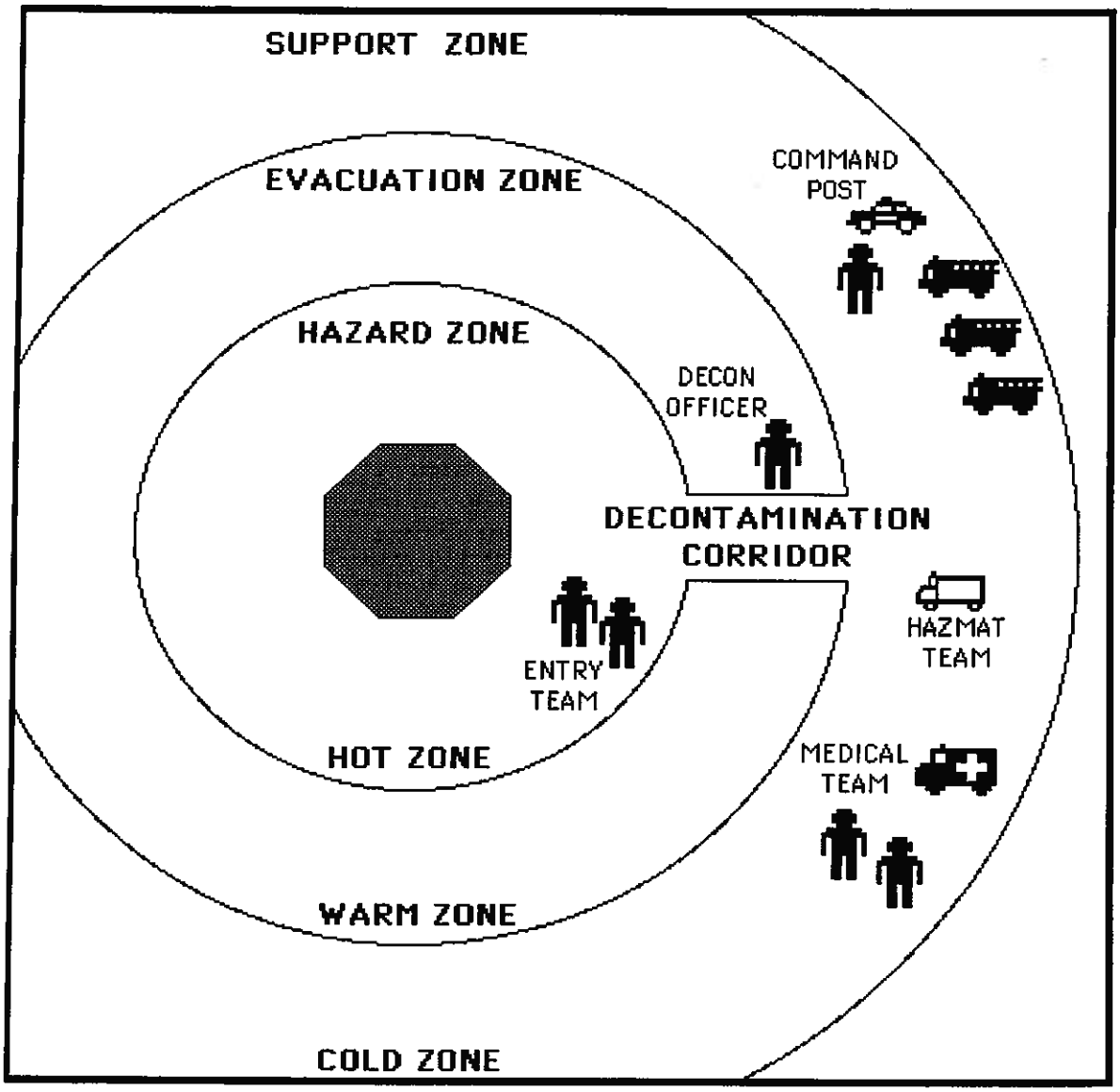


Figure 8. Site Operations Decontamination

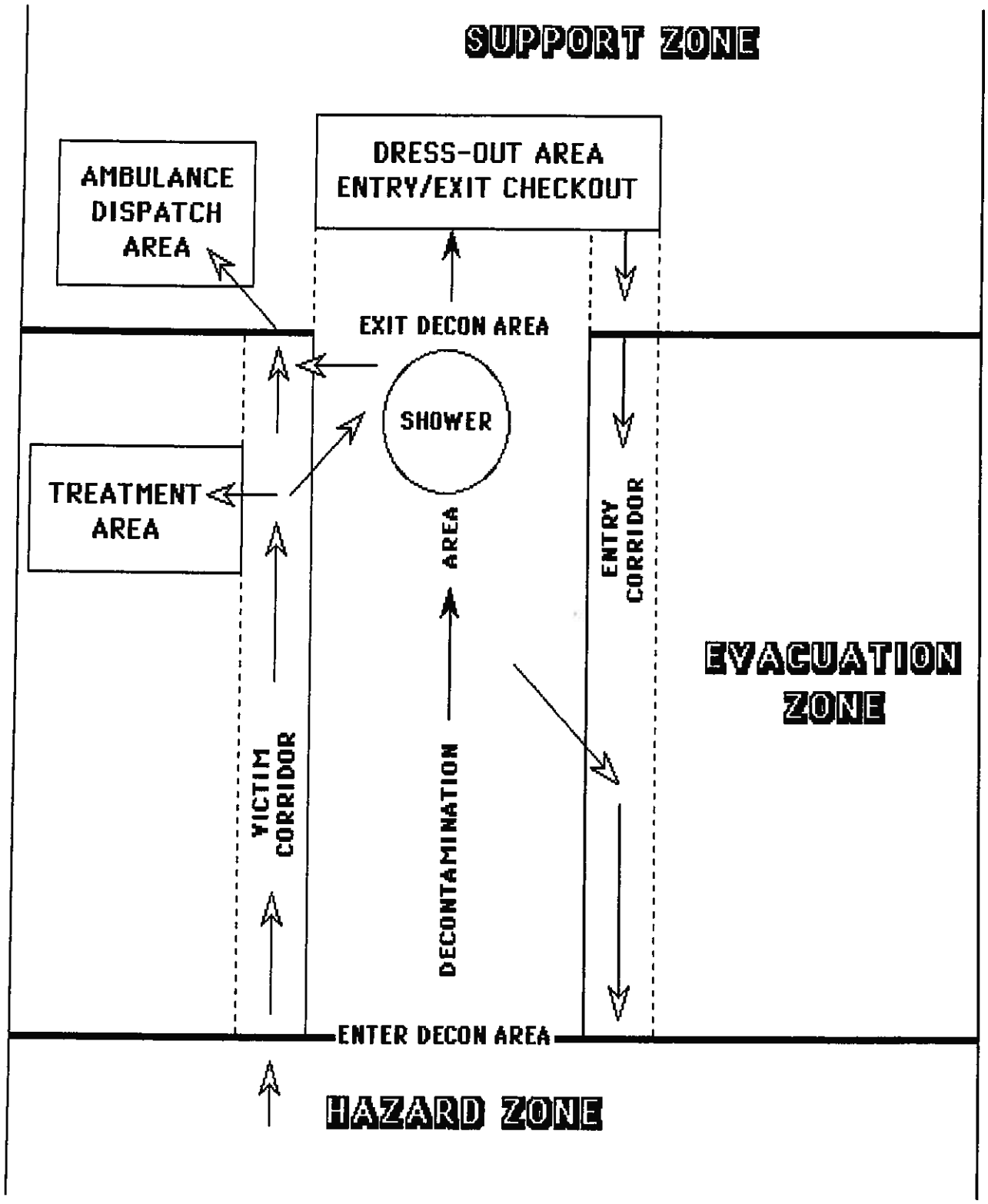
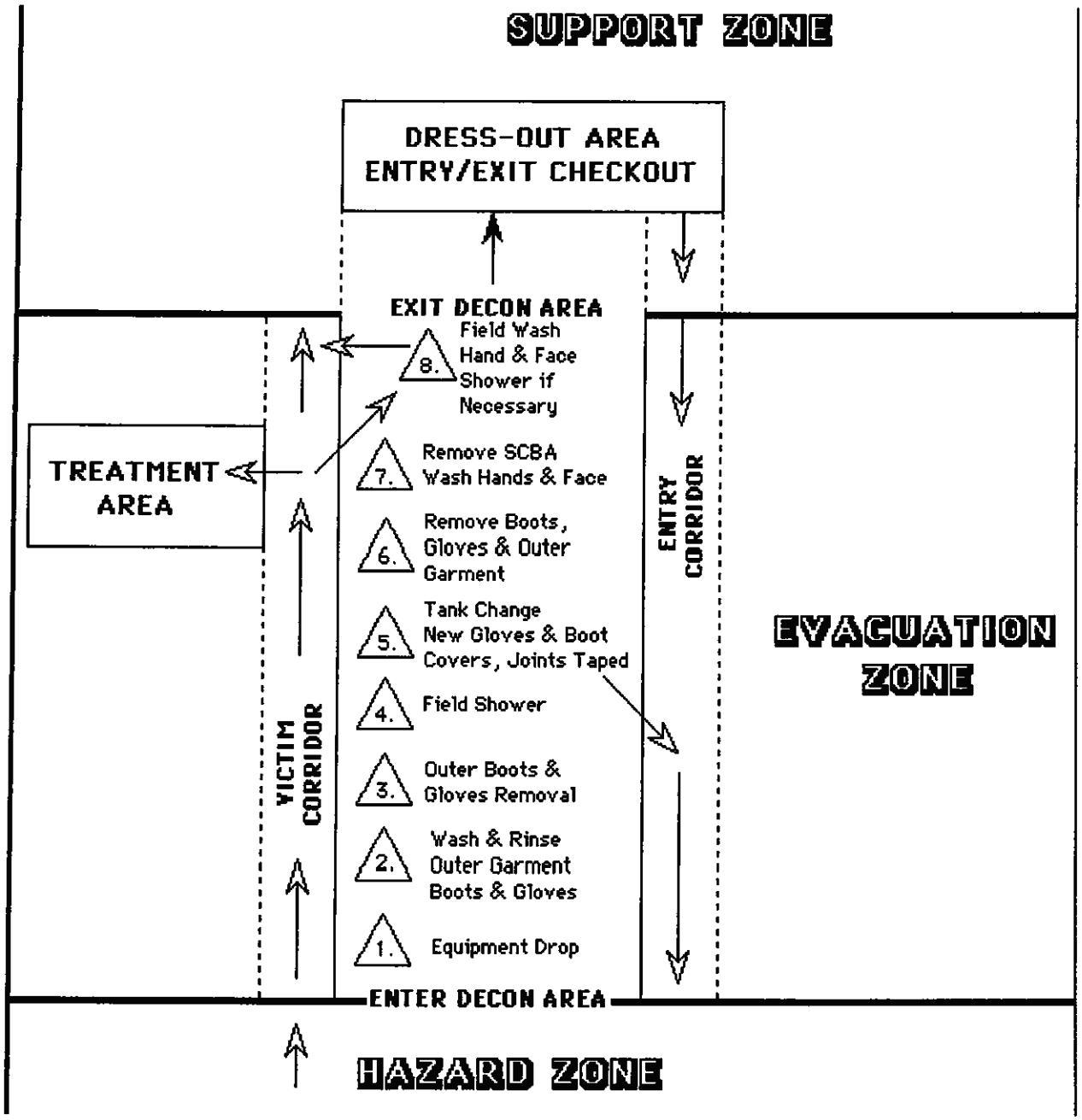


Figure 9. Contamination Reduction Corridor



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) quarterly Hazardous Materials Simulation will take place; systematically exercising each of the nine (9) elements of the plan one (1) or more sections at a time.

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.

Updated plans will be distributed yearly as complete revisions, changing the color of the binder cover insert sheet to ease in recognition of the latest version.

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.

- 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	293-9228
City of Henderson Fire Department	267-2280
City of Las Vegas Fire Department	229-0470
City of North Las Vegas Fire Department	633-1102
Clark County Fire Training Center	455-7700
Mesquite Fire Department	702 346-2690
Clark County Emergency Management	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 Henderson Manufacturers Association has meetings of the CAER (Community Awareness and Emergency Response) group. This group participates with information booths during Earth Day, Henderson Industrial Days, and other community functions, and has put together an informational pamphlet on all the hazardous chemicals in use at the Basic Management Plants in Clark County.

DEVELOPING PROGRAMS

Clark County has secured Cox Cable Channel 4, which can provide access for Emergency Management programming under development, as well as instant communications with citizens during times of emergency.

The Community Right-to-Know Subcommittee developed and maintains a pamphlet entitled "Hazardous Chemical Emergency, What to Do".

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CLARK COUNTY TRAINING AND EXERCISE SCHEDULE 2009-2011

Type	Jurisdiction	2009											
		QTR 1			QTR 2			QTR 3			QTR 4		
		Jan	Feb	Mar	April	May	June	Jul	Aug	Sept	Oct	Nov	Dec
T	Boulder City			Haz Mat Decon									
T	CLFD			CBRNE/ HAZMAT		300/400							
E	CCOEM										[illegible]	[illegible]	[illegible]
T	CCOEM			WebEOC		EOC System	WebEOC			WebEOC/EOC System			WebEOC/EOC System
E	CCSD					ICP/EOC/MACC Functions	*FE EOC		ICP/EOC/MACC Functions			ICP/EOC/MACC Functions	
T	CCSD			Web EOC Training			Web EOC TRAINING			Web EOC TRAINING	*TRAINING, *BURST TRAINI		WebEOC Training
T	HCSP									EWAC TRAIN			
T	EMT				LOG CHIEF			OPS CHIEF			PLANS, OPS, LOG, FINS		
T	INT OP			COMM, 3/17									
T	LV FIRE			PREPLAN, CBRNE/HAZMAT									
E	LVMPD			*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*SAT PHONE (DRILL INTERNAL), *FTEP PATROL SUPERVISORS DRILL INTERNAL)	*TTX STAFF LEVEL (INTERNAL), *TTX MANAGEMENT LEVEL EOP, COOP PENDING (EXTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*RODEO PENDING (DRILL EXTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL	*SAT PHONE (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SPILLWAY DEFENSE (EXTERNAL) *MT CHARLESTON FIRE DRILL (DRILL EXTERNAL)	*FTX ARMORY, FUSION, SILVER SHIELD, *MCV DRILL INTERNAL), *SRT PROMOTIONS INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	
T	LVMPD			*TFAC, REFRESHER ICS, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC, *SAT PHONE TRAINING	*ICS REFRESHER, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC, *SAT PHONE TRAINING	*ICS REFRESHER, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC	*ICS REFRESHER, *ICALL/TFAC, *MOBILE COMMAND VEHICLE TRAINING	*ICS REFRESHER, *ICALL/TFAC
E	LVWD				LOBBY SECURITY, EMS								
T	LVWD			LOBBY SECURITY W LVMPD									
E	MMRS/LVMPD										MMRS WMD	MMRS DRILL/DECON	
E	NLV			25TH DRILL HAZMAT							TS CHEM HAZ MAT, EMS		
T	NLV			300/400	*300/400, *EOC/VIC	300/400							
E	NNSA/NSO (NTS)										TTX, FIX SAD		
E	NV Energy			TTX 3/12 GAS RESP						EOC FUNCTIONAL			
T	NV Energy					*TRAINING APEX KERN RIVER, *NVSEOC							
E	SILVERSHIELD											TTX	
T	SILVERSHIELD				INFRASTRUCTURE LIASON TRAINING	ACAM TRAINING	EO TRAINING	*1ST RESP TOOL, *INFRASTRUCTURE LIASON TRAINING			POD TRAINING, *INFRASTRUCTURE LIASON TRAINING		
E	SNHD				SEMINAR POD					MRC STAGING DRILL			
T	SNHD			POD TRAINING									
E	UMC				SURGE CAPCITY		SURGE CAPACITY						
E	VALLEY HEALTH SYS						DECON						
E	VMD										DRILL, ONSITE INCIDENT, SRT, MCI		
E						EOP COOP TTX							
E													
E	MCCARRAN AIRPORT			TTX			TTX		FTX (TSA)		TRAINING/TSA		
E	UNLV							FE STUDENT WELLNESS CENTER	FE EOC	TTX THOMAS & MACK			FE EOC
T	UNLV	ACTIVE SHOOTER TRAINING						ACTIVE SHOOTER TRAINING					

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CLARK COUNTY TRAINING AND EXERCISE SCHEDULE 2009-2011

Type	Jurisdiction	2010											
		QTR 1			QTR 2			QTR 3			QTR 4		
		Jan	Feb	Mar	April	May	June	Jul	Aug	Sept	Oct	Nov	Dec
T	BOMB SQUAD											ADVIED STATEWIDE	
E	CCOEM												BIG HORN RYE
T	CCOEM			WebEOC/EOC System			WebEOC/EOC System			WebEOC/EOC System			WebEOC/EOC System
E	CCSD			FE EOC			FE EOC			FE EOC			FE EOC
T	CCSD		ICP/EOC/MACC Functions	Web EOC Training		ICP/EOC/MACC Functions	Web EOC Training		ICP/EOC/MACC Functions	Web EOC Training	Nursing Emergency Response & Triage Training	ICP/EOC/MACC Training	Web EOC Training
T	HOSP	MEDICAL SURGE											
T	IMT	POS SPECF TRAIN											
E	LVMPD	*SPEEDWAY TTX (EXTERNAL), *MCV (DRILL INTERNAL), *FTEP (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SAT PHONE (DRILL INTERNAL), *FTEP (DRILL INTERNAL)	*RODEO (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*FTEP (DRILL INTERNAL), *SAT PHONE (DRILL INTERNAL), *MCV (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD, *RODEO (DRILL EXTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *MCV (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *RODEO (DRILL EXTERNAL)	*SAT PHONE (DRILL INTERNAL), *FE (INTERNAL) ARMOR, FUSION, SILVER SHIELD, *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*MCV (DRILL INTERNAL), *FTEP (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SPEEDWAY (SEMINAR EXTERNAL), *NYE COMMUNICATIONS (DRILL EXTERNAL)	*MOBILE COMMAND VEHICLE (DRILL INTERNAL), *SATELLITE PHONE (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	
T	LVMPD	*MOBILE COMMAND VEHICLE TRAINING, *ICALL/ITAC, *ICS REFRESHER,	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*MOBILE COMMAND VEHICLE TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER, *SAT PHONE TRAINING	*MOBILE COMMAND VEHICLE, TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*MOBILE COMMAND VEHICHLE TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER
E	MMRS		SURGE DRILL										
E	NLE	NLE TTX			SR OFC WKSP	NLE 2010							
E	NLE												
E	NNSA/NSO (NTS NLV)			BIO FSE									
T	SILVERSHIELD	INFRASTRUCTURE LIASON TRAINING			INFRASTRUCTURE LIASON TRAINING			INFRASTRUCTURE LIASON TRAINING			INFRASTRUCTURE LIASON TRAINING		
E	SNHD	TTX POD SECURITY						POD CALL DOWN			POD DRILL		
E	VALLEY										EVAC FS		
E	UNLV							FE (TBD)	FE EOC	TTX SAM BOYD STADIUM			FE EOC
T	UNLV	ACTIVE SHOOTER TRAINING						ACTIVE SHOOTER TRAINING					

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CLARK COUNTY TRAINING AND EXERCISE SCHEDULE 2009-2011

Type	Jurisdiction	2011											
		QTR 1			QTR 2			QTR 3			QTR 4		
		Jan	Feb	Mar	April	May	June	Jul	Aug	Sept	Oct	Nov	Dec
E	CCOEM												BIG HORN TTX
T	CCOEM			WebEOC/EOC System			WebEOC/EOC System			WebEOC/EOC System			WebEOC/EOC System
E	CCSD			FE EOC			FE EOC			FE EOC			FE EOC
T	CCSD		ICP/EOC/MACC Functions	Web EOC Training		ICP/EOC/MACC Functions	Web EOC Training		ICP/EOC/MACC Functions	Web EOC Training	Nursing Emergency Response & Triage Training	ICP/EOC/MACC Training	Web EOC Training
E	HOSP							FE HOSP PREP					
E	LVMPD	*MOBILE COMMAND VEHICLE (DRILL INTERNAL), *SPEEDWAY (TTX EXTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SATELLITE PHONE (DRILL INTERNAL), *FTEP (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL),	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SATELLITE PHONE (DRILL INTERNAL), *FTEP (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL),	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *MOBILE COMMAND VEHICLE (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *RODEO (DRILL EXTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *MOBILE COMMAND VEHICLE (DRILL INTERNAL), *SATELLITE PHONE (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *FTEP (DRILL INTERNAL)	*PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL), *SPEEDWAY (SEMINAR EXTERNAL), *NYE COMMUNICATIONS (DRILL EXTERNAL)	*MOBILE COMMAND VEHICLE (DRILL INTERNAL), *ARMOR, FUSION, SILVER SHIELD, (FSE INTERNAL), *SATELLITE PHONE (DRILL INTERNAL), *PATROL, ARMOR, FUSION, SILVER SHIELD (DRILL INTERNAL)	
T	LVMPD	*MOBILE COMMAND VEHICLE TRAINING, *ICALL/ITAC, *ICS REFRESHER,	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*MOBILE COMMAND VEHICLE TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER, *SAT PHONE TRAINING	*MOBILE COMMAND VEHICLE, TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	* MOBILE COMMAND VEHICHLE TRAINING, *ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER	*ICALL/ITAC, *ICS REFRESHER
E	NNSA/NSO (NTS)				FSE RAD/NUC								
E	SNHD		CLOSED POD TTX										
E	UNLV						FS (TBD)		FE EOC	TTX (TBD)			FE EOC
T	UNLV	ACTIVE SHOOTER TRAINING						ACTIVE SHOOTER TRAINING					
E	WRD	ONSITE INCIDENT COMMAND											

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

Combined Las Vegas Fire and EMS Communications Center
Clark County Fire Department
Las Vegas Metropolitan Police Department

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.

Crime Alert Telecomputing (CAT) System - Las Vegas Metropolitan Police Dispatch supervisors send warnings to hotel security offices by modem.

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.

SPECIAL FACILITIES WARNING METHODS

Schools

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

Hospitals

Request that Combined Las Vegas Fire and EMS Communications Center simultaneously warn the hospitals of hazardous materials incident. Call hospitals individually on the telephone (see Telephone Directory) or radio.

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.

Call the Grayline dispatch office at (702) 384-1234 to notify the Las Vegas Transit System (LVTS).

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.

EVACUATION

EVACUATION

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 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*** - the Intermediate Level 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 Incident Commander 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 may need to send fire resources to initially open shelters until the American Red Cross is in-place.

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.

POLICE 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'S RESPONSIBILITIES

1. Establish Information Officer.
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 those 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. Fire departments should be assigned to hazardous areas with police assigned to safe areas. 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.
  2. Wear your helmet.

- 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. Take () route out of 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 your helmet.

3. Wear SCBA and face piece (air hose may not need to be connected) when advising the citizen to leave.
4. Ask for next of kin and a phone number.
5. Write the next of kin information down.
6. 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

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.)

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

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
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
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
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
HAZMAT	Hazardous Materials
HAZOP	Hazard and Operability Study
HAZWOPER	OSHA Hazardous Waste Operations and Emergency Response Standard
HLNW	High-Level Nuclear Waste
HMC	Hazardous Materials Coordinator
HMGL	Haz Mat 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
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	Liquified Natural Gas
LPG	Liquified 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.
NWPA	Nuclear Waste Policy Act of 1982
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
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.

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.

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.

Material Safety Data Sheet (MSDS). 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.

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 overwhelm 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.

APPENDICES

Appendix A – Facilities Subject to Reporting Requirements

The hazard zones associated with each EHS present at the fixed facilities were evaluated through the use of the National Oceanic and Atmospheric Administration (NOAA) computer model known as CAMEO - Computer Aided Management of Emergency Operations or manually by following steps in EPA Technical Guidance for Hazard Analysis. CAMEO uses the air dispersion equations and release rate methodologies provided in Technical Guidance for Hazard Analysis (U.S. Environmental Protection Agency 1987), developed by the Environmental Protection Agency, Federal Emergency Management Agency, and United States Department of Transportation.

The hazard zones for facilities listed under the Nevada CAPP Program are taken directly from the RMP for the worst-case scenario.

For each facility, an estimated screening zone to plan for various EHS releases, based on the following variables that produce maximum credible scenarios:

Quantity Released - The maximum quantity that could be released from the largest vessel or interconnected vessels.

Rate of Release to Air - The total quantity of gas, a solid in powder form, or a solid in solution assumed to be released in ten minutes.

Temperature - The data only for liquids and molten metals, depending on whether they are used at ambient temperature, near their boiling point, or at their melting point.

Meteorological Conditions - The atmospheric stability and wind speed.

Topography - The features on the earth's surface, including its physical relief and constructed objects on it.

Level of Concern - The concentration level of an EHS in the air, above which serious health effects might occur as a result of a single exposure for a relatively short period.

These variables are complex. Release and dispersion modeling methods are not precise. They provide only estimates of the actual distances and areas that may be affected by accidental releases.

Level of Concern - The concentration level of an EHS in the air, above which serious health effects might occur as a result of a single exposure for a relatively short period.

LOCATIONS OF EXTREMELY HAZARDOUS SUBSTANCES AND HAZARD ZONES FOR FIXED FACILITIES BY CHEMICAL

New Facility *
Change in Agency Name or Address **

ANHYDROUS AMMONIA			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP - CAPP***
Anderson Dairy, Inc. 801 Searles Avenue Las Vegas, NV 89101 (702) 642-7507	6,000	Yes	City of Las Vegas
Civic Center Properties LLC * 3840 N. Civic Center Drive #A North Las Vegas, NV 89030 (702) 380-3038	15,000	Yes	City of North Las Vegas
Clark County School District The Drescher Building 6350 E. Tropical Pkwy North Las Vegas, NV 89115 (702) 799-8123	15,000	Yes	City of North Las Vegas
Desert Gold Food Co. Inc 123 W. Colorado Avenue Las Vegas, NV 89102 (702) 382-8988	3,500	Yes	City of Las Vegas
Good Humor-Breyers Ice Cream * 1001 Olsen Street Henderson, NV 89011 (702) 564-0020	99,297	Yes	City of Henderson
Meadow Gold Dairies 6350 E. Centennial Parkway North Las Vegas, NV 89115 (702) 399-6455	14,700	Yes	City of North Las Vegas
Mirant Las Vegas LLC 15555 Apex Power Parkway North Las Vegas, NV 89165 (702) 632-8610	71,680	Yes	City of North Las Vegas NDEP-CAPP
Nevada Cogeneration Associates #1 Garnet Valley Facility 11401 US 93 & I-15 Las Vegas, NV 89025 (702) 651-1220	4,403	Yes	Clark County – Unincorporated
Nevada Cogeneration Associates #2 Black Mountain Facility East Lake Mead Blvd/Pabco Las Vegas, NV 89124 (702) 651-1220	4,403	Yes	Clark County – Unincorporated
Ocean Spray Cranberries Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	4,700	Yes	City of Henderson
Reddy Ice – Las Vegas * #361 – Las Vegas 1200 Foremaster Lane Las Vegas, NV 89101 (702) 649-8002	17,500	Yes	City of Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

ANHYDROUS AMMONIA continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP - CAPP***
Saguaro Power Company 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 558-1100	52,000	Yes	Clark County – Unincorporated
Sierra Pacific Resources * NP/Silver Hawk Station 15111 Apex Power Pkwy North Las Vegas, NV 89124 (702) 251-8301	112 Ton	Yes	Clark County – Unincorporated
Solo Cup Company ** 4425 Mitchell Street North Las Vegas, NV 89081 (702) 644-0980	150 gallons	Yes	City of North Las Vegas
Southern Nevada Water System Alfred Merritt Smith WTF 243 Lakeshore Road Boulder City, NV 89005 (702) 564-7697	606,800	Yes	City of Boulder City
Southern Nevada Water System River Mountains WTF 1350 Richard Bunker Avenue Henderson, NV 89015 (702) 564-7697	207,200	Yes	City of Henderson
Sysco Food Services of Las Vegas 6201 E. Centennial Parkway North Las Vegas, NV 89115 (702) 632-1800	11,950	Yes	City of North Las Vegas
Thatcher Company of Nevada Las Vegas Division 850 W. Lake Mead Drive Henderson, NV 89014 (702) 564-7622	2,700	Yes	City of Henderson NDEP-CAPP
Titanium Metals Corporation (TIMET) 8000 W. Lake Mead Drive Henderson, NV 89014 (702) 564-2544	2,000	Yes	Clark County – Unincorporated
U.S. Foodservice 1685 W. Cheyenne Avenue North Las Vegas, NV 89032-7764 (702) 636-3663	30,000	Yes	City of North Las Vegas
Versa Cold Logistics LLC * 830 E. Horizon Drive Henderson, NV 89015 (702) 566-5810	23,300	Yes	City of Henderson
Waxie Sanitary Supply 277 Pilot Road Las Vegas, NV 89119 (702) 263-0663	9,895	Yes	Clark County

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

BORAN TRICHLORIDE			
Fixed Facility Address	***Amount Present(Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Tronox LLC 8000 W. Lake Mead Parkway Henderson, NV 89015 (702) 651-2200	128,719	Yes	Clark County - Unincorporated

BROMINE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Ocean Spray Cranberries Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	500	Yes	City of Henderson

CHLORINE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
AZ Partsmaster 2950-E South Highland Drive Las Vegas, NV 89109 (702) 369-2121	1,442	Yes	Clark County
City of North Las Vegas Leavitt Well Site 3860 Losee Road North Las Vegas, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas
City of North Las Vegas Robinson Well Site 4201 Cartier Avenue North Las Vegas, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas
City of North Las Vegas Utilities/ENV SVC Bldg. 2829 Fort Sumter Drive North Las Vegas, NV 89030 (702) 633-1275	1,350	Yes	City of North Las Vegas
City of North Las Vegas West Cheyenne Well Site 3044 California Avenue North Las Vegas, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas
City of North Las Vegas Silver Mesa Well Site 4301 Alexander Road North Las Vegas, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

CHLORINE continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
City of North Las Vegas Sun Valley Well Site 3532 Valley Drive North Las Vegas, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas
City of North Las Vegas Elstner Estates Well Site 5200 W. Gowan Road NLV, NV 89030 (702) 633-1275	300	Yes	City of North Las Vegas
Kmart Corporation Kmart Store #3095 2671 Las Vegas Boulevard North North Las Vegas, NV 89030 (702) 642-2183	200	Yes	City of North Las Vegas
Pioneer Americas LLC 8000 Lake Mead Drive Henderson, NV 89009 (702) 565-8781	1,536,000	Yes	Clark County – Unincorporated
Pool Chlor of Nevada 3590 Dewey Drive Las Vegas, NV 89118 (702) 798-1906	14,000	Yes	Clark County
Southern Nevada Water System Alfred Merritt Smith WTF 243 Lakeshore Road Boulder City, NV 89005 (702) 564-7697	204,000	Yes	City of Boulder City
Thatcher Company of Nevada Las Vegas Division 850 W. Lake Mead Drive Henderson, NV 89014 (702) 564-7622	200,000	Yes	City of Henderson
Titanium Metals Corporation (TIMET) 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 564-2544	1,000	Yes	Clark County – Unincorporated
Tronox LLC 8000 W. Lake Mead Parkway Henderson, NV 89015 (702) 651-2200	32,000	Yes	Clark County - Unincorporated

CYCLOHEXYLAMINE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Nevada Cogeneration Associates #1 Garnet Valley Facility 11401 US 93 & I-15 Las Vegas, NV 89025 (702) 651-1220	1,359	Yes	Clark County – Unincorporated

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

CYCLOHEXYLAMINE continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Nevada Cogeneration Associates #2 Black Mountain Facility East Lake Mead Blvd/Pabco Las Vegas, NV 89124 (702) 651-1220	1,359	Yes	Clark County – Unincorporated
Potlatch Forest Products ** 3901 North Donna Street North Las Vegas, NV 89030 (702) 657-2400	2,690	Yes	City of North Las Vegas
Saguaro Power Company 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 558-1100	4,000	Yes	Clark County - Unincorporated
Sierra Pacific Resources * NP/Reid Gardner Station I-15 North Exit 88 – Wally Kay Road Moapa , NV 89025 (702) 367-5900	3,758 gallons	Yes	Clark County – Unincorporated
Sierra Pacific Resources * NP/Clark Station 5640 Stephanie Street Las Vegas, NV 89122 (702) 558-1100	3,600	Yes	Clark County

HYDROCHLORIC ACID			
Fixed Facility Address	***Amount Present (Lbs***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
KC Asphalt LLC KPA Las Vegas Asphalt Terminal 3901 W. Ponderosa Way Las Vegas, NV 89118 (702) 736-2059	15,000	Yes	Clark County
Pioneer Americas LLC 8000 Lake Mead Drive Henderson, NV 89009 (702) 565-8781	3,500	Yes	Clark County - Unincorporated
Sierra Pacific Resources * NP/Chuck Lenzie Generating Station 11405 US Hwy 93 Las Vegas, NV 89165 (702) 227-8210	75,014	Yes	Clark County - Unincorporated

HYDROFLUORIC ACID			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Titanium Metals Corporation (TIMET) 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 564-2544	490	Yes	Clark County - Unincorporated

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

HYDROGEN PEROXIDE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Pioneer Americas LLC 8000 Lake Mead Drive Henderson, NV 89009 (702) 565-8781	5,000	Yes	Clark County – Unincorporated
Royce Industries LC 11 West Brooks Avenue North Las Vegas, NV 89030 (702) 633-6500	700	Yes	City of North Las Vegas
Sierra Pacific Resources * Reid Gardner Station I-15 North, Exit 88 – Wally Kay Road Moapa, NV 89025 (702) 367-5900	387,000	Yes	Clark County – Unincorporated
Thatcher Company of Nevada Las Vegas Division 850 W. Lake Mead Drive Henderson, NV 89014 (702) 564-7622	5,000	Yes	City of Henderson
Titanium Metals Corporatio(TIMET) 8000 W. Lake Meade Drive Henderson, NV 89015 (702) 564-2544	24 LTR	Yes	Clark County – Unincorporated
Veolia Water North America-West LLC 8000 W. Lake Mead Gate 1 Henderson, NV 89015 (702) 566-6001	12,952	Yes	Clark County – Unincorporated

HYDROGEN SULFIDE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Tronox LLC 8000 W. Lake Mead Parkway Henderson, NV 89015 (702) 651-2200	28,000	Yes	Clark County - Unincorporated

HYDROQUINONE (Powder)			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Nevada Cogeneration Associates #1 Garnet Valley Facility 11401 US 93 & I-15 Las Vegas, NV 89025 (702) 651-1220	917	Yes	Clark County – Unincorporated

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

HYDROQUINONE (Powder) continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Nevada Cogeneration Associates #2 Black Mountain Facility East Lake Mead Blvd/Pabco (702) 651-1220	917	Yes	Clark County – Unincorporated
Sierra Pacific Resources * NP/Sunrise Station 6300 Vegas Valley Drive Las Vegas, NV 89122 (702) 367-5902	900	Yes	Clark County
Sierra Pacific Resources * NP/ Reid Gardner Station I-15 N. Exit 88 – Wally Kay Road Moapa, NV 89025 (702) 367-5900	5,000	Yes	Clark County – Unincorporated
Sierra Pacific Resources * NP/Clark Station 5640 Stephanie Street Las Vegas, NV 89122 (702) 434-7700	900	Yes	Clark County

NITRIC ACID (>40%)			
Fixed Facility Address	**Amount Present (Lbs)**	***Sensitive Facilities (Yes/No)***	**Jurisdiction** ***NDEP – CAPP Planning Scenario***
Kens Foods Inc ** 8925 Kens Court Las Vegas, NV 89139 (702) 932-6403	2,500 3,500	Yes	Clark County
Meadow Gold Dairies 6350 E. Centennial Parkway North Las Vegas, NV 89115 (702) 399-6455	15,480	Yes	City of North Las Vegas
Ocean Spray Cranberries Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	630 gallons	Yes	City of Henderson
Thatcher Company of Nevada Las Vegas Division 850 W. Lake Mead Drive Henderson, NV 89014 (702) 564-7622	4,800	Yes	City of Henderson
Winset Greenhouses (Nevada) Inc. * 3950 N. Bruce Street North Las Vegas, NV 89030 (702) 644-9468	2,000	Yes	City of North Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

NITRIC OXIDE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Sierra Pacific Resources * NP/ Reid Gardner Station I-15 N Exit 88-Wally Kay Road Moapa, NV 89025 (702) 367-5900	8,400 CFT	Yes	Clark County – Unincorporated
Sierra Pacific Resources * NP/Harry Allen Station 14601 Las Vegas Boulevard North Las Vegas, NV 89124 (702) 657-4461	2,400 CFT	Yes	Clark County – Unincorporated

PERACETIC ACID			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No***	***Jurisdiction NDEP – CAPP Planning Scenario***
Ocean Spray Cranberries Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	220 gallons	Yes	City of Henderson

PHOSPHORIC ACID			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/NO)***	**Jurisdiction** ***NDEP – CAPP Planning Scenario***
Ocean Spray Cranberries Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	925	Yes	City of Henderson

SULFUR DIOXIDE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP Planning Scenario***
Sierra Pacific Resources * NP/Reid Gardner Station I-15 North Exit 88 – Wally Kay Road Moapa, NV 89025 (702) 367-5900	8,400 CFT	Yes	Clark County - Unincorporated

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP - CAPP***
American Tower Corporation ** Mandalay Bay Resort – Site #344571 3950 Las Vegas Boulevard South Las Vegas, NV 89119 (602) 284-0280	2,528	Yes	Clark County
American Tower Corporation Mirage Hotel/Casino – Site#338838 3400 Las Vegas Boulevard South Las Vegas, NV 89109 (602) 284-0280	4,093	Yes	Clark County
Anderson Dairy, Inc. 801 Searles Avenue Las Vegas, NV 89101 (702) 642-7507	2,600	Yes	City of Las Vegas
AT&T Corp ** 112 S. 6th Street Las Vegas, NV 89101 (770) 922-6035	5,712	Yes	City of Las Vegas
BakeMark West 2570 Kiel Way North Las Vegas, NV 89030	1,184	Yes	City of North Las Vegas
Bank of American ** 1351 North Town Center Las Vegas, NV 89144 (702) 207-8466	1,161	Yes	City of Las Vegas
Bighorn Generating Station Reliant Energy Wholesale Generation LLC 1275 E. Primm Boulevard Primm, NV 89019 (702) 874-5401	12,243	Yes	Clark County – Unincorporated
Blaine Equipment Company 3540 North 5th Street North Las Vegas, NV 89030 (702) 399-2700	1,320	Yes	City of North Las Vegas
Bulk Transportation – Henderson Terminal ** 8000 W. Lake Mead Drive Henderson, NV 89009 (702) 565-5701	4,500	Yes	City of Henderson
Caesars Palace Hotel and Casino 3570 Las Vegas Boulevard South Las Vegas, NV 89109 (702) 731-7096	6,000	Yes	Clark County
Cap Warehouse Charleston Auto Parts Inc 3108 Losee Road North Las Vegas, NV 89030 (702) 354-1491	3,168	Yes	City of North Las Vegas
Central Telephone Co. (NV) * 125 Las Vegas Boulevard South Las Vegas, NV 89101 (702) 382-9999	14,973	Yes	City of Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP - CAPP***
Central Telephone Co. (NV) * 1600 E. Lake Mead Boulevard North Las Vegas, NV 89115 (702) 642-1121	3,193	Yes	City of North Las Vega
Central Telephone Co. (NV) * 1033 N. Nellis Boulevard Las Vegas, NV 89110 (702) 452-1160	3,124	Yes	Clark County
Central Telephone Co. (NV) * 4640 E. Tropicana Boulevard Las Vegas, NV 89121 (702) 451-2126	7,629	Yes	Clark County
Central Telephone Co. (NV) * 1175 Casino Drive Laughlin, NV 89029 (702) 244-8099	1,178	Yes	Clark County
Central Telephone Co. (NV) * 104 Water Street Henderson, NV 89015 (702) 565-9000	3,436	Yes	City of Henderson
Central Telephone Co. (NV) * 380 S. Buffalo Drive Las Vegas, NV 89117 (702) 363-9999	4,973	Yes	Clark County
Central Telephone Co. (NV) * 6200 W. Spring Mountain Road Las Vegas, NV 89102	6,177	Yes	Clark County
Central Telephone Co. (NV) * 8040 Las Vegas Boulevard South Las Vegas, NV 89123 (702) 361-9999	5,182	Yes	Clark County
Central Telephone Co. (NV) * 4918 W. Evergreen Avenue Las Vegas, NV 89107 (702) 878-9999	3,194	Yes	City of Las Vegas
Central Telephone Co. (NV) * 503 Ash Street Boulder City, NV 89005 (702) 244-8094	1,054	Yes	City of Boulder City
Central Telephone Co. (NV) * 4996 Swenson Street Las Vegas, NV 89119 (702) 736-4071	3,308	Yes	Clark County
Central Telephone Co. (NV) * 835 E. Desert Inn Road Las Vegas, NV 89109 (702) 731-9999	7,381	Yes	Clark County
Central Telephone Co. (NV) * 2055 W. Lake Mead Boulevard North Las Vegas, NV 89030 (702) 648-0521	2,163	Yes	City of North Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Central Telephone Co. (NV) * 6724 W. Lone Mountain Road Las Vegas, NV 89108 (702) 645-2000	3,978	Yes	Clark County
Central Telephone Co. (NV) * 4243 Las Vegas Boulevard North Las Vegas, NV 89115 (702) 644-2026	1,989	Yes	Clark County
Cheyenne Auto Parts, Inc. 5125 E. Tropicana Avenue Las Vegas, NV 89122 (702) 251-4974	1,700	Yes	Clark County
Cheyenne Auto Parts, Inc. 827 S. Boulder Highway Henderson, NV 89015 (702) 251-4974	2,000	Yes	City of Henderson
Cheyenne Auto Parts, Inc. 3274 Civic Center Drive North Las Vegas, NV 89030 (702) 251-4974	4,600	Yes	City of North Las Vegas
Cheyenne Auto Parts, Inc. 4675-C S. Polaris Las Vegas, NV 89103 (702) 251-4974	11,500	Yes	Clark County
Cheyenne Auto Parts, Inc. 3830 S. Valley View Las Vegas, NV 89103 (702) 251-4974	2,700	Yes	Clark County
Cintas Corporation ** 2460 Kiel Way North Las Vegas, NV 89030 (702) 649-7511	1,369	No	City of North Las Vegas
Citibank (South Dakota) NA/Citigroup * 8725 W. Sahara Avenue Las Vegas, NV 89117 (702) 797-4428	5,880	Yes	Clark County
City of Henderson Wastewater Treatment Facility 450 E. Galleria Drive Henderson, NV 89011 (702) 267-2700	67,500	Yes	City of Henderson
Coca Cola Bottling Co. of Las Vegas 230 Mojave Road Las Vegas, NV 89101 (702) 437-7300	24,748	Yes	City of Las Vegas
Costco Wholesale Corp 222 Martin L. King Boulevard Las Vegas, NV 89106 (702) 384-6247	2,899 3,934	Yes	City of Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued)
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Costco Wholesale Corp 791 Marks Street Henderson NV 89014 (702) 352-2010	2,899 2,960	Yes	City of Henderson
Costco Wholesale Corp 801 S. Pavilion Center Las Vegas, NV 89144 (702) 352-2053	2,899 4,782	Yes	City of Las Vegas
Costco Wholesale Corp 6555 N. Decatur Boulevard Las Vegas, NV 89131 (702) 415-2301	2,899 2,557	Yes	City of Las Vegas
Crown Equipment Corporation Crown Lift Trucks – Las Vegas 141 N. Gibson Road Henderson, NV 89014 (702) 380-8090	9,836.64	Yes	City of Henderson
CSK Auto Inc. Checker Auto Parts #113 1131 E. Tropicana Avenue Las Vegas, NV 89119 (702) 736-7540	3,749 1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #591 884 S. Boulder Hwy Henderson, NV 89015 (702) 564-8103	2,677.5 1,050	Yes	City of Henderson
CSK Auto Inc. Checker Auto Parts #798 1615 N. Nellis Boulevard Las Vegas, NV 89115 (702) 438-1998	1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #843 3310 S. Nellis Boulevard Las Vegas, NV 89121 (702) 454-5260	1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #1011 3708 E. Flamingo Road Las Vegas, NV 89121 (702) 456-7055	1,071 1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #1016 816 N. Rancho Drive Las Vegas, NV 89106 (702) 648-6002	1,606.5 1,050	Yes	City of Las Vegas
CSK Auto Inc. Checker Auto Parts #1065 4530 N. Rancho Drive Las Vegas, NV 89130 (702) 656-7010	1,050	Yes	City of Las Vegas
CSK Auto Inc. Checker Auto Parts #1095 1060 S. Rainbow Boulevard Las Vegas, NV 89145 (702) 878-3324	1,607 1,050	Yes	City of Las Vegas
CSK Auto Inc. Checker Auto Parts #1228 5780 Spring Mountain Road Las Vegas, NV 89146 (702) 251-5720	3,749 1,050	Yes	Clark County

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
CSK Auto Inc. Checker Auto Parts #1257 2755 E. Sahara Avenue Las Vegas, NV 89104 (702) 431-3111	3,749 1,050	Yes	City of Las Vegas
CSK Auto Inc. Checker Auto Parts #1632 3954 E. Sunset Road Las Vegas, NV 89120 (702) 456-0998	3,084 1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #1738 2650 Windmill Parkway Henderson, NV 89014 (702) 914-0749	3,213 1,050	Yes	City of Henderson
CSK Auto Inc. Checker Auto Parts #4138 1250 S. Lamb Boulevard Las Vegas, NV 89104 (702) 435-0991	3,749 1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #4141 3395 S. Durango Drive Las Vegas, NV 89117 (702) 395-6218	2,142 1,050	Yes	Clark County
CSK Auto Inc. Checker Auto Parts #4160 6255 Centennial Center Las Vegas, NV 89149 (702) 395-6218	1,285 1,050	Yes	City of Las Vegas
CSK Auto Inc. Checker Auto Parts #4169 1312 E. Charleston Boulevard Las Vegas, NV 89104 (702) 435-0991	1,050	Yes	Clark County
CSK Auto Inc. ** Checker Auto Parts #4220 9721 S. Eastern Avenue Las Vegas, NV 89123(702) 435-0991	1,226	Yes	Clark County
CSK Auto Inc. Kragen Auto Parts #1271 2471 N. Jones Boulevard Las Vegas, NV 89108 (702) 395-4432	3,749 1,050	Yes	Clark County
CSK Auto Inc. Kragen Auto Parts #1309 1225 N. Eastern Avenue Las Vegas, NV 89101 (702) 633-5945	3,749 1,050	Yes	City of Las Vegas
CSK Auto Inc. Kragen Auto Parts #1698 1418 W. Craig Road N Las Vegas, NV 89030 (702) 399-9980	3,749 1,050	Yes	City of North Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
CSK Auto Inc. Kragen Auto Parts #1699 3248 Las Vegas Boulevard North Las Vegas, NV 89115 (702) 644-0180	3,749 1,050	Yes	Clark County
CSK Auto Inc. Kragen Auto Parts #4017 7510 W. Washington Avenue Las Vegas, NV 89128 (702) 228-3125	1,050	Yes	City of Las Vegas
CSK Auto Inc. Kragen Auto Parts #4172 9540 W. Tropicana Avenue Las Vegas, NV 89147 (702) 395-6218	3,534	Yes	Clark County
Do It Best Corporation 1450 W. Pioneer Boulevard Mesquite, NV 89027 (435) 229-7389	9,000	Yes	City of Mesquite
El Dorado Energy LLC 701 Eldorado Valley Drive Boulder City, NV 89005 (702) 568-8200	5,000	Yes	City of Boulder City
Exel Las Vegas Return CTR #9195 1900 Aerojet Way North Las Vegas, NV 89030 (702) 649-7341	1,000	Yes	City of North Las Vegas
Farm Fresh Foods 3840 N. Civic Center Drive #B North Las Vegas, NV 89030 (702) 643-5238	1,200	Yes	City of North Las Vegas
Frito-Lay Inc. 1209 Trade Drive North Las Vegas, NV 89030 (702) 642-8900	1,641	Yes	City of North Las Vegas
Good Humor-Breyers Ice Cream * 1001 Olsen Street Henderson, NV 89011 (702) 564-0020	1,490	Yes	City of Henderson
Graham Packaging Pet Tech Inc. 875 American Pacific Drive Henderson, NV 89014 (702) 567-6500	11,200 600 gal	Yes	City of Henderson
Home Depot Store c/o 3E CO. ** 1401 S. Lamb Boulevard Las Vegas, NV 89104 (702) 641-9600	1,482	Yes	City of Las Vegas
Home Depot Store c/o 3E CO. ** 7881 W. Tropical Pkwy Las Vegas, NV 89149 (702) 839-5100	1,384	Yes	City of Las Vegas

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Home Depot Store c/o 3E CO. ** 2200 E. Serene Avenue Las Vegas, NV 89123 (702) 837-4300	1,245	Yes	Clark County
Home Depot Store c/o 3E CO. ** 1275 W. Craig Road North Las Vegas, NV 89030 (702) 642-2600	1,119	Yes	City of North Las Vegas
Home Depot Store c/o 3E CO. ** 4195 S. Fort Apache Road Las Vegas, NV 89147 (702) 220-4903	1,214	Yes	Clark County
Home Depot Store c/o 3E CO. ** 6025 S. Pecos Road Las Vegas, NV 89120 (702) 434-1948	1,222	Yes	Clark County
Hoover Dam Dam Power Plant/Visitors Center US Highway 93 Boulder City, NV 89005 (702) 494-2231	32,250	Yes	City of Boulder City
Hotel Ramada of Nevada Tropicana Resort and Casino 3801 Las Vegas Boulevard South Las Vegas, NV 89109 (702) 739-2222	2,000	Yes	Clark County
Kens Foods Inc. ** 8925 Kens Court Las Vegas, NV 89139 (702) 932-6403	1,500 1,700	Yes	Clark County
Las Vegas Cogeneration LP 1701 E. Alexander Road North Las Vegas, NV 89030 (702) 642-0331	3,500	Yes	City of North Las Vegas
Las Vegas Finishing LLC 3261 Builders Avenue Las Vegas, NV 89101 (702) 457-0054	1,500	Yes	City of Las Vegas
Level 3 Communications Inc. Jean ILA Off Prison Road Near I-15 Jean, NV 89019 (720) 888-9246	1,401	Yes	Clark County – Unincorporated
Level 3 Communications, Inc. 1 Aerojet Way North Las Vegas, NV 89030 (702) 657-4800	5,400	Yes	City of North Las Vegas
Level 3 Communications, LLC * LSVGNV3W/Boulder City 901 El Dorado Valley Road Boulder City, NV 89005 (720) 888-1163	1,296	Yes	City of Boulder City

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Level 3 Communications, LLC * LSVGNV2W Las Vegas Pop #2 4485 E. Sahara Avenue Las Vegas, NV 89104 (720) 888-1163	8,640	Yes	Clark County
Level 3 Communications, LLC * MSQTNV1T Mesquite Regen Exit 110 & Highway 15 Mesquite, NV 89024 (720) 888-1163	2,160	Yes	Clark County - Unincorporated
Level 3 Communications, LLC * LSVGNVIW/Las Vegas Pop 4275 E. Sahara Avenue #19&20 Las Vegas, NV 89104 (720) 888-1163	1,335	Yes	Clark County
Level 3 Communications, LLC * UPMDNVIT/Upper Muddy Regen Exit 64 & Highway 15 Glendale, NV 89025 (720) 888-1163	2,160	Yes	Clark County – Unincorporated
Level 3 Communications, LLC * Las Vegas LSVGNV02 895 El Dorado Valley Drive Boulder City, NV 89005 (520) 574-9292	1,526	Yes	City of Boulder City
Level 3 Communications, LLC * Las Vegas – LSVGNVA1 4275 E. Sahara Avenue Las Vegas, NV 89104 (520) 574-9292	1,947	Yes	Clark County
Levi Strauss & Co. 501 Executive Airport Drive Henderson, NV 89052 (702) 269-8700	25,913	Yes	City of Henderson
MCI LAVGNV 4187 E. Sahara Avenue Las Vegas, NV 89104 (702) 432-5401	2,183	Yes	Clark County
MCI LSKVNV 4428 E. Sahara Avenue Las Vegas, NV 89104 (702) 432-5401	8,950	Yes	Clark County
Meadow Gold Dairies 6350 E. Centennial Parkway North Las Vegas, NV 89115 (702) 399-6455	4,000 60	Yes	City of North Las Vegas
Medco Health Solutions, Inc 6225 Annie Oakley Drive Las Vegas, NV 89120 (702) 436-8602	5,882	Yes	Clark County

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
MGM Grand and Hotel, Inc and MGM Movie World Inc. * 3799 Las Vegas Boulevard South Las Vegas, NV 89109 (702) 891-5507	12,800	Yes	Clark County
Mirant Las Vegas LLC 15555 Apex Power Parkway North Las Vegas, NV 89165 (702) 632-8610	22,400	Yes	City of North Las Vegas NDEP-CAPP
MK Battery East Penn Manufacturing Co., Inc. 4530 Andres Street North Las Vegas, NV 89031 (702) 644-1187	5,902	Yes	City of North Las Vegas
Mission Foods 3955 Puebla Street Las Vegas, NV 89115 (702) 456-9995	1,300	Yes	Clark County
Moen Incorporated ** 4335 N. Arcata Way North Las Vegas, NV 89030 (702) 644-1082	5,724	Yes	City of North Las Vegas
Mohave Generating Station 655 Bruce Woodbury Drive Laughlin, NV 89029 (702) 298-1191	96,000	Yes	Clark County
Nevada Cogeneration Associates #1 Garnet Valley Facility 11401 US 93 & I-15 Las Vegas, NV 89025 (702) 651-1220	98,048	Yes	Clark County – Unincorporated
Nevada Cogeneration Associates Black Mountain Facility East Lake Mead/Pabco Las Vegas, NV 89124 (702) 651-1220	98,048	Yes	Clark County – Unincorporated
Nevada Colorado River Commission Eastside Substation ¼ M SW/243 Lakeshore Road Boulder City, NV 89005 (702) 856-3611	5,330	Yes	City of Boulder City
Nevada Colorado River Commission Newport Substation 1235 Richard Bunker * Henderson, NV 89015 (702) 856-3611	5,330	Yes	City of Henderson
New Cingular Wireless * dba AT&T Mobility Switch Site 745 East Tropicana Avenue Las Vegas, NV 89119 (425) 580-4618	11,424	Yes	Clark County
Ocean Spray Cranberries, Inc. 1301 American Pacific Drive Henderson, NV 89014 (702) 566-7100	13,000 1,575	Yes	City of Henderson

Hazard Zones for Fixed Zones by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Pioneer Americas LLC 8000 Lake Mead Drive Henderson, NV 89009 (702) 565-8781	1,176,000	Yes	Clark County – Unincorporated
Pride West ** 3200 E. Gowan Road # 101 North Las Vegas, NV 89030 (702) 651-0110	6,259	Yes	City of North Las Vegas
Primex Plastics Corporation 752 Turtleback Road Mesquite, NV 89027 (702) 346-7100	1,173	Yes	City of Mesquite
Qwest Communications Group Las Vegas POP 4270 E. Sahara Avenue Las Vegas, NV 89104 (702) 796-1005	7,301	Yes	Clark County
Saguaro Power Company 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 558-1100	5,525	Yes	Clark County – Unincorporated
Sara Lee Food Service Sara Lee Coffee & Tea North America 6435 S. Valley View Las Vegas, NV 89118 (702) 321-8109	1,227	Yes	Clark County
Shaw Industries 6630 Arroyo Springs Street # 100-200 Las Vegas, NV 89113 (702) 227-6466	1,369	Yes	Clark County
Sierra Pacific Resources * NP/Reid Gardner Station I-15 N Exit 88-Wally Kay Road Moapa, NV 89025 (702) 367-5900	603,000	Yes	Clark County Unincorporated
Sierra Pacific Resources * NP/Clark Station 5640 Stephanie Street Las Vegas, NV 89122 (702) 434-7700	425,000	Yes	Clark County
Sierra Pacific Resources * NP/Silver Hawk Station 15111 Apex Power Parkway North Las Vegas, NV 89124 (702) 251-8301	5 Ton	Yes	City of North Las Vegas
Sierra Pacific Resources * NP/Chuck Lenzie Generating Station 11405 US Highway 93 Las Vegas, NV 89165 (702) 227-8210	76,678	Yes	Clark County Unincorporated
Sierra Pacific Resources * NP/Sunrise Station 6300 Vegas Valley Drive Las Vegas, NV 89122 (702) 367-5902	81,450	Yes	Clark County

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Southern Nevada Water System Alfred Merritt Smith WTF 243 Lakeshore Road Boulder City, NV 89005 (702) 564-7697	400,000	Yes	City of Boulder City
Southern Nevada Water System River Mountains WTF 1350 Richard Bunker Avenue Henderson, NV 89015 (702) 564-7697	1,650 306,900	Yes	City of Henderson
Sprint United Management Co. * Las Vegas PCS Switch 871 Grier Las Vegas, NV 89119 (702) 895-6453	5,324	Yes	Clark County
Sysco Food Services of Las Vegas 6201 E. Centennial Parkway North Las Vegas, NV 89115 (702) 632-1800	25,106	Yes	City of North Las Vegas
Team Ford LLC 5445 Drexel Road Las Vegas, NV 89130 (702) 395-5100	1,860	Yes	Clark County
Thatcher Company of Nevada Las Vegas Division 850 West Lake Mead Drive Henderson, NV 89014 (702) 564-7622	800,000	Yes	City of Henderson
Titanium Metals Corporation (TIMET) 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 564-2544	4,600 gallons	Yes	Clark County – Unincorporated
T-Mobile USA Inc. NV096 Las Vegas MSC 200 Spectrum Boulevard Las Vegas, NV 89101 (702) 452-4760	2,783	Yes	City of Las Vegas
T-Mobile USA Inc. North Las Vegas MSC 3040 Simmons Street #106 North Las Vegas, NV 89032 (702) 648-8120	14,600	Yes	City of North Las Vegas
TPC At The Canyons Maintenance Facility 9801 Canyon Run Drive Las Vegas, NV 89144 (702) 256-3600	15,000	Yes	City of Las Vegas
Tronox LLC 8000 W. Lake Mead Parkway Henderson, NV 89015 (702) 651-2200	711,675	Yes	City of Henderson

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	**Sensitive *Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
U.S. DOE NNSA/Nevada Site Office ** Remote Sensing Laboratory 4600 N. Hollywood Boulevard 2211 Las Vegas, NV 89115 (702) 566-7100	1,163	Yes	Nellis Air Force Base Las Vegas
U.S. DOE West Area Power Admin Mead Substation 3 miles S of U.S. RTE 93 Boulder City, NV 89005 (702) 294-3646	3,277	Yes	City of Boulder City
U.S. DOE – Yucca Mountain Project 1551 Hillshire Drive Las Vegas, NV 89134-6321 (702) 794-5459	3,375	Yes	City of Las Vegas
U.S. DOE – Yucca Mountain Project – YMP-B3 1251 N. Town Center Drive Las Vegas, NV 89144 (702) 794-5459	1,570	Yes	City of Las Vegas
U.S. DOE – Yucca Mountain Project Sahara Data Center 4489 E. Sahara Avenue Las Vegas, NV 89104 (702) 794-5459	4,923	Yes	Clark County
U.S. DOE – Yucca Mountain Project 1180 N. Town Center Drive Las Vegas, NV 89144 (702) 794-5459	1,580	Yes	City of Las Vegas
U.S. Foodservice 300 W. Bonanza Road Las Vegas, NV 89106 (702) 380-5450	3,816	Yes	City of Las Vegas
U.S. Foodservice 1685 W. Cheyenne Avenue North Las Vegas, NV 89032-7764 (702) 636-3663	32,500	Yes	City of North Las Vegas
Venetian Resort Hotel/Casino 3355 Las Vegas Boulevard Las Vegas, NV 89109 (702) 414-4448	30,800	Yes	Clark County
Verizon Wireless ** MSC (Rock Quarry MSC & cell site) 475 Rock Quarry Way North Las Vegas, NV 89032 (908) 559-7266	10,040	Yes	City of North Las Vegas
XO Communications of Nevada Palm Center 3125 Palm Center Drive Las Vegas, NV 89103 (702) 990-1140	3,552	Yes	Clark County

Hazard Zones for Fixed Facilities by Chemical (continued):
New Facility ** Change in Agency Name or Address *

SULFURIC ACID continued			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
XO Communications of Nevada Green Valley 2240 Corporate Circle Henderson, NV 89074-7748 (702) 990-1140	2,800	Yes	City of Henderson

TITANIUM TETRACHLORIDE			
Fixed Facility Address	***Amount Present (Lbs)***	***Sensitive Facilities (Yes/No)***	***Jurisdiction NDEP – CAPP***
Titanium Metals Corporation (TIMET) 8000 W. Lake Mead Drive Henderson, NV 89015 (702) 564-2544	3,293,112	Yes	City of Henderson

Vulnerable Facilities

This section contains the names and addresses of vulnerable facilities located within a one-mile radius of sites identified with Extremely Hazardous Substances (EHS):

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Ocean Spray Cranberries, Inc	KESTERSON ES	231 BAILEY ISLAND DR.
1301 American Pacific Dr	STATION 82 - HEN	401 PARKSON RD.
Henderson, NV 89014	STATION 83 - HEN	100 BURKHOLDER RD.
	STATION 94 - HEN	400 VALLE VERDE DR.
	STATION 97 - HEN	1550 AMADOR LN.
Reddy Ice – Las Vegas	BILTMORE SCHOOL	801 VETERANS MEMORIAL DR.
1200 Foremaster Lane	C P SQUIRES ES	1312 E TONOPAH AVE.
Las Vegas, NV 89101	HALLE HEWETSON ES	701 N 20TH ST.
	J D SMITH MS	1301 E TONOPAH AVE.
	NORTH VISTA HOSPITAL MEDICAL CENTER	1409 E. LAKE MEAD BLVD
	NORTH LAS VEGAS POLICE DEPARTMENT - NLV	1301 E. Lake Mead Blvd.
	RANCHO HS	1900 E OWENS AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.
	WALTER BRACKEN ES	1200 N 27TH ST.
	WASHINGTON SCHOOL	1901 N WHITE ST.
Southern Nevada Water System	SUE H MORROW ES	1070 FEATHERWOOD AVE.
1350 Richard Bunker Avenue		
Henderson, NV 89015		
Thatcher Company of Nevada	STATION 82 - HEN	401 PARKSON RD.
850 West Lake Mead Drive	STATION 83 - HEN	100 BURKHOLDER RD.
Henderson, NV 89014	STATION 97 - HEN	1550 AMADOR LN.
Titanium Metals Corporation (TIMET)	ST. ROSE DOMINICAN HOSPITAL	102 E. LAKE MEAD DR.
8000 W Lake Mead Dr		
Henderson, NV 89014		

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
US Foodservice	ATTC SCHOOL	444 W BROOKS AVE.
1685 West Cheyenne Avenue	C V T GILBERT SCHOOL	2101 W CARTIER AVE.
North Las Vegas, NV 89032	H P FITZGERALD SCHOOL	2651 N REVERE ST.
	JEFFREY SCHOOL	602 W BROOKS AVE.
	SEDWAY MS	3465 ENGLESTAD ST.
Waxie Sanitary Supply	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
277 Pilot Road	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
Las Vegas, NV 89119	STATION 19 - CC	5710 SPENCER ST.
	STATION 24 - CC	7525 DEAN MARTIN DR
	STATION 25 - CC	5210 S. PECOS RD.
AZ Partsmaster	REX BELL ES	2900 WILMINGTON WAY
2950-E South Highland Dr	SAHARA SURGERY CENTER	2401 PASEO DEL PRADO
Las Vegas, NV 89109		
City of North Las Vegas	JIM BRIDGER MS	2505 N BRUCE ST.
Utilities/ENV SVC Building	LINCOLN ES	3010 BERG ST.
2829 Fort Sumter Drive	MARION CAHLAN ES	2801 FORT SUMTER DR.
North Las Vegas, NV 89030	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
	REYNALDO MARTINEZ ES	350 E JUDSON AVE.
City of North Las Vegas	LOIS CRAIG ES	2637 E GOWAN RD.
Leavitt Well Site	STATION 23 - CC	4250 E. ALEXANDER RD.
3860 Losee Road	STATION 51 - NLV	2626 E. CAREY AVE.
North Las Vegas, NV 89030	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
City of North Las Vegas	CHEYENNE HS	3200 W ALEXANDER RD.
Silver Mesa Well Site	LUCILE BRUNER ES	4289 ALLEN LN.
4301 Alexander Rd	RICHARD PRIEST ES	4150 FUSELIER DR
North Las Vegas, NV 89030	THERON L SWAINSTON MS	3500 W GILMORE AVE.
City of North Las Vegas	LUCILE BRUNER ES	4289 ALLEN LN.
Sun Valley Well Site	THERON L SWAINSTON MS	3500 W GILMORE AVE.
3532 Valley Dr		
North Las Vegas, NV 89030		

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
City of North Las Vegas	CLAUDE & STELLA PARSON ES	4100 THOM BLVD.
Elstner Estates Well Site	STATION 42 - CLV	7331 W. CHEYENNE AV.
5200 West Gowan Road	STATION 43 - CLV	6420 SMOKE RANCH RD.
North Las Vegas, NV 89030	STATION 9 - CLV	4747 N. RAINBOW BLVD.
K-Mart Corporation	ED VON TOBEL MS	2436 N PECOS RD.
2671 N Las Vegas Boulevard	FAY HERRON ES	2421 N KENNETH RD.
North Las Vegas, NV 89030	JEFFERS ES	2320 CLIFFORD ST
	LINCOLN ES	3010 BERG ST.
	MARION CAHLAN ES	2801 FORT SUMTER DR.
Pool Chlor of Nevada	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
3590 Dewey Drive	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
Las Vegas, NV 89118	STATION 21 - CC	5015 W. OQUENDO RD.
Sierra Pacific Resources	COWAN SCHOOL	5300 E RUSSELL RD.
Nevada Power/Clark Station	FRANCIS H CORTNEY MS	5301 E HACIENDA AVE.
5640 Stephanie Street	HARRIET TREEM ES	1698 PATRICK LN.
Las Vegas, NV 89122	JIM THORPE ES	1650 PATRICK LN.
	THURMAN WHITE MS	1661 GALLERIA DR.
	WHITNEY ES	5005 KEENAN ST.
KC Asphalt LLC	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
KPA Las Vegas Asphalt Terminal	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
3901 West Ponderosa Way	STATION 21 - CC	5015 W. OQUENDO RD.
Las Vegas, NV 89118	STATION 24 - CC	7525 DEAN MARTIN DR
Royce Industries LC	ATTC SCHOOL	444 W BROOKS AVE.
11 West Brooks Avenue	H P FITZGERALD SCHOOL	2651 N REVERE ST.
North Las Vegas, NV 89030	JEFFREY SCHOOL	602 W BROOKS AVE.
	JIM BRIDGER MS	2505 N BRUCE ST.
	JO MACKEY SCHOOL	2726 ENGELSTAD ST.
	MARION CAHLAN ES	2801 FORT SUMTER DR.
	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
	REYNALDO MARTINEZ ES	350 E JUDSON AVE.
	SEDWAY MS	3465 ENGLESTAD ST.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Sierra Pacific Resources	JOHN F MENDOZA ES	2000 S SLOAN LN.
Nevada Power/Sunrise Station	LAS VEGAS HS	6500 E SAHARA
6300 Vegas Valley Dr, Las Vegas, NV 89122		
Winset Greenhouses (Nevada) Inc.	CANYON SPRINGS HS	350 E ALEXANDER
3950 North Bruce Street	LOIS CRAIG ES	2637 E GOWAN RD.
North Las Vegas, NV 89030	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Anderson Dairy Inc	BILTMORE SCHOOL	801 VETERANS MEMORIAL DR.
801 Searles Avenue	C P SQUIRES ES	1312 E TONOPAH AVE.
Las Vegas, NV 89101	HALLE HEWETSON ES	701 N 20TH ST.
	J D SMITH MS	1301 E TONOPAH AVE.
	KIT CARSON SCHOOL	1735 N. D STREET
	NORTH VISTA HOSPITAL MEDICAL CENTER	1409 E. LAKE MEAD BLVD
	NORTH LAS VEGAS POLICE DEPARTMENT - NLV	1301 E. Lake Mead Blvd.
	RANCHO HS	1900 E OWENS AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.
	WASHINGTON SCHOOL	1901 N WHITE ST.
AT&T NV/Nevada Bell NV077	INDIAN SPRINGS ES/MS/HS	400 SKY RD.
553 West Boulder Lane		
Indian Springs, NV 89018		
AT&T Telecom Inc SBC Telecom NV100	ORAN GRAGSON ES	555 N HONOLULU ST.
250 Spectrum Boulevard	ROY W MARTIN MS	2800 STEWART AVE.
Las Vegas, NV 89101	SUNRISE ACRES ES	211 28TH ST.
	VARIETY SCHOOL	2601 SUNRISE AVE.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
BakeMark West	ATTC SCHOOL	444 W BROOKS AVE.
2570 Kiel Way	H P FITZGERALD SCHOOL	2651 N REVERE ST.
North Las Vegas, NV 89030	JEFFREY SCHOOL	602 W BROOKS AVE.
	JIM BRIDGER MS	2505 N BRUCE ST.
	JO MACKEY SCHOOL	2726 ENGELSTAD ST.
	KIT CARSON SCHOOL	1735 N. D STREET
	MARION CAHLAN ES	2801 FORT SUMTER DR.
	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
	REYNALDO MARTINEZ ES	350 E JUDSON AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.
	WASHINGTON SCHOOL	1901 N WHITE ST.
Blaine Equipment Company Inc	CANYON SPRINGS	350 E ALEXANDER
3540 N 5th St	MARION CAHLAN	2801 FORT SUMTER DR.
North Las Vegas, NV 89030	SEDWAY	3465 ENGLESTAD ST.
	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Level 3 Communications, LLC	LAURA DEARING ES	3046 S FERNDALE ST.
4275 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
Caesars Palace Hotel and Casino	STATION 12 - CC	3001 INDUSTRIAL RD.
3570 S Las Vegas Boulevard	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
Las Vegas, NV 89109	STATION 18 - CC	575 E. FLAMINGO RD.
Cap Warehouse	JIM BRIDGER MS	2505 N BRUCE ST.
Charleston Auto Parts Inc	LINCOLN ES	3010 BERG ST.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
3108 Losee Road	MARION CAHLAN ES	2801 FORT SUMTER DR.
North Las Vegas, NV 89030	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
Cheyenne Auto Parts Inc	FRANCIS H CORTNEY MS	5301 E HACIENDA AVE.
5125 East Tropicana Avenue	HARLEY HARMON ES	5351 S HILLSBORO LN.
Las Vegas, NV 89122	J M ULLOM ES	4869 E SUN VALLEY DR.
	WHITNEY ES	5005 KEENAN ST.
Cheyenne Auto Parts Inc	BASIC HS	400 PALO VERDE DR.
827 South Boulder Highway	GORDON MCCAW ES	57 LYNN LN.
Henderson, NV 89015	POLICE AND FIRE EMERGENCY CENTER - HEND	223 LEAD ST
	ROBERT L TAYLOR ES	144 WESTMINSTER
	ULIS NEWTON ES	571 GREENWAY RD.
Cheyenne Auto Parts Inc	LINCOLN ES	3010 BERG ST.
3274 Civic Center Drive	LOIS CRAIG ES	2637 E GOWAN RD.
North Las Vegas, NV 89030	MARION CAHLAN ES	2801 FORT SUMTER DR.
	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
New Cingular Wireless dba AT&T Mobility	PARADISE ES	900 COTTAGE GROVE AVE.
Switch Site	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
745 East Tropicana Avenue	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
Las Vegas, NV 89119	STATION 18 - CC	575 E. FLAMINGO RD.
	STATION 19 - CC	5710 SPENCER ST.
	STATION 25 - CC	5210 S. PECOS RD.
Citibank (South Dakota) NA/Citigroup	HERBERT A DERFELT ES	1900 S LISA LN.
8725 West Sahara Avenue	M J CHRISTENSEN ES	9001 MARINER COVE DR.
Las Vegas, NV 89117		
City of Henderson	EDNA HINMAN ES	450 MERLAYNE DR.
Wastewater Treatment Facility	STATION 82 - HEN	401 PARKSON RD.
450 E Galleria Dr	STATION 83 - HEN	100 BURKHOLDER RD.
Henderson, NV 89011		

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Coca Cola Bottling Company of Las Vegas	ORAN GRAGSON	555 N HONOLULU ST.
230 North Mojave Road	ROY W MARTIN	2800 STEWART AVE.
Las Vegas, NV 89101	SUNRISE ACRES	211 28TH ST.
	VARIETY	2601 SUNRISE AVE.
Costo Wholesale Corp	GOLDRING DIAGNOSTIC AND SURGICAL CENTER	2010 GOLDRING AVE
222 Martin L King Blvd	MABEL HOGGARD SCHOOL	950 N TONOPAH DR.
Las Vegas, NV 89106	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 10 - CLV	1500 S. MARTIN L. KING BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 3 - CLV	2645 W. WASHINGTON AV.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.
	UNIVERSITY MEDICAL CENTER	1800 W. CHARLESTON BLVD
	UNIVERSITY MEDICAL CENTER	1800 W. CHARLESTON BLVD
	VALLEY HOSPITAL MEDICAL CENTER	620 SHADOW LANE
	WENDELL WILLIAMS SCHOOL	1030 J ST.
Desert Gold Food Company Inc	DOWNTOWN SUBSTATION - LVMPD	401 S 4th ST.
123 West Colorado Avenue	GOLDRING DIAGNOSTIC AND SURGICAL CENTER	2010 GOLDRING AVE
Las Vegas, NV 89102	JOHN PARK ES	931 FRANKLIN AVE.
	UNIVERSITY MEDICAL CENTER	1800 W. CHARLESTON BLVD
	UNIVERSITY MEDICAL CENTER	1800 W. CHARLESTON BLVD
	VALLEY HOSPITAL MEDICAL CENTER	620 SHADOW LANE
Versa Cold Logistics LLC	FOOTHILL HS	800 COLLEGE DR.
830 East Horizon Drive		
Henderson, NV 89015		
Civic Center Properties LLC	LINCOLNES	3010 BERG ST.
3840 North Civic Center Drive #A	LOIS CRAIG ES	2637 E GOWAN RD.
North Las Vegas, NV 89030	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
CSK Auto Inc Checker Auto Parts # 1632	NATE MACK ES	3170 LAUREL AVE.
3954 East Sunset Rd	STATION 17 - CC	5110 ANDOVER DR.
Las Vegas, NV 89120	STATION 19 - CC	5710 SPENCER ST.
	STATION 25 - CC	5210 S. PECOS RD.
	STATION 94 - HEN	400 VALLE VERDE DR.
CSK Auto Inc Kragen Auto Parts #1698	CANYON SPRINGS HS	350 E ALEXANDER
1418 West Craig Road	RAUL P ELIZONDO ES	4865 GOLDFIELD ST.
North Las Vegas, NV 89030	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
CSK Auto Inc Kragen Auto Parts #1699	CLYDE C COX ES	3855 TIMBERLAKE DR.
3248 N Las Vegas Blvd	ED VON TOBEL MS	2436 N PECOS RD.
Las Vegas, NV 89115		
CSK Auto Inc Checker Auto Parts # 1738	AGGIE ROBERTS ES	227 CHARTER OAK ST.
2650 Windmill Parkway	DAVID M COX ES	280 CLARK DR.
Henderson, NV 89014		
CSK Auto Inc Kragen Auto Parts #4017	EDYTHE & LLOYD KATZ S	1800 ROCK SPRINGS DR.
7510 West Washington Avenue	HELEN M SMITH ES	7101 PINEDALE AVE.
Las Vegas, NV 89128	JAMES B MCMILLAN ES	7000 WALT LOTT DR.
	WALTER JOHNSON MS	7701 DUCHARME AVE.
CSK Auto Inc Checker Auto Parts # 4141	PATRICA A BENDORF ES	3550 S KEVIN ST.
3395 South Durango Drive	ROGER M BRYAN ES	8255 KATIE AVE.
Las Vegas, NV 89117		
CSK Auto Inc Kragen Auto Parts #4172	STATION 22 - CC	6685 W. FLAMINGO RD.
9540 West Tropicana Avenue	STATION 26 - CC	4030 S EL CAPITAN WY.
Las Vegas, NV 89147	STATION 34 - CC	8675 W. OQUENDO RD.
	VICTORIA FERTITTA MS	9905 W MESA VISTA AVE.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
CSK Auto Inc Checker Auto Parts # 4169	DOWNTOWN METRO SUBSTATION	401 S. 4TH ST.
1312 East Charleston Boulevard	STATION 8 - CLV	633 N. MOJAVE RD.
Las Vegas, NV 89104	STATION 4 - CLV	4215 15TH ST.
	LAS VEGAS ACADEMY SCHOOL	315 7TH ST.
	HOWARD HOLLINGSWORTH ES	1776 E. OGDEN AV.
	CRESTWOOD ES	1300 PAULINE WY.
	JOHN C FREMONT MS	1100 E. ST LOUIS AV.
	JOHN PARK ES	931 FRANKLIN AV.
CSK Auto Inc Kragen Auto Parts #1309	ARTURO CAMBEIRO ES	2851 HARRIS ST.
1225 North Eastern Avenue	C C RONNOW ES	1100 LENA ST.
Las Vegas, NV 89101	C P SQUIRES ES	1312 E TONOPAH AVE.
	HALLE HEWETSON ES	701 N 20TH ST.
	J D SMITH MS	1301 E TONOPAH AVE.
	NORTH VISTA HOSPITAL MEDICAL CENTER	1409 E. LAKE MEAD BLVD
	NE SUBSTATION - LVMPD	831 N MOJAVE RD
	NORTH LAS VEGAS POLICE DEPARTMENT - NLV	1301 E. LAKE MEAD BLVD
	RANCHO HS	1900 E OWENS AVE.
	ROBERT LUNT ES	2701 HARRIS AVE.
	TOM WILLIAMS ES	3000 E TONOPAH AVE.
	WALTER BRACKEN ES	1200 N 27TH ST.
Do It Best Corporation	MESA VIEW REGIONAL HOSPITAL	1299 BERTHA HOWE AVE
1450 West Pioneer Blvd		
Mesquite, NV 89027		
MK Battery	GWENDOLYN WOOLLEY ES	3955 TIMBERLAKE DR.
East Penn Manufacturing Company Inc.		
4530 Andres Street		
North Las Vegas, NV 89031		
Exel Las Vegas Return Center # 9195	CANYON SPRINGS HS	350 E ALEXANDER
1900 Aerojet Way	STATION 23 - CC	4250 E. ALEXANDER RD.
North Las Vegas, NV 89030	STATION 51 - NLV	2626 E. CAREY AVE.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Cont. Exel Las Vegas Return Center #9195	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Farm Fresh Foods	LINCOLN ES	3010 BERG ST.
3840 North Civic Center Drive #B	LOIS CRAIG ES	2637 E GOWAN RD.
North Las Vegas, NV 89030	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Frito Lay Inc	ATTC SCHOOL	444 W BROOKS AVE.
1209 Trade Drive	H P FITZGERALD SCHOOL	2651 N REVERE ST.
North Las Vegas, NV 89030	JEFFREY SCHOOL	602 W BROOKS AVE.
	JO MACKEY SCHOOL	2726 ENGELSTAD ST.
	SEDWAY MS	3465 ENGLESTAD ST.
Graham Packaging Pet Technologies Inc	KESTERSON ES	231 BAILEY ISLAND DR.
875 American Pacific Drive	STATION 82 - HEN	401 PARKSON RD.
Henderson, NV 89014	STATION 83 - HEN	100 BURKHOLDER RD.
	STATION 97 - HEN	1550 AMADOR LN.
Hoover Dam Power Plant/Visitors Center	ANDREW MITCHELL ES	900 AVENUE B
US Highway 93	BOULDER CITY HS	1101 FIFTH AVE.
Boulder City, NV 89005	BOULDER CITY HOSPITAL INC	901 ADAMS BLVD
	ELTON GARRETT MS	1200 AVENUE G
	MARTHA P KING ES	888 ADAMS BLVD.
Las Vegas Cogeneration LP	CANYON SPRINGS HS	350 E ALEXANDER
1701 East Alexander Road	LOIS CRAIG ES	2637 E GOWAN RD.
North Las Vegas, NV 89030	STATION 23 - CC	4250 E. ALEXANDER RD.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Las Vegas Finishing LLC	ORAN GRAGSON ES	555 N HONOLULU ST.
3261 Builders Avenue, Las Vegas, NV 89101	ROY W MARTIN MS	2800 STEWART AVE.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Level 3 Communications, Inc	LOIS CRAIG ES	2637 E GOWAN RD.
1 Aerojet Way	STATION 23 - CC	4250 E. ALEXANDER RD.
North Las Vegas, NV 89030	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 52 - NLV	4110 LOSEE RD.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
Levi Strauss and Company	LIBERTY HS	11050 BERMUDA RD
501 Executive Airport Dr		
Henderson, NV 89052		
MCI LSKVNV	LAURA DEARING ES	3046 S FERNDALE ST.
4187 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
MCI LSKVNV	LAURA DEARING ES	3046 S FERNDALE ST.
4428 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
Medco Health Solutions Inc	BILL Y TOMIYASU ES	5445 S ANNIE OAKLEY DR.
6225 Annie Oakley Drive	STATION 17 - CC	5110 ANDOVER DR.
Las Vegas, NV 89120	STATION 19 - CC	5710 SPENCER ST.
	STATION 25 - CC	5210 S. PECOS RD.
	STATION 94 - HEN	400 VALLE VERDE DR.
American Tower Corporation	STATION 12 - CC	3001 INDUSTRIAL RD.
Mirage Hotel/Casino – Site#338838	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
3400 Las Vegas Boulevard South	STATION 18 - CC	575 E. FLAMINGO RD.
Las Vegas, NV 89109		
Mission Foods	J E MANCH ES	4351 N LAMONT ST.
3955 Puebla Street	LOMIE G HEARD ES	42 BAER DR.
Las Vegas, NV 89115	ZEL & MARY LOWMAN ES	4225 N LAMONT ST.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Primex Plastic Corporation	STATION 1 - MES	10 E. MESQUITE BLVD.
752 Turtleback Road	STATION 2 - MES	1200 KITTY HAWK
Mesquite, NV 89027		
Qwest Communications Group/ Las Vegas POP	LAURA DEARING ES	3046 S FERNDALE ST.
4270 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
Sara Lee Food Service, Sara Lee Coffee & Tea North America	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
6435 South Valley View Boulevard	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
Las Vegas, NV 89118	STATION 21 - CC	5015 W. OQUENDO RD.
	STATION 24 - CC	7525 DEAN MARTIN DR
Central Telephone Co. (NV)	ANDREW MITCHELL ES	900 AVENUE B
503 Ash Street	BOULDER CITY HS	1101 FIFTH AVE.
Boulder City, NV 89005	BOULDER CITY HOSPITAL INC	901 ADAMS BLVD
	ELTON GARRETT MS	1200 AVENUE G
	MARTHA P KING ES	888 ADAMS BLVD.
Sprint United Management Co.	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
Las Vegas PCS Switch	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
871 Grier	STATION 19 - CC	5710 SPENCER ST.
Las Vegas, NV 89119	STATION 25 - CC	5210 S. PECOS RD.
Central Telephone Co. (NV)	J E MANCH ES	4351 N LAMONT ST.
4243 North Las Vegas Boulevard	LOMIE G HEARD ES	42 BAER DR.
Las Vegas, NV 89115	MIKE OCALLAGHAN FEDERAL HOSPITAL	4700 LAS VEGAS BLVD NORTH
	ZEL & MARY LOWMAN ES	4225 N LAMONT ST.
Central Telephone Co. (NV)	ERNEST MAY ES	6350 W WASHBURN RD.
6724 West Lone Mountain Road	RUTHE DESKIN ES	4550 N PIONEER WAY
Las Vegas, NV 89108		

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Central Telephone Co. (NV)	C P SQUIRES ES	1312 E TONOPAH AVE.
2055 West Lake Mead Boulevard	J D SMITH MS	1301 E TONOPAH AVE.
North Las Vegas, NV 89030	JIM BRIDGER MS	2505 N BRUCE ST.
	NORTH VISTA HOSPITAL MEDICAL CENTER	1409 E. LAKE MEAD BLVD
	NORTH LAS VEGAS POLICE DEPARTMENT - NLV	1301 E. Lake Mead Blvd.
	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
	RANCHO HS	1900 E OWENS AVE.
	REYNALDO MARTINEZ ES	350 E JUDSON AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.
	TOM WILLIAMS ES	3000 E TONOPAH AVE.
	WALTER BRACKEN ES	1200 N 27TH ST.
	WASHINGTON SCHOOL	1901 N WHITE ST.
Central Telephone Co. (NV)	AIRPORT CENTER - LVMPD	South end of main terminal
4996 Swenson Street	GENE WARD ES	1555 E HACIENDA AVE.
Las Vegas, NV 89119	PARADISE ES	900 COTTAGE GROVE AVE.
	STATION 11 - CC	5150 S. LAS VEGAS BLVD.
	STATION 13 - CC	5757 WAYNE NEWTON BLVD.
	STATION 18 - CC	575 E. FLAMINGO RD.
	STATION 19 - CC	5710 SPENCER ST.
	STATION 25 - CC	5210 S. PECOS RD.
Central Telephone Co. (NV	DORIS HANCOCK ES	1661 LINDELL RD.
4918 West Evergreen Avenue	E W GRIFFITH ES	324 ESSEX DR.
Las Vegas, NV 89107	HYDE PARK MS	900 HINSON ST.
	RED ROCK ES	408 UPLAND BLVD.
	WESTERN HS	4601 W BONANZA RD.
Central Telephone Co. (NV	SUNRISE CHILDRENS HOSPITAL	3186 S. MARYLAND PKWY
835 East Desert Inn Road	SUNRISE HOSPITAL - WOMENS PAVILION	3186 S. MARYLAND PKWY
Las Vegas, NV 89109	SUNRISE HOSPITAL AND MEDICAL CENTER	3186 S. MARYLAND PKWY

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Cont. Central Telephone Co. (NV)	DEAN PETERSEN ES	3650 CAMBRIDGE ST
835 East Desert Inn Road	RUBY S THOMAS ES	1560 E CHEROKEE LN.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 10 - CLV	1500 S. MARTIN L. KING BLVD.
	STATION 12 - CC	3001 INDUSTRIAL RD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
	STATION 18 - CC	575 E. FLAMINGO RD.
	STATION 3 - CLV	2645 W. WASHINGTON AV.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 8 - CLV	633 N. MOJAVE RD.
Central Telephone Co. (NV)	BILTMORE SCHOOL	801 VETERANS MEMORIAL DR.
125 South Las Vegas Boulevard	DOWNTOWN SUBSTATION - LVMPD	401 S 4th ST.
Las Vegas, NV 89101	HOLLINGSWORTH ES	1776 E OGDEN AVE.
	LAS VEGAS ACADEMY HS	315 S 7TH ST.
Central Telephone Co. (NV)	STATION 24 - CC	7525 DEAN MARTIN DR
8040 South Las Vegas Boulevard		
Las Vegas, NV 89123		
Central Telephone Co. (NV)	C P SQUIRES ES	1312 E TONOPAH AVE.
1600 E Lake Mead Blvd	J D SMITH MS	1301 E TONOPAH AVE.
North Las Vegas, NV 89115	JIM BRIDGER MS	2505 N BRUCE ST.
	NORTH VISTA HOSPITAL MEDICAL CENTER	1409 E. LAKE MEAD BLVD
	NORTH LAS VEGAS POLICE DEPARTMENT - NLV	1301 E. Lake Mead Blvd.
	QUANNAH MCCALL SCHOOL	800 E CAREY AVE.
	RANCHO HS	1900 E OWENS AVE.
	REYNALDO MARTINEZ ES	350 E JUDSON AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 53 - NLV	3001 N. MARTIN L. KING BLVD.
	STATION 8 - CLV	633 N. MOJAVE RD.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Cont. Central Telephone Co. (NV)	TOM WILLIAMS	3000 E TONOPAH AVE.
1600 E Lake Mead Blvd	WASHINGTON	1901 N WHITE ST.
Central Telephone Co. (NV)	ANN LYNCH ES	4850 KELL LN.
1033 North Nellis Boulevard	DELL H ROBISON MS	825 MARION DR.
Las Vegas, NV 89110	ELDORADO HS	1139 N LINN LN.
	IRA J EARL ES	1463 MARION DR.
	MONACO MS	1870 N LAMONT ST.
	MOUNTAIN VIEW ES	5436 E KELL LN.
	SANDY MILLER ES	4851 E LAKE MEAD BLVD.
	STANFORD ES	5350 HARRIS AVE.
	STATION 1 - CLV	500 N. CASINO CENTER BLVD.
	STATION 14 - CC	3260 TOPAZ ST.
	STATION 16 - CC	150 N. NELLIS BLVD.
	STATION 20 - CC	5710 JUDSON AV.
	STATION 27 - CC	4695 VEGAS VALLEY DR.
	STATION 4 - CLV	421 S. 15TH ST.
	STATION 51 - NLV	2626 E. CAREY AVE.
	STATION 8 - CLV	633 N. MOJAVE RD.
Central Telephone Co. (NV)	HARLEY HARMON ES	5351 S HILLSBORO LN.
4640 E Tropicana Ave	J M ULLOM ES	4869 E SUN VALLEY DR.
Las Vegas, NV 89121	WILLIAM E FERRON ES	4200 MOUNTAIN VISTA ST.
Central Telephone Co. (NV)	LAUGHLIN METRO SUBSTATION	50 E LAUGHLIN CIVIC DR
1175 Casino Drive		
Laughlin, NV 89029		
Central Telephone Co. (NV)	HELEN M SMITH ES	7101 PINEDALE AVE.
380 S Buffalo Dr	WALTER JACOBSON ES	8400 BOSECK DR.
Las Vegas, NV 89117	WALTER JOHNSON MS	7701 DUCHARME AVE.
Central Telephone Co. (NV)	C H DECKER ES	3850 S REDWOOD ST.
6200 W Spring Mountain Rd	ELAINE WYNN ES	5655 EDNA AVE.
Las Vegas, NV 89102	GUILD R GRAY ES	2825 S TORREY PINES DR.

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
Cont. Central Telephone Co. (NV)	KENNY C GUINN MS	4150 S TORREY PINES DR.
6200 W. Spring Mountain Rd	STATION 12 - CC	3001 INDUSTRIAL RD.
	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
	STATION 22 - CC	6685 W. FLAMINGO RD.
	KENNY C GUINN MS	4150 S TORREY PINES DR.
	STATION 12 - CC	3001 INDUSTRIAL RD.
	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
	STATION 22 - CC	6685 W. FLAMINGO RD.
	STATION 26 - CC	4030 S EL CAPITAN WY.
	STATION 5 - CLV	1020 HINSON ST.
	STATION 6 - CLV	190 UPLAND BLVD.
	SW SUBSTATION - LVMPD	5925 SPRING MOUNTAIN RD.
Central Telephone Co. (NV)	GORDON MCCAW ES	57 LYNN LN.
104 Water Street	POLICE AND FIRE EMERGENCY CENTER - HEND	223 LEAD ST
Henderson, NV 89015	ROBERT L TAYLOR ES	144 WESTMINSTER
	ST. ROSE DOMINICAN HOSPITAL	102 E. LAKE MEAD DR.
Team Ford LLC	ERNEST MAY ES	6350 W WASHBURN RD.
5445 Drexel Road	JOSEPH NEAL ES	6651 W AZURE AVE.
Las Vegas, NV 89130		
Tmobile USA Inc, NV096 Las Vegas msc	ORAN GRAGSONES	555 N HONOLULU ST.
200 Spectrum Boulevard	ROY W MARTIN MS	2800 STEWART AVE.
Las Vegas, NV 891010	SUNRISE ACRES ES	211 28TH ST.
	VARIETY SCHOOL	2601 SUNRISE AVE.
Tmobile USA Inc, North Las Vegas MSC	C V T GILBERT SCHOOL	2101 W CARTIER AVE.
3040 Simmons Street #106		
North Las Vegas, NV 89032		
TPC At The Canyons Maintenance Facility	JOHN W BONNER ES	765 CRESTVIEW LN.
9801 Canyon Run Drive	SUMMERLIN MEDICAL CENTER	655 TOWN CENTER DRIVE
Las Vegas, NV 89144		

Hazmat Facility/Address	Vulnerable Facility (within 1-mile)	Vulnerable Facility Address
US DOE Yucca Mountain Project	SUMMERLIN MEDICAL CENTER	655 TOWN CENTER DRIVE
1551 Hillshire Drive		
Las Vegas, NV 89134-6321		
US DOE Yucca Mountain Project YMP- B3	JOHN W BONNER ES	765 CRESTDALE LN.
1251 North Town Center Drive	SUMMERLIN MEDICAL CENTER	655 TOWN CENTER DRIVE
Las Vegas, NV 89144		
US DOE Yucca Mountain Project	JOHN W BONNER ES	765 CRESTDALE LN.
1180 North Town Center Drive	SUMMERLIN MEDICAL CENTER	655 TOWN CENTER DRIVE
Las Vegas, NV 89144		
US DOE Yucca Mountain Project, Sahara Data Center	LAURA DEARING ES	3046 S FERNDALE ST.
4489 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
US Foodservice Inc	BILTMORE SCHOOL	801 VETERANS MEMORIAL DR.
300 W Bonanza Rd	DOWNTOWN SUBSTATION - LVMPD	401 S 4th ST.
Las Vegas, NV 89106	WENDELL WILLIAMS SCHOOL	1030 J ST.
Venetian Resort Hotel Casino	STATION 12 - CC	3001 INDUSTRIAL RD.
3355 Las Vegas Boulevard	STATION 15 - CC	3480 S. VALLEY VIEW BLVD.
Las Vegas, NV 89109	STATION 18 - CC	575 E. FLAMINGO RD.
Level 3 Communications LLC, LSVGNV2W Las Vegas POP # 2	LAURA DEARING ES	3046 S FERNDALE ST.
4485 East Sahara Avenue	MACK MS	4250 KAREN AVE
Las Vegas, NV 89104	SNYDER ES	4317 E COLORADO AVE.
	WALTER V LONG ES	2000 S WALNUT RD.
XO Communications of Nevada	JOHN VANDERBURG ES	2040 DESERT SHADOW TRAIL
Green Valley	PARKWAY SURGERY CENTER	100 N GREEN VALLEY PKWY STE 125
2240 Corporate Circle	TWITCHELL ES	2060 DESERT SHADOW TRAIL
Henderson, NV 89074-7748		

ADDITIONAL RESOURCES

Utility & Transportation Reference Maps

Nevada Power Company (NPC)

For emergency maps or information contact NPC Dispatch at (702) 862-7232.
For routine map information call NPC at (702) 367-5000.

Southwest Gas Corporation

For emergency maps or information contact Southwest Gas Company (SGC) Dispatch at (702) 365-1111.

For routine map information call SGC at (702) 365-2356.

GIS Database

Contact the Clark County GIS Database Administration at (702) 455-5963.

Equipment and Inventory Checklists

Clark County Fire Department Haz-Mat Pouch

Every emergency response unit has been assigned a pouch.

- 2004 North American Emergency Response Guidebook (NAERG)
- Haz-Mat Incident Command Workbook
- DOT Chart 11 Hazardous Materials Markings, Labeling and Placarding Guide
- Hazardous Materials Load and Segregation Chart
- Transport of Radioactive Materials Q&A about Incident Response
- Department of Energy (DOE) Radiation Guide
- Carbon Monoxide Detection Tubes – 3 Tubes
- M8 (3 Way Paper) – 25 Sheets
- Weapons of Mass Destruction (WMD) Pouch
  - ✓ 4 Information Cards on WMD
  - ✓ WaterJel – 4*4 Dressings
  - ✓ Skin Decontamination Kit (M291)
  - ✓ Chemical Resistant Nitrile Gloves
  - ✓ M8 (3 Way Paper) – 10 Sheets

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CLARK COUNTY FIRE DEPARTMENT
HAZ-MAT POUCH
(Every emergency response unit has been assigned a pouch)

- 2004 North American Emergency Response Guidebook (NAERG)
- Haz-Mat Incident Command Workbook
- DOT Chart 11 Hazardous Materials Markings, Labeling and Placarding Guide
- Hazardous Materials Load and Segregation Chart
- Transport of Radioactive Materials Q&A about Incident Response
- Department of Energy (DOE) Radiation Guide
- Carbon Monoxide Detection Tubes – 3 Tubes
- M8 (3 Way Paper) – 25 Sheets
- Weapons of Mass Destruction (WMD) Pouch
  - ✓ 4 Information Cards on WMD
  - ✓ WaterJel – 4*4 Dressings
  - ✓ Skin Decontamination Kit (M291)
  - ✓ Chemical Resistant Nitrile Gloves
  - ✓ M8 (3 Way Paper) – 10 Sheets

CLARK COUNTY FIRE DEPARTMENT
HAZARDOUS MATERIALS RESPONSE UNIT
INVENTORY CHECK LIST

Compartment #1

Quantity	Minimum Quantity	Description of Equipment
1 each	1 each	Chlorine Kit "A"
1 each	1 each	Chlorine Kit "B"
1 each	1 each	Edwards & Cromwell "A" Kit
1 each	1 each	Edwards & Cromwell "C" Kit
1 box	1 box	Assorted Plugs, Rubber, Clamps
1 each	1 each	Porta Power
1 each	1 each	Petro Plug
1 each	1 each	Assorted Wooden Plugs
1 each	1 each	Canvas Bag
- - -	- - -	Bungee Cords & Assorted Plugs

Compartment #2

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Gloves – Black Rubber
- - -	- - -	Gloves – Black/White Nitrile
12 pairs	12 pairs	Gloves – Green Nitrile
3 pairs	3 pairs	Red Booties
2 pairs	2 pairs	Yellow Thermal Liners

Compartment #3

Quantity	Minimum Quantity	Description of Equipment
2 boxes	2 boxes	Dust Masks/Particulates
3 boxes	3 boxes	Latex Gloves
2 bags	2 bags	Glove Liners
8 each	8 each	Towels (White)
2 each	2 each	Baby Powder
4 each	4 each	Acid Aprons
- - -	- - -	Hose Clamps
3 each	3 each	Duct Tape

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Compartment #4

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Light Tower Remote
1 box	1 box	Petro Quick Sorb
4 each	4 each	Pigs (in Buckets)
1 each	1 each	Soda Ash
- - -	- - -	Aqua Biber Blankets
- - -	- - -	Brown Absorbent & Aid
- - -	- - -	Gee Whiz
- - -	- - -	Aqua Biber Pads (Blue Bag)
2 each	0 each	Containment Pools
1 each	1 each	Pro Pack Foam Producer with Hose

Compartment #5

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Personnal Haz/Mat Bags

Compartment #6

Quantity	Minimum Quantity	Description of Equipment
6 each	6 each	PVC Splash Suits
10 each	10 each	Bath Suits
27 each	27 each	Warning Signs
4 each	4 each	Kool Suits
2 each	2 each	Hall Runners
2 each	2 each	Blue Tarps (40' * 40')
1 box	1 box	Trash Bags
2 each	2 each	Salvage Covers

Compartment #7

Quantity	Minimum Quantity	Description of Equipment
2 each	2 each	Liquid Decon Soap (in Bottles)
1 each	1 each	Ammonia (1 gallon)
1 box	1 box	Zip Lock Bags
- - -	- - -	Small Sponges
- - -	- - -	Air Cart System with 2 Hoses

Compartment #7 - continued:

Quantity	Minimum Quantity	Description of Equipment
3 rolls	3 rolls	Visqueen (4 mil thickness)
6 rolls	6 rolls	Plastic Dike Tubing
3 each	3 each	Mist Sprayers
1 box	1 box	Kiddie Pools
1 each	1 each	Submersible Pump
2 each	2 each	Wind Socks
6 each	6 each	Garden Hoses
1 each	1 each	3/8" Air Hose (yellow)
1 each	1 each	2 ½" to Garden Hose Bib Adapters
1 each	1 each	1 ½" PVC to Hose Bib
2 each	2 each	Hydrant Wrenches
8 each	8 each	Scrub Brushes
4 each	4 each	Nozzles for Garden Hoses
2 each	2 each	Blue Bucket
		Gray Bucket
		Wand Sprayers
		1 ½" Ball Valves

Compartment #8

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Ice Chest
- - -	- - -	Decon Shower with Curtain
2 each	2 each	Decon Pools
4 each	4 each	EMS Decon
1 each	1 each	Folding Table
3 each	3 each	Plastic Trash Cans
4 each	4 each	Backup Team Benches
8 each	8 each	Helmets (inside benches)
1 each	1 each	Squeegee
1 each	1 each	Mop Handle
2 each	2 each	Back Boards
1 each	1 each	Broom
7 each	7 each	Folding Chairs
3 each	3 each	Black Plastic Grates

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Top Forward Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Light Tower
10 each	10 each	Grounding Rods

Top Right Front Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Assorted Tyvek Splash Suits
12 each	6 each	XXL Suit
12 each	6 each	XL Suite
12 each	6 each	L Suite
- - -	- - -	Assorted Kappler Saranex Laminated Tyvek Encapsulated Suits
4 each	2 each	XXL Suit
4 each	2 each	XL Suit
4 each	2 each	L Suit

Top Right Center Compartment

Quantity	Minimum Quantity	Description of Equipment
7 each	7 each	TLU Suits Assorted Sizes (white)

Top Right Rear Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Cuff Repair Box
- - -	- - -	Acid XL Belts
- - -	- - -	Haz/Mat Boots:
1 pair		Size 6
2 pair		Size 7
3 pair		Size 9
2 pair		Size 10
1 pair		Size 11
2 pair		Size 12
1 pair		Size 13
1 pair		Size 14
1 pair		Size 15

Top Left Front Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Generator

Top Left Center Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	HPS Trelborg Suits (orange)
2 each	2 each	XXL
2 each	2 each	XL
- - -	- - -	Trelborg Super Suits (yellow)
2 each	2 each	Large
2 each	2 each	XL

Top Left Rear Compartment

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	TLU Suits with Flash Protection
2 each	2 each	XXL
2 each	2 each	XL
1 each	1 each	Chem Fab Suit

Compartment #9

Quantity	Minimum Quantity	Description of Equipment
1 each	1 each	Extension Cord
4 each	4 each	Pig Tails
1 each	1 each	Halogen Light
2 each	2 each	Scoop Shovels
1 each	1 each	100' Rope Bag
1 each	1 each	Edwards & Cromwell "B" Kit
- - -	- - -	Gasoline Tank Trailer Drill Kit
- - -	- - -	3/8" Socket Set
1 box	1 box	Squincher Drink Mix
- - -	- - -	Typhoon Fan
1 each	1 each	1 ¾" Double Female (on fan)

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Compartment #10

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Lampe Bags (3 sizes – orange)
10 each	7 each	One Hour Bottles
1 each	1 each	First Aid Kit
3 each	3 each	Emergency Skeds

Compartment #11

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Celestron Telescope
1 each	1 each	Tri-Pod
1 box	1 box	Green Box with: 12 – Safety Flashlights 04 – Divers Knives 01 – Box of Glass Tubes

Compartment #12

Quantity	Minimum Quantity	Description of Equipment
8 each	8 each	MSA Air Packs
9 each	9 each	Sections of Air Hose

Compartment #13

Quantity	Minimum Quantity	Description of Equipment
3 each	3 each	Folding Shovels
2 each	2 each	Pipe Wrenches
2 each	2 each	Bolt Cutters
1 each	1 each	Cable Cutters
1 each	1 each	Ram Bar
1 each	1 each	Seat Belt Cutter
2 each	2 each	Drum De-Headers
1 each	1 each	Truck Grounder

Compartment #14

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Incident Communication System
2 each	2 each	Antennas
2 each	2 each	Black Boxes
1 box	1 box	Box of Various Batteries
1 each	1 each	Speaker Box
- - -	- - -	Remote Antenna Wires

Compartment #15

Quantity	Minimum Quantity	Description of Equipment
- - -	- - -	Rebar Stakes – Assorted Sizes
- - -	- - -	Bundle of Marker Flags
- - -	- - -	Sparkless Tools: 2 – Sledge Hammers 1 – Axe 2 – Pair Metal Shears 3 – Pry Bars 2 – Pipe Wrenches 2 – Bung Wrenches 1 – Monkey Wrench
- - -	- - -	Tool Pouch with: 2 – Chisel 2 – Screw Driver (standard) 2 – Regular Plyers
- - -	- - -	Tool Pouch contents continued: 2 - Hammers 2 – Water Pump Plyers 2 – Claw Hammers 2 – Phillips Screwdrivers 2 – Ball Peen Hammers 2 – Crescent Wrenches 2 – Bung Wrenches
1 each	1 each	Hand Saw

Left Front Bumper Compartment

Quantity	Minimum Quantity	Description of Equipment
7 each	7 each	R & R Hood Clamps

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Center Bumper Compartment

Quantity	Minimum Quantity	Description of Equipment
11 each	11 each	Rolls of Assorted Barrier Tape

Right Front Bumper Compartment

Quantity	Minimum Quantity	Description of Equipment
3 each	3 each	Rolls of Assorted Barrier Tape
6 each	6 each	Cans of Spray Paint

Inventory Research Room

Quantity	Minimum Quantity	Description of Equipment
1 each	1 each	GPS Meter with Mounting Bracket
1 each	1 each	Computer
1 each	1 each	Computer Case
1 each	1 each	Computer Power Supply
1 each	1 each	Cameo Manual
1 each	1 each	Aloha Manual
1 each	1 each	Marplot Manual
1 each	1 each	PC CHRIS Manual
1 each	1 each	2000 NAERG Manual
1 each	1 each	Printer (Okidata 390)
3 each	3 each	Drager Pumps
- - -	- - -	Case of Drager Tubes
1 each	1 each	PHD Atmospheric Monitor
1 each	1 each	Calibration Adapter & Container
1 each	1 each	PHD Instructional Video
2 each	2 each	HazCat Kits with Manuals
1 each	1 each	Environmental Air System
1 each	1 each	Hewlett Packard 670 – Printer/Fax
1 each	1 each	TV/VCR
1 each	1 each	CCFD Passport Kit
2 each	2 each	File Cabinet
1 each	1 each	Cellular Phones
1 box	1 box	Chemical-Bio Agent Detection Equip. (black box near filing cabinet) M9 paper M8 Paper M256A1

Inventory Research Library

Quantity	Minimum Quantity	Description of Equipment
1 each	1 each	LVFD Map Book
1 each	1 each	Expo Dry Erase Kit
1 each	1 each	Mass Casualty Incident (MCI) Plan
1 each	1 each	Map Book Volume 1
1 each	1 each	Map Book Volume 2
1 each	1 each	Haz/Mat Tech Student Manual
1 each	1 each	Van-Waters & Rogers Pre-Plan
1 each	1 each	Level A Suit Journal
1 each	1 each	Haz/Mat Emergency Action Data Book
1 each	1 each	MSDS Book
1 each	1 each	BMI/Henderson Facilities Plans
3 each	3 each	Sax & Lewis Books
1 each	1 each	Condensed Chemical Dictionary
1 each	1 each	Emergency Handling of Haz/Mat
1 each	1 each	Farm Chemical Handbook
2 each	2 each	Emergency Care for Haz/Mat Exposure
2 each	2 each	Green NIOSH Books to Chemical Hazards
3 each	3 each	Coast Guard Chemical Response System
1 each	1 each	Book of Haz/Mat Forms
2 each	2 each	Emergency Action Guides
1 each	1 each	Fire Rescue Field Guide
1 each	1 each	Jane's Chem-Bio Handbook
4 each	4 each	North American Response Guidebooks
1 each	1 each	First Responder Pocket Guide

Inventory Front Cab

Quantity	Minimum Quantity	Description of Equipment
2 each	2 each	Binoculars
1 each	1 each	Headset for 800 Mhz Radio
1 each	1 each	Gas Card
6 each	6 each	Haz/Mat Portable Radios
6 each	6 each	Radio Charger System
2 each	2 each	800 Mhz Portable Radio's
2 each	2 each	Cellular Phones

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CLARK COUNTY FIRE DEPARTMENT
HAZARDOUS MATERIALS MONITORS
INVENTORY CHECK LIST

Inventory Cabinet (Atmospheric Monitors/Detectors)

Quantity	Minimum Quantity	Description of Equipment
1 each	1 each	HNU Meter with Probe ▪ Meter is Working Properly ▪ Calibration Kit w/10.2 Lamp & Wand ▪ Battery Charger ▪ Carrying Case
1 each	1 each	GPS ▪ Meter is Working Properly
1 each	1 each	RAD Survey Meter ▪ Meter is Working Properly (keep batteries out of meter)
1 each	1 each	RAD Dosimeters ▪ Meter is Working Properly (keep batteries out of meter)
1 each	1 each	Raytech Heat Detector ▪ Meter is Working Properly
1 each	1 each	Gas Trac NGX-6 ▪ Meter is Working Properly
1 each	1 each	Manning Gas Detectors ▪ Ammonia is Working Properly ▪ Chlorine is Working Properly
1 each	1 each	PhD Atmospheric Meter ▪ Meter is Working Properly ▪ Carrying Case
3 each	3 each	Drager Pumps
4 each	4 each	Cool Vest Chargers ▪ Working Properly
4 each	4 each	Cool Vest Batteries ▪ Working Properly (charge every Tuesday)
- - -	- - -	Command System Battery

CLARK COUNTY FIRE DEPARTMENT
HAZARDOUS MATERIALS EQUIPMENT STORAGE ROOM
INVENTORY CHECK LIST

Shelf Unit #1

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
1 box	1 box	Shower Suits (23 with 2 loose)
14 bags	5 bags	Tychem 7500 Splash Suits (blue)
1 box	1 box	Mars Whiteknight Suits w/hoods
- - -	- - -	Charkate Saranex/Tyvek Splash Suits
24 each	6 each	XL
		Level 1
- - -	- - -	Saranex Coated Tyvek Coveralls
2 each	6 each	XXL
- - -	- - -	Saranex Coated Tyvek Coveralls
8 each	6 each	XL
- - -	- - -	Saranex Coated Tyvek Coveralls
9 each	6 each	L
		Level 2
- - -	- - -	Kappler Saranex Laminated Tyvek Encapsulated Suits
11 each	6 each	XL
- - -	- - -	Kappler Saranex Laminated Tyvek Encapsulated Suits
19 each	6 each	L
		Level 3
- - -	- - -	Charkate Saranex/Tyvek Cocoon Suits
0 each	6 each	XXL
- - -	- - -	Charkate Saranex/Tyvek Cocoon Suits
7 each	6 each	XL
- - -	- - -	Charkate Saranex/Tyvek Cocoon Suits
31 each	6 each	XL

Shelf Unit #2

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
- - -	- - -	Bata Anklette Over boots
6 each	6 each	XXL

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Shelf Unit #2 – continued:

- - -	- - -	Bata Anklette Over boots
6 each	6 each	XL
- - -	- - -	Bata Anklette Over boots
6 each	6 each	L
Quantity	Minimum Quantity	Description of Equipment
		Level 1
3 boxes	3 boxes	Shower Shoes (size 12)
		Level 2
1 box	1 box	Shower Shoes (size 12)
1 box	1 box	Neox Haz/Mat Gloves (size 9)
1 bags	1 bags	Silver Shield Gloves (size 9-10)
1 bags	1 bags	Silver Shield Gloves (size 11-12)
2 boxes	2 boxes	Neoprene Gloves (size 9)
1 boxes	1 boxes	Neoprene Gloves (size 10)
		Level 3
5 boxes	5 boxes	Over boots – 12" (yellow) Small – 1 pair Medium – 1 pair Large – 1 pair XLarge – 1 pair XXLarge – 1 pair
		Level 4
2 each	2 each	Dome Clamps
1 bags	1 bags	Assorted Electric Pigtails
1 bags	1 bags	Canvas Tote Bag
1 each	1 each	Coil of Insulated Hand wire with Clips

Floor Area Between Shelf Unit #1 and Shelf Unit #2

Quantity	Minimum Quantity	Description of Equipment
3 each	3 each	Plastic Decon Kiddie Pools

Shelf Unit #3

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
8 pairs	2 pairs	Bata Haz/Mat Level "A" Boots (size 10)
1 box	1 box	Extra Grounding Wire, Cables with Clamps
		Level 1

Shelf Unit #3 – continued:

5 pairs	2 pairs	Bata Haz-Max Level "A" Boots (size 11)
- - -	- - -	**Level 2**
6 pairs	2 pairs	Bata Haz-Max Level "A" Boots (size 12)
Quantity	**Minimum Quantity**	**Description of Equipment**
5 pairs	2 pairs	Bata Haz-Max Level "A" Boots (size 13)
1 each	1 each	Tucker Plastic Storage Box with 2 Lids - Charkate Suit Storage Bags
		Level 3
13 pairs	2 pairs	Bata Haz-Max Level "A" Boots (size 14)
		Level 4
6 pairs	2 pairs	Bata Haz-Max Level "A" Boots (size 15)

Shelf Unit #4

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
5 each	2 each	PIG Spill Kits
1 box	1 box	PIG Absorbent Socks
1 each	1 each	Pump Sprayer
		Level 1
- - -	- - -	Barrier Tape
45 rolls	10 rolls	Haz/Mat (red)
9 rolls	5 rolls	Radioactive (yellow)
5 boxes	5 boxes	Warning Restricted Area
1 roll	1 roll	No Parking
		Level 2
1 box	1 box	Assorted PVC Fittings
1 box	1 box	Haz/Cat Pipettes
1 box	1 box	Ph Wide Sticks
1 box	1 box	½" Garden Hose
1 box	1 box	Z-Kleen Strapping
1 case	1 case	Surplus Socket Set (red)
3 bunches	3 bunches	Nylon Cord
2 boxes	1 box	Haz/Mat Waste Bags (yellow)
5 rolls	1 roll	Plastic Dike Tubing
2 each	2 each	Safety Goggles
4 jars	2 jars	Petro Plug
2 rolls	1 roll	Clear Plastic Packing Tape
2 each	2 each	Baby Powder

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Shelf Unit #4 – continued:

1 each	1 each	PVC Garden Hose Adapter
2 boxes	2 boxes	Plastic Baggie w/Zipper Locks
6 each	3 each	Duck Tape
2 each	2 each	Ammonia (1 gallon containers)
		Level 3
5 boxes	1 box	AquaBiber Blankets
2 boxes	1 box	AquaBiber Pads
		Level 4
8 boxes	1 box	AquaBiber Pads
		Level 5
1 box	1 box	Decon Pool Liners-Tube Frame Pool

Shelf Unit #5

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
1 box	1 box	Tyvek Disposable Pants
1 box	1 box	Tyvek Disposable Shirts
1 box	1 box	Charkate Cocoon and Splash Suits
7 each	1 each	Saranex/Tyvek Cocoon Suits (XL)
		Level 1
9 each	5 each	Tychem 9400 (yellow) Suits (XL)
9 each	5 each	Tychem 9400 (yellow) Suits (L)
		Level 2
11 each	5 each	Kapler System (green) Suits (XL)
11 each	5 each	Kapler System (green) Suits (L)
1 box	1 box	Black Gloves
1 bag	1 bag	Sol-Vex Green Gloves
1 box	1 box	Sol-Vex Green Gloves
		Level 3
5 bags	5 bags	PVC Nylon Suits with Gloves (green)
1 each	1 each	XL Suit
2 each	1 each	L Suit
1 each	1 each	M Suit
1 each	1 each	S Suit
1 each	1 each	PVC Nylon Suit w/Gloves/no bag (green) L Suit
1 bag	1 bag	Trellborg Training Suite (orange)
1 box	1 box	Storage Box with (8) MSA Mask (with clear com mikes)
1 box	1 box	(8) MSA Clear Com Speaker Systems

Items Located at South End of Storage Room

Quantity	Minimum Quantity	Description of Equipment
		Top Shelf
2 boxes	2 boxes	Decon Pool Liners-Tube Frame Pool
		Collapsible Decon Pools with Liners
		Liners for Collapsible Decon Pools
1 box	1 box	Personnel Gear Bags (count –15)
1 case	1 case	FEMA Hazmat Black Case –EMPTY
5 each	5 each	Cardboard Drums w/Training Suits
	2 each	Chemfab Training Suits (blue)
	4 each	Yellow Buckets (12 lids)
	1 each	Yellow Bucket of Absorbent
	5 each	Orange Traffic Cones
1 each	1 each	Gray Wash Buckets w/Soda Ash
1 each	1 each	Decon Pool Liners-Tube Frame Pool
6 each	6 each	SKEDS Rescue System
4 each	4 each	Green Ammo Containers – contains Nitrile Gloves (size 9, 10, 11)
1 each	1 each	1-Ton Chlorine Trainer

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CLARK COUNTY FIRE DEPARTMENT
HAZARDOUS MATERIALS EQUIPMENT RESCUE ROOM
INVENTORY CHECK LIST

Quantity	Minimum Quantity	Description of Equipment
20	5	Sol-Vex Green Gloves (size 11)
20	5	Sol-Vex Green Gloves (size 10)
10	2	Chem Tape 2
25	5	Tychem 9400 (yellow) Suits (XL)
25	5	Tychem 9400 (yellow) Suits (L)
- - -	- - -	Saranex Coated Tyvek Coveralls (42117)
25 each	6 each	Size XXL
- - -	- - -	Saranex Coated Tyvek Coveralls
25 each	6 each	Size XL
- - -	- - -	Saranex Coated Tyvek Coveralls
23 each	6 each	Size L
- - -	- - -	23-P Saranex Laminated Tyvek Encapsulated Suits – 4365
17 each	6 each	Size XL
23 each	6 each	Size L

LAS VEGAS FIRE & RESCUE
HAZARDOUS MATERIALS PROGRAM

FIRST RESPONDER UNITS
EQUIPMENT LIST

Haz/Mat Unit 1231 Inventory

Computer Area

Quantity	Description of Equipment
1	Computer, Laptop, Mac
1	Computer, Laptop, Dell w/case
1	Inventor, Power
1	Manual, Computer Operation
1	Printer, HP 970 Cxi
1	Station, Weather

Books

Quantity	Description of Equipment
1	Cameo Operations Manual
1	CAT Radio
1	Chris Manual, Vol. 1
1	Chris Manual, Vol. 2
1	Chris Manual, Vol. 3
1	Condensed Chem. Dictionary
1	DOT Guidebook
1	Emergency Care HazMat Exposure
1	Emergency Handling of HazMat
1	Emergency Action Guide
1	Fire Fighter Handbook of HazMat
1	Gaix Tank Car Manual
1	HazMat Dictionary
1	HazMat Manual
1	Interapiro Op. Instructions
1	Misc. Folder
1	NFPA Guide to HazMat
1	NIOSH Guide to Chemicals
1	Safe Hand. Of Comp. Gas
1	Sax Manual
1	Selection of Chem. Protection Clothing
1	Victoreen Manual

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Basket –1 (B-1)

Quantity	Description of Equipment
14	Towels, Bath

B-2

Quantity	Description of Equipment
50 bags	HazMat (yellow)
80 bags	Lawn

B-3

Quantity	Description of Equipment
6 gallons	Bleach

B-4

Quantity	Description of Equipment
2 gallons	Decon Soap
1 gallon	Tinture of Green Soap
1 gallon	Vionex Soap
1 gallon	Distilled Water

B-5

Quantity	Description of Equipment
3 gallons	Haz Sorb
12	Sample Jars
1	Plug and Dike

B-6

Quantity	Description of Equipment
10 boxes	Ziplock Bags

B-7

Quantity	Description of Equipment
2	Spray Bottles

B-8

Quantity	Description of Equipment
1 coupling	8" Ext. to Buddy
3 coupling	Hansen, Straight
3 coupling	Hansen, "T"
1	Mask, Revitox Rescue

B-9

Quantity	Description of Equipment
3 rolls	Duct Tape
4 rolls	Barrier Tape

B-10

Quantity	Description of Equipment
4 rolls	Diking Material

B-11

Quantity	Description of Equipment
1	Saw, Hole, Pneumatic

B-12

Quantity	Description of Equipment
4	Wash Basins
10	Large Scrub Brushes
5	Small Scrub Brushes
4 bars	Soap

B-13

Quantity	Description of Equipment
4	Hard Hats

B-14

Quantity	Description of Equipment
1	Cable Battery
12 pairs	Safety Goggles

B-15

Quantity	Description of Equipment
12 batteries	"C" Cell
24 batteries	"D" Cell
2 batteries	"D" Cell (lifetime)
8 batteries	9 Volt
10	Explosion Proof Flashlights

B-16

Quantity	Description of Equipment
1 kit	Maxi-Force Straps

B-17

Quantity	Description of Equipment
12 pairs	Latex Poly Gloves
12 pairs	Neoprene Gloves
3 pairs	Viton Gloves

B-18

Quantity	Description of Equipment
12 pair	Nitrile Line, Solvex Gloves

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B-19

Quantity	Description of Equipment
3 boxes	Exam Gloves
12 pair	Vinyl Everflex Gloves

B-20

Quantity	Description of Equipment
12 pair	Latex Lined Gloves
12 pair	Latex Unlined Gloves

B-21

Quantity	Description of Equipment
20 pairs	Cover, Shoe/boot, Soft

B-22

Quantity	Description of Equipment
20 pairs	Cover, Shoe/boot, Hard

B-23

Quantity	Description of Equipment
1	Tarp

B-24

Quantity	Description of Equipment
2	Tarp

B-25

Quantity	Description of Equipment
4 pair	Size 11 Boots

B-26

Quantity	Description of Equipment
1 pair	Size 12 Boots
2 pair	Size 13 Boots

B-27

Quantity	Description of Equipment
2 pair	Size 14 Boots

B-28

Quantity	Description of Equipment
1 pair	Size 15 Boots

Shelf 1 (S-1)

Quantity	Description of Equipment
1	Manifold, Remote Air

S-2

Quantity	Description of Equipment
1 each	Bottle of Scott Air
8 each	Stool Camp

S-3

Quantity	Description of Equipment
1 kit	Maxi-Force Airbags
1 kit	Maxi-Force Conversion

S-4
EMPTY

S-5
DRAEGER EQUIPMENT
(NEW DRAEGER OUT OF SERVICE)

S-6

Quantity	Description of Equipment
2 each	PhD Ultra Charger
2 each	Atmospheric, PhD Ultra Monitor
2 each	CAT Radio, Speaker, Remote
1 each	Strip Chemical
1 each	Strip, Ph Test
1 each	Strip, Spa Test
2 each	Strip, AC Power

B-29

Quantity	Description of Equipment
6 each	Splash Responder Suits

B-30

Quantity	Description of Equipment
24 each	Saranex Laminated Tyvek

B-31

Quantity	Description of Equipment
12 each	Tyvek Suits (Size XL)
12 each	Tyvek Suits (Size XXL)

B-32

Quantity	Description of Equipment
5 pair	Size 10 Boots
2 pair	Size 11 Boots

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Misc. Equipment (front)

Quantity	Description of Equipment
1 each	Remote Air Supply
5 each	Airline Hose (yellow)
1 kit	Chlorine "A"
1 kit	Chlorine "B"
1 kit	Drum & Tank Repair
1 kit	Haz-Cat
1 kit	HazMat A-2
1 kit	HazMat C-1
1 kit	HazMat E-ns
1 each	CAT Radio
2 each	Rescue Sleds

Misc. Equipment (rear)

Quantity	Description of Equipment
1 each	Chemical Resistant Broom
1 each	Drum Carrier
8 each	Cone Barrier
4 each	Trash Containers
2 each	Airline Hose (red)
3 each	Garden Hose
1 each	Decon Shower w/pool
1 each	Non-sparking Shovel
1 each	Chemical Resistant Squeegee
1 each	Upender Drum
1 each	Decon Halo Wand
2 each	Decon Spray Wand

Drivers Area

Quantity	Description of Equipment
1 each	Binoculars, 10 x 50
1 each	Clipboard
1 each	Dry Powder, 5# Extinguisher
1 each	Log Equipment
1 each	Car Protectors
1 each	Electrical Tape

Non-Sparking Tools

Quantity	Description of Equipment
1 set	Complete

Entry Boxes 1 & 2

Quantity	Description of Equipment
2 each	Security w/keys Bags
4 pair	Band Gloves
2 each	Hanson, Straight Coupling
2 each	Hansen, "I" Coupling
2 pairs	Black Nitrile Gloves
2 pairs	Latex Poly Gloves
2 pairs	Rubber Gloves (white)
2 each	Hard Hat
1 each	Baby Powder
1 roll	Duct Tape
1 roll	Mashing Tape
2 each	Watch Stop

Suits

Quantity	Description of Equipment
1 each	Responder Flash Suit
4 each	Responder Suits (blue)
3 each	Trellchem Suits
5 each	Tychem Suits (green)

SOUTHERN NEVADA

TERRORIST INCIDENT ANNEX

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INTRODUCTION

The Federal Government exercises primary authority to prevent, preempt, and terminate threats or acts of terrorism and to apprehend and prosecute the perpetrators. State and local governments provide assistance as required.

State and local governments exercise primary authority to respond to the consequences of terrorism. The Federal Government provides assistance as required.

Crisis management is primarily a law enforcement response.

Consequence management refers to measures to protect public health and safety, restore essential government services, and provide emergency relief to governments businesses, and individuals affected by the consequences of terrorism.

PURPOSE

The purpose of this annex is to ensure that the Local Emergency Planning Committee (LEPC) Hazardous Materials Emergency Response Plan and local emergency operations plans are adequate to respond to the consequences of terrorism within Southern Nevada, including terrorism involving Weapons of Mass Destruction (WMD). This annex defines the policies and structures to coordinate crisis management with consequence management.

SCOPE

This annex:

1. Applies to all threats or acts of terrorism within Southern Nevada that the Federal Government determines require a response;

2. Applies to all organizations that may be directed to respond to the consequences of a threat or act of terrorism within Southern Nevada; and,

3. Builds upon the processes and structures of the LEPC Hazardous Materials Emergency Response Plan and local emergency management plans by addressing *unique* policies, situations, operating concepts, responsibilities, and other guidelines required for response to the consequences of terrorism.

POLICES

A. The U.S. Department of Justice is the lead Federal agency for crisis management or acts of terrorism. Responsibility for operational response is given to the Federal Bureau of Investigation (FBI).

B. The Federal Emergency Management Agency (FEMA) is the lead Federal agency for consequence management, using existing Federal Response Plan structures to coordinate Federal assistance with State and local governments for consequence management.

PLANNING ASSUMPTIONS

1. No single agency at the local, state, federal, or private-sector level possess the authority and expertise to act unilaterally on many difficult issues that may arise in response to a threat or act of terrorism, particularly if WMD are involved.

2. An act of terrorism may produce major consequences that would overwhelm the capabilities of southern Nevada local governments almost immediately.

3. Local, State, and Federal responders will define working perimeters that may overlap. Perimeters may be used to control access to the area, target public information messages, assign operational divisions among responding organizations, and assess potential effects on the population and the environment. Control of these perimeters may be enforced by different authorities, which will impede the overall response if adequate coordination is not established.

4. If appropriate personal protective equipment is not available, entry into a contaminated area, known as a hot zone, may be delayed.

5. **Responders should be prepared for secondary incident devices.**

1.0 Strategic Goals The primary goal in handling a terrorist incident is to provide for public safety while insuring that response personnel are not placed in unnecessary risk. All actions shall be undertaken with continual emphasis given to appropriate crime scene considerations such as identifying a chain of evidence, or determining other important information. Weapons of Mass Destruction (WMD) may be either nuclear/radiological, biological, chemical (NBC) or conventional explosives in nature.

2.0 Application The procedures outlined in this section shall apply to confirmed or suspected terrorist incidents. These procedures may be applied to mass casualty conventional hazardous materials incidents as appropriate.

3.0 Primary Agency Roles

3.1 Law Enforcement The FBI has been designated as the lead agency for domestic terrorist incidents in the United States. In lieu of FBI presence, the designated law enforcement agency will assume lead agency responsibilities. Primary responsibilities include scene control, traffic control, crowd control, evidence preservation and collection, security control measures, incident investigation, long term control of the scene and any other law enforcement related concerns.

3.2 Fire Department The Fire Department shall coordinate all activities with the ranking law enforcement agent on-scene under Unified Command. The Fire Department will be the agency primarily responsible for patient rescue, heavy and light rescue, product identification, monitoring, confinement, and containment, fire extinguishment and control, and decontamination operations. Secondary responsibilities include scene control and patient basic life support measures, as the primary agency responsible for the triage, treatment, and transport of patients. Other responsibilities may include decontamination of patients and the establishment of medical evaluation and rehab facilities for emergency responders.

3.3 Office of Emergency Management The Emergency Management Coordinator or designee will coordinate with the FBI and the Police Department as well as the Fire Department to determine public protective actions for the incident and to activate the Emergency Alert System (EAS) as required. The coordinator/designee will coordinate with state and federal agencies to bring in outside resources if needed.

3.4 Health District The Clark County Health District will be the primary agency making health related determinations for the public. This may include collecting and evaluating biological samples and assisting in the determination of appropriate patient care. Measures, including prophylaxis immunization, contact/patient isolation and quarantine.

4.0 Tactical Objectives Tactical objectives range from full commitment of personnel into the hazard area to no direct commitment with limited mitigating response measures available to the Incident Commander.

4.1 Recognition and Identification

4.1.1 Nuclear/radiological The presence of nuclear hazards can be determined by using radiological monitoring equipment. The radiological monitoring equipment assigned to the Hazardous Materials Response Teams may be effective in determining hazards to response personnel. Radiological monitoring should be undertaken for suspected or confirmed nuclear explosive devices and for conventional explosive incidents that may have been intended to disperse radioactive materials.

4.1.2 Biological The delay in onset of signs and symptoms resulting from an exposure to biological agent may be from hours to days. This will make early recognition of a biological terrorist incident improbable unless the dissemination is observed. It may be that discovery occurs as the result of observations made by the medical community while treating patients. First responders should be observant of patterns in type and number of medical calls to assist in early recognition of a potential biological incident. Field identification equipment is limited, but laboratory identification is most reliable. Clark County Health District personnel can be called to the scene to assist in collection and analysis of samples. Additional indicators include unusual numbers of dead or dying animals; spraying equipment activities; suspicious devices or packages; or unusual swarms of insects.

4.1.3 Chemical The primary method of recognition and identification for a chemical warfare incident may be the signs and symptoms demonstrated by affected victims. Detection and identification of chemical agents using specialized equipment may be extremely difficult. This is due to the very low concentrations required to produce harmful effects and the non-persistent nature of many agents. Specialized monitoring equipment may be available through the area Hazardous Materials Response Teams and through outside agencies.

Additional indicators include unusual dead or dying animals, lack of insects, unexplained casualties, unusual liquid, spray or vapor, low flying clouds/fog unrelated to weather, suspicious devices/packages, unusual metal debris, abandoned spray devices, or unexplained munitions. The Chemical Agent Indicator Matrix worksheet may be used to compile and evaluate this information.

The Chemical Agent Indicator Matrix (Appendix C) is used by marking the boxes corresponding to signs and symptoms demonstrated by exposed victims. The total number of marked boxes in each column is compared to the *Total Possible Indicators* in an effort to determine the agent of exposure.

4.2 Scene Organization Scene control and layout will be foremost in determining the success of WMD operations. Scene control zones for a WMD incident will be the same as those used for conventional hazardous materials incidents with adjustments made due to the large number of victims. The area suspected or confirmed as containing harmful contamination levels will be known as The Hot Zone. The area in which decontamination will occur will be known as the Warm Zone. The area in which no contamination is present will be known as the Cold Zone.

WMD incidents require special consideration as to scene layout due to their size and complexity. A Safe Refuge Area should be established at the outer edge of the Hot Zone to retain victim's prior to decon and to allow pre-decontamination triage to occur. Two or more decontamination operations may be required including post-decontamination Triage and Treatment Area(s). A Care and Retention Area will be established for those members of the public who are not scheduled for transport so that they can be cared for and so that Law Enforcement personnel may question them as required.

The zones or areas at a WMD incident may include: Hot Zone, Decontamination Corridor, Warm Zone, Cold Zone, Safe Refuge Area, Post-Decon Triage & Treatment Area, Care and Retention Area, Rehab/Medical Evaluation Area, Media Area, Entry Support Area, Decon Support Area, Command Post and Staging (refer to Appendix A and Appendix B). Existing facilities may be used as appropriate to provide protection from the elements and access to utilities.

4.3 Crowd Control, Rescue and Triage

4.3.1 Crowd Control

4.3.1.1 Control Strategies A firm yet reassuring demeanor should be used when communicating with the members of the public involved in a terrorist incident. When communicating with large numbers of people a bullhorn, loudspeaker or communication system may be used. A predetermined dialog may be used to communicate the necessary crowd actions. The following script may be used as a guide.

4.3.1.2 Script "May I have your attention please. This scene is under the control of the *<fire agency on the scene>* and *<lead law enforcement agency on the scene>*. If you can walk, report to the fire officer wearing the orange vest. He will stay with you until you can be cared for. Those who cannot walk will be rescued from the scene."

4.3.2 Safe Refuge Area For multiple casualty incidents a Safe Refuge Area shall be established at the outermost boundary of the Hot Zone near to the Decon Corridor. It is here that pre-decon triage shall be undertaken. A Paramedic or EMT shall staff the position of Safe Refuge Area Manager. This individual will be indicated by an Orange Vest that can be readily recognized by escaping victims.

4.3.3 Rescue

4.3.3.1 Patient Care within the Hot Zone Life support measures will be restricted by the limited number of personnel who can be supported for operations within the hot zone. Additional restrictions will result from the operational limitations imposed by the use of PPE. The basic functions that can be performed within the Hot Zone include triage prior to rescue, moving victims from areas of high risk or exposure and placement of assistive breathing equipment on victims in toxic environments. Basic life support measures may include stoppage of serious bleeding and repositioning to establish an airway.

4.3.3.2 Methods of Rescue Non-ambulatory victims may be rescued by the use of *Sked* Stretchers, basket stretcher-gurney combinations, military style stretchers or improvised means of rescue.

4.3.4 Triage and Treatment Area Triage will occur immediately after decontamination and prior to transport to a medical facility. Appropriate basic and advanced life support measures may be undertaken within this area. A Paramedic or EMT shall staff the position of Triage and Treatment Area Manager.

4.3.5 Care and Retention Area Those victims who are not to be immediately transported to a medical facility and those victims who are to be retained for questioning by Law Enforcement personnel shall be taken to the Care and Retention Area. Ideally this will occur within a nearby building that is best suited for the victims' care and comfort. The individual in charge of this area will be known as the Care Area Manager.

4.4 Decontamination

4.4.1 Emergency Decon Rapid decontamination may be achieved by improvised methods. Fire hose lines varying in size from booster lines to master streams may be used. These lines shall be adjusted to medium fog patterns with low to moderate nozzle pressures. Consideration shall be given to water run off insuring that it does not flow towards emergency responders or the public.

4.4.2 Decontamination Apparatus Decontamination for small numbers of victims may be accomplished by using decontamination apparatus located on the Hazardous Materials Response Units. The advantage provided by this equipment would include premixing of patient decon solution if used and increased provisions for privacy. The disadvantage lies in the time consumed in equipment response arrival time and set-up time.

4.4.3 Technical Decon for Entry Personnel It may be desirable to establish a separate decon corridor for entry team members. This will prevent cross contamination between victims and entry team members and will provide for the use of aggressive decontamination solutions and cleaning procedures.

4.4.4 Monitoring at Warm Zone Whenever possible, monitoring for chemical or radiological contamination shall be performed during the final stages of decontamination. This will insure that no contaminants are spread from the decontamination corridor.

4.5 Crime Scene Considerations The Fire Department shall insure that all activities are coordinated with the FBI agent in charge and other law enforcement personnel. There are multiple special considerations associated with crime scene operations. All reasonable efforts shall be undertaken to avoid disturbance of the crime scene. Responders should be constantly on the look out for unusual individuals, items or circumstances.

4.6 Secondary Devices Response personnel must be continually alert to the possibility of secondary devices intended to harm those rendering aid. Such devices may be explosive or designed to disseminate harmful agents. The Incident Commander should be immediately notified of any suspect device.

5.0 Personal Protective Equipment The use of chemical resistant personal protective equipment (PPE) presents several unique and sometimes complex operational concerns. Physical and chemical compatibility must be considered when selecting PPE. Rescuers experience physical and psychological stresses that are compounded during climatic extremes. Operational difficulties include limited work time, visibility, dexterity, mobility and ability to communicate. As a result of these limitations, the sheer number of personnel required to get the job done and to provide the required logistical support can rapidly exhaust resources. Very large quantities of equipment will be required to properly equip these personnel. The extreme and unusual demands created by mass casualty incidents may justify the use of non-traditional types of PPE (**fire fighters turnout with SCBA's would facilitate quick in and out**).

5.1 Industrial/Civilian Configurations

5.1.1 Level A This is the highest level of chemical protective clothing. This ensemble may include: vapor-tight fully-encapsulating suit, one-hour Self-contained Breathing Apparatus (SCBA), portable radio w/interface, hard hat, cool vest, 3 layers of gloves, chemical boots and jumpsuit.

5.1.2 Level A w/Flash Oversuit This is the Level A ensemble described above with the addition of an aluminized flash oversuit. This additional oversuit provides limited protection for escape in the event of a flash fire. It should be worn for possible flammable environment incidents requiring Level A protection. This combination ensemble satisfies the National Fire Protection Act of 1991 (NFPA-1991) basic flash fire performance requirements.

5.1.3 Level B Fully Encapsulating Suit This is the standard liquid-splash ensemble used for incidents presenting low to moderate hazards. It is normally used for decontamination operations. If there is doubt as to the appropriateness of this level of protection a Level A ensemble should be used. This ensemble may include: liquid-tight fully-encapsulating suit, one-hour SCBA, portable radio w/interface, hard hat, cool vest, 2 or 3 layers of gloves, chemical boots and jumpsuit.

5.1.4 Level B Suit w/SCBA on Outside This liquid-splash ensemble is identical to the fully-encapsulating Level B suit described above with two exceptions – the SCBA is worn outside of the suit and the suit is tighter fitting to the body. This presents the additional need to evaluate the chemical compatibility of the SCBA, portable radio and their components. Consideration will also have to be given to the fact that these items may become contaminated. The advantage of this ensemble is that it allows greater mobility, dexterity and visibility with slightly reduced hyperthermia stresses on the responder.

5.1.5 Level C This liquid-splash ensemble is used for incidents presenting low hazards. It includes a NIOSH approved air-purifying respirator (APR) rather than a SCBA for respiratory protection.

APRs are not recognized as acceptable for emergency response use by NFPA or Occupational Health and Safety Act of 1970 (OSHA). Level C will be most appropriate for use in public protective action areas and other areas of known low gas and vapor concentrations. It may be acceptable for decontamination operations. This ensemble does not require substantial logistical support nor does it present the operational time limitations imposed by SCBA use. This is a substantial advantage for many of the activities associated with very large-scale operations (fire fighter turnout and SCBA's, Eurolite NBC garment with respiratory protection).

5.2 Military Configuration

5.2.1 MOPP w/APR This is the same type of protective equipment used by the military during chemical and biological incidents. It is known as Mission Oriented Protective Posture or MOPP gear. The ensemble consists of pants and overcoat constructed of material layered with an absorbent charcoal layer that provides a barrier to chemical hazards.

MOPP gear does not have NFPA or NIOSH approval. Air purifying respirators are not recognized as acceptable for emergency response use by NFPA or OSHA. This gear is effective in protecting personnel in moderate to low concentrations and should not be used in high hazard areas. It will be most appropriate for use in Public Protective Action Areas and areas of known low gas and vapor concentrations. It does provide a tremendous advantage in operating efficiency. MOPP gear does not require substantial logistical support nor does it present the operational time limitations imposed by SCBA use. Additionally, it does not present the extreme hyperthermia concerns associated with traditional chemical protective clothing. This may be the only viable option for many of the activities associated with very large-scale operations.

5.3 Equipment Maintenance and Inventory Much of the specialized equipment used for NBC and hazardous materials response has a limited shelf life. Equipment must be stored in an environment that does not present temperature or humidity extremes. Specialized equipment requiring periodic maintenance will be assigned to the Hazardous Materials Response Teams or appropriate units who will provide required maintenance.

6.0 Types of Hazards

6.1 Nuclear/radiological Nuclear weapons of mass destruction may be designed to either generate tremendous explosive and thermal energy or to disperse radioactive material over a large area. Due to the extreme destructive nature of nuclear explosive devices, Fire Department activities will be limited to the periphery of the affected area.

Victims of a radiological incident may be either simply exposed or exposed and contaminated with radioactive material. Evaluation of levels of contamination and implementation of appropriate decon are critical to prevent the spread of contaminants. Level B or Level C should be adequate PPE for radiological incidents.

6.2 Biological Biological agents may be either viable organisms or the biotoxins that they create. They may be either contagious or non-contagious and it may take from hours to days for the early signs and symptoms to manifest. Full Biological Substance Incident (BSI) (blood born pathogen protective clothing) is the emergency responder's first line of defense in preventing infection by a biological agent. Greater levels of protection may be appropriate for known biological incidents. The establishment of decontamination, scene control, and public protective actions may prove to be critical during a chemical incident.

6.3 Chemical Terrorist may use chemicals with toxicity varying from ultra-toxic chemical warfare agents to highly toxic industrial chemicals. They may be solid, liquid or gaseous in nature with varying degrees of persistency. Routes of exposure may include any combination of inhalation, skin, ingestion and injection. Many of the agents will require some type of dissemination device to be effective. Signs and symptoms of exposure may manifest themselves immediately or may be delayed. Use of appropriate PPE, establishment of decontamination, scene control, and public protective actions are critical during a chemical incident.

6.4 Conventional Explosives All personnel should maintain a distance of 1,000 feet from the scene of a suspected or confirmed unexploded conventional explosive device. Apparatus radios, portable radios, radio linked computer terminals, cellular phones, and any other communications equipment shall be turned off when within 1,000 feet of a confirmed or suspected explosive device. This will include discovery of suspected secondary devices.

7.0 Reference Materials Supplemental guides, texts or other reference materials may be used for the types of incidents described in this section. Specific procedures outlined in this section shall prevail over procedures described in other reference materials. The North American Emergency Response Guidebook may be referred to according to the following designations:

Type Agent	ID Number	Guide Number
Nerve	2810	153
Blister	2810	153
Blood "cyanide"	1051	117

8.0 Threat Incidents

8.1 Bomb Threats

8.1.1 Warning Devices All agencies responding to such incidents will use sirens and warning lights until they are within two blocks of the bomb threat location. At this point they shall turn off the siren. Extreme caution must be used even though red lights are being used.

8.1.2 Staging and Use of Radio Equipment Fire Department units shall stage at least 1000 feet from the bomb threat location. Pumper units shall stage at hydrants as appropriate. Normal radio communication procedures shall be utilized provided this required distance is maintained from the target location.

8.1.3 Function The Fire Department will determine appropriate actions in coordination with the Law Enforcement officer in charge. The primary function of the Fire Department is to assume a ready position to respond should an explosion occur and to assist Law Enforcement in the evacuation of occupants if necessary.

8.2 Biological Threats

8.2.1 PPE Personnel entering the suspected area should be protected with full Biological Substance Incident (BSI) (blood born pathogen protective clothing) as is worn during possible infectious substance incidents.

8.2.2 Isolation Area Determination should be made by the law enforcement and/or fire department as to whether or not the suspected material is contained or has been aerosolized. **If it is suspected that the biological agents were spread through the air, the isolation area should be determined considering Heating Ventilation Air Conditioning (HVAC) system operation.** Victims within the area of possible involvement should be isolated, preferably nearby within an area not affected by the suspected release.

8.2.3 Sample Collection If a sample of the suspected material is available it should be covered with a **damp** cloth and protected from drafts that may cause dispersion. The availability of such a sample will allow Health District personnel to make a determination as to whether or not biological agents are not present.

8.2.4 Victim Care Determinations about appropriate victim care actions shall be made by the Clark County Health District, medical experts, EMS, fire department, Hazardous Materials Response Team, and law enforcement considering probability and degree of exposure.

8.2.5 Decontamination If it is determined that decontamination is necessary, water should be applied to the victims and their clothing prior to disrobing in order to minimize inhalation exposure from contaminated clothing. Cleansing of the skin with soap and water should be adequate.

9.0 Civil Disturbance

9.1 Response Dispatchers shall not dispatch emergency responders other than law enforcement into any type of civil disturbance. Fire companies may be dispatched into such an area only when declared safe by the police department or when escorted by law enforcement officials.

9.2 Officer Responsibility If inadvertently dispatched to such a scene, officers are not to respond into a scene that will unduly jeopardize the safety of the fire company. In such instances the company shall retreat to a safe location and notify dispatch of the situation.

9.3 Coordination When Fire Department personnel are dispatched to incidents, but awaiting police action to control the situation, officers shall coordinate with the Police Department's Incident Commander. Members shall not operate in functions outside of their assigned duties (e.g. in support of SWAT personnel).

10.0 Notification

When the Incident Commander determines that it is necessary to elevate an incident to a Level 2, the following notifications shall be made:

10.1 Nuclear/radiological
- 10.1.1 Incident Commander notifies jurisdiction Emergency Manager.
- 10.1.2 OEM notifies Health District, FBI, DOE, NDEM, LVFR Bomb Squad.

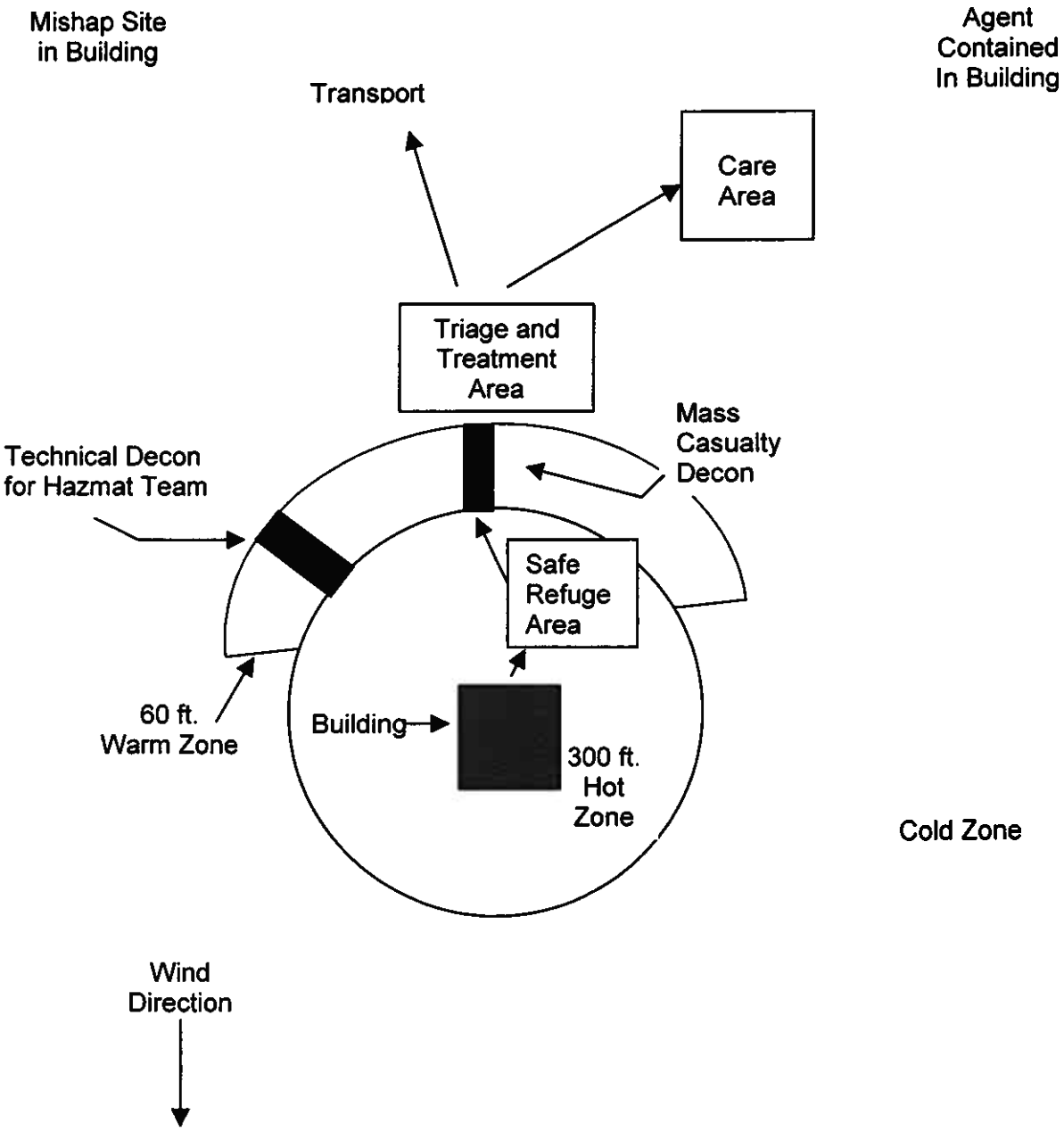
10.2 Biological
- 10.2.1 Incident Commander notifies jurisdiction OEM.
- 10.2.2 OEM notifies FBI, Health District, NDEM, Bomb Squad.

10.3 Chemical
- 10.3.1 Incident Commander notifies jurisdiction OEM.
- 10.3.2 OEM notifies FBI, Health District, NDEM, Bomb Squad.

10.4 Conventional Explosives
- 10.4.1 Incident Commander notifies jurisdiction OEM.
- 10.4.2 OEM notifies FBI, Health District, NDEM, Bomb Squad.

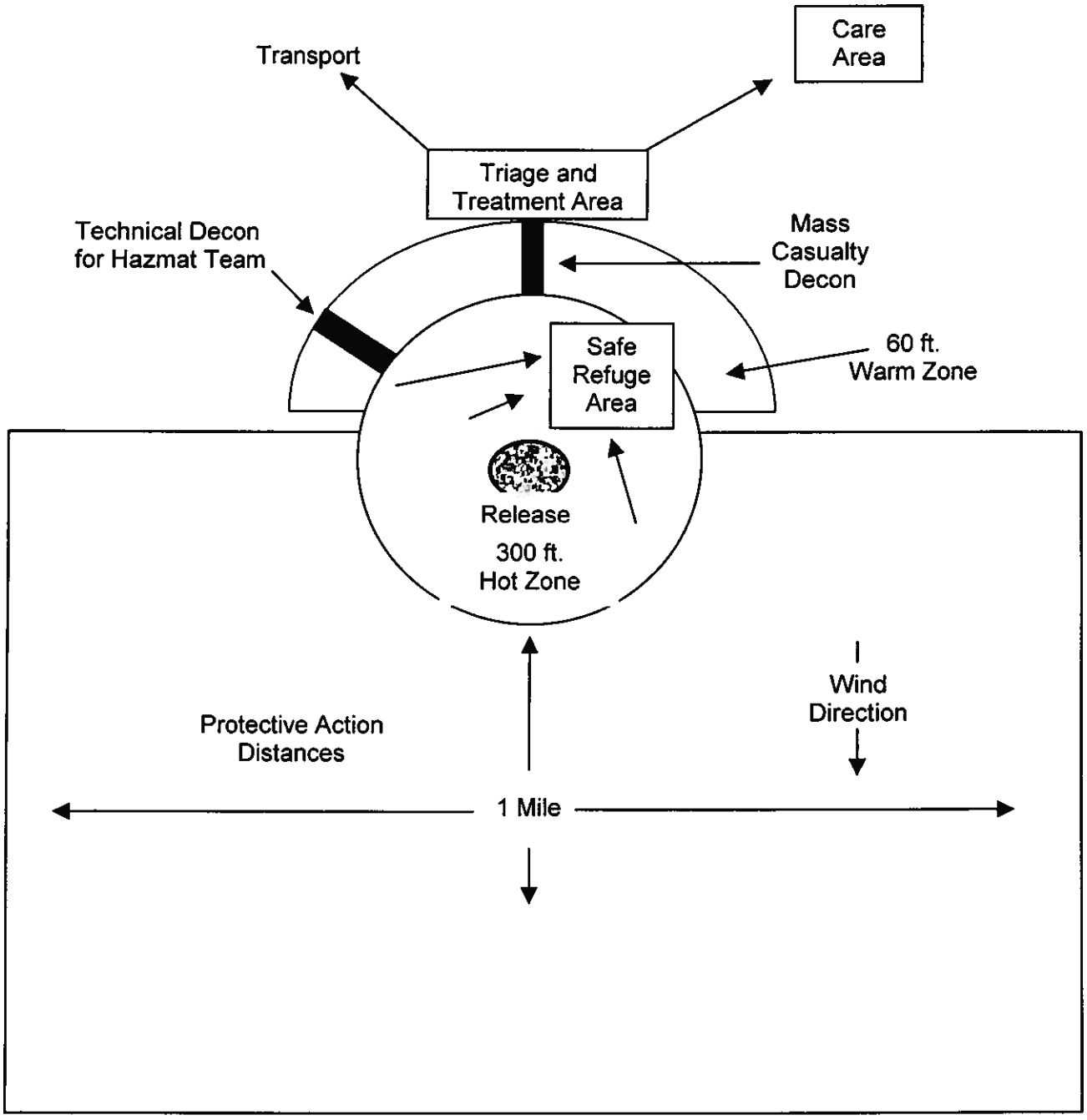
Note: If any incident could produce greater than 5 trauma patients, the Health District shall be notified immediately.

Site Boundaries – Closed Area



Appendix A

Site Boundaries – Open Area



Appendix B

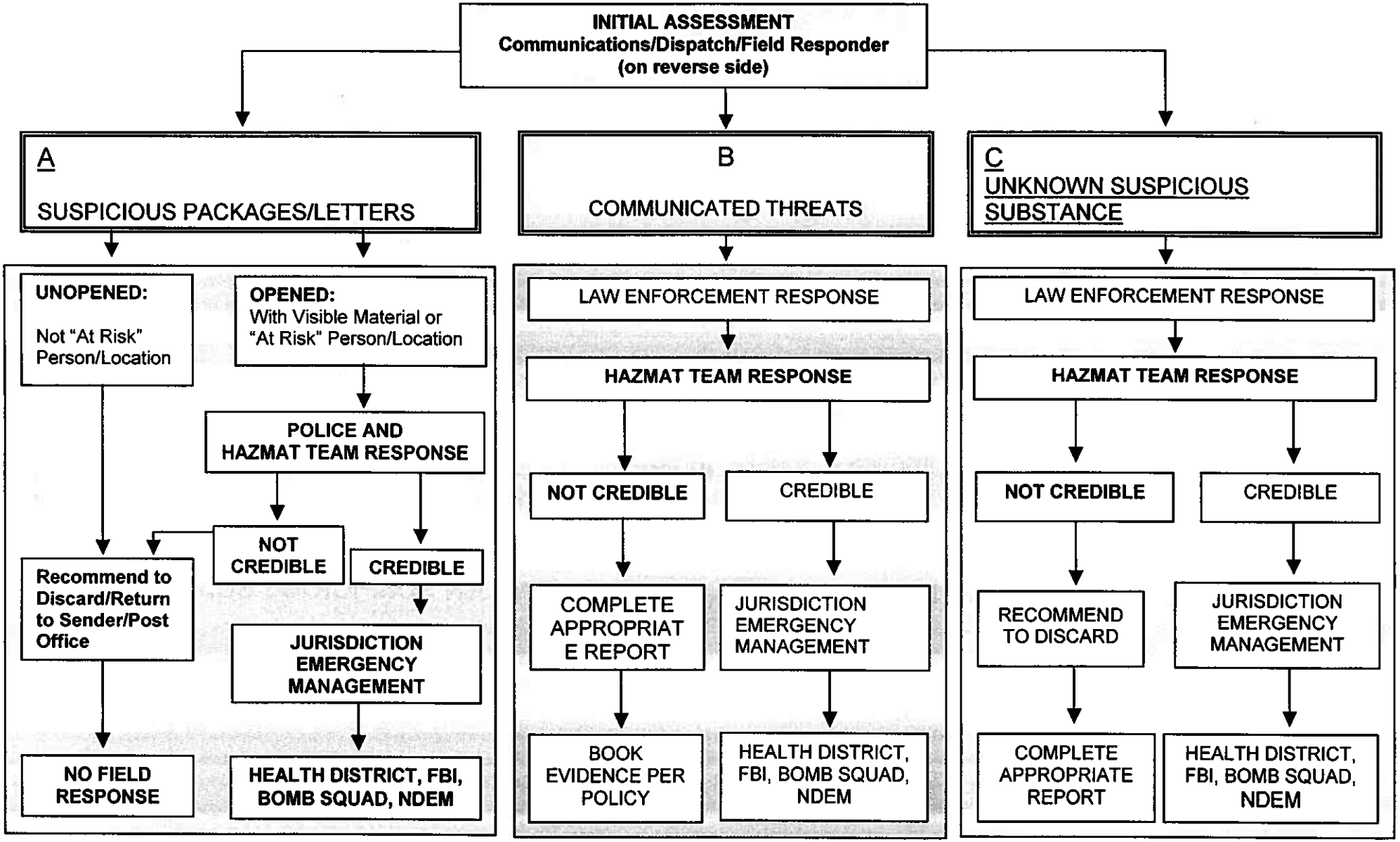
Chemical Agent Indicator Matrix

DESCRIPTION	A	B	C	D	E
Apparence					
Prostration (fatigue)		n/a		n/a	n/a
Twitching		n/a		n/a	n/a
Convulsions		n/a		n/a	n/a
Coma		n/a		n/a	n/a
Bleeding from Mouth		n/a		n/a	n/a
Coughing		n/a			
Sneezing		n/a		n/a	
Vomiting				n/a	
Fasciculation's (surface twitching)		n/a	n/a	n/a	n/a
Skin					
Cyanosis		n/a		n/a	n/a
Gray Area of Dead Skin	n/a		n/a	n/a	n/a
Pain or Irritation	n/a				
Clammy		n/a		n/a	n/a
Sweating-localized or generalized		n/a	n/a	n/a	n/a
Eyes					
Small Pupils		n/a	n/a	n/a	n/a
Normal or Large Pupils					
Involuntary Closing	n/a	n/a		n/a	
Tearing		n/a			
Burning or Irritation	n/a				
Headache or Pain Around Eye		n/a	n/a	n/a	n/a
Dim Vision		n/a	n/a	n/a	n/a
Blurred Vision		n/a	n/a	n/a	n/a
Burning Pain in Eyes	n/a				
Redness		n/a	n/a	n/a	
Respiratory					
Coughing		n/a			
Runny Nose		n/a			
Tight Chest (short of breath)		n/a			
Burning or Irritation in Nose	n/a				
Cardiovascular					
Slow Heart Rate		n/a	n/a	n/a	n/a
Fast Heart Rate		n/a			
Digestive System					
Defecation		n/a		n/a	n/a
Nausea				n/a	
TOTALS					
Total Possible Indicators	**26**	**8**	**23**	**11**	**16**

A = Nerve B = Blister C = Cyanide D = Pulmonary E = Riot Control

Appendix C

CLARK COUNTY RESPONSE PROTOCOLS TO HANDLE UNKNOWN SUBSTANCE INCIDENTS



INITIAL ASSESSMENT

1. Is this a package or letter? Yes _____ No _____

   If yes, follow Protocol A - SUSPICIOUS PACKAGES/LETTERS.

   If no, go to question 2.

2. Is there anything that makes or implies a specific threat? Yes _____ No _____

   If yes, follow Protocol B - COMMUNICATED THREAT.

   If no and it is an unknown substance, follow Protocol C - UNKNOWN SUSPICIOUS SUBSTANCE.

- OVER -

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.

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.

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.

Material Safety Data Sheet (MSDS). 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.

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 overwhelm 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.

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
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
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
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
HAZMAT	Hazardous Materials
HAZOP	Hazard and Operability Study
HAZWOPER	OSHA Hazardous Waste Operations and Emergency Response Standard
HLNW	High-Level Nuclear Waste
HMC	Hazardous Materials Coordinator
HMGL	Haz Mat 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
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	Liquified Natural Gas
LPG	Liquified 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.
NWPA	Nuclear Waste Policy Act of 1982
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
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