NATIONAL RESPONSE TEAM (NRT-1A) CHECKLIST

State Emergency Response Commission
Planning and Training Subcommittee
Carson City Hazardous Materials Emergency Response Plan
Reviewed: December 2, 2025

1. **Identify facilities subject to TIER II reporting requirements and identify transportation routes.**
   See *Annex E: Fixed and Extremely Hazardous Facilities* pages 1-8 and *Annex D: Hazard and Risk Analysis* pages 5-6.
2. **Describe Emergency Response Procedures to follow on and off site.**
   See *Immediate Action Checklists* in Preface pages xiii-xix; *Section 1: Introduction; Section 2: Situation and Planning Assumptions;* and *Section 3: Concept of Operations.*
3. **Designation of Community and Facility Coordinator(s) to implement the plan.**
   Page 3 in Section 4: Roles and Responsibilities assigns Carson City Emergency Management and Homeland Security Program to "serve as Community Coordinator to implement this plan. Coordinate response, recovery, mitigation, and training activities." Also see *Section 1: Introduction; Section 2: Situation and Planning Assumptions; Section 3: Concept of Operations;* and *Preface* pages xiii-xix.
4. **Outline Emergency Notification Procedures**
   See *Section 5: Notification and Warning* pages 1-2 and *Section 6: Communications, Public Information, and Community Relations* page 1.
5. **Describe Methods for determining Probable affected areas and Populations by releases.**
   See *Section 5: Notification and Warning* pages 1-2; *Section 6: Communications, Public Information, and Community Relations* page 1; *Section 7: Evacuation Procedure – Personal Protection of Citizens* pages 1-5; *Annex D.1.2: Hazard Analysis;* and *Annex E.1 Fixed Facilities Overview.*
6. **Describe Emergency Equipment in the Community and at Facilities and the persons responsible for them.**
   See *Annex F: Resource Management and Lists* pages 1-12. This annex lists contact information for organizations/agencies. *Annex J: 2023 LEPC Members Roster* contains contact information for individuals from these organizations/agencies.
7. **Outline Evacuation Plans**
   See *Section 7: Evacuation Procedure – Personal Protection of Citizens* pages 1-5.
8. **Provide a Training Program for Emergency Responders.**
   See *Section 8: Training and Exercise Program* pages 1-5.
9. **Provide methods and schedules for exercising Emergency Response Plans.**
   See *Annex G: LEPC Training and Exercise* page 1.

Remarks/Overall Comments: The Carson City Hazardous Materials Emergency Response Plan was reviewed in November 2025. The Plan includes an updated Letter of Promulgation, Bylaws, Membership Roster, Level of Response, and Annual Public Notice.

Reviewed by: _____ Date: 1/21/2026
LEPC Chairman

LYON COUNTY

HAZARDOUS MATERIALS EMERGENCY RESPONSE PLAN

Lyon County Local Emergency Planning Committee

Revised January 2026

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January 2026

Lyon County
Local Emergency Planning Committee
27 S. Main Street
Yerington, Nevada 89447

To the Citizens of Lyon County:

Hazardous Materials are common and important components of our everyday life. When properly controlled, these materials are useful elements in business, industry, agriculture and our homes. Uncontrolled, they may present a hazard to health and safety, the environment and property.

To meet the risks posed by hazardous materials, cooperative, concerted and continuing efforts are being made to take the following actions:

1. Locate, identify and quantify hazardous materials used and transported in Lyon County.

2. Prepare to respond to any emergencies involving hazardous materials in Lyon County.

This Lyon County Hazardous Materials Emergency Response Plan is one important part of the overall program to address hazardous materials and implement the emergency planning and community right-to-know aspects of Title III of the Superfund Amendment and Reauthorization Act of 1986 (Public Law 99-499).

Hazardous materials planning, response and recovery cannot be handled successfully by any one organization or group. Rather, these efforts must be accomplished through the cooperative efforts of local, state and federal authorities, and private industry.

The results of the Lyon County Emergency Planning Committee's (LEPC) ongoing planning efforts are set forth in this Hazardous Materials Emergency Response Plan.

/s/ Taylor N. Allison

Taylor N. Allison, Lyon County Emergency Manager
Lyon County Local Emergency Planning Committee Co-Chair

DISCLAIMER

The response to and management of emergencies are dynamic processes that require written plans and guidance, and the use of experience, judgment and creativity. Lyon County, Lyon County Emergency Management, the Lyon County Local Emergency Planning Committee and participating agencies and organizations have established plans and procedures that provide the basis for successful response to emergencies. However, emergencies are, by definition, extraordinary events that entail unpredictable and unique circumstances.

During emergencies conditions may develop where standard practices and methods are not sufficient. Nothing in this Plan should be interpreted as limiting or prohibiting the application of common sense, experience, initiative and ingenuity in overcoming the complexities that exist during emergencies. All response actions and activities must be carried out within the limitations of personnel training, equipment and available resources.

Lyon County, Lyon County Emergency Management, the Lyon County Local Emergency Planning Committee and those charged with carrying out response to emergency incidents are responsible for ensuring that this Plan is accurate and appropriate for Lyon County. These agencies must make sure the Plan is reviewed and the actions taken in response to emergencies are proper. Training, exercising and periodic revision, as needed, are required to make sure the Plan continues to be a useful guide for successfully dealing with emergencies in Lyon County.

The authors and reviewers have provided Lyon County with assistance in preparing/revising this Plan, under the County's specific direction and oversight. However, Lyon County assumes all liability arising from the use of this Plan and information contained herein.

RECORD OF CHANGES

This Plan will be reviewed and updated periodically. Record changes in the table below.

When posting changes:

- Replace the old page(s) with the new page(s).
- Enter the change information in the table and sign the entry.

PAGE(S) AFFECTED	DATE OF CHANGE	DATE ENTERED	CHANGE MADE BY (SIGNATURE)
ALL	3/30/2012		
ALL (Pages i, iii, v-vii, 3.4; Sections 15, 16, 17, 18, 19)	1/2013		
Pages i, iii, v-vii, 3.7, 5.2-5.3; Sections 16, 17, 18, 19	1/2014		
Pages i, iii, Sections 16, 17, 18, 19	1/2015		
Pages i, iii, Sections 16, 17, 18, 19	1/2016		
Pages 1.5, 1.6, 1.7, 6.3-4, 7.1, 12.4-8, 13.8, 13.10-11, 13.14-15, 13.22, 13.35, 13.38, 14.2, 14.9, 14.13, 14.18-20, 14.31-32, 14.40, 14.44, 14.49, 15.14, 18.4	4/2016		
Sec 7, 16, 17, 19	Jan-2026		*/s/ Taylor N. Allison*

PLAN REVIEW CRITERIA INDEX

This Index shows where to look for information related to the nine basic Hazardous Materials Emergency Plan Review Criteria. The criteria are set forth in Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 303 (c), and the National Response Team's "Criteria for Review of Hazardous Materials Emergency Plans," NRT 1-A. The Nevada State Emergency Response Commission uses the basic criteria to review local hazardous materials response plans.

GENERAL CRITERIA	INFORMATION LOCATION
1. Identification of facilities subject to requirements and transportation routes	Section 15, Section 16
2. Emergency response procedures, on and off-site	Sections 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 and 20
3. Designation of community and facility emergency coordinators	Pages 3.2 and 3.5
4. Emergency notification procedures	Section 4, Pages 14.6-14.7
5. Methods for determining probable affected areas and populations	Pages 1.2, 6.1-6.4, 16.12-16.13; Sections 5 & 15
6. Identification of community and facility emergency equipment, and persons responsible	Section 17
7. Evacuation plans	Section 9, Page 14.20; Lyon County Evacuation Plan
8. Training programs	Page 2.6, Section 10. Pages 14.14-14.16
9. Methods and schedules for exercising emergency response plans	Pages 2.6-2.7, Section 19

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IMMEDIATE ACTION CHECKLISTS

How to Use the Immediate Action Checklists

Refer to the Red Section entitled "Immediate Action - General" for: First Responder Safety and Incident Command and Scene Security

1. Select the appropriate card from the list below.
2. Follow the instructions on the card.
3. Maintain communications until all the information is obtained.
4. Refer to appropriate Response Function for further direction.

Nothing in this section shall be determined as an obstacle to the experience, initiative, and ingenuity of the responders in overcoming the complexities that exist under actual emergency conditions

IMMEDIATE ACTION – GENERAL

First Responder

Approach the incident location from an upwind, uphill, and/or upstream direction.

1. Position vehicle heading away from the incident location.
2. If available, wear full protective clothing (i.e., turnouts-pants, coat, hood, gloves, boots, helmet) and positive-pressure self-contained breathing apparatus (SCBA).
3. Avoid "rushing" into the area.
4. Avoid entering or approaching vapors or smoke.
5. Avoid contact with product.
6. Consider all unidentified containers or released products (including smoke) as a hazardous material until it is positively identified as non-hazardous.

Incident Command and Scene Security

1. Establish an Incident Command Post and fully implement ICS.
2. Isolate the scene and deny entry to all unauthorized personnel, vehicles, and equipment (establish a perimeter).
3. Notify appropriate emergency response agencies:
   a) Hazardous Materials Response Team.
   b) Fire agencies.
   c) Law Enforcement.
   d) EMS units (ambulances).
   e) Area hospitals.
   f) Nevada State Health.
   g) Lyon County Emergency Management
   h) Nevada Division of Emergency Management

Immediate Action Checklist		✓
1.	Establish Incident Command	
2.	Establish Exact Incident Location	
3.	Determine Legal Jurisdiction	
4.	Determine Isolation Zones	
5.	Collect Product Information	
6.	Determine the Size of Exclusion Zone	
7.	Determine Level of Response	
8.	Determine if Additional Resources are Required	
9.	Establish Size of Spill and Spill Potential	
10.	If spill can reach a waterway, begin Downstream Notifications	
11.	Establish Evacuation Routes	
12.	Determine Medical Needs	
13.	Determine Entry Level (PPE)	
14.	Determine Communications Needs	

IMMEDIATE ACTION – DOWNSTREAM NOTIFICATION

The following Downstream Notifications shall be made whenever there is a threat or actual discharge of a hazardous materials product into a *waterway.

- *A waterway is defined as any lake, river, stream, tributary, ditch, canal, storm drain or sewer.*

Dispatch

Provide the following information when notifying the Downstream Users:

- Type of Incident (Rail, Motor Transport, Pipeline, Fixed Facility, etc.)
- Location where the incident happened
- Number of Injuries
- Product Name (if known)
- Type of Release
  - ☐ Solid ☐ Liquid ☐ Gas
- Size of Spill
  - Quantity _____
  - Length___x Width _____
- Location where the product entered or will enter the waterway
- Estimated time of entrance

IMMEDIATE ACTION – RAILROAD

For All Railroad Accidents and Releases

First Responder

1. Notify Local Emergency Dispatch - Activate 911
2. Isolate and deny entry to the area
3. Establish Control Zones

Dispatcher

1. Contact the Union Pacific Railroad

Union Pacific Railroad Critical Response Management Center
(888) 877-7267

2. Determine the following information:
   - Type of Incident (derailment, fire, product release, collision)
   - Location where the incident happened
     - Mile Marker
     - Accessibility
   - Number of Injuries
   - Product Name (if known)
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity _____
     - Length_____x Width _____
   - Has spill ignited? Yes___ No ___
   - Can the spill be contained? Yes___ No ___
   - Any information on the railcar or container
   - Whether train operations on adjacent tracks are affected
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION - PIPELINE

For All Pipeline Accidents and Releases

First Responder

1. Notify Local Emergency Dispatch - Activate 911
2. Isolate and deny entry to the area
3. Shutdown all possible ignition sources (Stop **ALL** Vehicle Traffic)
4. Determine which pipeline is leaking (utilize pipeline location maps)
5. Attempt to identify the material
   - Petroleum Products (gasoline, diesel, jet fuel, etc.)
   - LPG (propane, natural gas)

Dispatcher

1. Contact the appropriate pipeline
   - Kinder Morgan Pipeline for petroleum spills
     24 Hour Emergency Number: **(775) 358-6971**
   - Tuscarora Pipeline for Natural Gas
     24 Hour Emergency Number: **(800) 894-1488**
   - Paiute Pipeline for Natural Gas
     24-Hour Emergency Number: **(800) 882-0148**
   - Southwest Gas for Natural Gas
     24-Hour Emergency Number: **(800) 772-4555**
2. Determine the following information:
   - Location where the incident happened
   - Number of Injuries
   - Product Name (if known)
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity _
     - Length____x Width _____
   - Has spill ignited? Yes____ No ___
   - Can the spill be contained? Yes___ No ___
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION - WATERWAY

For All Accidents and Releases That Can Reach Any Waterways

A waterway is defined as any river, stream, tributary, ditch, canal, storm drain or sewer.

First Responder

1. Notify Local Emergency Dispatch - Activate 911
2. Isolate and deny entry to the area
3. Establish Control Zones

Dispatcher

1. Contact Sierra Pacific Power Company, dba NV Energy

2. Determine the following information:
   - Location where the incident happened
   - Number of Injuries
   - Product Name (if known)
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity __
     - Length_____x Width _____
   - Has spill ignited? Yes___No_
   - Can the spill be contained? Yes___No_
   - Location where the product entered or will enter the waterway
   - Estimated time of entrance
   - Description of:
     - Exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION – FIXED FACILITY

For All Fixed Facility Accidents and Releases

First Responder

1. Notify Local Emergency Dispatch - Activate 911
2. Isolate and deny entry to the area
3. Shutdown all possible ignition sources (Stop **ALL** Vehicle Traffic)
4. Establish Control Zones

Dispatcher

1. Contact the fixed facility emergency coordinator

Refer to Risk Analysis Appendix "A" for Information on Select Facilities (not all fixed facilities are included in the listing)

2. Determine the following information:
   - Location where the incident happened
   - Number of Injuries
   - Product Name (if known)
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity _
     - Length___x Width _____
   - Has spill ignited? Yes___ No ___
   - Can the spill be contained? Yes___ No ___
   - Is the release contained to the facility? Yes___No_
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION – MOTOR TRANSPORTATION

For All Motor Transportation Accidents and Releases

If the vehicle is known or suspected to carry hazardous materials DO NOT APPROACH THE VEHICLE

First Responder

1. Notify Local Dispatch
2. Isolate and deny entry to the area
3. Shutdown all possible ignition sources (Stop **ALL** vehicle traffic)
4. Establish control zones
5. Attempt to locate driver
6. Attempt to identify the material

Dispatcher

1. Contact the shipper if possible
2. Determine the following information:
   - Location where the incident happened
   - Number of Injuries
   - Product Name (if known)
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity _____
     - Length____x Width _____
   - Has spill ignited? Yes____ No ____
   - Can the spill be contained? Yes____ No ____
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION – ABANDONED/UNKNOWN CONTAINERS

If you discover a hazardous material or unlabeled container and suspect it contains hazardous materials

DO NOT MOVE THE CONTAINER
DO NOT ATTEMPT TO DETERMINE IF FULL
RETREAT TO AN UPWIND, UPHILL & UPSTREAM POSITION

First Responder

1. Notify Local Dispatch
2. Isolate and deny entry to the area
3. Shutdown all possible ignition sources (Stop **ALL** vehicle traffic)
4. Establish control zones

Dispatcher

1. Dispatch HAZMAT assignment for appropriate Fire Protection District
2. Determine the following information:
   - Location of the Container
   - Number of Injuries
   - Product Name (if known)
   - Has the Container Been Breached? Yes No___
   - Type of Release
     ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity _____
     - Length___x Width _____
   - Has spill ignited? Yes___ No ___
   - Can the spill be contained? Yes___ No ___
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

If spill can reach a waterway, begin Downstream Notifications

IMMEDIATE ACTION – WMD/CBRNE/TERRORISM

Weapons of Mass Destruction - Chemical, Biological, Radiological, Nuclear & Explosive

If you discover or suspect a WMD or CBRNE Device

DO NOT MOVE THE DEVICE

First Responder

1. Notify Local Dispatch
2. Isolate and deny entry to the area
3. Establish Control Zones

Dispatcher

1. Notify Sheriff's Office to activate WMD/CBRNE plan
2. Dispatch HAZMAT assignment for appropriate Fire Protection District
3. Determine the following information:
   - Location of the Device
   - Number of Injuries
   - Has the Device Been Breached? Yes____ No ___
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Nearness to roadway, bridges, drainage structures, waterways

SECTION 2: PLAN OVERVIEW

Purpose:

1. The Lyon County Hazardous Materials Emergency Response Plan establishes the policies, responsibilities, and procedures required to protect the health and safety of Lyon County's populace, the environment, and public and private property from the effects of hazardous materials incidents.

2. This plan establishes the emergency response organization for hazardous materials incidents occurring within Lyon County. This plan also establishes the operational concepts and procedures associated with hazardous materials response.

3. The Lyon County Hazardous Materials Emergency Response Plan is the principal guide for agencies of Lyon County, its incorporated cities, and other local government entities in mitigating hazardous materials emergencies. This plan is consistent with federal, state and local laws and is intended to facilitate multi-agency and multi-jurisdictional coordination, particularly between local, state, and federal agencies, in hazardous materials emergencies.

4. This plan is an operational plan as well as a reference document; it may be used for pre-emergency planning as well as emergency response. Agencies having roles and responsibilities established by this plan are encouraged to develop standard operating procedures (SOPs) and emergency response checklists based on the provisions of this plan.

Objectives:

Enable emergency response personnel to evaluate hazardous materials and take appropriate emergency actions in order to save lives, reduce injuries, and prevent or minimize damage to property and the environment. These actions may include:

1. Securing the *affected* area, isolating the hazard, and denying the entry of unauthorized persons into the area.

2. Identification of the hazardous material.

3. Providing rapid and effective warning, information, and instructions to threatened populations.

4. Providing means to access technical resources to stabilize the affected area and return to normal conditions as quickly as possible.

5. Train and equip emergency response personnel (hazmat team members as well as first responders) to efficiently and effectively mitigate hazardous materials incidents.

6. Describe the overall emergency response organization for hazardous materials incidents occurring within Lyon County.

7. Delineate the responsibilities of local, state, and federal agencies in the event of a hazardous materials incident in Lyon County.

8. Establish lines of authority and coordination for hazardous materials incidents.

9. Facilitate mutual aid to supplement local resources.

10. Describe procedures for accessing outside funding (e.g., state and federal funding) for the mitigation of, and recovery from, hazardous materials incidents.

Scope:

1. The policies, procedures, and provisions of this plan are applicable to all agencies and individuals; public and private, having responsibilities for hazardous materials emergency preparedness, response, recovery and/or mitigation in Lyon County

2. For the purpose of this plan, a hazardous material is defined as:

   A substance or combination of substances which, because of quantity, concentration, physical, chemical or infectious characteristics, may cause or contribute to an increase in mortality or an increase in serious irreversible o incapacitating reversible illness, or pose a present or potential hazard to human life, property or the environment.

3. This plan is intended to address acute releases and threatened releases of hazardous materials, including oil spills, radiological incidents and acts of terrorism. Acute releases require an immediate response in order to protect public health and safety, property, and the environment. Examples of acute releases may range from an unidentified white powder spilled along a roadway to a catastrophic chemical release with long-term health and environmental implications.

4. This plan does not address the problems associated with the clean-up or remediation of non-emergency or long-term hazardous waste sites.

Situation:

Hazardous materials are used, stored, manufactured, and transported in and through Lyon County on a daily basis. To minimize the harm caused by a release of a hazardous material, an ongoing process of hazard and risk analysis, cooperative planning, resource identification, and preparation must be carried out. Because of limitations, the cities and county cannot prepare for every possible type of release, but it can prepare for those that are likely to occur based on a hazard and risk analyses.

Authorities:

1. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended. (Public Law 95-510)

2. Resource Conservation and Recovery Act

3. Title III of the Superfund Amendments and Reauthorization Act of 1986. (Public Law 99-499)

4. Occupational Safety and Health Act of 1970, and regulations promulgated under that Act.

Hazardous Materials Assumptions:

1. Hazardous materials incidents may occur anywhere and at any time in Lyon County. The potential for a hazardous materials incident in Lyon County depends on the volume, distribution, and/or use of chemicals and other hazardous substances in a particular area. In general, the likelihood of a hazardous materials incident is greatest in the following areas:

    a. Transportation Routes - Highways, railways, and commercial routes constitute a major threat because of the multitude of chemicals and hazardous substances transported along them. Interstate 80, Highway 50, Highway 95A, Highway 208, Highway 339, Highway 338 and Highway 341 are areas of concern, as are the Southern Pacific and Union Pacific railroad tracks.

    b. Business and Industry - The manufacturing and light industrial firms in and near the City of Fernley and City of Yerington, Silver Springs, Stagecoach, Dayton Valley, Mark Twain, Mound House, Dayton and Smith Valley offer the potential for hazardous materials incidents and use or store products which may be harmful to the sensitive ecosystems of the area.

    c. Agriculture - Accidental releases of pesticides, fertilizers, and other agricultural chemicals may be harmful to human health and the environment. The majority of agricultural industry consists of ranching and farming operations located throughout Lyon County.

    d. Illegitimate Business - Illegitimate businesses, such as drug laboratories, are a significant threat to human health, property, and the environment. In many instances, the residue is dumped in remote areas of the county or along the side of the road, posing a serious health threat to the unsuspecting person who stumbles across it.

    e. Hazardous Waste - Hazardous waste (e.g., used motor oil, solvents, or paint) is occasionally dumped in remote areas of the county or along roadways. Like drug lab residue, illegally dumped hazardous waste poses a threat to human health, property, and the environment.

f. Radioactive Materials - Interstate 80, Highway 50 and 95, and the railroads are authorized routes for the shipment of radioactive materials.

g. Acts of Terrorism - Terrorist acts are becoming more common today and much more sophisticated. Events of recent years have prompted a move towards terrorist preparedness.

2. Hazardous materials incidents may occur at any time, day or night, and in populated as well as remote areas of Lyon County.

3. Hazardous materials incidents, even minor ones, usually require a multi-agency, multi-jurisdictional response. For this reason, it is essential that the Incident Command System, and in many instances a unified command, be implemented immediately by responding agencies.

4. Hazardous materials incidents may pose significant risks to emergency response personnel. It is imperative that all emergency response personnel and potential first responders be properly trained in appropriate hazardous materials emergency response actions.

5. Hazardous materials incidents may require large-scale evacuations or shelter-in-place actions. These operations may present significant challenges in terms of warning and notification, logistics, and agency coordination.

6. Hazardous materials incidents may generate widespread media and public interest. The media must be considered an ally in these emergencies; they can provide considerable assistance in emergency public information and warning.

7. Hazardous materials incidents may pose serious long-term threats to public health, property, and the environment. These strategic considerations must be addressed in all hazardous materials emergencies.

8. Significant hazardous materials incidents may require an extended commitment of personnel and resources from involved agencies and jurisdictions.

9. Jurisdictions over the site of the release will remain within the city or county, unless the city or county decides to relinquish its authority to another level of government.

10. The senior emergency response official responding to an emergency shall become the individual in charge of a site specific Incident Command System. This shall be the case only if the individual meets the qualifications as described in 29CFR1910.120.

Relationship to Laws and Other Plans

1. All portions of this plan shall be in accordance with the current Federal, State and Local laws governing hazardous material emergency response.

2. All portions of this plan shall be complementary to Federal, State and local fixed facility plans.

3. All portions of this plan must coordinate and be complementary with the cities and county CEMP.

Concept of Operations:

1. The problem of hazardous materials releases is not only a governmental responsibility, but also one that includes all private industry locations in the county. Hazard identification, planning, and response preparedness is constantly changing in the county and must be addressed by a cooperative partnership of the public and private sector.

2. Lyon County is responsible for conducting emergency hazardous material operations within their own jurisdictions.

3. The Incident Command System (ICS) provides the flexibility to rapidly activate and establish an organizational form around the functions that need to be performed in order to efficiently and effectively mitigate an emergency. For this reason, ICS will be used during all hazardous materials incidents in Lyon County.

Neighboring Counties and Indian Tribe Relationships:

The Cities and the County recognize adjacent counties and the sovereign nature of Tribal Governments and will provide assistance, upon request, to prevent injuries, loss of life, and to protect property and the environment. The Cities and the County recognize the value and need to plan, respond, mitigate and recover from hazardous materials incidents.

Predetermined Arrangements:

Special agreements or contracts may exist with businesses to plan, respond, mitigate and recover from hazardous materials incidents.

Response Functions:

The Response Function sections are those areas of the Hazardous Materials Emergency Plan that require further explanation and direction of key elements of the plan. These functional areas may include Standard Operating Procedures (SOP), checklists, and statements of intent, phone lists, or a combination of documents. These areas may have multiple agencies or groups that input information or add resources to the sections. The LEPC shall review these Response Functions annually to assure that all of the criteria of the functions are met and that the sections contain the most recent information. The sections that have been determined by the LEPC to be Response Functions include: Notification and Warning, Direction and Control, Response Personnel Safety, Communication, Public Information and Community Relations, Personal Protection of Citizens, Resource Management, Incident Command System, Hazardous Materials Medical Plan, Quad County Hazardous Materials Team SOPs, and Forms.

Evaluation and Training

Evaluation

1. The agency in charge of a hazardous materials incident will host and facilitate post- incident analyses and critiques following hazardous materials incidents and exercises, respectively.

2. An after-action report may be prepared by the Lyon County LEPC and distributed to those agencies involved in the hazardous materials incident or exercise.

Training

1. Initial and refresher training will be consistent with the provisions of 29CFR 1910.120. Lyon County Emergency Response Personnel are currently trained to the Awareness or Operations levels, with some responders trained to the Technician level. It is Lyon County's intent to train all Fire Protection Districts to the Operations level with some responders trained to the Technician level. Training will be consistent with the Quad County Agreement. The Lyon County LEPC will notify holders of this plan of training opportunities associated with hazardous materials emergency response.

2. Individual agencies are responsible for maintaining training records.

3. This plan will be exercised at least annually. The Lyon County LEPC will conduct hazardous materials emergency response exercises in accordance with its annual exercise schedule.

4. Agencies having assigned responsibilities under this plan must ensure their personnel are properly trained to carry out these responsibilities.

Plan Development and Maintenance

Plan Development

1. The Lyon County Local Emergency Planning Committee has primary responsibility for development, review, and coordination of this plan.

2. Input will be solicited from those agencies having assigned responsibilities under this plan. Evidence of coordination is maintained on file with the Lyon County Local Emergency Planning Committee.

Plan Review and Maintenance

1. This plan will be reviewed by the Lyon County Local Emergency Planning Committee at least annually and updated as necessary. Any changes resulting from this annual review will be published and distributed to agencies holding this plan.

2. This plan may be modified as a result of hazardous materials post-incident analyses and/or post-exercise critiques. Proposed changes shall be submitted in writing to the Lyon County Local Emergency Planning Committee. These changes shall be published and distributed to agencies holding this plan.

3. This plan may also be modified any time responsibilities, procedures, laws, rules, or regulations pertaining to hazardous materials incidents change. Those agencies having assigned responsibilities under this plan are obligated to inform the Lyon County Local Emergency Planning Committee when changes occur or are imminent. These changes will be published and distributed to agencies holding this plan.

SECTION 3: ORGANIZATIONAL ROLES AND RESPONSIBILITIES

Board of County Commissioners will:

1. Review and approve the Lyon County Hazardous Materials Response Plan.

2. Review the membership of the LEPC.

3. Participate in LEPC planning with representatives from the Board.

4. Pass ordinances needed to support the purpose of this plan.

5. Make policy decisions in the areas of:
   - Evacuation
   - Funding
   - Request for state and federal assistance
   - Mutual aid agreements
   - Declaration of State of Emergency

Local Emergency Planning Committee (LEPC) will:

1. The LEPC should consist of, as a minimum, representatives from the following groups:
   - County and State elected officials
   - Law Enforcement
   - Emergency Management
   - Fire Service
   - Health Services
   - Emergency Medical Service
   - Hospitals
   - Environmental Agency
   - Transportation
   - Media
   - Community Organizations
   - Private Facility Owners or Operators

2. Members will be reviewed by the Lyon County Board of Commissioners and approved by the State Emergency Response Commission.

3. The LEPC will perform the following duties:
   - Elect a chairperson and establish rules by which the committee will function.
   - Establish procedures for processing request from the public for information and designate a coordinator for such information.
   - Complete an emergency plan in accordance with Section 303, Title III of the SARA.
   - Review the plan annually.
   - Develop annual test of the plan.

County Emergency Management Director/Coordinator will:

1. Be the central point of contact for the plan.

2. Be a member of the LEPC.

3. Coordinate planning and logistics activities, as needed.

4. Shall be the designated Emergency Management Coordinator in accordance with NRT-1

Fire Protection Districts will:

1. Participate in LEPC planning with representatives from all the fire protection agencies in the county.

2. Establish working relations with facilities in their jurisdictions.

3. Enter into any approved agreements as necessary.

4. Comply with all hazardous materials training requirements and insure that their personnel receive the mandated amounts and types of training in accordance with 29CFR1910.120

5. Maintain qualification and training records for all emergency response personnel. Ensure that records are available at the scene of all incidents for review by OSHA.

6. The Fire Incident Commander will coordinate the mitigation of the hazardous materials incident to the point when fire service assistance is no longer needed at the scene.

7. At a fixed facility incident, the IC will be in charge of the emergency response effort and work jointly with the facilities on-scene coordinator.

8. The LEAD AGENCY shall effect overall management and coordination of a hazardous materials incident.

9. Activate the Hazardous Materials Response Team.

10. Take appropriate action to mitigate the hazard, stabilize the situation, rescue any injured or trapped persons and evacuate the area, as necessary. **(Not to exceed the current level of training)**

11. When the incident is no longer an emergency, the Incident Commander will turn control of the incident over to a certified clean up contractor trained to perform at the determined incident level.

12. Provide current resource lists for inclusion into the plan.

13. Develop and maintain Standard Operating Procedures (SOP) for hazardous materials response.

14. Review all materials sent to them by the fixed facilities.

15. Conduct Incident Command in accordance with the National Incident Management System (NIMS).

16. Coordinate the contracts for hazardous materials services.

NOTE: Lyon County has some staff trained to the Technician Level. Those individuals may fulfill duties as required when acting under the Quad County Hazardous Materials Response Team in accordance with the Quad County Interlocal Agreement. General response of responders in Lyon County will be only to the Operations Level.

Law Enforcement will:

1. Participate in LEPC planning with representatives from all the law enforcement agencies in the county.

2. Comply with all hazardous materials training requirements and insure that their personnel receive the mandated amounts and types of training.

3. Conduct evacuations as requested by the Incident Commander

4. Develop and maintain Standard Operating Procedures (SOP) for hazardous materials response.

5. If first on the scene, act as the incident commander until relieved by the fire service.

6. Provide perimeter and traffic control at the incident as directed by the Incident commander.

7. Provide security resources as required by the Incident Commander.

8. Provide personnel to fill positions within the ICS as requested by the Incident Commander.

9. Shall participate in Unified Command as necessary.

10. Conduct Incident Command in accordance with the National Incident Management System (NIMS).

11. Maintain qualification and training records for all emergency response personnel. Ensure that records are available at the scene of all incidents for review by OSHA.

Lyon County Health Officer and Nevada State Health will:

1. Provide representatives to the LEPC with regard to public health, emergency medical services planning, and hazardous materials releases.

   Note: Lyon County does not have a County Environmental Officer. The State Health Officer assigned to Lyon County is limited to water, sewer and food issues. Lyon County health options are:
   1. Contact neighboring counties for assistance.
   2. Contact Nevada Division of Emergency Management
   3. Contact Federal Regional Response Team

Public Works will: (Road Division, Facilities Division, Utilities Division)

1. Participate in LEPC planning with regard to public works.

2. Provide an updated list of equipment and personnel available to support emergency operations.

3. Provide public works personnel with appropriate training in hazardous materials response. (29CRF1910.120.q.4) Minimum training - Awareness Level

4. Assist in spill control, as requested.

5. Perform actions to protect water and sewer systems, if endangered and as requested.

6. Develop and maintain Standard Operating Procedures (SOP) for hazardous materials response.

7. Provide personnel to fill positions within the ICS as requested by the Incident Commander.

8. Shall participate in Unified Command as necessary.

9. Conduct Incident Command in accordance with the National Incident Management System (NIMS).

Medical Services will:

1. Pre-hospital medical personnel will initiate the Medical Plan as appropriate; provide triage, treatment and transport of victims and incident personnel exposed to hazardous material after primary decontamination has been completed; staff the medical branch positions; and provide medical monitoring of the Hazmat team(s).

2. The acute care hospitals will provide treatment of victims and incident personnel, provide primary decontamination of walk-in patients and secondary decontamination of patients

received from the scene as necessary, and act as a resource for medical treatment information and on-line medical control of pre-hospital personnel.

3. All medical personnel both on and off scene will maintain close communication regarding the identity; health effects and medical care information for victims.

4. Pre-hospital personnel and hospital staff will attempt to limit additional exposure to victims, themselves and their vehicles, equipment and facilities through the use of appropriate precautions and personal protective equipment.

5. Participate in LEPC planning with regard to medical issues.

6. Develop and maintain Standard Operating Procedures (SOP) for hazardous materials response.

7. Provide personnel to fill positions within the ICS as requested by the Incident Commander.

8. Shall participate in Unified Command as necessary.

9. Conduct Incident Command in accordance with the National Incident Management System (NIMS).

Fixed Facilities and/or Transportation Companies will:

1. Comply with all federal, state and local hazardous materials reporting requirements.

2. Participate in the LEPC as requested.

3. Provide information to the LEPC in accordance with SARA Title III and the Hazardous Materials Uniform Transportation Act of 1990.

4. Provide information to health professionals, doctors, and nurses in accordance with Section 323 of Title III.

5. Designate a facility emergency coordinator to be in charge of facility personnel and work jointly with the Incident Commander. Duties should be carried out by the facility Emergency Management or Environmental Health & Safety person(s) of the respective Tier II facility. Facility coordinators shall coordinate 24-hour spill reporting to the County LEPC, Community Coordinator, and Nevada Division of Environmental Protection. Facility Coordinator(s) will ensure 24/7 contact information is updated with Lyon County Emergency Management and documented in the facility Emergency Action Plan per local, State, and Federal regulations.

6. Establish working relationships with the local fire service.

7. Provide personnel to fill positions within the ICS as requested by the Incident Commander for incidents directly related to the fixed facility or Transportation Company. All other participation is voluntary.

8. Conduct Incident Command in accordance with the National Incident Management System (NIMS).

9. Provide immediate notification to the local fire department upon discovery of a release of hazardous materials as required by Section 304.4.1 of Title III via telephone, radio, or in person.

State Governments:

1. Nevada Division of Emergency Management (DEM):

   DEM is, under Nevada law, the coordinating agency for state emergency response.

2. Nevada Division of Environmental Protection (DEP):

   DEP regulates hazardous wastes, provides advice on environmental matters, can test for certain chemicals, and makes final decisions on remediation when not performed by the Lyon County District Health Department.

3. Nevada Division of Health:

   The Division is responsible for the public health and can test for contamination from chemical and organisms. Other sections of the division that may assist are:
   - Radiological Health is responsible for the incidents involving radioactive materials.
   - Emergency Medical Services may assist in coordinating emergency medical response.

4. Nevada Department of Transportation (NDOT):

   NDOT has highway maintenance yards throughout the state with heavy equipment and other resources that may be used by the local responder under certain circumstances. NDOT has the power to close highways to traffic.

5. Nevada Department of Motor Vehicles and Public Safety:

   The department controls the licensing and regulation of commercial carriers throughout the state. The Nevada Highway Patrol (NHP) is part of the department and enforces highway transportation regulation in the State. NHP also controls the State law enforcement communication net that may be used for emergency communications.

Federal Governments:

1. Environmental Protection Agency (EPA):

   The EPA is responsible for environmental matters at the Federal level. Support 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 law.

2. Federal Emergency Management Agency (FEMA):

   FEMA can provide coordination on the Federal level and funds training classes. FEMA provides grants for training under the provisions of Title III.

3. Department of Transportation (DOT):

   DOT publishes many hazardous materials publications that are available to the local responders. Under DOT is the Coast Guard that can provide hazardous materials teams in some cases. The team serving this area is the Pacific Strike Team.

4. Department of Energy (DOE):

   The DOE Nevada Operations Office (NVOO), by agreement with DEM, will provide radiological assistance to the State when requested. NVOO also provides radiological training to NHP and selected law enforcement and fire agencies. NVOO also has limited cleanup capability.

5. Department of Interior (DOI):

   DOI U.S. Geological Survey, Bureau of Land Management, Bureau of Reclamation, U.S. Fish and Wildlife Service and Bureau of Indian Affairs all can provide technical information such as location of sensitive habitats and species, water data, natural resource information and land management/use information. BOR, BLM, USF&WS, and BIA have trust responsibility for the lands they manage.

6. Federal Drug Enforcement Administration (DEA):

   DEA will provide specialist in the event of the discovery of an actual or suspected clandestine drug laboratory or dump of chemicals.

7. Department of Defense (DOD):

   DOD can provide resources for civilian incidents involving explosives, WMD and CBRNE. DOD will respond to incidents involving military weapons, aircraft and assets, and may assume jurisdiction and command of such incidents.

Support Agencies

Support agencies are those agencies that will supply support services or resources to the incident scene. They include:

- American Red Cross
- Salvation Army
- Critical Incident Stress Debriefing Teams

Supporting agencies will:

1. Participate in LEPC planning with representatives from all the fire protection agencies in the county.

2. Develop and maintain Standard Operating Procedures (SOP) for hazardous materials response.

3. Provide personnel to fill positions within the ICS as requested by the Incident Commander.

SECTION 4: NOTIFICATION AND WARNING

Notifications and Warning Systems

This section is critical when life-threatening materials are released. One organization will be responsible for alerting the public and response teams as soon as word of the release is received. The **Lyon County 911 Dispatch** will be used to make notifications. This plan shall include, but not be limited to, the following:

Notification Guideline

Establish a Protocol Procedure

1. The Incident Commander may request outside municipal, state, federal or private resources at any time during a hazardous materials response without upgrading the incident response level.

2. The Incident Commander may request any other Hazmat Teams without declaring a Level III incident.

3. Lyon County Dispatch shall make Local, State, Federal, and Industrial agency notifications as requested and directed by the Incident Commander in the field.

SECTION 5: DIRECTION AND CONTROL

Levels of Response

Hazardous materials incidents are categorized as Level I, II, or III depending on the severity of the incident. The criteria used to determine the level of an incident includes:

1. The characteristics of the hazardous material.

2. The nature of its release.

3. The area affected by the hazardous materials incident (e.g., populations, sensitive ecosystems, waterways, transportation routes, etc.).

4. The extent of multi-agency and multi-jurisdictional involvement.

5. Evacuations, injuries, or fatalities.

6. The technical expertise and equipment needed to safely mitigate the incident.

The determination of incident levels shall be a collective decision between the Incident Commander and an Initial Response Team (which may include representatives from Lyon County Emergency Manager).

In ascending order of severity, these levels are defined as:

Level I

A minor situation within the capabilities of first responders trained at the "operational" level. A Level I incident involves a release, or possible release, of a small amount of liquid or solid of a known (identified) hazardous material. In addition, the agencies on-scene have the expertise and proper equipment to safely mitigate the incident.

1. As a minimum, a command post and an exclusion zone should be established with a level I incident, and any movement of personnel into the exclusion zone should be limited to personnel entering for a specific reason and in the proper level of protective equipment.

2. An incident should be immediately upgraded to Level II for a release or potential release of an unknown hazardous material or suspected hazardous material.

3. Typical Level I incidents include:
   a) Minor leaks or spills from a 55-gallon drum.
   b) Minor leaks or spills which can be handled with several shovels of an absorbent material readily available on-site.
   c) Minor leaks or spills within the capability of a driver or operator to correct and mitigate.

d) Leaking valves on upright cargo tanks, which do not require the product to be immediately off-loaded.
e) Release of chemicals that do not produce an environment that is immediately dangerous to life and health (IDLH) or above the Lower Explosion Limit (LEL) of a product, other than possibly inside the transport vehicle.
f) Leaks or spills of paint or batteries.
g) Overturned, empty cargo tanks, which the Incident Commander determines to present no other hazards.
h) Evacuations limited to a single intersection or building.
i) Minor injuries to a small number of people and no fatalities.
j) Agency response has adequate resources, technical expertise, training and equipment to safely mitigate the incident.
k) Hydrocarbon spills in excess of legal reportable quantities.

Level II

Is an incident beyond the capabilities of an agency with jurisdictional responsibility for the incident. This requires a response by the Hazmat Team or another appropriate, qualified, specialized resource. This can range from a small incident involving any amount of an unknown substance to a large incident involving multiple agencies and jurisdictions.

1. A Level II incident should be declared by the Incident Commander and the Initial Response Team if the incident involves a sufficient quantity of liquid or solid of a known hazardous substance or any quantity of an unknown material that has been released or offers the potential for release.

2. A Level II incident should be declared for the release of any quantity of a known solid or liquid toxic material in a critical public area or for the release or potential release of any quantity of an unknown solid, liquid, or gaseous toxic material or suspected toxic material.

3. In a Level II incident, a formal and properly identified Command Post with a removed staging area, an Incident Safety Officer, and a Hazardous Materials Group must be established. Control zones must be established and maintained as early as possible, and evaluated and monitored throughout the incident. Localized evacuation may need to be implemented and outside agencies should be notified.

4. Typical Level II incidents include:
   a) One or more 55 gallon drums leaking considerable amounts of a known substance.
   b) A major liquefied gas leak due to puncture, crack, or crease of a large tank where ignition sources are a real threat.
   c) Overturned cargo tanks with a hazardous material on board.
   d) Train derailments not involving railroad tank cars filled with hazardous materials.
   e) A vehicle or train fire involving hazardous materials or hazardous wastes.
   f) Leaking cargo tanks with hazardous materials on board whose structural integrity is in question.
   g) Incidents involving a fatality or serious injury attributed to the hazardous substance.

h) Evacuations consisting of an apartment complex, city block, or large facility with many employees.
i) A large spill of flammable liquids where ignition sources poses a serious threat.
j) A fire that poses serious threat of a boiling liquid expending vapor explosion (BLEVE).

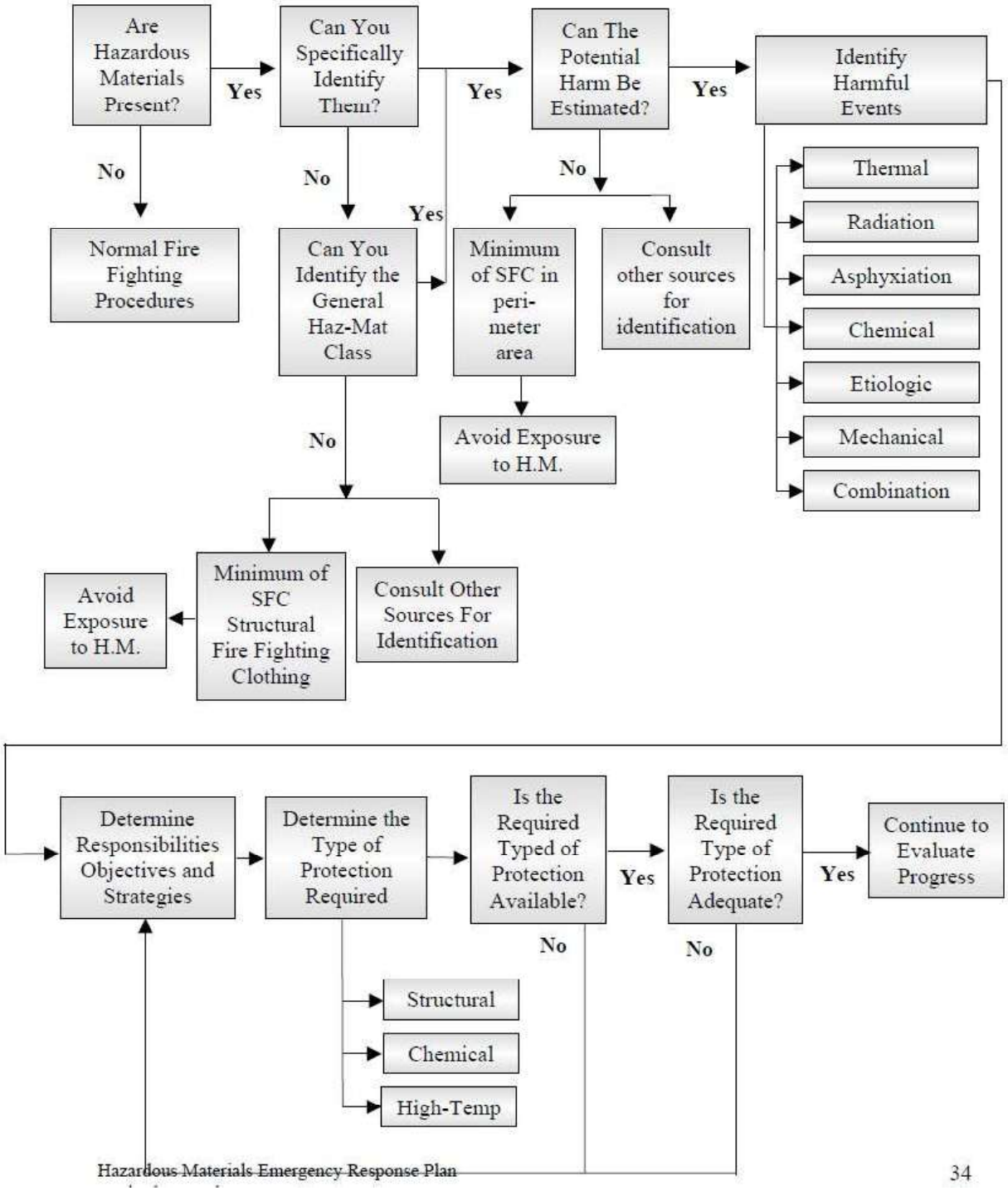
Level III

Is an incident beyond the capabilities of the local resources and hazmat team. The incident may be quite lengthy in duration and may necessitate large-scale evacuations. It is likely a Level III incident will involve multiple agencies and jurisdictions, as well as resources from the private sector (including chemical manufacturers) and voluntary organizations.

1. Examples of Level III incidents include:
   a) Those incidents involving large-scale evacuations that may extend beyond jurisdictional boundaries.
   b) Any spill, leak, or fire involving hazardous materials that has gone to greater alarms.
   c) Any incident beyond local capabilities and resources (including the hazmat team) to safely identify, contain, and mitigate.
   d) Train derailments involving railroad tank cars containing hazardous materials.
   e) Flammable liquid or gas cargo tank or railroad tank cars involved in or threatened by fire.
   f) Major leaks of compressed or liquefied gas cargo tanks or railroad tank cars caused by puncture or major structural damage.

Response Level	Description	Contact
I **Potential Emergency Condition**	An incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property.	• Fire Department • Emergency Medical Services • Law Enforcement • Partial EOC Staff • Public Information Office
II **Limited Emergency Condition**	In incident involving a greater hazard or larger area that poses a potential threat to life or property and which may require a limited evacuation of the surrounding area.	All Agencies in Level I and • Level "A" HAZMAT Teams • EOC Staff • Public Works Department • Health Department • Red Cross • County Emergency Management Agency • NHP • Public Utilities • CHEMTREC • National Response Center
III **Full Emergency Condition**	An incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or an incident requiring the expertise or resources of county, State, Federal, or private agency organizations.	All Level I and II Agencies plus the following as needed: • Mutual Aid Fire, Police. Emergency Medical • NDEM • NDEP • Nevada Dept of Health • EPA • USCO • ATSDR • FEMA • OSC/RRT

Hazardous Materials Incidents Decision Making Process



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Hazardous Materials Incident Checklist

1. Isolate the Area and Deny Entry

   - ☐ Determine the Hazard Area Involved
   - ☐ Establish Control of the Hazard Area
   - ☐ Determine Incident Control Zones (Hot, Warm, Cold)
   - ☐ Advise All Units of Area to be Isolated

2. Identify and Verify the Materials Involved

   - ☐ Obtain Shipping Papers or Facility Documents (*only if safely possible*)
   - ☐ Write Down All Information Obtained
   - ☐ Verify the Source and Accuracy of all Information

3. Hazard and Risk Assessment

   - ☐ Evaluate the Following Concerns
   - ☐ Health Physical Properties Flammability
   - ☐ Chemical Properties Reactivity
   - ☐ Assess Container Integrity (Stress, Breach, Release, etc.)
   - ☐ Determine all Exposures
   - ☐ Estimate Likely Harm Without Intervention

4. Evaluate Protective Clothing and Equipment

   - ☐ Determine Proper Type and Level of Protective Clothing Required

   Note: Structural Fire-Fighting Clothing Will Not Provide Chemical Protection.

5. Coordinate Information and Resources

   - ☐ Coordinate Information Between All Branches/Divisions/Groups
   - ☐ Conduct Briefing of All Branch/Division/Group Officers to Develop Tactical Options
   - ☐ Advise Incident Commander of Tactical Options and Recommendations

6. Control, Containment and Confinement

   - ☐ Review Tactical Options With Entry Personnel
   - ☐ Coordinated All Operations With the Safety Officer
   - ☐ Will Decontamination be Required After Entry Operations?
   - ☐ Yes **Implement Decontamination Procedures Prior to Entry**
   - ☐ No **Continue**

7. Decontamination Procedures

   - ☐ Decontamination Procedures Determined and Verified
   - ☐ Decontamination Area In Place and Fully Staffed

8. Entry Team Procedures

9. Termination Procedures

   - ☐ Ensure All Personnel Are Briefed as Necessary
   - ☐ Signs and Symptoms of Exposure Provided
   - ☐ Personnel Exposures Documented

Site Safety Plan

To ensure that personnel will conform to standard operating safety procedures and safe operating safety practices, a site safety plan should be developed, with input from the safety officer and Haz-mat Safety, for all phases of the operation. All personnel should be made familiar with this should be written and posted. As a minimum, the site safety plan must:

Site Safety Plan Elements:

- ☐ Evaluate the risks associated with the operations to be conducted.
- ☐ Identify key personnel to ensure incident safety
- ☐ Address levels of personal protective clothing and equipment
- ☐ Designate the boundaries of the of various work areas
- ☐ Establish decontamination procedures for personnel and equipment
- ☐ Determine, control, and monitor the number of personnel operating within designated work zones.
- ☐ Establish emergency procedures (i.e. escape routes, communications, Back-up Teams, hand signals, etc.)
- ☐ Notify nearest medical facility and arrange for emergency care of potential toxicological problems
- ☐ Implement a program for periodic air sampling and personnel monitoring

Weapons of Mass Destruction/CBRNE/Terrorism

"Terrorism: the systematic use of terror especially as a means of coercion"

By definition terrorism acts result from antigovernment issues, whether it is politically or socially motivated. Our particular area is considered a higher than normal risk due to anti- Federalism sentiment in our state.

Terrorism does not necessarily come from "outside" the U.S. Organized militias have been established in 40 of the 50 states including Nevada. Acts of terrorism are not limited to bombings like the World Trade Center and the Oklahoma Federal Building. In fact recently Nevada has had four confirmed or potential terrorist acts; attempting to bomb the IRS in Reno, the Ken Gager bombing and most recently anthrax scares in Las Vegas and Reno have been in the news.

The 1986 Public Report of the Vice President's task force on combating terrorism stated:

Our vulnerability lies, ironically, in the strength of our open society and highly sophisticated infrastructure. Transportation, energy, communication, finance, industry, medicine, defense, diplomacy and government itself rely on intricate interrelated networks. Given these inherent vulnerabilities and the fact that Americans are increasingly the targets of terrorist attacks outside the United States, it is apparent that a potentially serious domestic threat exists.

Certainly Lyon County is a potential target for an act of terrorism probably in the energy sabotage arena. The following information comes from the 1986 Public Report:

Energy Assets Affected in Terrorist Incidents: 1980-1988	
Target Type	**Number**
Power Pylons/Power Lines	7,290
Fuel Tanker Trucks	1,184
Power substations	436
Petroleum/gas pipelines	343
Petroleum storage tanks/storage depot	339
Central Power Stations	303
Service Stations	238
Corporate/Government Offices	154
Truck/Car	91
Support Facilities	80
RR Tank Car	45
Other	1430
Total	**11,933**

The Key To Terrorism Prevention: *Lyon County is committed to providing an increased awareness of terrorism to prepare our responders and citizens for possible acts of terrorism*.

Response Guide:

The following security information is provided to heighten awareness of potential terrorist or criminal activity that may be directed at the work place or home.

Notify your local law enforcement agency of anything that seems suspicious.

1. At Work:
   - ☐ Be aware of your surroundings
   - ☐ Report suspicious persons, particularly if they are carrying suitcases or containers.
   - ☐ Be aware of suspicious vehicles; either parked or cruising.
   - ☐ Watch for unattended parcels, suitcases or other objects left in unusual locations.
   - ☐ Request ID from unfamiliar delivery people.
   - ☐ Secure areas not occupied by personnel, i.e. conference rooms, training rooms, storage areas, etc.
   - ☐ Designate a person who is responsible for daily checks of storage rooms, stairwells, conference rooms and the like.

2. In Your Vehicle:
   - ☐ Keep doors locked and windows up.
   - ☐ Do not display mail, magazines or packages with your addresses visible.
   - ☐ Inform family and co-workers of your travel plans, destinations, and departure and arrival times.

3. At Home:
   - ☐ Be aware of suspicious persons or vehicles.
   - ☐ Keep doors and windows locked, if possible. Deny entry to unauthorized people.
   - ☐ Request ID from people that you do not know. Do not open doors for strangers.
   - ☐ Do not give out any personal information on yourself, family or co-workers.
   - ☐ If something does not look right, trust your senses and react accordingly. Contact local law enforcement if necessary.
   - ☐ Repair, upgrade or install security devices (locks, lights, and alarms).
   - ☐ Destroy or shred all items that contain your name, address or other personal information.

4. For Responders:
   - ☐ Self-study course entitled "Emergency Response to Terrorism," which was developed by the U.S. Department of Justice and National Fire Academy.
   - ☐ The videotape entitled "Surviving the Secondary Device,": "The Rules Have Changed."
   - ☐ The video based training for first responders entitled "Terrorism: First Response."
   - ☐ The emergency education network workshop entitled "Emergency Response to Terrorists Incidents."
   - ☐ The 16 hour course developed by the National Fire Academy entitled "Emergency Response to Terrorism: Basic Concepts"

Incident Command System

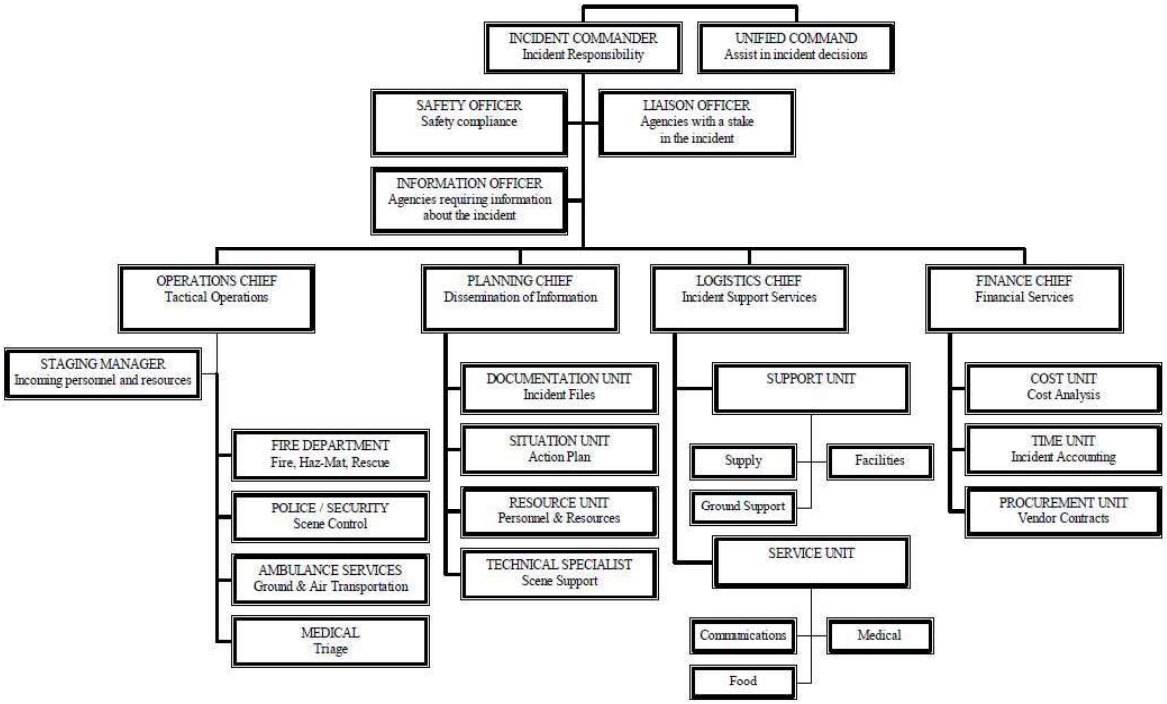
1. Hazardous materials incidents often involve response from multiple disciplines and may involve more than one jurisdiction. The Incident Command System (ICS), because of its standardized organizational structure and common terminology, provides a useful and flexible management system that is particularly adaptable to hazardous materials incidents involving multi-jurisdictional response, both in the field and in the EOC.

2. ICS provides the flexibility to rapidly activate and establish an organizational form around the functions that need to be performed in order to efficiently and effectively mitigate an emergency. For this reason, ICS will be used during all hazardous materials incidents in Lyon County.

3. ICS can be utilized for any type or size of hazardous materials emergency, ranging from a minor incident involving only a few members of the emergency organization, to a major incident involving several agencies and/or jurisdictions. ICS allows agencies to communicate using common terminology and operating procedures. It also allows for the timely acquisition of a combination of resources during time of emergency.

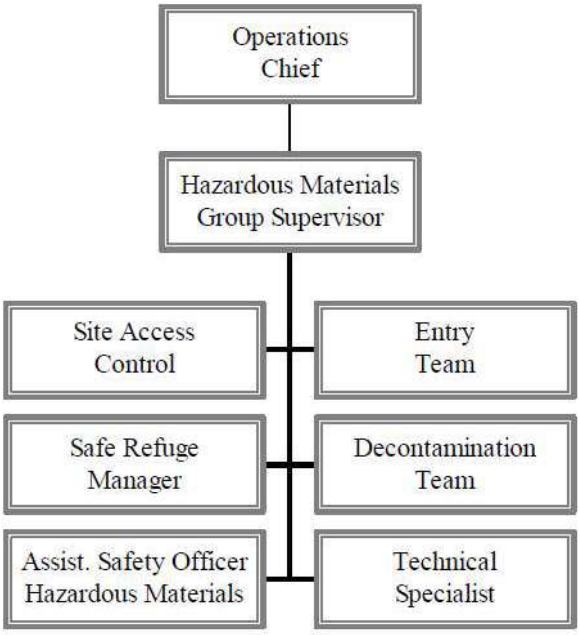
4. ICS organizational structure develops in a modular fashion based upon the type and size of the incident. The organization staff builds from the top down. As the need arises, five separate sections can be developed each with several units that may be established as needed. The specific organizational structure established for any given hazardous materials incident will be based on the management and resource needs of the incident.

5. Incident Command System Matrix

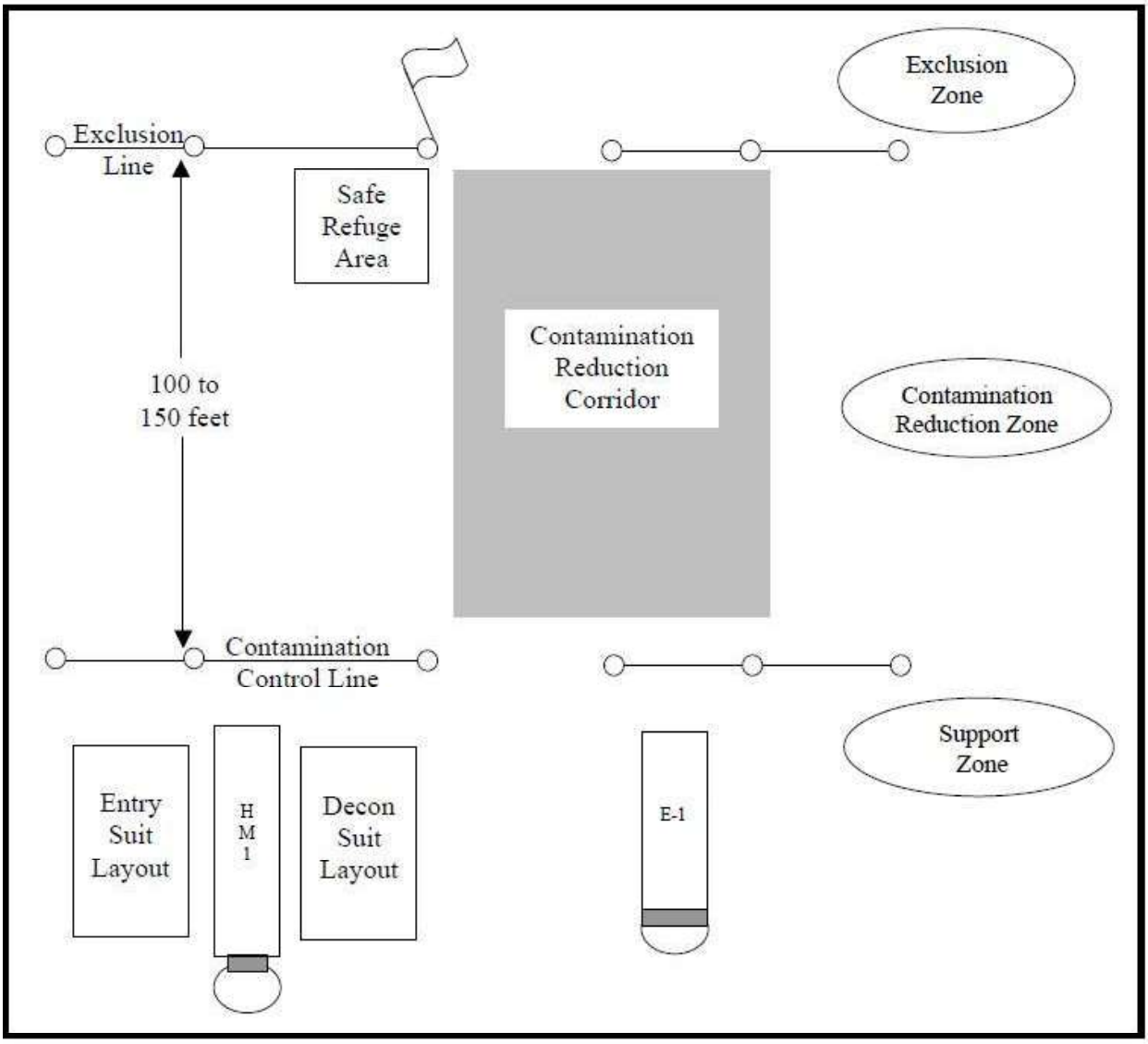


6. A hazardous materials incident will bring together a greater number and a wider variety of agencies. It is assumed that all hazardous materials incidents will be managed under Unified Command principles because in virtually all cases fire, law enforcement, and public health will have some statutory functional responsibility for incident mitigation. Depending on incident factors, several other agencies will respond to a hazardous materials incident. The best method for ensuring effective information flow and coordination between the responding agencies at the scene of a multi-agency incident is to establish a Unified Command. Each key response agency should provide a representative to remain at the command post who will have authority to speak for and commit agency resources. The Assisting Agencies section of this document lists some of the typical functional responsibilities of law enforcement and health agencies.

7. The Hazardous Materials organized module is designed to provide an organized structure that will provide necessary supervision and control for the essential functions required at virtually all Hazardous Materials incidents. This is based on the premise that controlling the tactical operations of companies and movement of personnel and equipment will provide a spreading or contaminants. The primary functions will be directed by the Hazardous Materials Group Supervisor, and all resources that have a direct involvement with the hazardous material will be supervised by one of the functional leaders or the Hazardous Materials Group Supervisor.



SECTION 6: RESPONSE PERSONNEL SAFETY



Hazardous Materials Incident Control Zones

General

1. Control zones are the geographical areas within the control lines set up at a hazardous materials incident. The three most commonly used are the
   - Exclusion Zone
   - Contamination Reduction Zone
   - Support Zone

2. Control zones are established to
   - Secure the scene
   - Ensure the safety and requisite control of emergency services personnel and operations.

- Prevent personnel, vehicles, and other resources from entering a potentially hazardous area.

3. The size and configuration of the control zones are not static and must be constantly re-evaluated based on variables such as:
   - Physical and chemical properties of an involved hazardous material(s).
   - Quantity of the hazardous material(s).
   - Size, shape and condition of the hazardous material's container.
   - Dispersion patterns of the hazardous material(s).
   - Current and anticipated weather and wind conditions.
   - Geographic features surrounding the incident.
   - The presence of other nearby hazardous materials.

4. Control zones should be established by the Incident Commander whenever possible, and based on all available technical information (guides and reference manuals) and advice from the hazmat team.

5. Control zones provide an organized system that aids the Incident Commander in properly managing and mitigating hazardous materials incidents, while maximizing protection of emergency response personnel and citizens.

Exclusion Zone

1. The Exclusion Zone is the area immediately around the spill or release of hazardous materials, and is the area where contamination occurs or can occur. It is the innermost of the three zones at a site. Special protection is required for all personnel while in this zone.

2. The Exclusion Zone is the area of maximum hazard and must be restricted to essential personnel wearing proper protective clothing. Access to the Exclusion Zone should be controlled by the Incident Commander or designee, with entry and exit restricted to one location. Only personnel or teams requested by the Hazardous Materials Group Supervisor shall enter the Exclusion Zone. Command of the Exclusion Zone shall stay with the Hazardous Materials Group Supervisor throughout the incident.

3. Personnel entering the Exclusion Zone should be kept to a minimum required to do the assigned task, but never less than two persons, since operations in the Exclusion Zone shall be accomplished using the buddy system in groups of two or more operating as a team. To avoid confusion with directions form the perimeter, persons entering the Exclusion Zone shall be given a number or marking that is easily spotted on their protective clothing.

4. All withdrawals from the Exclusion Zone must take place through the Contamination Reduction Corridor. When a team enters the Exclusion Zone to conduct stabilization operations, a Safety Team should be suited-up and available to assist with rescue and decontamination activities.

5. The Safe Refuge Area is set up in the Exclusion Zone on the windward side of the hazard site adjacent to the Exclusion Line and Decontamination Corridor.

6. An Exclusion Line separates the Exclusion Zone with the Contamination Reduction Zone. The Exclusion Line is the innermost perimeter of the Contamination Reduction Zone. Ideally, the Exclusion Line should be identified using tape marked "Hazardous Materials-Do Not Enter." Other available devices, such as traffic cones or natural or manmade barricades (ditches, roads, fences, etc.), may also be used. The Exclusion Line should be easily recognized and strictly enforced.
   - Operations conducted in the Exclusion Zone include:
   - Identifying the material(s) involved or threatening release.
   - Conducting rescue, if appropriate.
   - Containing and abating the release or threatened release.

7. The Exclusion Zone was formerly referred to as the Exclusion Zone.

Contamination Reduction Zone

8. The Contamination Reduction Zone is the area between the Exclusion Zone and the Support Zone, separating the contaminated area from the Support Zone. The zone contains the personnel decontamination station and requires a lesser degree of personnel protection than the Exclusion Zone.

9. Within the Contamination Reduction Zone, Safety Team personnel and decontamination equipment are assembled for those working in the Exclusion Zone. All unauthorized personnel should be withdrawn from this area; only essential personnel should remain. As in the Exclusion Zone, entry into and exit from the Contamination Reduction Zone should be restricted to just one location.

10. A Decontamination Corridor should be established within the Contamination Reduction Zone, with entry at the Exclusion Line from the Exclusion Zone. The extent of decontamination will be determined by the product(s) involved and the amount of exposure. All personnel exiting the Exclusion Zone must be properly decontaminated, and when necessary, leave their protective clothing and equipment in the Decontamination Corridor. All equipment removed from the Exclusion Zone should be decontaminated or packaged and properly disposed of. Whenever possible, a check will be done (such as checking pH, level of radiation, etc.) to verify the effectiveness of the decontamination process. Disposal of equipment requires the approval of the Nevada Certified Emergency Manager.

11. The outer perimeter of the Contamination Reduction Zone should be appropriately marked. Ropes or traffic cones may be used, but are not as effective as warning tape. This perimeter is called the Contamination Control Line: hazardous materials units will usually be located just outside this line.

12. Operations conducted in the Contamination Reduction Zone include:
    - Decontamination of victims and emergency services personnel
    - Establishing a safe refuge area

13. The Contamination Reduction Zone was formerly referred to as the Contamination Reduction Zone.

Support Zone

1. The Support Zone is the safe, or "clean," area beyond the outer perimeter of the Contamination Control Line where personnel and equipment are not expected to become contaminated and where special protective clothing is not required. Resources immediately supporting the hazardous materials emergency operation are located here. The Command Post and media briefing site are also located within the Support Zone.

2. Although the Support Zone is considered safe and the movement of persons is unrestricted, with many incidents it is prudent to keep this area restricted to emergency services personnel and to keep the public outside of the Support Area (these are precautions to take in the event circumstances change due to the escalation of events or a change in environmental conditions e.g., an increase in wind speed or a change in wind direction).

3. When determined by the Incident Commander, the public will be denied access to the incident site by law enforcement/traffic control personnel.

4. An escape route from the Exclusion Zone to the Contamination Reduction Zone shall be identified a kept open for emergency evacuation of personnel and equipment and the removal of injured citizens or personnel.

5. Operations conducted in the Support Zone include:
    - Providing emergency medical care.
    - Providing an area for resources ad staging.
    - Controlling access to all zones.
    - Direction, control, and support of overall emergency operations (i.e., Command Post and scene management).
    - Conducting media briefings and interviews.

6. The Support Zone was formerly referred to as the Support Zone.

Decontamination Procedure

Purpose

The purpose of decontamination is to prevent the spread of any harmful or dangerous residues or contaminants (on personnel or equipment) beyond the area of initial impact. Specific measures required to decontaminate personnel and equipment will vary based on the

contaminant. The specific material involved and the degree and type (dermal, ingestion, or inhalation) of exposure will determine the most appropriate decontamination measures.

Decontamination Levels and Procedures:

Level I- exposure is likely, but not known.

- ☐ Position person where water can be contained.
- ☐ Flush off with fog spray for one minute.

Level II- contamination is known, but skin contact and/or irritation is not evident.

- ☐ Position person where water can be contained.
- ☐ Flush protective clothing and SCBA with a fog spray for a minimum of one minute with two 360 degree turns (scrub as necessary).
- ☐ Move person away from initial flush area, rinse for a minimum of one minute with one 360 degree turn.
- ☐ Move person away from secondary flush area, remove protective clothing and breathing apparatus (apparatus face piece last).
- ☐ Move person away from contaminated clothing.
- ☐ Rinse off for one minute with one 360 degree turn.
- ☐ Have person don privacy suit and transport to an area for additional showering with soap and water. Use comfortably cold water and leave shower doors open.

Level III-contamination is known, skin contact and/or irritation is evident.

- ☐ Position the person where water can be contained.
- ☐ Flush off with fog spray while removing protective clothing and SCBA (leave facepiece on).
- ☐ Continue to flush for one minute after all clothing has been removed.
- ☐ Remove SCBA face piece between flush areas.
- ☐ Move person away from initial flush area, rinse for a minimum of one minute and one 360 degree turn.
- ☐ Move person away from secondary flush area.
- ☐ Continue to flush all affected and/or irritated skin areas for fifteen minutes.
- ☐ Have person don privacy suit.
- ☐ Have person transported to medical facility for further decontamination, treatment and observation.

Decontamination Priorities

1. Decontamination of personnel takes priority over the environment and establishment of a decontamination area.

2. Level III contamination requires immediate decontamination.

3. Providing protection to decontamination personnel takes priority over administering immediate decontamination.

4. All contaminated clothing and equipment is to be placed into double plastic bags and left in the decontamination corridor.

5. Leave all equipment too large to be bagged in the Exclusion Zone (tool drop).

SECTION 7: COMMUNICATIONS

Specific provisions should be made for accurate and efficient communication among all of the various organizations during the response itself. This includes the use of radios, telephones, cellular phones, satellite, and computers. A plan identifying strategic and tactical networks among those groups performing similar functions will be established.

Channel Plan

CHANNEL NAME	RX FREQUENCY	RX PL	TX FREQUENCY	TX PL	W/N
Fire SC	155.1000	146.2	155.92.50	79.7	N
Fire Tac	154.400	146.2	154.400	146.2	N
CLCFPD Gold West	151.0325	D343	156.0225	D351	N
CLCFPD Gold East	151.0325	D343	156.0225	D306	N
CLCFPD Gold Local	151.0325	D343	151.0325	D343	N
CLCFPD Blue West	154.0475	D503	154.0475	D503	N
CLCFPD Blue East	159.1125	D503	159.1125	D503	N
SO1 SC	154.1500	146.2	156.1500	85.4	N
SO2 SC	159.21	146.2	156.1500	103.5	N
SO Tac	154.725	146.2	154.725	146.2	N
Yerington P.W	154.400	CSQ	158.500	CSQ	N
Lyon County Roads Local	153.935	CSQ	153.935	CSQ	N
Lyon County Roads Repeater	153.935	CSQ	156.240	CSQ	N
VTAC11	151.1375	CSQ	151.1375	CSQ	N
VFIRE21/White Fire 1	154.280	CSQ	154.280	CSQ	N
VFIRE22/White Fire 2	154.265	CSQ	154.265	CSQ	N
VFIRE23/White Fire 3	154.295	CSQ	154.295	CSQ	N
NEVCORD 1 (VMED28)	155.3400	CSQ	155.3400	CSQ	N
NEVCORD 2 (VMED29)	155.3475	CSQ	155.3475	CSQ	N
NV Emergency Management 1/EOC 1	155.145	CSQ	155.145	CSQ	N
NV Emergency Management 2/EOC 2	155.715	CSQ	155.715	CSQ	N
VLAW31/ Federal Law/Federal Law Enforcement Mutual Aid/FLEMA	155.475	CSQ	155.475	CSQ	N
Local Law /State Law Enforcement Mutual Aid/NLEMA	155.655	CSQ	155.655	CSQ	N
SAR/ NSAR/Search & Rescue	155.160	CSQ	155.160	CSQ	N
CALCORD	156.075	CSQ	156.075	CSQ	N

SECTION 8: PUBLIC INFORMATION AND COMMUNITY RELATIONS

It is important to provide accurate information to the public concerning hazardous materials releases. This section describes the method of distributing information to the public. The following hazardous materials incident sample announcement formats should be used to guide the Public Information Officer during incident reporting.

Unidentified Hazardous Materials Incident
This is the Lyon County Emergency Management in (*location*). An unidentified substance that may be hazardous has been spilled/released at (*location*). Please avoid the area, if possible, while crews are responding. The best alternate routes are (*list routes*). If you are already in the area, please be patient and follow directions of emergency response personnel. Specially trained personnel will evacuate the substance. Further information will be released as soon as possible. Thank you for your cooperation.

Low Risk Hazardous Materials Incident
This is the Lyon County Emergency Management in (*location*). A small amount of (*material*), a hazardous substance, has been spilled/released at (*location*). Streets are blocked, traffic is restricted, and authorities have asked residents in the immediate area to evacuate. Please avoid the area. The material is slightly/highly toxic to humans and can cause the following symptoms: (*symptoms*).

If you think you may have come in contact with this material, you should (*provide health instructions and hotline number, if available*). For your safety, please avoid the area if at all possible. Alternate routes are (*routes*) and traffic is being diverted. If you are now near the spill/release area, please follow directions of emergency response personnel. Cleanup crews are on the scene.

High Risk Hazardous Materials Incident (Evacuation)
This is the Lyon County Emergency Management in (*location*). A large/small amount of (*material*), a highly hazardous substance, has been spilled/released at (*location*). Because of the potential health hazard, authorities are requesting/requiring all residents within (*number*) blocks/miles of the area to evacuate. If you are within the (*evacuation zone boundaries*), you and your family should/must leave as soon as possible/now. Go immediately to the home of a friend or relative outside the evacuation area or to (*indicate shelters*). If you can drive a neighbor who has no transportation, please do so. If you need transportation, call (*provide telephone number*). Children attending the following schools: (*list schools*) will be evacuated to (*locations*). Please do not drive to your child's school. Pick your child up from school authorities at the evacuation center. Listen to this station for further instructions.

The material is highly toxic to humans and can cause the following symptoms: (*symptoms*). If you are experiencing any of these symptoms, seek help at a hospital outside the evacuation area, or at the evacuation center at (*location*). To repeat, if you are in the area of

(*location/boundaries*), you should/must leave for your own safety. Do not use your telephone unless you need emergency assistance. Thank you for your cooperation.

Hazardous Material Incident-Summary Statement

At approximately (*time*) a.m./p.m. today, a spill/release of a potentially hazardous substance was reported to this office. Emergency services personnel were immediately dispatched to cordon off the area and direct traffic.

The material was later determined to be (*substance*), a (*hazardous/harmless*) chemical/substance/material/gas which, upon contact, may produce symptoms of (*list symptoms*). Precautionary evacuation of the (*location*) area surrounding the spill was (*requested/required*). Approximately (*number*) of persons were evacuated.

Clean-up crews from (*agency/company*) were dispatched to the scene, and normal traffic had resumed by (*time*), at which time residents were allowed to return to their homes. There were no injuries reported-OR- (*number*) persons, including (*number*) of emergency personnel, were treated at area hospitals for (*injuries/symptoms*) and (*all/number*) were later released. Those remaining in the hospital are in (*condition*) condition. Response agencies involved were (*list agencies*).

SECTION 9: PERSONAL PROTECTION OF CITIZENS

Evacuation Procedure

Objective:
To reduce the potential risk of injury or death while also providing the safety of the people of Lyon County through the process of sheltering in place, evacuation, or relocation.

Introduction
Sheltering in place is sometimes more effective than evacuation. Keeping people indoors with the doors and windows shut and air supplies controlled is safer than moving people outdoors in a certain hazardous environmental conditions.

Evacuation of citizens from their homes during an emergency requires the coordinated effort of several agencies. This involves two basic activities:
1. The movement of people out of the evacuated area
2. The temporary relocation of people in shelters and mass care facilities

The Lyon County Evacuation Plan provides additional information and actions for evacuation operations.

Primary Agencies
- Lyon County Sheriff's Office
- Lyon County Search and Rescue

Support Agencies
- Lyon County Fire Protection Districts
- Yerington Police Department
- Nevada Highway Patrol
- Lyon County Emergency Management
- American Red Cross
- Salvation Army
- Nevada Department of Transportation
- Lyon County School District
- Area Hospitals
- Voluntary Organization Active in Disaster (VOAD)
- Nevada Division of Emergency Management
- Media, including Television and Radio
- Emergency Alert System

Evacuation Checklist

1. Incident Command shall determine if evacuation is required.

2. Determine area to be evacuated or secured.

3. Determine if evacuation, relocation, or shelter in place is appropriate.

4. Determine if the Emergency Operations Center (EOC) should be activated.

5. Determine the need to activate the Emergency Alert System.

6. Notify all agencies to assist with evacuations

7. Coordinate the activation of shelters with the city, county or appropriate agency.

8. Establish traffic control and evacuation route plans.

9. Provide information to the community through the public information officer or the broadcasting system. The following information needs to be provided:
   - Which people and areas are to be evacuated?
   - Where will they go?
   - What will they take with them?
   - What security measures are being planned?
   - What special instruction should be given to special needs groups?

(Note: Plan information should be disseminated in Spanish, for the hearing and sight impaired, for the physically disabled, and for the elderly.)

10. Make plans for access and security in the area.

11. Assign assistance to special needs groups, such as hospitals, convalescent centers, children's homes, day care centers, the elderly, and the disabled.

12. Plan for possible redistribution of resources, such as food, medical supplies, equipment, and fuel.

13. Plan with prisons and develop operating guidelines for correctional facilities.

Primary Evacuation Routes:

I-80	SR-208
US-50	SR-338
US-50A	SR-339
US-95A	SR-341
	SR-342
	SR-447

Rate of Evacuation

Based on statistics taken through the Department of Transportation, Highway Patrol, and recorded by CSTI, the evacuation rates are as follows:

1. Vehicle traffic can be estimated at 2,000 cars per hour per lane.

2. Two-way traffic should be halted and all lanes should be utilized for vehicular traffic heading in a direction away from the evacuation area.
3. Advise where to go to if possible (schools, etc.)

NOTE: Persons ordering evacuation should consider a terminal location where evacuees would be instructed to go, such as; schools (not in session) and large places of public assembly (i.e., fairgrounds, convention centers, auditoriums, etc.)

Other Public Protection Strategies for hazardous materials incidents may include the contamination of soil or water of an area and pose a chronic threat to people living there. It may be necessary to move people out of the area for an extended period of time until the area is decontaminated and/or deemed environmentally safe.

1. Relocation plan

2. Water system protection

3. Sewage system protection

SECTION 10: RESOURCE MANAGEMENT

Training Programs

Hazardous Materials Response Teams

SARA Title III and OSHA mandates that all emergency personnel who respond to a hazardous materials incident shall be trained to the level that he/she is expected to perform at the incident. The following training standards list the minimum requirements set by OSHA 1910.120(q) for the various levels of training. We recognize NFPA 471, 472 and 473 as the training standards that meet or exceed the minimum requirements set by OSHA.

The OSHA standard sets minimum requirements for training emergency response personnel who may be required to respond to hazardous material incidents. These personnel are required to complete training that is based on the duties and functions that they will perform at a hazardous material incident. All personnel must receive training prior to being permitted to take part in actual emergency operations at an incident involving hazardous materials. There are four training and competency levels recognized by Lyon County:

1. First Responder Awareness

2. First Responder Operational

3. Hazardous Material Technician

4. On-Scene Incident Commander

Certification -Department Certifications as a First Responder Awareness, First Responder Operational, Hazardous Material Technician, and On-Scene Incident Commander are issued by the responsible agencies for their respective personnel.

- **First Responder Awareness** - Emergency response personnel who are likely to witness or discover a hazardous substance release and have been trained to initiate an emergency response sequence by notifying the authorities of a release.

- **First Responder Operational** - Emergency response personnel who will respond to the scene of a hazardous materials release for the purpose of protecting nearby persons, property, and the environment from the effects of the release and will perform in a primarily defensive fashion from a safe distance will complete the 8 hour First Responder (Operational Level) Course. First Responder Operational trained personnel may perform limited support functions within the limited access zone if specifically trained in the function and then only when directly under the control of qualified personnel (A more complete description can be found in “State of Nevada Occupational Safety Health Standards For General Industry”) (29 CFR Part 1910.120 Q).

- **Hazardous Material Technician** - Emergency response personnel who respond to a hazardous materials release for the purpose of stopping the release and assume a more aggressive role than the first responder at the operations level. They may take offensive actions at the point of release to establish control and/or stop the release. Technicians must complete the required classes as outlined (see NFPA 472) and successfully complete a written and practical examination (A more complete description can be found in "State of Nevada Occupational Safety Health Standards For General Industry")(29 CFR Part 1910.120 Q).

- **On-Scene Incident Commander** - Personnel who respond to the scene of a hazardous materials release for the purpose of assuming the role of Incident Commander shall be trained to the first responder operations level. In addition, they shall have completed a hazardous materials command-specific program which meets the minimum requirement as set forth by **OSHA** 29 CFR 1910.120 Q (A more complete description can be found in "State of Nevada Occupational Safety Health Standards For General Industry") (29 CFR Part 1910).

Re-Certification - Department certification and re-certification as a First Responder Operational, Hazardous Material Technician, and On-Scene Incident Commander is issued by each of the Triad agencies for their respective personnel.

- **First Responder Operational** - First responder operations certified personnel shall complete an annual refresher class based on First Responder Operational Level competencies as cited in most current edition of NFPA 472.

- **Hazardous Material Technician** - Hazardous materials technician certified personnel shall demonstrate proficiency in all required competencies, and achieve a passing score on the re-certification exam in January or each year to maintain their certification as cited in most current edition of NFPA 472.

- **On-Scene Incident Commander** - On-scene commander certified personnel shall, in addition to first responder operations re-certification, complete a annual competency based hazardous materials command module re-certification.

Documentation - All hazardous materials specific training shall be documented by the respective training division.

Medical Training

Each agency who routinely participates in the care of victims of a hazardous materials incident is responsible to assure adequate training for their personnel. OSHA guidelines must be followed. Personnel training should include but not be limited to:

1. Recognition and notification of a hazardous situation and knowledge of first line response.

2. Protective equipment, supplies, and procedures.

3. Handling of contaminated victims, decontamination.

4. Special medical treatment protocols.

5. Communications and interface with responders.

6. Awareness of types of hazardous materials in the community.

SECTION 11: INCIDENT COMMAND SYSTEM

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Incident Command System Overview

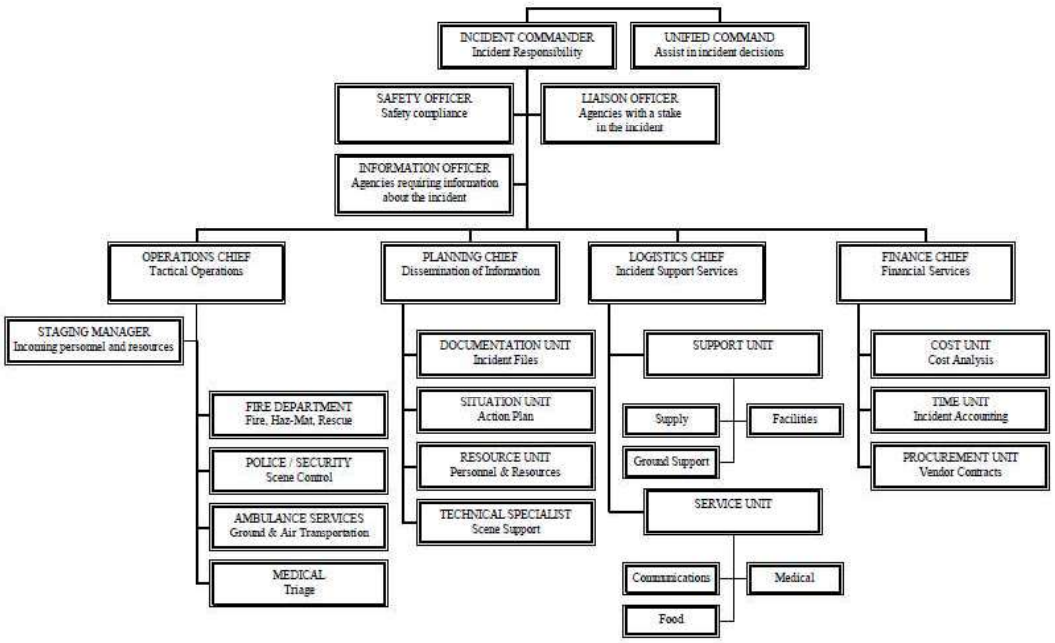
1. Hazardous materials incidents often involve response from multiple disciplines and may involve more than one jurisdiction. The Incident Command System (ICS), because of its standardized organizational structure and common terminology, provides a useful and flexible management system that is particularly adaptable to hazardous materials incidents involving multi-jurisdictional response, both in the field and in the EOC.

2. ICS provides the flexibility to rapidly activate and establish an organizational form around the functions that need to be performed in order to efficiently and effectively mitigate an emergency. For this reason, ICS will be used during all hazardous materials incidents in Lyon County.

3. ICS can be utilized for any type or size of hazardous materials emergency, ranging from a minor incident involving only a few members of the emergency organization, to a major incident involving several agencies and/or jurisdictions. ICS allows agencies throughout Nevada and at all levels of government to communicate using common terminology and operating procedures. It also allows for the timely acquisition of a combination of resources during time of emergency.

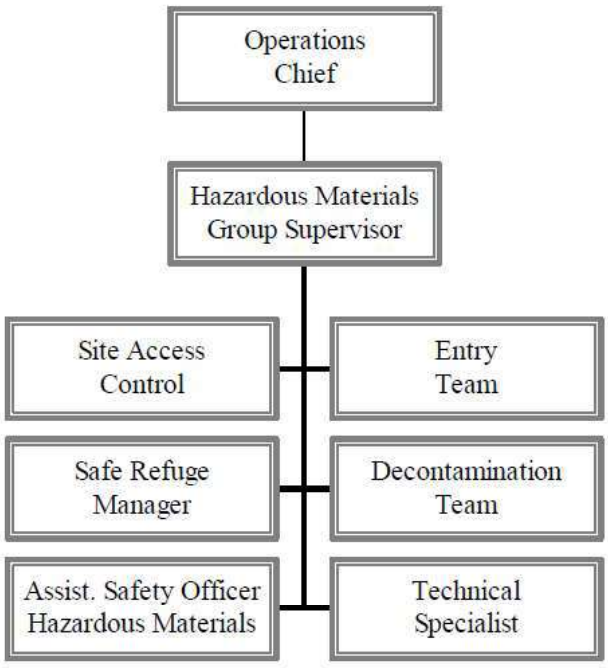
4. ICS organizational structure develops in a modular fashion based upon the type and size of the incident. The organization staff builds from the top down. As the need arises, five separate sections can be developed each with several units that may be established as needed. The specific organizational structure established for any given hazardous materials incident will be based on the management and resource needs of the incident.

5. Incident Command System Matrix



6. A hazardous materials incident will bring together a greater number and a wider variety of agencies. It is assumed that all hazardous materials incidents will be managed under Unified Command principles because in virtually all cases fire, law enforcement, and public health will have some statutory functional responsibility for incident mitigation. Depending on incident factors, several other agencies will respond to a hazardous materials incident. The best method for ensuring effective information flow and coordination between the responding agencies at the scene of a multi-agency incident is to establish a Unified Command. Each key response agency should provide a representative to remain at the command post who will have authority to speak for and commit agency resources. The Assisting Agencies section of this document lists some of the typical functional responsibilities of law enforcement and health agencies.

7. The Hazardous Materials organized module is designed to provide an organized structure that will provide necessary supervision and control for the essential functions required at virtually all Hazardous Materials incidents. This is based on the premise that controlling the tactical operations of companies and movement of personnel and equipment will provide a spreading or contaminants. The primary functions will be directed by the Hazardous Materials Group Supervisor, and all resources that have a direct involvement with the hazardous material will be supervised by one of the functional leaders or the Hazardous Materials Group Supervisor.



Planning Process

The planning process involves the gathering of information from key areas within the system and assembling that information into a plan. However, not all incidents require written plans. The need for written plans and attachments is based on incident requirements and the decision of the Incident Commander. Once the need for the plan is established, whether the plan is written or verbal, a planning meeting is organized.

The Planning Chief needs to start collecting information from the Incident Commander and other Section Chiefs in order to:

- Understand the current situation
- Predict probable course of incident events
- Prepare alternative strategies and control operations for the incident

Incident objectives and strategy should be established before the planning meeting. For this purpose it may be necessary to hold a strategy meeting prior to the planning meeting. The table below provides basic steps appropriate for use in almost any incident situation.

CHECKLIST	PRIMARY RESPONSIBILITY
1. Briefing on situation and resource status	Planning Chief
2. Set control objectives	Incident Commander
3. Plot control lines, establish division boundaries, identify group assignments	Operations Chief
4. Specify tactics for each division	Operations Chief
5. Specify resources needed by Division/Group	Operations Chief Planning Chief
6. Specify Operations facilities and reporting locations - Plot on map	Operations Chief Planning Chief Logistics Chief
7. Place resource and personnel order	Logistics Chief
8. Consider Communications, Medical and Traffic Plan requirements	Planning Chief Logistics Chief
9. Finalize, approve and implement Incident Action Plan	Incident Commander Operations Chief Planning Chief Logistics Chief

The Planning Process works best when the incident perimeter and proposed control lines are divided into logical geographical units for planning purposes. The tactics and resources are then determined for each of the planning units and then the planning units are combined into divisions/groups utilizing span-of-control guidelines.

Command Section

Incident Commander

The Incident Commander's responsibility is the overall management of the incident. On most incidents a single Incident Commander carries out the command activity. The Incident Commander is selected by qualifications (29CFR1910.120) and experience.

The process of developing the IC position starts from the initial response to every incident. The first responder on scene, by definition, assumes the role of incident commander. As the incident progresses, the role of IC will be passed on to the next higher-ranking individual based on qualification and experience. The role of IC may change several times in the course of establishing an incident. (Note: The highest-ranking official is not obligated to assume the role if the individual performing the duties is qualified and assuming the role would break the continuity of the incident.)

TRANSFER OF COMMAND: Face to face transition is the best method of transfer. However, transfers may be accomplished by telephone or radio as long as the briefing is thorough.
Once transfer has been made known to all personnel, the former IC will most likely assume the role of the Operations Chief. The Operations Chief role becomes that of implementing tactics that result from strategic decisions made between the Operations Chief and the present Incident Commander.

The key to success is command and control. The Incident Command, alone, has responsibility for all activities; resources and decisions made relating to the incident. Transfer of command should be made in a manner that maintains the continuity of the incident. When command is transferred at this level or any other level, all incident personnel should be notified. This is typically done with a radio announcement.

Incident Command Review

1. Review Common Responsibilities.

2. Assess the situation and/or obtain a briefing from the prior Incident Commander.

3. Activate appropriate level of evacuation and response.

4. Determine Incident Objectives and strategy.

5. Establish the immediate priorities.

6. Establish an Incident Command Post.

7. Establish an appropriate organization.

8. Ensure planning meetings are scheduled as required.

9. Approve and authorize the implementation of an Incident Action Plan.

10. Ensure that adequate safety measures are in place.

11. Coordinate activity for all Command and General Staff.

12. Coordinate with key people and officials.

13. Approve requests for additional resources or for the release of resources.

14. Keep agency administrator informed of incident status.

15. Approve the use of trainees, volunteers, and auxiliary personnel.

16. Authorize release of information to the news media.

17. Order the demobilization of the incident when appropriate.

Liaison Officer

Incidents that are multiple jurisdictional, or have several agencies involved, may require the establishment of the Liaison Officer position on the Command Staff. Only one Liaison Officer will be assigned for each incident, including incidents operating under Unified Command and multiple jurisdiction incidents. The Liaison Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The Liaison Officer is the contact for the personnel assigned to the incident by assisting or cooperating agencies. These are personnel other than those on direct tactical assignments or those involved in a Unified Command. The liaison position may be used as the link between the Command Post and the Emergency Operating Center.

Liaison Officer Review

1. Review Common Responsibilities.

2. Be a contact point for Agency Representatives.

3. Maintain a list of assisting and cooperating agencies and Agency Representatives.

4. Assist in establishing and coordinating interagency contacts.

5. Keep agencies supporting the incident aware of incident status.

6. Monitor incident operations to identify current or potential inter-organizational problems.

7. Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.

Information Officer

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.

Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command and multiple jurisdiction incidents. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.

Agencies have different policies and procedures relative to the handling of public information. The following are the major responsibilities of the Information Officer, which would generally apply on any incident:

Information Officer Review

1. Review Common Responsibilities.

2. Determine from the Incident Commander if there are any limits on information release.

3. Develop material for use in media briefings.

4. Obtain media information that may be useful to incident planning.

5. Maintain current information summaries and/or displays on the incident and provide information on status of incident to assigned personnel.

Safety Officer

The Safety Officer's function is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations.

Only one Safety Officer will be assigned for each incident. The Safety Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities such as air operations, hazardous materials, air monitoring, etc.

Note: Even though the Safety Officer has the authority to stop any unsafe acts without prior permission, this authority can only be exercised if there is insufficient time to take action through the proper chain of command. The Safety Officer does not have the authority to change tactical decisions or move resources. The Incident Commander must be notified immediately of any emergency stop actions.

Safety Officer Review

1. Review Common Responsibilities.
2. Participate in planning meetings.
3. Identify hazardous situations associated with the incident.
4. Review the Incident Action Plan for safety implications.
5. Exercise emergency authority to stop and prevent unsafe acts.
6. Investigate accidents that have occurred within the incident area.
7. Assign assistants as needed.
8. Review and approve the medical plan.
9. Develop hazardous materials site safety plan as required.

Operations Section

Operations Section Chief

The Operations Section Chief, a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. The Operations Chief activates and supervises organization elements in accordance with the Incident Action Plan and directs its execution. The Operations Chief also directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary; and reports such to the Incident Commander.

Operations Chief Review

1. Review Common Responsibilities

2. Develop operations portion of Incident Action Plan.

3. Brief and assign operations personnel in accordance with Incident Action Plan.

4. Supervise operations.

5. Determine need and request additional resources.

6. Review suggested list of resources to be released and initiate recommendation for release of resources.

7. Assemble and disassemble strike teams assigned to Operations Section.

8. Report information about special activities, events, and occurrences to Incident Commander.

Hazardous Materials Group Supervisor

The Hazardous Materials Group Supervisor reports to the Operations Section Chief. The Hazardous Materials Group Supervisor is responsible for the implementation of the phases of the Incident Action Plan dealing with the Hazardous Materials Group operations. The Hazardous Materials Group Supervisor is responsible for the assignment of resources within the Hazardous Materials Group, reporting on the progress of control operations and the status of resources within the Group. The Hazardous Materials Group Supervisor directs the overall operations of the Hazardous Materials Group.

Hazardous Materials Group Supervisor Review

1. Review Common Responsibilities

2. Ensure the development of Control Zones and Access Control Points and the placement of appropriate control lines.

3. Evaluate and recommend public protection action options to the Operations Chief or Branch Director (if activated).

4. Ensure that current weather data and future weather predictions are obtained.

5. Establish environmental monitoring of the hazard site for contaminants.

6. Ensure that a Site Safety Plan is developed and implemented.

7. Conduct safety meetings with the Hazardous Materials Group.

8. Participate, when requested, in the development of the Incident Action Plan.

9. Ensure that recommended safe operational procedures are followed.

10. Ensure that the proper Personal Protective Equipment is selected and used.

11. Ensure that the appropriate agencies are notified through the Incident Commander.

12. Maintain Unit/Activity Log.

Entry Leader
The Entry Leader is responsible for the overall entry operations of assigned personnel within the Exclusion Zone, and reports to the Hazardous Materials Group Supervisor.

Entry Leader Review
1. Review Common Responsibilities

2. Supervise entry operations.

3. Recommend actions to mitigate the situation within the Exclusion Zone.

4. Carry out actions, as directed by the Hazardous Materials Group Supervisor, to mitigate the hazardous materials release or threatened release.

5. Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).

6. Coordinate the transfer of contaminated patients requiring medical attention (after decontamination) to the Medical Group.

7. Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone.

8. Maintain Unit/Activity Log.

Site Access Control Leader
The Site Access Control Leader is responsible for the control of the movement of all people and equipment through appropriate access routes at the hazard site. Reports to the Hazardous Materials Group Supervisor and ensures that contaminants are controlled and records are maintained.

Site Access Control Leader Review
1. Review Common Responsibilities

2. Organize and supervise assigned personnel to control access to the hazard site.

3. Oversee the placement of the Exclusion Control Line and the Contamination Control Line.

4. Ensure that appropriate action is taken to prevent the spread of contamination.

5. Establish the Safe Refuge Area within the Contamination Reduction Zone. Appoint a Safe Refuge Area Manager (as needed).

6. Ensure that injured or exposed individuals are decontaminated prior to departure from the hazard site.

7. Track the movement of persons passing through the Contamination Control Line to ensure that long term observations are provided.

8. Coordinate with the Medical Group for proper separation and tracking of potentially contaminated individuals needing medical attention.

9. Maintain observations of any changes in climatic conditions or other circumstances external to the hazard site.

10. Maintain communications and coordinate operations with the Entry Leader.

11. Maintain communications and coordinate operations with the Decontamination Leader.

12. Maintain Unit/Activity Log.

Assistant Safety Officer-Hazardous Materials

Reports to the incident Safety Officer as an Assistant Safety Officer and coordinates with the Hazardous Materials Group Supervisor (or Hazardous Materials Branch Director if activated). The Assistant Safety Officer-Hazardous Materials coordinates safety related activities directly relating to the Hazardous Materials Group operations as mandated by 29 CFR part 1910.120 and applicable State and local laws. This position advises the Hazardous Materials Group Supervisor (or Hazardous Materials Branch Director) on all aspects of health and safety and has the authority to stop or prevent unsafe acts. It is mandatory that an Assistant Safety Officer - Hazardous Materials be appointed at all hazardous materials incidents. In a multi- activity incident the Assistant Safety Officer-Hazardous Materials does not act as the Safety Officer for the overall incident.

Assistant Safety Officer-Hazardous Materials Review

1. Review Common Responsibilities.

2. Obtain briefing from the Hazardous Materials Group Supervisor.

3. Participate in the preparation of, and implement the Site Safety Plan.

4. Advise the Hazardous Materials Group Supervisor (or Hazardous Materials Branch Director) of deviations from the Site Safety Plan or any dangerous situations.

5. Has authority to alter, suspend, or terminate any activity that may be judged to be unsafe.

6. Ensure the protection of the Hazardous Materials Group personnel from physical, environmental, and chemical hazards/exposures.

7. Ensure the provision of required emergency medical services for assigned personnel and coordinate with the Medical Unit Leader.

8. Ensure that medical related records for the Hazardous Materials Group personnel are maintained.

9. Maintain Unit/Activity Log.

Technical Specialist-Hazardous Materials Reference

Will report to the Hazardous Materials Group Supervisor (or Hazardous Materials Branch Director if activated) at the time of incident. This position provides technical information and assistance to the Hazardous Materials Group using various reference sources such as computer data bases, technical journals, CHEMTREC, and phone contact with facility representatives. The Technical Specialist - Hazardous Materials Reference may provide product identification using hazardous categorization tests and/or any other means of identifying unknown materials.

Technical Specialist Review

1. Review Common Responsibilities.

2. Obtain briefing from the Planning Section Chief.

3. Provide technical support to the Hazardous Materials Group Supervisor.

4. Maintain communications and coordinate operations with the Entry Leader.

5. Provide and interpret environmental monitoring information.

6. Provide analysis of hazardous material sample.

7. Determine personal protective equipment compatibility to hazardous material.

8. Provide technical information of the incident for documentation.

9. Provide technical information management with public and private agencies i.e.: Poison Control Center, Tox Center, CHEMTREC, State Department of Food and Agriculture, National Response Team.

10. Assist Planning Section with projecting the potential environmental effects of the release.

11. Maintain Unit/Activity Log.

Safe Refuge Area Manager

The Safe Refuge Area Manager reports to the Site Access Control Leader and coordinates with the Decontamination Leader and the Entry Leader. The Safe Refuge Area Manager is responsible for evaluating and prioritizing victims for treatment, collecting information from the victims, and preventing the spread of contamination by these victims. If there is a need for the Safe Refuge Area Manager to enter the Contamination Reduction Zone in order to fulfill assigned responsibilities then the appropriate Personnel Protective Equipment shall be worn.

Safe Refuge Area Manager Review

1. Review Common Responsibilities.

2. Establish the Safe Refuge Area within the Contamination Reduction Zone adjacent to the Contamination Reduction Corridor and the Exclusion Control Line.

3. Monitoring the hazardous materials release to ensure that the Safe Refuge Area is not subject to exposure.

4. Assist the site Access Control Leader by ensuring the victims are evaluated for contamination.

5. Manage the Safe Refuge Area for the holding and evaluation of victims who may have information about the incident, or if suspected of having contamination.

6. Maintain communications with the Entry Leader to coordinate the movement of victims from the Refuge Area(s) in the Exclusion Zone to the Safe Refuge Area.

7. Maintain communications with the Decontamination Leader to coordinate the movement of victims from the Safe Refuge Area into the Contamination Reduction Corridor, if needed.

8. Maintain Unit/Activity Log.

Staging Manager

The Staging Area Manager is responsible for managing all activities within a Staging Area. The Manager is responsible for the check in of all incoming resources; to dispatch resources at the request of the Operations Chief; and to request Logistics Section support as necessary for resources located in the Staging Area.

Staging Area Manager Review

1. Proceed to Staging Area.

2. Establish Staging Area layout.

3. Determine any support needs for equipment, feeding, sanitation and security.

4. Establish check-in function as appropriate.

5. Post areas for identification and traffic control.

6. Request maintenance service for equipment at Staging Area as appropriate.

7. Respond to request for resource assignments. (Note: This may be direct from Operations or via the Incident Communications Center).

8. Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.

9. Determine required resource levels from the Operations Section Chief.

10. Advise the Operations Section Chief when reserve levels reach minimums.

11. Maintain and provide status to Resource Unit of all resources in Staging Area.

12. Demobilize Staging Area in accordance with Incident Demobilization Plan.

Assisting Agencies

Law Enforcement

The local law enforcement agency will respond to most Hazardous Materials incidents. Depending on incident factors, law enforcement may be a partner in Unified Command or may participate as an assisting agency. Some functional responsibilities that may be handled by law enforcement are:

Law Enforcement Review

1. Isolate the incident area.
2. Manage crowd control.
3. Manage traffic control.
4. Manage public protective action.
5. Provide scene management for on-highway incidents.
6. Manage criminal investigations.

Environmental Health Agencies

In most cases the local or State environmental health agency will be at the scene as a partner in Unified Command. Some functional responsibilities that may be handled by environmental health agencies are:

Environmental Health Agencies Review

1. Determine the identity and nature of the Hazardous Materials.
2. Establish the criteria for clean-up and disposal of the Hazardous Materials.
3. Declare the site safe for re-entry by the public.
4. Provide the medical history of exposed individuals.
5. Monitor the environment.
6. Supervise the clean-up or the site.
7. Enforce various laws and acts.
8. Determine legal responsibility.

9. Provide technical advice.

10. Approve funding for the clean-up.

Planning Section

Planning Section Chief

The Planning Section Chief is responsible for the gathering and analysis of all data regarding incident operations and assigned resources, developing alternatives for tactical operations, conducting the planning meetings, and preparing the action plan for each operational period.

The Planning Section Chief will normally be from the jurisdiction that has incident responsibility. Under a unified command structure, the Planning Section Chief could have a deputy from one or more of the other involved jurisdictions.

Planning Chief Review

1. Review Common Responsibilities

2. Collect and process situation information about the incident.

3. Supervise preparation of the Incident Action Plan.

4. Provide input to the Incident Commander and Operations Section Chief in preparing the Incident Action Plan.

5. Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.

6. Establish information requirements and reporting schedules for Planning Section units (e.g., Resources, Situation Units, etc.).

7. Determine need for any specialized resources in support of the incident.

8. If requested, assemble and disassemble strike teams and task forces not assigned to operations.

9. Establish special information collection activities as necessary, e.g., weather, environmental, toxins, etc.

10. Assemble information on alternative strategies.

11. Provide periodic predictions on incident potential.

12. Report any significant changes in incident status.

13. Compile and display incident status information.

14. Oversee preparation and implementation of Incident Demobilization Plan.

15. Incorporate plans, (e.g., Traffic, Medical, and Communications) into the Incident Action Plan.

Resources Unit

The Resources Unit has the responsibility to make certain that all assigned personnel and resources have checked in at the incident. It is also responsible for maintaining current status on all resources. A status keeping system will be required which will show current location of all assigned resources, as well as current status condition for all resources. The Resources Unit will maintain a master list of all resources. This should include key supervisory personnel (overhead), primary resources used in tactical operations, as well as support resources, transportation equipment, etc.

Resource Unit Review

1. Review Common Responsibilities

2. Establish check-in function at incident locations.

3. Prepare Organization Assignment List and Organization Chart

4. Prepare appropriate parts of Division Assignment Lists

5. Prepare and maintain the Command Post display to include organization chart and resource allocation and deployment.

6. Maintain and post the current status and location of all resources.

7. Maintain master roster of all resources checked in at the incident.

Situation Unit

The Situation Unit is responsible for collecting, processing and organizing situation information, preparing situation summaries, and developing projections and forecasts of future events related to the incident. The Situation Unit will prepare maps and intelligence information for use in the action plan.

The Situation Unit may also require expertise in the form of technical specialists.

Situation Unit Review

1. Review Common Responsibilities

2. Begin collection and analysis of incident data as soon as possible.

3. Prepare, post, or disseminate resource and situation status information as required, including special requests.

4. Prepare periodic predictions or as requested.

5. Provide photographic services and maps if required.

Documentation Unit
The Documentation Unit is responsible for maintaining accurate and complete incident files; providing duplication services to incident personnel; and, for filing, maintaining, and storing incident files for legal, analytical, and historical purposes.

The Documentation Unit is maintained within the Planning Section primarily because that Unit has a major responsibility toward the preparation of the Incident Action Plan, as well as maintaining files on many records which are developed as part of the overall Command Post and planning function.

Documentation Unit Review
1. Review Common Responsibilities

2. Set up work area; begin organization of incident files.

3. Establish duplication service; respond to requests.

4. File all official forms and reports.

5. Review records for accuracy and completeness; inform appropriate units of errors or omissions.

6. Provide incident documentation as requested.

7. Store files for post-incident use.

Logistics Section

Logistics Chief

The Logistics Section is responsible for providing all support needs to the incident (except air). The Logistics Section would order all resources from off-incident locations. It would also provide facilities, transportation, supplies, equipment maintenance and fueling, feeding, communications, and medical services.

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident. The Section Chief participates in development and implementation of the Incident Action Plan and activates and supervises the Branches and Units within the Logistics Section.

Logistics Chief Review

1. Plan organization of Logistics Section.

2. Assign work locations and preliminary work tasks to Section personnel.

3. Notify Resources Unit of Logistics Section units activated including names and locations of assigned personnel.

4. Participate in preparation of Incident Action Plan.

5. Identify service and support requirements for planned and expected operations.

6. Provide input to and review Communications Plan, Medical Plan, and Traffic Plan.

7. Coordinate and process requests for additional resources.

8. Review Incident Action Plan and estimate Section needs for next operational period.

9. Advise on current service and support capabilities.

10. Prepare service and support elements of the Incident Action Plan.

11. Ensure general welfare and safety of Logistics Section personnel.

Logistics Service Branch Review

Communications Unit

1. Developing plans to make the most effective use of incident assigned communication equipment and facilities

2. The installation and testing of all communication equipment; supervision and operation of the Incident Communications Center

3. Distribution and recovery of equipment assigned to incident personnel; and, the maintenance and on-site repair of communication equipment.

Medical Unit

1. Developing the Incident Medical Plan.

2. Developing procedures for handling any major medical emergency involving incident personnel.

3. Providing medical aid and transportation for incident assigned injured or ill personnel.

4. Assisting in the processing of all work-related injuries or deaths of incident assigned personnel.

Food Unit

1. Determine food and water requirements

2. Determine facility requirements for feeding

3. Obtain necessary equipment and supplies and establish cooking facility.

4. Maintain an inventory of food and water

Logistics Support Branch Review

Supply Unit

1. Determine type and amount of supplies en route.

2. Review Incident Action Plan for supply needs.

3. Order, receive, distribute and store all incident-related resources, personnel, and supplies.

4. Maintain inventory of supplies and equipment.

Facilities Unit

1. Determine requirements for each facility.

2. Determine location of each facility

3. Prepare layouts of incident facilities.

4. Activate incident facilities.

5. Provide maintenance and services for all facilities.

Ground Support Unit

1. Provide maintenance and repair of primary tactical equipment, vehicles, and mobile ground support equipment.

2. Provide fueling of all mobile equipment.

3. Providing of transportation services in support of incident operations (except air).

4. Implement the Incident Traffic Plan.

Immediate Checklist

Perform the following steps upon activation of the emergency response system.

- ☐ Determine your assignment *(IC-OPS-PLANS- LOGS-etc.)*
- ☐ Obtain situation briefing
- ☐ Open command packet for your assignment
- ☐ Put on the vest matching your assignment
- ☐ Review job descriptions
- ☐ Report to your assigned location
- ☐ Begin Action Checklist

SECTION 12: HAZARDOUS MATERIALS MEDIAL PLAN

Hazardous Materials Medical Plan

Introduction

This Annex identifies special considerations for medical responders providing care to victims of a hazardous materials incident. Primary consideration is given to establishing a communication network to keep each participating agency informed about the hazardous materials and their nature; to implementing appropriate safeguards and procedures as indicated in the presence of hazardous materials and to effectively interface activities of medical personnel to ensure maximal safety. If a hazardous material incident results in only a few victims, this document can stand alone from a planning and guidelines approach. If it is determined there are multiple injured victims; a Multiple Casualty Incident Plan may be activated.

Under Section 323 of SARA TITLE III, in a medical emergency, an owner or operator of a facility is required to provide to the patient's physician or nurse information about on site chemicals to treat a medical emergency, even if the information is proprietary in nature.

Overview of Agency Responsibilities

The following are primary agency responsibilities as related to a Hazardous Material Incident:

1. **Responding Fire Departments/Hazardous Materials Response Team** mitigate hazardous material releases; establish incident control and safety zones; oversee rescue and decontamination adequate to be able to provide safe transportation and treatment of victims and incident personnel, equipment and vehicles; communicate chemical identification, medical care, safety and other information to the Medical Branch Director to complete the Hazardous Spill Emergency Information Form (see Appendices).

2. **Lyon Medical Dispatch** is the major communication link to keep medical personnel on and off scene informed, and as they receive more information will relay the identity, nature, and special health and treatment information regarding the hazardous materials involved.

3. **Responding Ambulance Providers** provide triage, treatment and transport of decontaminated patients, fill ICS medical branch positions, and provide medical support services to the Hazardous Materials team members.

4. **Receiving Medical Facilities** prepare to receive patients exposed to hazardous materials either transported from the scene that may require secondary decontamination or primary decontamination for walk-in patients, provide an agency representative to the scene as appropriate or when requested, implement safeguards and protective procedures; and provide follow-up health information to patients if available. The primary method of hospital to scene communication is for the hospital to contact Medical Dispatch who will coordinate medical information through the Medical Branch Director.

5. **Social Services/Red Cross** arranges and manages evacuation/relocation shelters.

They may contact the Incident Commander or Medical Branch Director for information on symptoms and treatment regarding the hazardous materials to which shelter victims may have been exposed.

All participating agencies are responsible for all record keeping of medical operations and extraordinary associated costs during the incident to participate in critiques and potential recapture of incident costs.

Activation

The 911 centers routinely make notifications of hazardous material spills in our community as ambulances respond to provide back-up Advanced Life Support Ambulance service to the responding fire agencies to meet OSHA requirements, or is contacted to provide transport if victims are ill or injured. The 911 Centers also provide notification of hazardous material spills to multiple other agencies. The 911 Centers will supply and update ALS services with information such as the type of hazardous material (solid, liquid or gas), properties such as flammable, explosive, etc., if materials burning, the potential number of people exposed or injured, the location and identity of the Incident Commander, the location of staging or patient loading areas, ingress and egress information, the best upwind route, etc.

Treatment

Currently no specific agency has been assigned the sole responsibility of coordinating all treatment information. The Portland Regional Poison Control Center (328-4129), the Agency for Toxic Substances and Disease Registry (ATSDR) (1-404-639-0615) and CHEMTREC (1-800- 424-9300) all have 24-hour numbers as noted. The Regional Poison Control Center and ATSDR have a Ph.D. and medical toxicologist on call for advice on a 24-hour basis. CHEMTREC provides MSDS information from their broad database and can also link callers to physicians working with the San Francisco Regional Poison Control Center for medical treatment information.

All of the acute care hospitals have a copy of ATSDR's "Managing Hazardous Materials Incidents, Medical Management Guidelines for Acute Chemical Exposure, Volume III." The guidelines contain 27 chemical specific (plus an unknown chemical) protocols. These protocols provide information on chemical description, acute and chronic health effects, pre-hospital management (including triage, decon, PPE, etc.), Emergency Department management and patient information (discharge instructions).

Some of the antidotes that may be needed for patients are not routinely carried or are carried in only minimal amounts on ambulances. Therefore, early antidote identification and procurement by medical facilities is a prime consideration.

PREHOSPITAL OPERATIONS

Lyon Dispatch

Lyon Dispatch dispatches ambulances, and when known, advises them of safe access routes, the type of hazardous materials, the number of people exposed or injured, the ambulance staging area for patient loading, the location and identity of the Incident Commander, and any information they have on the type or properties of the chemicals involved.

It is critical for Lyon Dispatch to advise the hospitals when the incident is terminated and/or all patients have been transported because of the staff and equipment the hospitals commit to provide decontamination.

First on Scene and Scene Safety

1. Before approaching any scene, look for signs of a hazardous material. Never assume any spilled material is safe. Use precautions and know limitations.

2. All persons involved in the incident must act to "isolate" the incident, i.e., minimize the number of persons involved, provide relief teams, minimize time on the scene, secure the area, and use safe techniques.

3. The first in unit will, after identifying a hazardous materials incident, review HAZMAT Resources for initial response guidelines and perimeter control. The appropriate fire jurisdiction will be advised, and ambulance personnel will remain behind the recommended perimeter until the fire department arrives on scene and determines the scene is safe.
4. If the incident meets MCIP activation criteria, the first in fire or ambulance personnel shall alert Lyon Dispatch. When the first arriving ambulance gets to the scene, they shall consult with the Incident Commander and confirm the MCI with Lyon Dispatch.

5. Try to identify substances only from a safe distance.

6. Wait for fire services to get to the scene before making an attempt to care for any victims within the exclusion zone.

Incident Command System (ICS)

The Incident Commander and Safety Officer have the critical responsibility to assure that the appropriate decontamination, personal protective equipment (PPE) and treatment information is provided both to scene personnel and off scene agencies that will receive patients or contaminated incident personnel. They are also responsible for insuring that shelter managers receive information on monitoring evacuees for potential symptoms, and that hospitals are notified of the final chemical identification, which is sometimes hours or days after the incident, occurs.

On-scene decontamination of all victims and resources is a top priority. In all instances, clear risk information must be provided to the ambulance personnel so precautions and correct transport decisions can be carried out.

The Hazardous Materials Response Team will provide triage information during the decontamination of the victim(s) to the Medical Branch personnel.

Medical Group Supervisor/Branch Director Responsibilities

This is only a partial list specific to hazardous materials incidents, which include but is not limited to:

1. The Medical Branch Director will assume overall medical responsibilities after being briefed and assigned by the Incident Commander. He will also obtain an update from scene medical personnel.

2. Integrate and coordinate emergency medical services with HAZMAT team;

3. Coordinate medical treatment information for victims and incident personnel.

4. Coordinate and implement monitoring of exclusion and contamination reduction zone personnel. This will be done from the support zone.

5. Coordinate ambulance staging areas with Safety Officer and Operations Chief.

6. Arrange for immediate turnaround of ambulances at hospitals. Units will be designated as primary transport units that must return to the incident site for further transport assignments to insure minimal contamination of limited transport resources.

7. Consider the safety of responding air ambulance units and their staging areas.

8. Obtain protective clothing and equipment for medical personnel, as needed and available.

9. Maintain close liaison with safety officer to update medical personnel regarding scene safety issues.

10. Consider utilizing hospital base stations and other sources such as the Regional Poison Control Center, ATSDR, etc. as a resource for information regarding decontamination and treatment, and alert Churchill Dispatch immediately of any potential for receiving victims.

11. Utilize on-scene hospital representatives if present for scene-to-hospital updates on pertinent chemical identification, treatment and decontamination information, and inform REMSA Dispatch of the identity of the hospital representative and their role.

12. After completion of medical operations, coordinate decontamination of ground and air ambulances with the Incident Commander and the Hazmat Team.

Hazmat Team Support Services
Prime risks for HAZMAT team entry members are heat related injuries and dehydration which may require initiation of fluid replacement as soon as possible after the decontamination process. Another risk is hypoxia if oxygen supplies are depleted before decontamination. The Team may have its own Standard Operating Procedures (SOPs) regarding medical monitoring.

Perimeters
All ambulances will first report to the access control point at the scene. If an access control point has not been assigned, they will report to the area designated by Incident Command.

Ambulance and triage areas must be established far enough from the incident to minimize risk to people and resources. Ambulances and responding medical personnel will remain behind the Limited Access (Warm) Zone in the Support Zone.

Victim Triage and Patient Care
Each ambulance service should develop hazardous material treatment protocols approved by their medical director.

Decontamination
It is critical for the hospitals to be able to identify quickly and accurately for each patient the method and level of decontamination utilized by the fire departments at the scene. This plan strongly recommends the fire departments and Regional Hazmat Team utilize a clearly identifiable "tagging" method for this purpose. The prehospital and hospital record should contain information on the decontamination methods used in the field and in the hospital.

Decontamination does not end after all patients have been transported. The Incident Commander is responsible for insuring all resources used at the scene are evaluated for the need for decontamination. This includes ambulances, buses, equipment, etc.

Preparation for Patients and Ambulances for Transport
Any victim of a hazardous materials incident must be considered to be contaminated until proven otherwise. Consequently, a potential exists for ambulances and receiving facilities to become contaminated. Appropriate protective equipment and procedures must be utilized at all times.

Decide which specific ground units will be used as transportation vehicles. Obtain information on how to transport patients with minimum risk to EMS personnel. This might include specialized transporting precautions and equipment.

Transport decontaminated patients to designated, alerted hospitals in a safe and expedient manner to the pre-designated hospital entrance.

Scene-To-Hospital Communications

Ongoing, updated communications are essential between the on-the-scene medical personnel, Lyon County Dispatch, and the hospital(s) to provide as much advance information as possible, including number of contaminated and non-contaminated victims, type of contact, and hazardous material identification.

Decontamination of Personnel, Equipment and Vehicles

As medical units are no longer involved in the incident, contact the Incident Commander to have personnel, vehicles and equipment inspected to determine if decontamination is required. If contamination is known or suspected, agencies will commence decontamination of medical personnel, vehicles, and equipment before leaving the scene.

Corpses

Corpse removal and custody is the responsibility of the Coroner. The Coroner should be notified of any deceased on scene. The Coroner will coordinate removal of the deceased from the exclusion zone and decontamination with the Fire Department.

Patient Valuables on Scene

Valuables belonging to patients who have been decontaminated are to be left on scene, and are the responsibility of the Incident Commander. They are to be viewed as potential hazardous waste.

Use Of Helicopters

Extreme caution should be used when considering requesting a helicopter to a hazardous material spill. If the material is a gas, the substance can pose an unreasonable threat to life, health, or property if the aircraft flies through or near a danger zone, especially if the rotor wash penetrates the exclusion zone.

The helicopter rotor wash down draft could theoretically spread the danger zone of gaseous toxic materials. If the aircraft is utilized, the helicopter should always approach and stay on the upwind side of the danger zone.

Consideration needs to be given to accidents from Hazmat impaired pilots and from mechanically impaired aircraft engines. If the helicopter is needed:

1. Keep the pilot well informed as to wind direction and the specific location of the exclusion zone.

2. Land the aircraft near the support zone.

3. If necessary, have ground ambulance transport a well-decontaminated patient to the aircraft.

HOSPITAL EMERGENCY DEPARTMENT OPERATIONS

Notification

Advance notification of the hospitals in a hazardous materials incident is even more critical than in an MCI because of the lead-time needed for hospital decontamination setup and obtaining treatment information. If available, medical dispatch will fax MSDS sheets to the ER Doctors. The hospital is responsible to notify medical dispatch of current fax numbers.

Walk-ins

ATSDR's guidelines are used by the hospitals for PPE and decon decisions.

Emergency Department Preparation

Each hospital has their own protocols regarding preparations to receive patients requiring primary or secondary decontamination.

Patient Valuables in the Emergency Department

The hospital will consult with District Health Department Hazardous Materials staff on the decontamination of any walk-in patient's valuables. Valuables will not be returned to patients without first being evaluated for the need for decontamination. All patient valuables are to be considered potential hazardous waste until a determination is made.

TRAINING

Each agency routinely participating in the care of victims of a hazardous materials incident is responsible to assure adequate training of their personnel. OSHA guidelines must be followed. Personnel training should include but not be limited to:

1. Recognition and notification of a hazardous or potentially hazardous situation and knowledge of first line response.

2. Protective equipment, supplies, and procedures.

3. Handling of contaminated victims, decontamination.

4. Special medical treatment protocols.

5. Communications and interface with all responders.

6. Awareness of types of hazardous materials in the community.

Periodic retraining of personnel and mock drills are to be scheduled at least annually.

SECTION 13: HAZARDOUS MATERIALS EMERGENCY RESPONSE GLOSSARY OF STANDARDIZED TERMS

The purpose of this glossary is to provide common and readily understandable definitions to facilitate communications and operations among emergency responders when dealing with hazardous materials incidents. This glossary is not intended as a legal or scientific reference.

Abatement - The actions taken to reduce the amount, degree, or intensity of the release or threatened release of a hazardous material.

Absorbent Material - A material designed to pick up and hold liquid hazardous material 0 prevent contamination spread.

Absorption - 1. The process of absorbing or "picking up" a liquid hazardous material to prevent enlargement of the contaminated area. 2. Movement of a toxicant into the circulatory system by oral, dermal, or inhalation exposure.

Acceptable Risk - A risk judged to be outweighed by corresponding benefits or one that is of such a degree that it is considered to pose minimal potential for adverse effects.

Access Control Point - The point of entry and exit which regulates traffic to and from control zones.

ACGIH - See American Conference of Governmental Industrial Hygienists.

Acid - A hydrogen-containing corrosive material that reacts with water to produce hydrogen ions; a proton donor.

Acute - Severe but of short duration. Acute health effects are those that occur immediately after exposure to hazardous chemicals.

Acute Effect - An adverse action on a human or animal. Generally after a single significant exposure, which may be mild or severe (see Chronic Effect).

Acute Exposure - Exposure that is short in duration.

Acute Release - Release of a hazardous material that is short in duration.

Acute Toxicity – Any harmful effect produced by a single short-term exposure that may result in severe biological harm or death.

Acutely Toxic Chemicals – Chemicals that cause severe short- and long-term health effects after a single, brief exposure (short duration). These chemicals (when ingested, inhaled, or absorbed through the skin) can cause living tissue impairment of the central nervous system, severe illness, or, in extreme cases, death.

Adjuvant - A substance used in pesticide formulation to aid its action (also used in the manufacture of drugs).

Administering Agency - The designated unit of a county or city tasked to administer the local implementation of the state and federal hazardous material emergency planning and community right-to-know programs.

Adsorption - The process of adhering to a surface.

Aerosols - Liquid droplets or solid panicles dispersed in air, that are of fine enough panicle size (0.01 to 100 microns) to remain dispersed for a period of time.

After-Action Report – A post-incident analysis report generated by a responsible party or responding agency after termination of a hazardous material incident describing actions taken, materials involved, lessons learned, etc.

Agency-Specific Plan - An emergency plan written by and addressing an individual agency's response actions, capabilities and resources.

AIHA - See American Industrial Hygiene Association

Airborne Pollutants - Contaminants that are carried/ released into the atmosphere or air.

Air Modeling - Mathematical models used to predict movement and concentrations of chemicals in the atmosphere.

Air Monitoring - To measure, record, and/or detect pollutants in ambient air.

Air Purifying Respirators (4PRs) - Personal Protective Equipment; a breathing mask with specific chemical cartridges designed to either filter particulates or absorb contaminants before they enter the worker's breathing zone. They are intended to be used only in atmospheres where the chemical hazards and concentrations are known.

Air Purifying Respirator (Powered) - An APR with a portable motor to force air through the filtering/purifying cartridges for use only in atmospheres where the chemical hazards and concentrations are known.

Air Quality Management District (AQMD) - A local regional air pollution agency responsible for regulation and monitoring of air quality.

Alkali - A hydroxide containing (-OH) corrosive material which is soluble in water, neutralizes acids, and is irritating or destructive to tissue.

Ambient Air Quality - Quality of the surrounding atmosphere or circulating air.

American Conference of Governmental Industrial Hygienists (ACGITI) - A professional society of persons responsible for full-time industrial hygiene programs, who are employed by official governmental units Its primary function is to encourage the interchange of experience among governmental industrial hygienists, and to collect and make available information of value to then ACGIH promotes standards and techniques in industrial hygiene and coordinates governmental activities with community agencies.

American Industrial Hygiene Association (AIHA) - An organization of professionals trained in the recognition and control of health hazards and the prevention of illness related thereto. It promotes the study and control of environmental factors affecting the health of industrial workers, and provides information and communication services pertaining to industrial hygiene.

American National Standards Institute (ANSI) - The Institute serves as a clearing house for nationally coordinated voluntary safety engineering, and industrial standards developed by industrial firms, trade associations, technical societies, consumer organizations and government agencies.

American Society for Testing and Materials (ASTM) – The society establishes voluntary consensus standards for materials, products, systems and services. Sponsors research projects, develops standard test methods, specifications and recommended practices now in use.

Anhydrous - Free from water; dry.

Area Plan – A document established to facilitate emergency response to a release or threatened release of a hazardous material within a city or county (California Health and Safety Code, Section 25503, Chapter 6.95).

Asbestos - A silicate of calcium or magnesium mineral, the friable form occurring in thread-like fibers; non-combustible and a nonconductor of electricity; a known carcinogen.

Asphyxiant – A vapor or gas which can cause unconscious or death by suffocation (lack of oxygen).

Assessment - The process of determining the nature and degree of hazard of a hazardous material or hazardous materials incident.

Assisting Agency - Any agency that assists the agency having jurisdiction at the scene of a hazardous materials incident by providing a service or support not within the immediate responsibility or capability of the agency having jurisdiction.

Association of American Pesticide Control Officials, Inc - This association consists of officials charged by law with active execution of the laws regulating the sale of economic poisons, and of deputies designated by these officials employed by state, federal, territorial, or dominion agencies.

Association of American Railroads (AAR) - A central coordinating and research agency of the American railway industry.

Base (Chemical) - A hydroxide containing corrosive material that when in a water solution is bitter, irritating, or caustic to the skin.

Base (ICS) - Location at which additional equipment, apparatus, and personnel are assembled for primary support of activities at the incident scene. The command post may be located at the base.

Bioassay - Determination of the relative strength and toxicity of a substance (such as a drug) by comparing its effect on a test organism with that of a standard preparation.

Bio-Accumulation - Absorption and storage of toxic chemicals from the environment in an organism usually in body fat.

Biohazard - Infectious agents presenting a risk or potential risk to living organisms, either directly through infection or indirectly through disruption of the environment.

Biohazard Area - Any area in which work has been, or is being performed, with infections agents a materials.

Biological Agents - Biological materials that are capable of causing acute or long term damage to living organisms.

Biological Half-Life - The time required for a living organism to eliminate half of a substance which it takes in.

Biological Treatment - A process by which waste is rendered less hazardous, or is reduced in volume, by relying on the action of microorganisms

Blasting Agent - A material designed for blasting which has been tested and found to be so insensitive that there is very little probability of accidental initiation to explosion or transition from deflagration to detonation.

Boiling Liquid Expanding Vapor Explosion (BLEVE) - A container failure with a release of energy, often rapidly and violently, which is accompanied by a release of gas to the atmosphere and propulsion of the container or container pieces due to an overpressure rupture.

Boom - A floating physical barrier serving as a continuous obstruction to the spread of a contaminant.

Bootie - A sock like over-boot protector worn to minimize contamination.

Breakthrough Time – The elapsed time between initial contact of the hazardous chemical with the outside surface of a barrier, such as protective clothing material, and the time at which the chemical can be detected at the inside surface of the material.

Breathing Zone Air Sample - A sample collected in the breathing area of a worker to assess exposure to airborne contaminants.

Buddy System - A system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group.

Buffer Zone - The area of land that surrounds a hazardous waste facility on which certain usages and activities are restricted to protect the public health and safety, and the environment from existing or potential hazards caused by the migration of hazardous waste.

Bureau Of Alcohol, Tobacco and Firearms (ATF) - The federal agency that enforces and administers firearms and explosive laws as well as those covering the production, use and distribution of alcohol and tobacco products.

Business Plan – A written plan and inventory developed by a business for each facility, site, or branch that provides emergency response guidelines for a release of hazardous materials meeting the requirements of Health and Safety Code Section 25504.

Carboy - A container, usually encased in a protective basket or crate, used to ship hazardous materials, particularly corrosives.

Carcinogen - An agent that produces or is suspected of producing cancer.

Cascade System - Several air cylinders attached in series to fill Self-Contained Breathing Apparatus (SCBA) bottles.

Catastrophic Incident - An event that significantly exceeds the resources of a jurisdiction.

Cease and Desist Order- Legal direction to stop any and all activities.

Celsius (Centigrade) °C - The internationally used scale for measuring temperature, in which 1OO° is the boiling point of water at sea level (1 atmosphere), and O° is the freezing point.

Center for Disease Control (CDC) - The federally-funded research organization tasked with disease control and research.

CERCLA Hazardous Substance (Reportable Quantity Chemicals) – A Superfund Hazardous Substance listed in Table 302.4 of 40 CFR Part 302.4 which subjects facilities to CERCLA and Title III release notification. See “Reportable Quantity.”

CFR - 1. Crash, Fire, Rescue personnel trained in aircraft fire fighting and rescue. 2. Code of Federal Regulations; enforced by federal and state agencies and contain statutes for the function of federal government.

CGA - See Compressed Gas Association.

Chemical Abstracts Service (CAS) Number - A numbering system assigned by the American Chemical Society often used by local and state hazardous materials compliance legislation for tracking chemicals in the workplace and in the community.

Chemical Hazards Response Information System Hazard Assessment Computer System (CHRIS/HACS) - Developed by the Coast Guard, HACS is a computerized model of the CHRIS manuals (containing chemical-specific data), and is used by federal on-scene coordinators during a chemical spill response.

Chemical Manufacturer - An employer with a workplace where chemical(s) are produced for use or distribution.

Chemical Manufacturers Association – The parent organization of operates CHEMTREC.

Chemical Name - Scientific designation of a chemical in accordance with the nomenclature system developed by the international Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Chemical Protective Clothing Material - Any material or combination of materials used in an item of clothing for the purpose of isolating parts of the wearer's body from contact with a hazardous chemical.

Chemical Protective Suit - Single or multi-piece garment constructed of chemical protective clothing materials designed and configured to protect the wearer's torso, head, arms, legs, hands, and feet.

Chemical Resistance - The ability to resist chemical attack. The attack is dependent on the method of test and its severity is measured by determining the changes in physical properties. Time, temperature, stress, and reagent may all be factors that affect the chemical resistance of a material.

Chemical Resistant Materials - Materials that are specifically designed to inhibit or resist the passage of chemicals into and through the material by the processes of penetration, permeation or degradation.

Chemical Transportation Emergency Center (CHEMTREC) - The Chemical Transportation Center, operated by the Chemical Manufacturers Association (CMA), can provide information and technical assistance to emergency responders.

Chemnet – A mutual aid network of chemical shippers and contractors. It is activated when a member shipper cannot respond promptly to an incident involving chemicals (contact is made through CHEMTREC).

CHLOREP - The chlorine emergency plan, established by the Chlorine Institute, enables the nearest producer of chlorine to respond to an incident involving chlorine (contact is made through CHEMTREC)

Chlorine Kits – Standardized kits commercially manufactured by contract with the Chlorine Institute to provide equipment to control or stop leaks in chlorine cylinders, tanks, and transportation tank cars.

Chronic - Of long duration or having frequent recurrence. Chronic health effects are those that become apparent or continue for some time after exposure to hazardous chemicals.

Chronic Effect – Delayed or slowly developing harm resulting from a chemical exposure which is often hard to recognize.

Clandestine Laboratory - An operation consisting of a sufficient combination of apparatus and chemicals that either have been or could be used in the illegal manufacture/synthesis of controlled substances.

Clean Air Act - A set of national standards for ambient air quality which defines the principal types and levels of pollution that should not be exceeded. This law requires states to develop "state implementation plans" for achieving the ambient air standards in each air quality control region in the state.

Cleanup - Incident scene activities directed toward removing hazardous materials, contamination, debris, damaged containers, tools, din, water, and road surfaces in accordance with proper and legal standards, and returning the site to as near a normal state as existed prior to the incident.

Cleanup Company (Hazardous Waste) - A commercial business entity available for hire to specifically remove, transport and/or dispose of hazardous wastes; and when appropriate, must meet Nevada Division of Environmental Protection requirements.

Cleanup Operation - An operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleaned up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

Clean Water Act (CWA) - Federal legislation to protect the nation's water and set state water quality standards for interstate navigable waters as the basis for pollution control and enforcement. The main objective is to restore and maintain the chemical, physical and biological integrity of the nation's waters.

Cold Zone (Support Zone) - The area outside of the contamination reduction zone (warm zone). Equipment and personnel are not expected to become contaminated in this area. This is the area where resources are assembled to support the hazardous materials operation.

Colorimetric Tubes – Glass tubes containing a chemically treated substrate that reacts with specific airborne chemicals to produce a distinctive color. The tubes are calibrated to indicate approximate concentrations in air.

Combined Liquid Waste Sampler (Coliwassa) - A tool designed to provide stratified sampling of a liquid container.

Combustibility - The ability of a substance to undergo rapid chemical combination with oxygen, with the evolution of heat.

Combustible Liquid - Liquids with a flash point above 1OO°F

Combustion Product - By-products produced or generated during the burning or oxidation of a fuel.

Command - The act of directing, ordering and/or controlling resources by virtue of explicit legal, agency, or delegated authority.

Command Post - The location from which all incident operations are directed and planning functions are performed. The communications center is often incorporated into the command post.

Community Awareness and Emergency Response (CAER) - A program developed by the Chemical Manufacturers Association (CMA) to provide guidance for chemical plant managers to assist them in taking the initiative in cooperating with local communities developing integrated hazardous materials response plans.

Community Emergency Coordinator - A person appointed for the local emergency planning committee (pursuant to SARA), who makes determinations necessary to implement plans, and who receives official emergency notification of releases.

Community Right-to-Know - Legislation requiring business establishments to provide chemical inventory information to local agencies or the public.

Company (Fire Usage) - Any piece of fire response equipment having a full complement of personnel.

Compatibility - The matching of protective chemical clothing to the hazardous material involved to provide the best protection for the worker.

Compatibility Charts - Permeation and penetration data supplied by manufacturers of chemical protective clothing to indicate chemical resistance and breakthrough time of various garment

materials as tested against a battery of chemicals. This test data should be in accordance with ASTM and NFPA standards.

Comprehensive Cooperative Agreement (CCA) - For each state, a single budgetary vehicle for applying for and receiving financial assistance for several discrete FEMA-administered programs. Negotiated separately for each State via FEMA Regional offices. Mechanism for distribution of Title III training grants.

Comprehensive Emergency Management (CEM) - An integrated approach to the management of emergency programs and activities for all four emergency phases (mitigation, preparedness, response, and recovery), for all types of emergencies and disasters (natural, manmade, and attack), and for all levels of government (local, State, and Federal) and the private sector.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – Known as CERCLA or SUPERFUND, it addresses hazardous substance releases into the environment and the cleanup of inactive hazardous waste sites it also requires those who release hazardous substances as defined by the Environmental Protection Agency (EPA), above certain levels (known as "reportable quantities") to notify the National Response Center.

Compressed Gas - Any material or mixture having an absolute pressure exceeding 40 psi in the container at 70° F, or regardless of the pressure at 70° F having an absolute pressure exceeding 104 psi at 130° F; or any liquid flammable material having a vapor pressure exceeding 40 psi absolute at lOO° F as determined by testing. Also includes cryogenic or refrigerated liquids with boiling points lower than 130° F at 1 atmosphere.

Compressed Gas Association (CGA) – Firms producing and distributing compressed, liquefied, and cryogenic gases; also manufacturers of related equipment. Submits recommendations to appropriate government agencies to improve safety standards and methods of handling, transporting, and storing gases; acts as advisor to regulatory authorities and other agencies concerned with safe handling of compressed gases; collaborates with national organizations to develop specifications and standards of safety.

Computer Aided Management of Emergency Operations (CAMEO) - A computer data base storage-retrieval system of pre-planning and emergency data for on-scene use at hazardous materials incidents.

Confinement - Procedures taken to keep a material in a defined or localized area.

Consignee - The addressee to whom an item is shipped.

Contact - Being exposed to an undesirable or unknown substance that may pose a threat to health and safety.

Container – Any device, in which a hazardous material is stored, transported, disposed of, or otherwise handled.

Container, Intermodal, ISO - An article of transport equipment that meets the standards of the International Organization for Standardization (ISO), designed to facilitate and optimize the carriage of goods by one or more modes of transportation without intermediate handling of the contents and equipped with features permitting ready handling and transfer from one mode to another. Containers may be fully enclosed with one or more doors, open top, tank, refrigerated open rack, gondola, flat rack, and other designs. Included in this definition are modules or arrays that can be coupled to form an intrinsic unit regardless of intention to move single or in multiplex configurations.

Containment - All activities necessary to bring the incident to a point of stabilization and to establish a degree of safety for emergency personnel greater than existed upon arrival.

Contamination - An uncontained substance or process that poses a threat to life, health, or the environment.

Contamination Control Line - The established line around the contamination reduction zone that separates it from the support zone.

Contamination Reduction Zone (Warm Zone) - Term used to identify the area of moderate hazard where threat of contamination spread to the immediate surrounding area is low. It is the area immediately outside of the inner exclusion zone. The area where personnel and equipment decontamination and Exclusion Zone support takes place. It includes control points for the access corridor and thus assists in reducing the spread of contaminants. This is also referred to as the Decontamination Zone, Warm Zone, Yellow Zone, or Limited Access Zone.

Contingency Plan - A document presenting an organized and coordinated plan of action to limit potential pollution in case of fire, explosion or discharge of hazardous materials; defines specific responsibilities and tasks.

Control - The procedure, 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 (see Support Zone, Contamination Reduction Zone (Warm Zone), Exclusion Zone (Hot Zone), and Decontamination Corridor).

Coordination - To bring together, in a uniform and controlled manner, the functions of all agencies on scene.

Corrosive - The ability to cause destruction of living tissue or many solid materials surfaces by chemical action.

Cost Recovery - A procedure that allows for the agency having jurisdiction to pursue reimbursement for all costs associated with a hazardous materials incident.

Critical Facilities – Facilities essential to emergency response, such as fire stations, police stations, hospitals and communication centers.

Cryogenic - Gases, usually liquefied, that induce freezing temperatures of -15O° F and below (liquid oxygen, liquid helium, liquid natural gas, and liquid hydrogen, etc.)

Damage Assessment - Gathering information on the type, extent, and costs of damage after an incident.

Damming - A procedure consisting of constructing a dike or embankment to totally immobilize a flowing waterway contaminated with a liquid or solid hazardous substance.

Danger When Wet - A label required for water-reactive materials (solid) being shipped under US DOT, ICAO, and IMO regulations. A labeled material that is in contact with water or moisture may produce flammable gases. In some cases, these gases are capable of spontaneous combustion.

De-Con - Popular abbreviation referring to the process of decontamination.

Decontamination - The physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a hazardous materials incident (also referred to as "contamination reduction").

Decontamination Corridor - A distinct area within the Contamination Reduction Zone that functions as a protective buffer and bridge between the Exclusion Zone and the Support Zone, where decontamination stations and personnel are located to conduct decontamination procedures.

Decontamination Officer - A position within the FIRESCOPE ICS HM~l2O which has responsibility for identifying the location of the decontamination corridor, assigning stations, managing all decontamination procedures, and identifying the types of decontamination necessary.

Decontamination Team (Decon Team) - A group of personnel and resources operating within a decontamination corridor.

Degradation – The loss in physical properties of an item of protective clothing due to exposure to chemicals, use, or ambient conditions.

Delayed Toxic Exposure Effect - The condition in which symptoms of an exposure are not present immediately after the exposure, but are delayed for a relatively short period of time (such as pulmonary edema a few hours after an inhalation exposure).

Deleterious Substances - Substances not normally harmful to humans that may be harmful to the environment.

Desiccant - A substance, such as silica gel, that removes moisture (water vapor) from the air to maintain a dry atmosphere in containers of food or chemical packaging.

Detectors:

Combustible Gas Indicator (CGI) Detector – Measures the presence of combustible gas or vapor in air.

Corrosivity (pH) Detector - A meter or paper that indicates the relative acidity or alkalinity of a substance, generally using an international scale of 0 (acid) through 14 (alkali-caustic).

Flame Ionization Detector (FID) - A device used to determine the presence of hydrocarbons in air.

Gas Chromatograph/Mass Spectrometer Detector – An instrument used for identifying and analyzing organics.

Photo-Ionization Detector (PID) - A device used to determine the presence of gases/vapors in low concentrations in air.

Heat Detector - An instrument used to detect heat by sensing infra-red waves.

Radiation Beta Survey Detector - An instrument used to detect beta radiation.

Radiation Dosimeter Detector - An instrument which measures the amount of radiation to which a person has been exposed.

Radiation Gamma Survey - Detector instrument used for the detection of ionizing radiation principally gamma radiation, by means of a gas-filled tube.

Temperature Detector - An instrument, either mechanical or electronic, used to determine the temperature of ambient air, liquids, or surfaces.

Diamond (NFPA 704M) - Four-segment diamond placed on outside of fixed-site locations; color-coded segments indicate categories and levels of health, flammability and reactivity risks to responding emergency units.

Dike - An embankment or ridge, natural or man-made, used to control the movement of liquids, sludges, solids, or other materials.

Dike Overflow A dike constructed in a manner that allows uncontaminated water to flow unobstructed over the dike while keeping the contaminant behind the dike.

Dike Underflow - A dike constructed in a manner that allows uncontaminated water to flow unobstructed under the dike while keeping the contaminant behind the dike.

Dispersion - To spread, scatter, or diffuse through air, soil, surface or ground water.

Disposal Drum - A reference to a specially constructed drum used to overpack damaged or leaking containers of hazardous materials for shipment.

Diversion – The intentional, controlled movement of a hazardous material to relocate it to an area where it will pose less harm to the community and the environment.

Division - The organizational level within the Incident Command System having responsibility for operations within a defined geographic area. A Division Officer directs approximately five companies, and answers to the Operations Officer.

DOD - Department of Defense.

Dose - The amount of substance ingested, absorbed, and/or inhaled per exposure period.

DOT - Department of Transportation.

Double Gloving - A set of gloves worn over those already in place for enhanced protection.

Downwind - in the direction in which the wind blows.

Dust - Solid particles generated by handling crushing, grinding, rapid impact, detonation, and decrepitation of organic or inorganic materials such as rock, ore, metal, coal., wood, and grain.

Ecology - A branch of science concerned with the interrelationship of organisms and their environments.

Economic Poison - As defined in the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), an economic poison is "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, or weeds or any other forms of life declared to be pests…any substance intended for use as a plant regulator, defoliant, or desiccant." As defined, economic poisons are generally known as pesticides.

Ecosystem - A habitat formed by the interaction of a community of organisms with their environment.

Edema - The swelling of body tissues resulting from fluid retention.

Emergency Management - Organized analysis, planning, decision-making, assignment, and coordination of available resources to the mitigation of, preparedness for, response to, or recovery from major community-wide emergencies. Refer to local and state emergency legislation.

Emergency Medical Services (EMS) - Functions as required to provide emergency medical care for ill or injured persons by trained providers.

Emergency Medical Services - Agency Plans and coordinates local public and private emergency medical services systems sets the local standards for medical and transportation of victims.

Emergency Operations Center (EOC) - The secured site where government officials exercise centralized direction and control in an emergency The EOC serves as a resource center and coordination point for additional field assistance. It also provides executive directives to, and liaison for, state and federal government representatives, and considers and mandates protective actions.

Emergency Operations Plan - A document that identifies the available personnel, equipment, facilities, supplies, and other resources in a jurisdiction, and states the method or scheme for coordinated actions to be taken by individuals and government services in the event of natural, man-made, and attack related disasters.

Emergency Response - Response to any occurrence which has or could result in a release of a hazardous substance.

Emergency Response Guidebook (ERG) - Published and distributed by DOT for response personnel's initial use on-scene at HazMat events. The most recent issue should be used for response. Earlier editions should be discarded.

Emergency Response Organization - An organization that utilizes personnel trained in emergency response.

Emergency Response Personnel - Personnel assigned to organizations that have the responsibility for responding to different types of emergency situations.

Empty Packaging - Any packaging having a capacity of 110 gallons or less that contains only the residue of a hazardous material in Table 2 of 49 CFR l72.5O4.

Endothermic - A process or chemical reaction which is accompanied by absorption of heat.

Engine (Fire Term) - Any emergency response vehicle providing specified levels of pumping, water, hose capacity, and personnel.

Entry Point - A specified and controlled location where access into the Exclusion Zone occurs at a hazardous materials incident.

Entry Team Leader - The Entry leader is responsible for the overall entry operations of assigned personnel within the Exclusion Zone.

Environment - Water, air, and land, and the interrelationship which exists among and between them and all living things.

Environmental Protection Agency (EPA) - The purpose of the EPA is to protect and enhance our environment today and for future generations to the fullest extent possible under the laws enacted by Congress. The EPA's mission is to control and abate pollution in the areas of water air, solid waste, pesticides, noise, and radiation EPA's mandate is to mount an integrated, coordinated attack on environmental pollution in cooperation with state and local governments.

EOC Liaison – Person designated to establish communications between the incident scene and the EOC.

Etiological Agent - A viable microorganism or its toxin, which causes or may cause human disease.

Evacuation - The removal of potentially endangered, but not yet exposed persons from an area threatened by a hazardous materials incident.

Explosive Ordnance Disposal (ROD) - Military or civilian bomb squads.

Extremely Hazardous Substances (EHS) - EPA uses this term for chemicals which must be responsible pursuant to SARA, Title III. The list of these substances and the threshold planning quantities are identified in 40 CFR 355. Releases of extremely hazardous substances as defined by EPA must be reported to the National Response Center, in California, the term Acutely Hazardous Material (AHM) is used. They are identical to the EHS in 40 CFR.

Extremely Hazardous Waste - Any Hazardous Waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling injury, or serious illness caused by the hazardous waste or mixture of hazardous wastes because of its quantity, concentration, or chemical characteristics.

Exclusion Zone (Hot Zone) - An area immediately surrounding a hazardous materials incident which extends far enough to prevent adverse effects from hazardous materials release to personnel outside the zone. This zone is also referred to as the Hot Zone, the Red Zone and the Restricted Zone in other documents.

Exothermic – A process or chemical reaction which is accompanied by the evolution of heat.

Explosion Proof Equipment - Instruments whose enclosure is designed and constructed to prevent the ignition of an explosive atmosphere. Certification for explosion-proof performance is subject to compliance with A5TM standards.

Explosive – Any chemical compound, mixture, or device, of which the primary or common purpose is to function by explosion, i.e., with substantial instantaneous release of gas and heat.

Explosive Class A- Any of nine types of explosives as defined in 49 CFR 173.53. A material which, when it detonates, creates a shock wave which travels faster than the speed of sound.

Explosive Class B - Those explosives which generally function by rapid combustion rather than by detonation and include some explosive devices such as special fireworks, flash powders, some pyrotechnic signal devices, and liquid or solid propellant explosives, including some smokeless powders.

Explosive Class C - Certain types of manufactured articles which contain Class A or Class B explosives, or both, as components, but in restricted quantities, and certain types of fireworks. This includes small arms ammunition.

Exposure - The subjection of a person to a toxic substance or harmful physical agent through any route of entry.

Fahrenheit (°F) - The scale of temperature in which 212° is the boiling point of water at 760 mm Hg and 320 is the freezing point.

FEMA - Federal Emergency Management Agency, responsible for administering training funds under Title III of SARA. Broader responsibilities include assistance in all aspects of community planning, preparedness and response to the full range of likely disasters and emergencies, including recommendation for a Presidentially-declared disaster area and administration of disaster funds. Provides a range of expertise and administrative skills in community preparedness planning via state emergency offices.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) - An act that requires pesticides to be registered and labeled, makes it illegal to detach or destroy pesticide labels, and provides for pesticide inspections. An amendment to FIFRA now requires EPA to determine whether a pesticide "will perform its intended function without causing unreasonable adverse effects on the environment" or human health.

Federal Water Pollution Control Act (WPCA) - See Clean Water Act.

Fibrosis - A condition marked by an increase of interstitial fibrous tissue.

Filter Canister - A container filled with solvents and catalysts which remove gases and vapors from air drawn through the unit. The canister may also contain an aerosol (particulate) filter to remove solid or liquid particles (air purifying canister type breathing apparatus are not approved for use during emergencies by the fire service in California).

First Responder – The first trained person(s) to arrive at the scene of a hazardous materials incident; May be from the public or private sector.

Responder, Awareness Level - Individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release.

First Responder, Operations Level - Individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting

nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures.

Flammable Liquid - Any liquid having a flash point below 100° (37.8°C).

Flammable Range – A mixture of flammable gas, as mixed with air, expressed as a percent. Each gas has a range including lower limit and upper limit, and between these limits the mixture is flammable (explosive).

Flammable Solid - Any solid material, other than one classed as an explosive, which under conditions normally incident to transportation is liable to cause fires through friction, retains heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious transportation hazard. Included in this class are spontaneously combustible and water-reactive materials.

Flashpoint - The minimum temperature of a liquid at which it gives off vapors sufficiently fast to form an ignitable mixture with air and will flash when subjected to an external ignition source, but will not continue to burn.

Food and Drug Administration (FDA) - Performs, directs, and coordinates detection and control activities which protect consumers against adulterated, misbranded, or falsely advertised foods, drugs, medical devices, and hazardous products.

Full Protective Clothing - Protective clothing worn primarily by firefighters, which includes helmet, coat, pants, boots, gloves, and self-contained breathing apparatus designed for structural firefighting. It does not provide specialized chemical protection.

Fully Encapsulating Suits - Chemical protective suits that are designed to offer full body protection, including Self Contained Breathing Apparatus (SCBA), are gas tight, and meet the design criteria as outlined in NEPA Standard 1991.

Fume - Airborne dispersion consisting of minute solid particles arising from the heating of a solid material such as lead, in distinction to a gas or vapor. This physical change is often accompanied by a chemical reaction, such as oxidation. Fumes flocculate and sometimes coalesce. Odorous gases and vapors should not be called fumes.

Gas - A state of matter in which a material has very low density and viscosity; can expand and contract greatly in response to changes in temperature and pressure; easily diffuses into other gases; readily and uniformly distributes itself throughout any container. A gas can be changed to a liquid or solid state by the combined effect of increased pressure and/or decreased temperature.

Gelling - A process of adding a specific material that is designed to coagulate a liquid facilitating its isolation and removal.

Grounding - Method whereby activities which may generate static electricity will be prevented from discharging a spark and thereby not produce an ignition point.

Group - The organization level within the Incident Command System having responsibility for operations within a specific functional area, i.e., salvage, ventilation, hazmat.

Habitat - Thee native environment of an animal or plant; the natural place for life and growth of an animal or plant.

Halons - Fire suppressing gases that are composed of straight chain carbon atoms with a variety of halogen atoms attached.

Halogens - A chemical family that includes fluorine, chlorine, bromine, and iodine.

Hazard – Any situation that has the potential for causing damage to life, property and/or the environment.

Hazard Assessment - A process used to qualitatively or quantitatively assess risk factors to determine incident operations.

Hazard Class – The eight classes of hazardous materials as categorized and defined by the Department of Transportation in 49 CFR.

Hazard Identification – The Hazard Identification is part FEMA's CPG 1-35, of the "Hazard Identification, Capability Assessment, and Multi-Year Development Plan" (HICA/MYDP, op. Cit.) information system, which is completed (and updated annually) by State and local emergency management organizations. The Hazard Identification provides a structured approach for identifying those hazards judged by local officials to pose a significant threat to their jurisdiction.

Hazardous Air Pollutant - An airborne pollutant that may cause or contribute to an increase in mortality or serious illness.

Hazardous Chemical - A term used by the United States Occupational Safety and Health Administration (OSHA) to denote any chemical that would be a risk to employees if exposed in the workplace. The list of hazardous chemicals is found in 29 CFR.

Hazardous Material - A substance (so lid liquid, or gas) capable of posing an unreasonable risk to health, safety, environment or property.

Hazardous Material Categorization (HAZCAT) - A field analysis process to determine basic hazardous materials hazard classification and some chemical and physical properties of unknown materials.

Hazardous Materials Emergency - The release or threatened release of a hazardous material that may impact the public health, safety and/or environment.

Hazardous Materials Response Team (HMRT) – An organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. A Haz-mat Team may be a separate component of a fire brigade or a fire department or other appropriately-trained and equipped units from public or private agencies.

Hazardous Materials Response Team – Technician level Shall consist of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), trained to function at the hazardous materials incidental the Technician Level in accordance with NFPA 472, Chapter 3 (1990). Additionally, personnel on the team shall be capable of the following:

1. The ability to carry out the duties of the positions as identified in FIRESCOPE ICS-HM 120:

    a) Group Supervisor
    b) Entry Leader
    c) Hazardous Material Safety Officer
    d) Site Access Control
    e) Decontamination leader
    f) Technical Specialist-Hazardous Material Reference

(Multiple positions can be handled by one person depending upon the complexity and/or severity of the incident.)

2. Members shall be assigned positions in accordance with 8 CCR 5192 appropriately trained to include but not be limited to, entry with splash protective clothing

    a) Entry Team - 2
    b) Backup Team - 2

Hazardous Materials Response Team Specialty Level - Shall consist of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), who are trained to function at the hazardous materials incident at the Specialist level in accordance with NFPA Standard 472, Chapter 4 (1990). Additionally, personnel on the team shall be capable of the following:

1. The ability to carry out the duties of these positions as identified in FIRESCOPE 1CS-HM-120:

    a) Group leader
    b) Entry Team leader
    c) Hazardous Material Safety Officer
    d) Site Access Control Officer
    e) Decontamination
    f) Technical Specialist-Hazardous Material Reference

(Multiple positions can be handled by one person depending upon the complexity and/or severity of the incident.)

2. Members shall be assigned positions in accordance with 8 CCR 5192 appropriately trained for entry with vapor protective clothing.

a) Entry Team - 2
b) Backup Team - 2

Hazardous Materials Response Team Specialty - Shall consist of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), who are trained in the hazards of specific hazardous substances, and/or specific techniques or support services, and/or the provision of specialized technical advice and assistance in compliance with 8 CCR 5192(q)(5). The team shall be capable of the following, either within their own team or in agreement with a Hazardous Materials Response Team on scene:

1. The ability to carry out the duties of these positions as identified in Firescope ICS~HM 120:
   a) Group Supervisor
   b) Entry Team Leader
   c) Hazardous Material Safety Officer
   d) Site Access Control Officer
   e) Decontamination Leader
   f) Technical Specialist-Hazardous Materials Reference

(Multiple positions can be handled by one person depending upon the complexity and/or severity of the incident.)

2. Members shall be assigned positions in accordance with 8 CCR 5192 appropriately trained to include, but not be limited to entry with splash protection.

a) Entry Team - 2
b) Backup Team - 2

Hazardous Materials Safety Officer/Official - A person at a hazardous materials incident responsible for assuring that all operations performed at a hazardous materials incident, by all members present, are done so with respect to the highest levels of safety. The Hazardous Materials Safety Officer has full authority to alter, suspend, or terminate any activity that may be judged to be unsafe, advises the hazardous materials group supervisor, and responds to the Incident Commander through the Site Safety Officer.

Hazardous Substance - Hazardous substance, as used by the California Department of Toxic Substances Control, encompasses every chemical regulated by both the Department of transportation (hazardous materials) and the Environmental Protection Agency (hazardous waste), including emergency response.

Hazardous Waste - 1. Waste materials or mixtures of waste which require special handling and disposal because of their potential to damage health and/or the environment. 2. The EPA uses the term "hazardous waste" for chemicals that are regulated under the Resource Conservation and Recovery Act and are listed in 40 CFR 261.33(d). EPA or California Department of Toxic Substances Control regulated hazardous waste, when in transport, must also meet 49 CFR parts 170 through 179. California's list of hazardous waste is more inclusive than EPA's.

Hazardous Waste Facilities - Any location used for the treatment, transfer, disposal or storage or hazardous waste as permitted and regulated by the California Department of Toxic Substances Control.

Hazardous Waste Generation - The act or process of producing hazardous waste.

Hazardous Waste Landfill - An excavated or engineered area in which hazardous waste is deposited and covered. Proper protection of the environment from the materials to be deposited in such a landfill requires careful site selection, good design, proper operation, leachate collection and treatment, and thorough final closure.

Hazardous Waste Leachate - Any liquid that has percolated through or drained from hazardous waste emplaced in or on the ground.

Hazardous Waste Management - Systematic control of the collection, source separation, storage, transportation processing, treatment, recovery, and disposal of hazardous wastes.

Hazardous Waste Manifest, **Uniform CE PA use) –** The shipping document, originated and signed by the waste generator or an authorized representative that contains the information required by law and must accompany shipments of hazardous waste.

Hazardous Waste Site - A location where hazardous wastes are located.

Hazards Analysis - The procedure for identifying potential sources of a hazardous material release, determining the vulnerability of an area to a hazardous materials release, and comparing hazards to determine risks to a community.

Hazards Identification - Provides information on which facilities have extremely hazardous substances (EHSs), what those chemicals are, and how much there is at each facility. Also provides information on how the chemicals are stored and whether they are used at high temperatures. Mandatory facility reporting under Title III will provide most of the information needed for hazards identification.

HAZCAT - See Hazardous Materials Categorization.

Hazmat - Acronym for hazardous materials.

Health Hazard, Chemical - Any chemical or chemical mixture, whose physical or chemical properties may cause acute or chronic health effects.

Heavy Metal - A high density metallic element that may demonstrate health hazards as a result of exposure and may contribute to contamination of the environment. This includes chromium (Cr), beryllium (Be), lead (Pb), mercury (Hg), zinc (Zn), copper (Cu), cadmium (Cd) and others.

Hepatotoxic - A substance that negatively affects the liver.

Herbicide – An agricultural chemical intended for killing plants or interrupting their normal growth.

High Performance Liquid Chromatography (HPLC) - A procedure used in organics analysis to separate chemical mixtures based on differential ionic absorption to various substrates.

Hot Tapping - A sophisticated method of welding on, and the cutting of holes through liquid compressed gas vessels and piping for the purpose of relieving pressure and/or removing product.

Hot Zone (Exclusion Zone) – An area immediately surrounding a hazardous materials incident which extends far enough to prevent adverse effects from hazardous materials release to personnel outside the zone. This zone is also referred to as the Exclusion Zone, the Red Zone and the Restricted Zone in other documents.

Hygroscopic - A substance that has the property of absorb of moisture from the air, such as silica gel.

Hypergolic - Two chemical substances that spontaneously ignite upon mixing.

Ignitable Material - Any material having, as a liquid, a flash point less than l4O° F or, if not a liquid, is capable of causing fire through friction absorption of moisture, or spontaneous chemical changes.

Ignition Temperature – The minimum temperature at which a material will initiate or maintain combustion.

Immediately Dangerous to Life or Health (IDLH) - An atmospheric concentration of any toxic, corrosive, or asphyxiate substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere.

Incident - An event involving a hazardous material or a release, or potential release, of a hazardous material.

Incident Action Plan – A plan which is initially prepared at the first meeting of emergency personnel who have responded to an incident. The Incident Action Plan contains general control objectives reflecting overall incident strategy and specific action plans.

Incident Command - A disciplined method of management established for the specific purpose of control and direction of resources and personnel.

Incident Commander (IC) – The person responsible for all decisions relating to the management of the incident within an area, agency, facility or political subdivision.

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

Incompatible Waste - Waste unsuitable for commingling with another waste or material.

Industrial Wastes – Unwanted materials produced in or eliminated from an industrial operation.

Infectious Waste – Waste containing pathogens; may consist of tissues organs, body parts, blood, and/or body fluids.

Ingestion - The process of taking substances such as food, drink, and medicine into the body through the mouth.

Inhibitor – A chemical added to another substance to prevent or slow down an unwanted or sudden occurrence of chemical change.

Inorganic Compounds - Chemical compounds that do not contain the element carbon with the exception of carbon oxides and carbon sulfides.

Insecticide - A chemical product used to kill and control insects.

Investigate – To systematically search or inquire into the particulars of an incident, and collect the necessary evidence to seek criminal and/or civil prosecution.

Irritant - A material that has an anesthetic irritating, noxious, toxic, or other similar property which can cause extreme annoyance or discomfort.

Isolating the Scene – Preventing persons and equipment from becoming exposed to a release or threatened release of a hazardous material by the establishment of site control zones.

Labpack - Putting multiple small containers of chemicals with compatible chemical characteristics in a disposal drum with absorbent material.

Lacrimation – Tearing produced by eye irritation.

LC50 (Lethal Concentration, 50%) - The amount of a toxicant in air which is deadly to 50% of the exposed lab animal population within a specified time.

LD50 (Lethal Dose 50%) - The amount of a toxicant administered by other than inhalation which is deadly to 50% of the exposed lab animal population within a specified time.

Leak – The uncontrolled release of a hazardous material which could pose a threat to health, safety, and/or the environment.

Leak Control Compounds - Substances used for the plugging and patching of leaks in unpressurized containers, and some low-pressure containers.

Leak Control Devices – Tools and equipment used for the plugging and patching of leaks in unpressurized and some low-pressure containers, pipes, and tanks.

Lethal – Causing or capable of causing death.

Level of Protection – In addition to appropriate respiratory protection designations of types of personal protective equipment to be worn based on NFPA standards, Level A - Vapor protective suit for hazardous chemical emergencies, Level B - Liquid splash protective suit for hazardous chemical emergencies, Level C - Limited use protective suit for hazardous chemical emergencies.

Level One Incident - Hazardous materials incidents which can be correctly contained extinguished, and/or abated utilizing equipment, supplies, and resources immediately available to first responders having jurisdiction, and whose qualifications are limited to and do not exceed the scope of training as explained in S CCR 5192 or California Government Code, Chapter 1503, with reference to First Responder, Operational level."

Level Two Incident - Hazardous materials incidents which can only be identified, tested sampled, contained, extinguished, and/or abated utilizing the resources of a hazardous Materials Response Team, which requires the use of specialized chemical protective clothing, and whose qualifications are explained in 8 CCR 5192 or California Government Code, Chapter 1503, with reference to Hazardous Materials Technician level.

Level Three Incident – A hazardous materials incident which is beyond the controlling capabilities of a Hazardous Materials Response Team (Technician or Specialist Level) whose qualifications are explained in 8 CCR 5192 or California Government Code, Chapter 1503; and/or requires the use of two or more Hazardous Materials Response Teams; and/or must be additionally assisted by qualified specialty teams or individuals.

LOC - Level of Concern. The concentration of an extremely hazardous substance (EHS) in the air above which there may be serious irreversible health effects or death as a result of a single exposure for a relatively short period of time.

Local Emergency Planning (LEPC) - A committee appointed by a state emergency response commission, as required by SARA Title III, to formulate a comprehensive emergency plan for its corresponding Office of Emergency Services mutual aid region.

Localized Exposure – Contact with a limited area, usually an external body surface.

Logistics Chief – The organizational position within the Incident Command System having responsibility for summoning and managing support apparatus, equipment and personnel.

Lower Explosive Limit (LEL) - The lowest concentration of a material in air that can be detonated by spark shock, or fire, etc.

Macro-Encapsulation - The isolation of a waste by embedding it in, or surrounding it with, a material that acts as a barrier to water or air (e.g., clay and plastic liners).

Manifest, Uniform Hazardous Waste - A document required by 40 CFR 262 to accompany any shipment of hazardous waste from the point of generation to the point of final disposal/destruction.

Marking - The required descriptive name, instructions, cautions, weight, or specifications or combination thereof on containers of hazardous materials or hazardous waste.

Material Safety Data Sheet (MSDS) – A document which contains information regarding the specific identity of hazardous chemicals, including information on health effects, first aid, chemical and physical properties, and emergency contacts.

Melting Point -The temperature at which a material changes from a solid to a liquid.

Micro Organism - A living organism not directly visible to the unaided eye.

Midnight Dumping – Illegal disposal of hazardous materials.

Mist - Suspended liquid droplets generated by condensation from the gaseous to the liquid state or by breaking up a liquid into a dispersed state; such as by splashing, foaming, or atomizing. A mist is formed when a finely divided liquid is suspended in air.

Mitigation – Any action employed to contain, reduce, or eliminate the harmful effects of a spill or release of a hazardous material.

Monitoring – The act of systematically checking to determine contaminant levels and atmospheric conditions.

Monitoring Environmental Contamination – Use of instruments and other techniques to determine the presence or levels of hazardous materials.

Monitoring Equipment - Instruments and devices used to identify, qualify, and/or quantify contaminants.

MSDS - see Material Safety Data Sheet.

Mutagen - A substance capable of causing genetic damage.

Mutual Aid - An agreement to supply specifically agreed upon aid or support in emergency situation between two or more agencies, jurisdictions, or political subdivisions.

Narcosis - Stupor or unconsciousness produced by chemical substances.

National Contingency Plan (NCP) – Created by CERCLA to define the federal response authority and responsibility for oil and hazardous materials spills.

National Fire Protection Association (NFPA) - An international voluntary membership organization to promote improved fire protection and prevention establish safeguards against loss of life and property by fire. Publishes the American National Standards.

National Interagency Incident Management System (NIIMS) - A standardized systems approach to incident management that consists of five major subdivisions which collectively provide a total systems approach to all-risk incident management.

National Institute for Occupational Safety and Health (NIOSH) - A federal agency which among other activities tests and certifies respiratory protective devices air sampling detector tubes, and recommends occupational exposure limits for various substances.

National Oceanic and Atmospheric Administration (NOAA) - The agency responsible to serve as Scientific Support Coordinator for a federal On-Scene Coordinator. Assists in oil spill and air toxics modeling, meteorological monitoring, and oceanic research.

National Pesticide Telecommunications Network (NPTN) - The 24 hour toll free national hotline (1-800/858-PEST) operated by the Texas Tech University School of Medicine providing information about pesticide safety, application, chemistry and toxicology to callers in the U.S., Puerto Rico and the Virgin Islands. Questions are answered directly or via next day mail.

National Response Center (NRC) - A communications center in Washington, D.C. operated by the United States Coast Guard. They provide information on suggested technical emergency actions, and must be notified by a spiller within 24 hours of any hazardous substance spill of a reportable quantity.

National Response Team (NRT) – Organization of representatives from 14 federal agencies with responsibility for national planning and coordination (interagency and inter-jurisdictional) of CERCLA objectives.

Necrosis - Death in a particular part of a living tissue.

Nephrotoxic - A substance that adversely affects the kidneys.

Neurotoxin - A substance that adversely affects the nervous system.

Neutralization - The process by which acid or alkaline properties of a solution are altered by addition of certain reagents to bring the hydrogen and hydroxide concentrations to equal value (pH 7 is neutral).

Non-flammable Gas - Any material or mixture, in a cylinder or tank, other than poison or flammable gas, having an absolute pressure in the container exceeding 40 psi at 7O°F, or having an absolute pressure exceeding 104 psi at l3O°F.

North American (NA) Number - A four digit number used in the United States and Canada to identify a hazardous material or group of hazardous materials in transportation

Not Otherwise Specified (NOS or n.o.s.) - In shipping regulations, the term is used for classes of substances to which restrictions apply, but for which the individual members of the class are not listed in the regulations.

NRT-1 – Emergency Planning Guide issued by NRT, dated March 1987; fulfills Congressional requirement for unified Federal guidance document for HazMat emergency planning. Product of numerous inputs from State and local government, industry, emergency planners, environmental groups, and the public. Known to some as the "orange book," and is a key, central document for LEPC/SERC guidance.

NRT-1A - "Criteria for Review of Hazardous Materials Emergency Plans," issued by NRT in May 1988, to assist communities in assessing the effectiveness of their plans. Derived in part from FEMA documents such as CPG 1-8, 1-8a and NRT-1.

Occupational Safety and Health Administration (OSHA) - Component of the United States Department or Labor, an agency with safety and health regulatory and enforcement authorities for most United States industries, businesses, and states.

Odor Threshold - The lowest concentration in the atmosphere which can be detected by the human sense of smell. Often a poor indicator of toxicity risk.

Office of Hazardous Materials Safety (OHMS) - A federal agency tasked with the research and recommended revisions to 49 CFR.

Oil - Any of numerous mineral, vegetable, and synthetic substances and vegetable and animal fats that are generally slippery, combustible, viscous, liquid, or liquefiable at room temperature,

Oil Spill Clean-up Agent - Any material used in removing oil from the environment, including inert sorbent materials, approved chemical dispersants, surface collecting agents, sinking agents, and biological additives.

Olfactory - Pertaining to the sense of smell.

On-Scene Coordinator (OSC) - As explained in the National Contingency Plan, it is the pre-designated federal official who coordinates federal activities at a hazardous materials incident, and monitors the incident for compliance with federal pollution laws.

Operations - The organizational level within the Incident Command System immediately subordinate to the Incident Commander. When established, this position is responsible for the direct management of all incident tactical activities.

Oral Toxicity - Adverse effects resulting from taking a substance into the body through the mouth.

Organic Peroxide - Strong oxidizers, often chemically unstable, containing the o-o structure. They react readily with solvents or fuels, resulting in an explosion or fire.

Other Regulated Materials A (ORM A) - A material which has an anesthetic, irritating, noxious, toxic, or other similar property and which can cause extreme annoyance or discomfort to passengers and crew in the event of leakage during transportation.

Other Regulated Materials B (ORM B) - A material (including a solid when wet with water) capable of causing significant damage to a transport vehicle from leakage during transportation.

Other Regulated Materials C (ORM C) - A material which has other inherent characteristics not described as an ORM A or ORM B, but which make it unsuitable for shipment unless properly identified and prepared for transportation.

Other Regulated Materials D (ORM D) - A material, such as a consumer commodity, which presents a limited hazard during transportation due to its form quantity, and packaging.

Other Regulated Materials E (ORM E) - A material that is not included in any other hazard class, but is subject to the requirements of 49 CFK 173.500. This includes hazardous waste.

Overpack – An enclosure used to consolidate two or more packages of hazardous material. "Overpack" does not include a freight container.

Oxidizer - A chemical, other than a blasting agent or explosive, that initiates or promotes combustion in other materials, thereby causing fire, either of itself or through the release of oxygen or other gases.

Oxygen Deficiency - A concentration of oxygen insufficient to support life.

Oxygen Deficient Atmosphere - An atmosphere which contains an oxygen content less than l9.5 % by volume at sea level.

Pacific Strike Team - The National Strike Force pollution control team equipped and trained to assist in responses to oil or chemical incidents occurring in the western United States and administered by the United States Coast Guard.

Pallets - A low portable platform constructed of wood, metal, plastic, or fiberboard, built to specified dimensions on which supplies are loaded, transported or stored in units.

Parts Per Billion (ppb) - A unit for measuring the concentration of a particular substance equal to one unit combined with 999,999,999 other units.

Parts Per Million (ppm) - A unit for measuring the concentration of a particular substance equal to one unit combined with 999,999 other units.

Pathogen - Any disease-producing organism, including viruses.

PCB Contaminated Electrical Equipment - Any electrical equipment, including transformers, that contains at least 50 ppm but less than 500 ppm of PCBs.

PCB Item - An item containing PCBs at a concentration of 5 ppm or greater.

PCB Transformer - Any transformer that contains 500 ppm of PCBs or greater.

Penetration - The movement of liquid molecules through a chemical protective clothing, suit, garment, or material.

Permeation - The movement of vapor or gas molecules through a chemical protective garment material.

Permeation Kits - Kits assembled for the purpose of testing on-site an unknown liquid substance for permeability of chemical protective clothing.

Permissible Exposure Limit (PEL) - The employees permitted exposure limit to any material listed in Table ZI, Z-2 or Z-3 of OSHA regulations, section 19l0.1000, Air Contaminants.

Persistent Toxic Substance - A material or waste that resists natural degradation or detoxification and may present long term health and environmental hazards.

Personal Protective Equipment (PPE) - 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: personal protective clothing, self-contained positive pressure breathing apparatus, and air purifying respirators.

Pesticides - A chemical or mixture of chemicals used to destroy, prevent or control any living organism considered to be a pest.

pH - A numerical designation of the negative logarithm of hydrogen ion concentration. A pH of 7.0 is neutral; higher values indicate alkalinity and lower values indicate acidity.

Physical Hazard - Chemical for which there is scientifically-valid evidence that it is a combustible liquid, a flammable gas, explosive, flammable an organic peroxide, an oxidizer, pyrophoric, unstable reactive, or water reactive.

Placard [UN/NA] - Required on all four sides of all transport vessels, [UN/NA] displaying UN class code and four-digit identification number for contained hazardous material, within an 11- inch diamond.

Plugging and Patching Kits - Kits commercially available or privately assembled for emergency plugging and patching of leaking containers, pipes, and tanks.

Plume - A vapor, liquid, dust, or gaseous cloud formation which has shape and buoyancy

Pnennonitis - Inflammation of the lungs, characterized by an outpouring of fluid in the lungs.

Poison Class A - Poisonous gases or liquids of such a nature that a very small amount of the gas, or vapor of the liquid, mixed with air is dangerous to life.

Poison Class B - Substances, liquids, or solids other than Poison Class A or irritating materials, which are known to be so toxic to man as to afford a hazard to health.

Pollution - Contamination of air, water, land, or other natural resources that will, or is likely to create, a public nuisance and cause health and environmental harm.

Po1ychlorinated Biphenyl (PCB) - One of several aromatic compounds containing two benzene nuclei with two or more chlorine atoms.

Polymerization - A chemical reaction usually carried out with a catalyst, heat, or light, and often under high pressure, which generates high temperature and when uncontrolled, may be violent.

Post-Emergency Response - That portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the site has begun.

Post-Incident Analysis - The termination phase of an incident that includes completion of the required forms and documentation for conducting a critique

Pre-Incident Planning - The process associated with preparing for the response to a hazard by developing plans, identifying resources, conducting exercises, and other techniques to improve an agency's or organization's response capabilities.

Product Substitution - Replacing a hazardous substance in a process with a less hazardous substance.

Proper Shipping Name - The DOT designated name for a commodity or material.

Protective Clothing - See Personal Protective Equipment (PPE).

PRP - Potentially Responsible Party: party most likely responsible for a pollution incident; has the liability for its proper cleanup and disposal and should initiate appropriate actions. State and local governments have the immediate responsibility for resolving threats to public health and safety. When appropriate action is being taken by responsible party and/or the state or local government, the federal government may only monitor the situation. When the responsible party is unknown, unwilling or unable to respond properly, and an incident exceeds the capabilities of state and local governments, the activation of federal response resources may be appropriate. The relationships among various on-scene authorities are best addressed through preplanning.

Public Information Officer (PIO) - An individual assigned to act as the liaison between an Incident Commander and the news media.

Pulmonary - Pertaining to the lungs.

Pyrophoric - A substance that ignites spontaneously in dry or moist air at or below l30°F.

Qualitative Fit Test - A physical testing of a breathing apparatus face piece to the wearer, performed in an atmosphere of amyl acetate or irritant smoke to evaluate whether the wearer can detect the contaminant, indicating mask leakage and improper fit.

Radiation Absorbed Dose (RAD) - A basic unit of absorbed dose of ionizing radiation.

Radioactive - The spontaneous disintegration of unstable nuclei accompanied by emission of nuclear radiation.

Radioactive Material (RAM) - Any material, or combination of materials, that spontaneously emits ionizing radiation and has a specific activity greater than 0.002 microcuries per gram.

Recorder - SeeTechnical Specialist Hazardous Materials Reference.

Recovery Drum - See Disposal Drum.

Reference Library - A selection of chemical text books, reference books, microfiche, and computer data programs typically carried by a hazardous materials response team.

Regional Plan - A hazardous materials response plan developed pursuant to SARA Title III.

Regional Response Team - Composed of representatives of the federal agencies and a representative from each state in the ten federal EPA regions as specified in the NCP.

Regional Water Quality Control Board (RWQCB) - The agency charged with managing statewide water quality.

Release, Threatened Release - The actual or potential 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 hazardous material.

Remedial Action - Actions taken to mitigate the effects of a release or threatened release of a hazardous material to protect health or the environment.

Reportable Incident - Any incident that has or may impact public health, safety, or the environment, or is otherwise required by law to be reported.

Reportable Quantity (RQ) - The designated amount of a specific material that if spilled or released requires immediate notification to the National Response Center (NRC).

Rescue - The removal of victims by appropriately trained and equipped personnel from an area determined to be contaminated or otherwise hazardous.

Residue - A material remaining in a package after its contents have been emptied and before the packaging is refilled, or cleaned and purged of vapor to remove any potential hazard.

Resource Conservation and Recovery Act (RCRA) - The federal framework for the proper management and disposal of hazardous wastes. This program is administered by EPA and may be delegated to the states.

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

Responsible Party (RP) - A legally recognized entity (person, corporation, business, or partnership, etc.) that has a legally recognized status of financial accountability and liability for action necessary to abate and mitigate adverse environmental and human health and safety impacts resulting from a non-permitted release or discharge of hazardous material; the person or agency found legally accountable for the cleanup of the incident.

Risk - A measure of the probability that damage to life, property, and/or the environment will occur if a hazard manifests itself; this measure includes the severity of anticipated consequences to people.

Risk Analysis - A process to analyze the probability of harm to tile, property, and the environment due to a hazardous materials incident.

Risk Assessment - Broadly defined as the scientific activity of evaluating the toxic properties of a chemical and the conditions of human exposure to it, with the objective of determining the probability that exposes humans will be adversely affected. Its four main components are:

Hazard Identification - Does the agent cause the effect?

Dose-Response Assessment - What is the relationship between the dose and its incidence in human beings?

Exposure Assessment - What exposures are experienced or anticipated and under what conditions?

Risk Characterization - The combined analysis producing an estimate of the incidence of the adverse effect in a given population.

Risk Management - Decision-making process which involves such considerations as risk assessment, technological feasibility, economic information about costs and benefits, statutory requirements, public concerns, and other factors.

Roentgen - A measure of the charge produced in air created by ionizing radiation, usually in reference to gamma radiation.

Roentgen Equivalent Man (REM) - The unit of dose equivalent; takes into account the effectiveness of different types of radiation.

Rupture - The physical failure of a container or mechanical device, releasing or threatening to release a hazardous material.

Safety Officer - An individual at an emergency incident, selected by the Incident Commander, responsible for ensuring overall operations are conducted in accordance with the highest levels of safety. The Safety Officer shall report directly to the Incident Commander.

Salivation - An excessive discharge of saliva; ptyalism.

Salvage Drum - See Disposal Drum.

Sample - To take a representative portion of a hazardous material for evidence or analytical purposes

Sampling Kits - Kits assembled for the purpose of providing adequate tools and equipment for taking samples and documenting unknown materials to create a chain of evidence.

Scenario – An outline of a natural or expected course of events.

Scene - The location impacted or potentially impacted by a hazard.

Secondary Materials - Spent materials, sludge, byproducts, scrap metal, and commercial chemical products recycled in ways that differ from their normal use.

Selective Toxicity - The capacity of a chemical to injure one kind of living matter without harming another even though the two may be in intimate contact.

Self-Contained Breathing Apparatus (SCRA) - A positive pressure self-contained breathing apparatus (SCBA) or combination SCBA/supplied air breathing apparatus his certified by the National Institute for Occupational Safety and Health (NIOSH) and he Mine Safety and Health Administration (MSHA) or the appropriate approval agency for use in atmospheres that are immediately dangerous to life or health (IDLH)

Sensitizer - A substance which on first exposure causes little or no reaction in humans or test animals, but which on repeated exposure may cause a marked response not necessarily limited to the contact site.

SERC - State Emergency Response Commission, designated by the Governor, responsible for establishing hazmat planning districts and appointing/overseeing Local Emergency Planning Committees.

Sheltering-In-Place/In-Place Protection - To direct people to quickly go inside a building and remain inside until the hazardous materials threat passes.

Shipping Papers - Generic term referring to documents that must accompany all shipments of goods for transportation. These include Hazardous Waste Manifests, Bills of Lading, Consists, etc. Shipping papers are intended to describe what hazardous materials are contained within a shipment if any.

Short Term Exposure Limit (STEL) - A 15 minute time weighted coverage which should not be exceeded at any time during a work day nor repeated more than 4 times per day, even if the 8 hour time-weighted average is within the thresho1d limit value (TLV).

Site - Any facility or Location within the scope of 8 CCR 5192(a)(3).

Skimmer - Physical systems whereby a liquid phase is recovered from another liquid phase due to polarity differences and stored or transferred for further processing. Typical use is to remove petroleum products floating on a body of water.

Sludge - Accumulated solids, semi-solids, or liquid waste generated from wastewater, drilling operations, or other fluids.

Smoke - An air suspension (aerosol) of particles, often originating from combustion or sublimation.

Solidification - Process whereby a contaminant is permanently immobilized in a substrate to prevent future migration away from the container.

Solidity - The ability or tendency of one substance to blend uniformly with another.

Solvents - A liquid substance capable of dissolving or dispersing one or more other substances to form a uniformly dispersed mixture.

Spill - The release of a liquid, powder, or solid hazardous material in a manner that poses a threat to air, water, ground, and to the environment.

Spiller - See Responsible Patty.

Spontaneously Combustible - See Pyrophoric.

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

Staging Area -The safe area established for temporary location of available resources closer to the incident site to reduce response time.

Standard Operating Procedures (SOPs) - Set of instructions having the force of a directive, covering features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness, and implemented without a specific direct order from higher authority.

Stationary Source - A fixed facility from which a release of hazardous materials may originate.

Storage - Containment of hazardous materials on a temporary basis in such a manner as to not constitute disposal of such materials.

Strict Liability - The responsible party is liable even though they have exercised reasonable care.

Superfund - Trust fund established under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Reauthorization Act (SARA) to provide money for cleanups associated with inactive hazardous waste disposal sites.

Superfund Amendments & Reauthorization Act (SARA) - Created for the purpose of establishing federal statutes for right-to-know standards, emergency response to hazardous materials incidents, re-authorized the federal superfund, and mandated states to implement equivalent regulations and/or requirements.

Support Zone (Cold Zone) - The area outside of the contamination reduction zone (warm zone). Equipment and personnel are not expected to become contaminated in this area. This is the area where resources are assembled to support the hazardous materials operation.

Surface Impoundment - A natural depression, human made excavation, or diked area designed to hold an accumulation of liquid wastes or waste containing free liquids.

Synergistic Effect - The combined effect of two chemicals which is greater than the sum of the effect of each agent alone.

Systemic - Pertaining to the internal organs and. structures of the body.

Systemic Toxic Exposure - Toxic effects to the body as a whole spreading via the bloodstream and often displaying delayed symptoms.

Team Leader - See Entry Team leader.

Technical Specialist - **Hazardous Materials Reference** - Person assigned to document activities of the Hazardous Materials Response Team and gather information relevant to the chemicals involved and their hazards.

Teratogen - A substance or agent which can result in malformations at a fetus.

Teratogenicity - Ability to produce birth defects.

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

Thieving Rod - A glass rod used like a coliwassa, except the liquid is contained in the tube by a vacuum pressure.

Threshold - The point where a physiological or toxicological effect begins to be produced by the smallest degree of simulation

Threshold Limit Value (TLV) - The value for an airborne toxic material which is to be used as a guide in the control of health hazards and represents the concentration to which nearly all workers may be exposed 8 hours per day over extended periods of time without adverse effects.

Threshold Limit Value Ceiling (TLV-C) – The concentration that should not be exceeded during any part of the working exposure.

Threshold Limit Value Time Weighted Average (TLV-TWA) - An exposure level under which most people can work consistently for 8 hours a day, day after day, with no harmful effects.

Threshold Planning Quantity (TPQ) - The quantity designated for each extremely hazardous substance that triggers a required notification by facilities to the state emergency response commission that such facilities are subject to reporting under SARA Title III.

Tier I or Tier II - Inventory form for reporting Hazardous Chemicals and Extremely Hazardous Substances. Tier II describes more detailed chemical quantity and location(s) within the facility.

Title III (or SARA) – The "Emergency Planning and Community Right-to-Know Act of 1986." Specifies requirements for organizing the planning process at the State and local levels for specified extremely hazardous substances; minimum plan content; requirements for fixed facility owners and operators to inform officials about extremely hazardous substances present at the facilities; and mechanisms for making information about extremely hazardous substances available to citizens (42 USC annot., sec. 11001, et. Seq.-1986)

Totally Encapsulated Suits - Special protective suits made of materials that prevent toxic or corrosive substances or vapors from coming in contact with the body

Toxic - Poisonous; relating to or caused by a toxin; able to cause injury by contact or systemic action to plants, animals or people.

Toxic Chemicals - EPA uses this term for chemicals whose total emissions and releases must be reported annually by owners and operators of certain facilities that manufacture, process, or otherwise use a listed toxic chemical as identified in SARA Title III.

Toxicity - A relative property of a chemical agent that refers to its harmful effect on some biological mechanism and the conditions under which this effect occurs.

Toxicology - The study of the adverse effects of chemical agents on biological systems.

Trade Secret – Any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

Traffic Control/Crowd Control - Action(s), usually taken by law enforcement personnel to secure and/or minimize exposure of the public to unsafe conditions resulting from emergency incidents, impediments, and congestion.

Treatment - Any method, technique, process which changes the physical, chemical or biological character or composition of any hazardous waste, removes or reduces its harmful properties or characteristics for any purpose.

United Nations Identification Number (UN) - When UN precedes a four digit number it indicates that this identification number is used internationally to identify a hazardous material.

Upper Explosive Limit (UEL) - The highest concentration of the material in air that can be detonated.

Upwind - In or toward the direction from which the wind blows.

Vapor - An air dispersion of molecules of a substance that is normally a liquid or solid at standard temperature and pressure.

Vapor Dispersion - The movement of vapor clouds in air due to turbulence, gravity, spreading, and mixing.

Vapor Protective Suit - See Levels of Protection

Vulnerability - The susceptibility of life, the environment, and/or property to damage by a hazard.

Vulnerability Analysis – Identifies what is susceptible to damage. Should provide information on: extent of the vulnerable zone; population, in terms of size and types that could be expected to be within the vulnerable zone; private and public property that may be damaged, including essential support systems and transportation corridors; and environment that may be affected, and impact on sensitive natural areas and endangered species. Refer to the CEPP technical guidance or DOT's Emergency Response Guidebook to obtain information on the vulnerable zone for a hazardous materials release. A standard vulnerability analysis has been developed by EPA to assist communities in addressing sec. 303 of Title III.

Warm Zone (Contamination Reduction Zone) - The area where personnel and equipment decontamination and Exclusion Zone support takes place. It includes control points for the access corridor and thus assists in reducing the spread of contaminants. This is also referred to as the Decontamination Zone, Contamination Reduction Zone, Yellow Zone or Limited Access Zone.

Water Reactive – The property of reacting violently when contacted by water, generating extreme heat, burning, exploding, or rapidly reacting to produce an ignitable toxic, or corrosive mist, vapor or gas.

SECTION 14: STANDARD OPERATING PROCEDURES

STANDARD OPERATING

PROCEDURES

HAZARDOUS MATERIALS

RESPONSE TEAM

STANDARD OPERATING PROCEDURES
HAZARDOUS MATERIALS RESPONSE TEAM

Table of Contents ***Section***

Revised: 12/99

GENERAL SAFETY PROCEDURES 1-1

PURPOSE
The purpose of this document is to ensure that all personnel operating at the scene of a hazardous materials incident will be operating in the safest manner possible.

PROCEDURE
The safe outcome of all operations is the goal of all hazardous materials incidents. Unsafe acts, potentially dangerous situations, improper protective clothing, or a failure to follow established procedures shall be brought to the individual's attention immediately. This does not relieve the officer of responsibility of the crew, but does place safety awareness and responsibility on every individual of the response unit. In order to ensure the safety of all operating personnel at an incident, the following procedures shall be followed:

Apparatus shall be positioned far enough away from the incident to remain out of harm's way as incident dictates, and shall be faced in the direction of egress or quick exit should conditions worsen.

Avoid driving past the incident area or through a vapor cloud, visible spill, or flow of product. In general, the safest position is uphill and upwind from the incident scene. Until product identification is positively completed, the minimum level of protective clothing to be utilized will be determined by the education, training, and experience of the haz-mat team members.

Controlled access areas (zones) will be set up as soon as possible.

A Site Safety Plan will be developed, and all involved personnel will be briefed as to its contents.

All personnel entering work zones must be adequately trained and briefed as to the practices to be followed in the Site Safety Plan.

Visual contact should be maintained between entry teams, back-up teams, and designated safety personnel.

Make entry and egress through Access Control Points.

A Safety Officer, knowledgeable with operations, will be appointed as soon as possible. Never eat, smoke, or drink at or around hazardous materials incident scenes until you decontaminate and wash hands, face, and hair thoroughly.

Monitoring for flammable atmospheres will be taken around the complete perimeter, especially downhill and downwind.

Avoid contamination at all times (walking or stationing self in vapor cloud, liquid runoff, dust, smoke, and other products; leaning on or kneeling in contaminated objects/areas; or positioning too close to the affected areas).

Any product transfer or handling will be preceded by proper grounding and bonding of the containers.

All entries will be done in pairs of workers in PPE, with an equal number of back-up personnel equally clad. If workers are out of sight (i.e., in a warehouse or in a trailer), a third person shall be used as an observer.

HAZARDOUS MATERIALS RESPONSE 2-1

PURPOSE

The purpose of this document is to ensure personnel safety when responding to hazardous materials incidents.

PROCEDURE

Confirmed Hazardous Materials Incident

In the event of a confirmed hazardous materials release, the following equipment and personnel shall be dispatched and/or notified as per the Incident Commander's request.

- First Alarm Assignment consisting of:
  - 2 (Two) Engines
  - 1 (One) Rescue
  - 1 (One) Battalion Chief
- Hazardous Materials Response Unit
- Hazardous Materials Response Team
- Other agencies and units as needed

Non-Confirmed Hazardous Materials Incident

When a call comes in and it cannot be confirmed that it is a hazardous materials incident, the initial arriving apparatus must evaluate the incident. If the initial apparatus confirms a hazardous material, then the appropriate dispatch will be made at that time.

Dispatch shall advise responding units of the possibility of hazardous materials.

Personnel arriving at an unconfirmed hazardous materials incident may utilize on-duty Hazardous Materials Specialists for technical advice if necessary. This is best accomplished by the use of a telephone, but if the incident is near the location of one of the Specialists, they may be dispatched directly to the scene to evaluate. However, consideration should always be given to any time delay caused by this sort of identification process.

The Hazardous Materials Response Team may be utilized to take samples of substances for assistance in identifying.

LEVEL OF INCIDENT AND PROPER NOTIFICATIONS 3-1

PURPOSE
The purpose of this document is to assure that the proper notifications are made and that they comply with local, state, and federal agencies.

PROCEDURE
Hazardous materials incidents are classified into three levels, determined by their complexity.

Level I
Level I emergencies will be assigned to those *minor incidents* that can be handled within the capabilities of the initial responders. Level I spills are those releases that involve less than the reportable quantity (RQ) established for that particular substance by the reporting requirements contained in the CERCLA and SARA Title III statutes; e.g., a motor vehicle fuel spill of less than forty-two (42) gallons, or a release of anhydrous ammonia of less than 100 lbs.

Level II
These incidents will be assigned for *more complex* incidents that usually require a significant resource commitment and/or a level of expertise beyond the normal capabilities of the responding agency. Level II incidents require activation of the local hazardous materials area response plan, with notification to state and federal agencies, and may require local evacuation. Spills of motor vehicle fuels in excess of 42 gallons and spills involving established RQs of any quantity of an unknown substance fall into this category.

Level III
A Level III emergency will be assigned to a *major incident* that has escalated beyond the capabilities of local and state agencies to handle. Therefore, a Level III emergency requires the intervention of federal agencies, such as the EPA. These are the worst-case scenarios, such as a major train derailment or an airplane crash. Level III incidents require mandatory reporting to the **National Response Center** (1-800-424-8802).

It is the responsibility of the Incident Commander to ensure that all mandatory notifications are made to local, state, and federal agencies. Proper notifications are vital for the proper tracking and coordination of incidents for statistical purposes and for obtaining funds for clean-up.

All incidents involving reportable quantities have mandatory notification requirements:

Lyon County Emergency Management
(775) 301-7289 (Duty Number 24 hours)

Nevada State Division of Emergency Management
(775) 687-0498 (Duty Officer 24 hours)

Upon notification to the Nevada State Division of Emergency Management, they will assist in making appropriate notifications to other various agencies depending on the specific incident (i.e., Nevada Highway Patrol, U.S. Coast Guard, Environmental Protection Agency, Fish and Wildlife Department, Tahoe Regional Planning Agency, etc.).

Other Notifications

The following may be contacted for further assistance:

- Law Enforcement. (Dispatch)
- Public Works for personnel, equipment, and material resources such as sand and dirt to mitigate the incident. (Dispatch)
- Water/Sewer Department to maintain community water systems and provide remedial action when a hazardous materials incident may affect water sources. (Dispatch)
- Owner of property on which incident occurs.
- Owner of equipment/material causing incident.

INCIDENT COMMAND STRUCTURE FOR HAZARDOUS MATERIALS

PURPOSE

The purpose of this document is to ensure that the Incident Command System is implemented at all hazardous materials incidents to provide an organizational structure that will provide necessary supervision and control for the essential functions required. Under 29 CFR 1910.120, an Incident Command System (ICS) shall be used in managing hazardous materials incident responses.

PROCEDURE

INCIDENT COMMANDER (IC)

The senior emergency response official responding to an emergency will become the IC in charge of the site-specifics ICS. The IC will control and coordinate emergency response activities and communications. Command will be passed up a pre-established line of authority as personnel or officials having greater emergency response seniority arrive and as deemed necessary. Those who are Hazardous Materials Incident Commander-qualified will take precedence. The IC shall identify the hazards and implement appropriate emergency operations based on incident-specific conditions. This person must ensure that all operations are conducted safely.

SAFETY OFFICER

The IC shall designate a Safety Officer who is knowledgeable in the operations involved. The Safety Officer shall identify and evaluate the hazards, provide direction with respect to the safety of the operation involved, and establish a site safety plan. The Safety Officer shall have the authority to alter, suspend, or terminate any activities which, according to their judgment, involve an Immediately Dangerous to Life and Health (IDLH) condition and/or an imminent danger condition. The Safety Officer shall immediately inform the IC of any actions needed to lessen the hazards involved. In a multi-activity incident, the Haz-Mat Safety Officer does not act as Safety Officer for the overall incident. That function is served by the Safety Officer within the command staff.

HAZARDOUS MATERIALS GROUP SUPERVISOR

The Haz-Mat Group Supervisor's function is under the Operations section of ICS. This individual is responsible for:

- Implementing all portions of the Incident Action Plan dealing with the Haz-Mat group only.
- Assigning resources and job functions within the Haz-Mat group.

- Reporting to the Branch Director, Operations Chief, or Incident Commander as directed on progress and status of resources.
- Directing overall activities of the Haz-Mat group.

ENTRY TEAM LEADER

This individual reports to the Hazardous Materials Group Supervisor and is responsible for managing the entry team operations within the "Exclusion Zone."

DECONTAMINATION LEADER

This individual reports to the Hazardous Materials Group Supervisor and is responsible for managing decontamination operations.

SITE ACCESS LEADER

This individual reports to the Hazardous Materials Group Supervisor and is responsible for managing and tracking the movement of personnel and equipment within the control zones. The Site Access Leader ensures that contaminants are controlled and records are maintained.

TECHNICAL SPECIALIST FOR HAZARDOUS MATERIALS RESEARCH

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

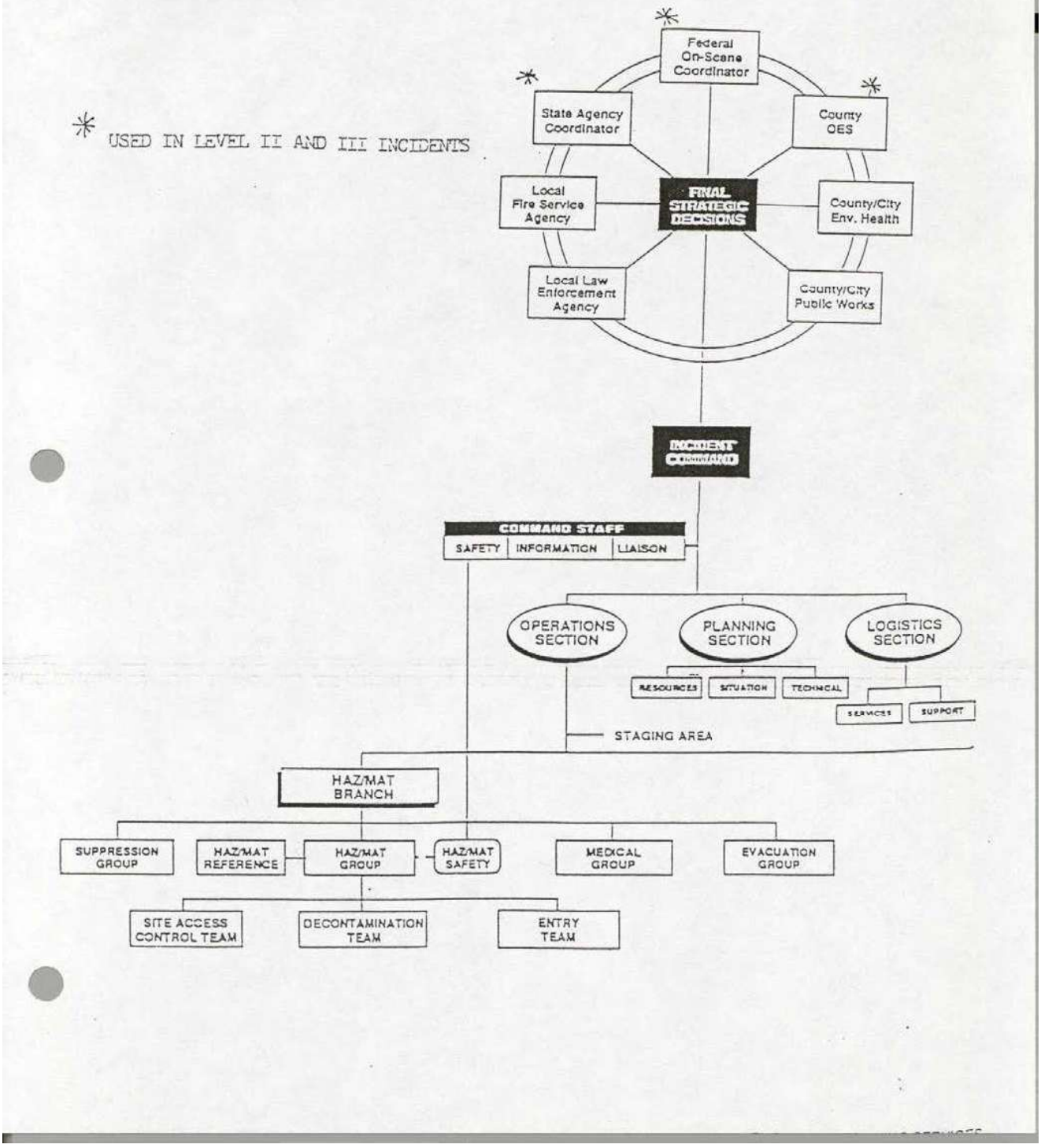
MEDICAL UNIT LEADER

The Medical Unit Leader is a function under Logistics and is responsible for providing all medical care for incident personnel, providing on-site medical monitoring, and transportation if so needed.

Will assign any or all of the above-mentioned positions rests with the IC.

HAZARDOUS MATERIALS ON-SCENE INCIDENT COMMANDER

✳ USED IN LEVEL II AND III INCIDENTS



OPERATIONAL PRIORITIES 5-1

PURPOSE
The purpose of this document is to provide operational priorities for persons responding to or when discovering a hazardous materials incident.

PROCEDURE
The following are priorities and responsibilities for first-arriving companies when confronted with a hazardous materials incident:

1. Life safety
2. Environmental conservation
3. Property protection

NOTE: Incident stabilization could result in any or all of the above.

The successful management of the hazardous materials incident depends on a team effort of all divisions of the Fire Department.

FIRST ON SCENE
As soon as arriving units discover that an incident involves hazardous materials, notification shall follow immediately to any additional responding units dispatched.

Positioning of Apparatus
Apparatus should be positioned uphill and upwind if at all possible. Units should avoid driving past an incident where there is smoke or visible vapor or locations near visible or potential liquid run-off. Apparatus should be positioned the following initial safe distance from incident:

Residential	1 Block
Large structures/industrial	500 feet
Open areas	1000 feet
Staging area	2500 feet

ESTABLISH COMMAND
-Initiate Incident Command System and assign a Safety Officer.
-Designate a Staging area.
-Conduct a size-up and determine resource needs.
-Make proper notifications and resource orders.

CONTROL ACCESS

First-arriving apparatus will control access to the hazard area and establish an initial isolation perimeter (exclusion zone). Only those members wearing proper PPE will be allowed entry.

Protective action (shelter-in-place) shall be considered and implemented if so needed. Number of personnel operating in or near the exclusion zone shall be kept to a minimum. Entry will be restricted, and those leaving the scene should be detained in area of safe refuge for evaluation/treatment.

In all cases, no major fire suppression or control operation will be initiated until the materials involved and its hazards are identified.

IDENTIFY THE HAZARD

Obtain as much information as possible from as many sources as possible (driver, plant manager, witness, MSDS, etc.).

Attempts shall be made to identify the product by using labels, placards, shopping papers, or whatever other means are available. This will be done without undue risk to personnel.

Conduct a Hazard Risk Assessment.

All information concerning the materials and situation will be relayed to responding haz-mat team units.

MITIGATE THE INCIDENT

Safely perform basic control/containment procedures with resources available.

DECONTAMINATE PERSONNEL

Establish emergency gross decontamination sites prior to set-up of formal decontamination by Haz-Mat Team.

Provide for emergency medical monitoring and transport prior to Haz-Mat team arrival.

TERMINATION

Debrief the incident, conduct a post-incident analysis, and save all documentation from the incident.

EMERGENCY RESPONSE PLAN 6-1

PURPOSE

The purpose of this document is to ensure that an Emergency Response Plan is in place to provide for personnel safety and to comply with 29 CFR 1910.120.

PROCEDURE

The Emergency Response Plan must be developed and ready for implementation by the employer prior to the commencement of emergency response operations. This plan must be adequate for any emergencies which could reasonably be expected to occur on site. The plan must be in writing and located on the command vehicle for the plan's jurisdiction, and available to employees, employee representatives, and OSHA personnel. The plan must address, at a minimum, the following topics:

- Pre-emergency planning and coordination with outside parties.
- Personnel roles, lines of authority, training, and communication.
- Emergency recognition and prevention.
- Safe distances and places of refuge.
- Site security and control.
- Evacuation routes and procedures.
- Decontamination.
- Emergency medical treatment and first aid.
- Emergency alerting and response procedures.
- Critique of response and follow-up.
- Personal protective equipment and emergency equipment.

Emergency response organizations may use their local and/or state ERPs as part of the ERP, if applicable, to avoid duplication. Emergency response topics which are properly addressed by existing plans required under SARA Title III need not be duplicated for compliance with 29 CFR 1910.120.

TRAINING AND RECERTIFICATION 7-1

PURPOSE

The purpose of this document is to establish a training standard for the Quad County Hazardous Materials Team Participants when dealing with hazardous materials. This document also complies with OSHA 1910.120.

PROCEDURE

Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders (those hired after the effective date of this standard) shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response shall be given training and be able to demonstrate competency in the following areas:

First Responder Awareness Level

1. An understanding of what hazardous substances are, and the risks associated with them in an incident.

2. An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.

3. The ability to recognize the presence of hazardous substances in an emergency.

4. The ability to identify the hazardous substances if possible.

5. An understanding of the role of the first responder awareness individual in the employer's emergency response plan, including the site security and control of the U.S. Department of Transportation's Emergency Response Guidebook.

First Responder Operations Level

1. Knowledge of the basic hazard and risk assessment techniques.

2. Know how to select and use proper personal protective equipment provided to the first responder operations level.

3. An understanding of the basic hazardous materials terms.

4. Know how to implement basic decontamination procedures.

5. Know how to perform basic control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available within their unit.

6. An understanding of the relevant standard operating procedures and termination procedures.

Hazardous Materials Technician

1. Know how to implement the employer's emergency response plan.

2. Know the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment.

3. Be able to function within an assigned role in the Incident Command System.

4. Know how to select and use proper specialized chemical personal protective equipment provided to the haz-mat technician.

5. Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and the personal protective equipment available with the unit.

6. Understand and implement decontamination procedures.

7. Understand termination process.

8. Understand basic chemical and toxicological terminology and behavior.

Hazardous Materials Specialist

1. Know how to implement the local emergency response plan.

2. Understand classifications, identification, and verification of known and unknown materials by using advanced survey instruments and equipment.

3. Know the state emergency response plan.

4. Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialists.

5. Understand in-depth hazard and risk techniques.

6. Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.

7. Be able to determine and implement decontamination procedures.

8. Be able to develop a site safety and control plan.

9. Understand chemical, radiological, and toxicological terminology and behavior.

On-Scene Incident Commander

1. Know and be able to implement the employer's incident command system.

2. Know how to implement the employer's emergency response plan.

3. Know and understand the hazards and risks associated with employees working in chemical protective clothing.

4. Know how to implement the local emergency response plan.

5. Know of the state emergency response plan and the federal response team.

6. Know and understand the importance of decontamination procedures.

REFRESHER/TEAM TRAINING

All Awareness Operations and Decontamination recertification training for agencies participating in the Quad County Haz-Mat Team will be conducted in-house. Assistance with in- house training can be provided if necessary. Any level training shall be of sufficient duration and content to maintain required competencies and shall be demonstrated annually.

All Technicians and Specialists assigned to the Quad County Team will attend at least three of the four quarterly team drills in order to maintain certification. Each quarterly drill shall be at least eight (8) hours in length. Each Technician or Specialist shall demonstrate competency on a yearly basis, up to and including those areas outlined above, and any additional skills specific to the Quad County Team which reflect the individual's highest current certification level.

All Haz-Mat IC certified personnel shall attend at least one (1) of the quarterly team drills as outlined above for Technicians and Specialists. ICs shall demonstrate competency outlined above on a yearly basis in order to maintain their certification.

All in-house recertification and documentation shall be forwarded to the Carson City Training Division, where it will be filed on the Haz-Mat response Vehicle as required.

DECONTAMINATION 8-1

PURPOSE

The purpose of this document is to ensure that any potentially dangerous residues on persons or equipment are confined within the Exclusion Zone and to comply with Occupational Safety and Health Standard for General Industry (29 CFR Part 1920.120). Decontamination is intended to prevent the spread of contaminants beyond the defined area.

PROCEDURE

A decontamination procedure shall be developed, communicated to personnel, and implemented before any personnel or equipment may enter areas onsite where potential for exposure to hazardous substances exists. These procedures are to be used by personnel who respond to a hazardous materials incident whenever the need for decontamination occurs. The level and the type of PPE worn by decon personnel shall be determined and approved by the Haz-Mat Team Safety Officer.

The specific measures required to decontaminate personnel or equipment will vary with the contaminant, the circumstances, and the level of contamination. These factors must be considered on a case-by-case basis, with the guidelines described in this procedure.

A Decontamination Team is responsible for the actual decontamination procedure and methods being carried out. The Decontamination Team assembles the necessary equipment and supplies.

In all cases, the primary objective must be to avoid contaminating anyone or anything beyond the Exclusion Zone.

Before an entry team goes into the Exclusion Zone, a Decontamination Corridor will be set up and ready for operation, and medical personnel must be in position to treat and transport any injured individuals.

Decontamination solutions and formulas shall be decided upon by the Hazardous Materials Group Supervisor with input from the Decontamination Unit Leader and the Technical Specialist for Hazardous Materials. All solutions and procedures must be approved by the Haz-Mat Safety Officer.

Any individual leaving a contaminated area shall be appropriately decontaminated. All contaminated clothing and equipment leaving a contaminated area shall be decontaminated or disposed of properly.

Decontamination procedures shall be monitored to determine their effectiveness. When such procedures are found to be ineffective, appropriate steps shall be taken to correct any deficiencies.

Decontamination shall be performed in geographical areas that will minimize the exposure of uncontaminated personnel or equipment to contaminated personnel or equipment.

All decontamination equipment and solvents used for decontamination shall be decontaminated or disposed of properly.

Reusable protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained, or replaced as needed to maintain their effectiveness. Single-use items will be properly disposed of after use.

Any individual whose non-impermeable clothing becomes wetted with hazardous substances shall immediately remove that clothing and be appropriately decontaminated. The clothing shall be disposed of or decontaminated before it is removed from the area.

DECONTAMINATION AREA PRECAUTIONS

The Decontamination Area shall be established just outside the Exclusion Zone perimeter adjacent to the entrance/exit (Entry Control). Personnel and equipment shall not be permitted to leave the Exclusion Zone without approval from the Decontamination Leader.

The Decontamination Area shall provide a corridor leading away from the source of contamination toward the exit, with stations along the way for the deposit of tools, equipment, protective clothing, and other items. Tools may be left at the entry to the Decontamination Area so that other entry teams may use them if needed. Monitoring personnel and equipment shall be appropriately placed along the path. A person traveling along the path should experience a decreasing level of contamination. When spray nozzles are used, adequate space must be provided to avoid contamination of other areas or persons.

During the decontamination process, all personnel working in the Decontamination Area must be adequately protected. When hazardous materials are *unknown*, Level "B" protective equipment shall be the accepted level of protection for decontamination team members.

When the hazardous materials are *known*, the accepted level of protection for decontamination team members shall be no lower than one level below that used by the hazardous materials entry team.

Any runoff or residue from decontaminating procedures must be contained within the Warm Zone (Decontamination Area) and retained for proper disposal.

CONTAMINATED PATIENTS

Patients in need of medical treatment shall be removed from the source of contamination as quickly as possible, but remain within the Exclusion Zone perimeter (Safe Refuge). These patients must not be allowed to contaminate further areas or persons. It may be

necessary to bring treatment personnel (with PPE) into the Exclusion Zone to deal with these patients, unless they can be rapidly and effectively decontaminated. Once decontaminated, the patients and treatment personnel may leave the Exclusion Zone.

EMERGENCY GROSS DECONTAMINATION

The responding unit should make every attempt to locate the MSDS sheets or other information prior to gross decontamination. In the event where an MSDS sheet is not readily available and the victim's condition could be considered serious, the following procedure shall occur:

1. Have victim remove their contaminated clothing while emergency personnel don proper PPE (Level D for Engine Company personnel, Level C for ambulance personnel). *In the event the victim is unable to remove their contaminated clothing, ambulance personnel are to be in Level "C" PPE prior to removing victim's contaminated clothing, and flushing with water.*

2. Flush contaminated body parts thoroughly with water from the booster line from a distance in order not to splash any rescuers.

3. Victims who need continuous decontamination are to be loaded onto the Tiger Cat by ambulance personnel. Ambulance personnel shall continue the decontamination process at this point.

4. Keep victims warm when possible and prep ambulance for transporting contaminated patient(s).

5. Contact Haz-Mat Safety Officer for authorization to load patient and/or transport.

TRANSPORTATION

If it is necessary to transport contaminated patients to medical facilities by ambulance, the receiving hospital must be notified in advance of the nature of the contamination and decontamination in order to make necessary preparations. The ambulance used shall be considered contaminated and will have to be decontaminated before being used to transport any non-contaminated persons. The ambulance shall be brought to the Contamination Reduction Zone perimeter for loading. Exposed surfaces that the contaminated patient is likely to come into contact with should be covered with plastic sheeting. The patient shall be as clean as reasonable prior to transport, and further contact with contaminants should be avoided.

MEDICAL MONITORING AND REPORTS

All members of the Hazardous Materials Group (Entry Team, Backup Team, and Decontamination Team) shall be medically monitored at every hazardous materials incident (see Medical Monitoring SOP).

All persons involved in the control zones shall complete an exposure report and be medically monitored.

PROTECTIVE ACTION 9-1

PURPOSE

The purpose of this document is to ensure that all private citizens and non-essential emergency personnel are protected to the highest degree possible from exposure to hazardous materials.

PROCEDURE

During a hazardous materials emergency, it may become necessary to provide protective action for civilians and/or personnel in an area due to downwind dispersion of poisonous or flammable vapors, liquid run-off, radioactive hazards, or the threat of an explosion.

Evacuation

Evacuation is the best protective action. Send evacuees to a definite place, by a specified route, far enough away so they will not have to be moved again if the wind shifts. Evacuation distances will follow guidelines set forth in available reference material. Advisory (voluntary) - This is a warning to persons within the area that there is a potential threat to life and property.

Mandatory - This is a warning to persons within an area that an imminent threat to life and property exists. If occupants refuse to evacuate after being notified of a mandatory evacuation, it would be questionable judgment to force the issue. The name and address of the person(s) should be relayed to the Incident Commander, and personnel should move on to reach those who may wish to be evacuated.

When evacuation is indicated, the Incident Commander shall notify and coordinate with the Sheriff's Office.

An area can be closed off to air traffic by requesting airspace limitations through the Federal Aviation Administration.

Shelter-in-Place

Due to the danger of moving people from a building through a vapor cloud, it may become necessary to protect people in-place and not expose them through evacuation. This may be considered for special facilities such as hospitals, nursing homes, schools, and penal institutions.

TEAM ACTIVATION 10-1

PURPOSE

The purpose of this document is to assure proper notification of all agencies in the Quad County Haz-Mat Response Team and ensure proper staffing at Quad County Haz-Mat incidents.

PROCEDURE

All agencies who have complied with the Quad County Team agreement will be considered "On Line." In the event that any participant cannot provide necessary staffing in accordance with the agreement, the following procedure shall be followed:

1. Contact Carson Fire Dispatch and advise them of the staffing situation as soon as possible.
2. Advise Dispatch what staffing resources you are short.
3. Carson Dispatch shall inform the Duty BC.

It is the responsibility of the requesting agency to provide support personnel for the team. However, the Carson City Duty BC may assist the requesting agency by supplementing staffing based upon Carson City staffing level, availability of additional personnel, and approval of the Fire Chief or their appointee.

Team Requests

All requests for the Haz-Mat Team shall be received by Carson Fire Dispatch Center (911). Upon request from any of the participating agencies, Carson Dispatch shall request the following information:

1. Location of incident.
2. Radio frequency, radio identifier, and cell phone number of the Incident Commander.
3. Materials involved if known.
4. Best/safest route of travel and staging location.
5. Name of person requesting Quad County Team.

Carson Dispatch shall notify the Duty BC and provide them with all the information received from the requesting agency. Carson Dispatch shall notify the dispatch centers for the other participating agencies listed below after authorization of the Duty BC, inform them of the activation, and request an update on the total number of technicians who will be responding from those agencies. Carson Dispatch will relay these numbers back to the Duty BC.

All participating agencies will be responsible for the notification of their personnel to respond to the incident. All information originally gathered in Items 1 through 5 will be relayed to all the responding agencies' dispatch centers by Carson Dispatch.

In the event that a minimum of five technicians/specialists is not available, the Duty BC will direct Carson Dispatch as to which agency to request additional technicians or supplemental staffing from.

Participating Agencies with Technicians

Carson City Fire: 3 Technicians/Specialists on duty (may call additional techs, if necessary) and haz-mat vehicle.
Mason Valley FPD: 1 Technician
Nevada Division of Forestry (NDF): 1 Technician/Specialist
Truckee Meadows FPD: 2 Technicians/Specialists
Tahoe-Douglas FPD: 4 Technicians/Specialists

PERSONAL PROTECTIVE EQUIPMENT 11-1

PURPOSE
The purpose of this document is to ensure that adequate Personal Protective Equipment (PPE) will be worn by all personnel who conduct operations within the control zones at hazardous material incidents, to protect the wearer from safety and health hazards, and to prevent injury to the wearer from incorrect use and/or malfunction of the PPE.

PROCEDURE
The level of PPE assigned will be determined by a member of the Hazardous Materials Team and will be approved by the Haz-Mat Safety Officer.

Guide for determining PPE shall come from at least three separate references.

Personal Protective Equipment is divided into four categories based on the degree of protection afforded.

Level A
To be selected when the greatest level of skin, respiratory, and eye protection is required. Level A protection should be used when:

1. The hazardous substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system, or there is a high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulate of materials that are harmful to skin or capable of being absorbed through the skin;

2. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible; or

3. Operations are being conducted in confined or poorly ventilated areas.

Level B
To be selected when:

1. The hazardous substances have been identified and require a high level of respiratory protection, but less skin protection;
2. The atmosphere contains less than 19.5 percent oxygen; or
3. The presence of incompletely identified vapors or gases is indicated, but vapor gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.

NOTE: This involves atmospheres with IDLH concentrations of specific substances that present severe inhalation hazards and that do not represent a severe skin hazard, or that do not meet the criteria for use of air-purifying respirators.

Level C
To be selected when:

1. The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect or be absorbed through any exposed skin;

2. The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove the contaminants; and

3. All criteria for the use of air-purifying respirators are met.

Level D
To be selected when:

1. The atmosphere contains no known hazard, and

2. Work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemical.

NOTE: Structural Firefighting Gear is extremely limited in a hazardous materials incident and should only be worn after it is classified as "Proper Protective Equipment" (i.e., Level D).

Selection of Proper Protective Equipment must be based on incident-specific conditions and updated as those conditions change or additional information is generated about the incident. During an incident involving an unknown substance, Level "A" protection should be used as a minimum level of protection based on the type of unknown.

MEDICAL MONITORING 12-1

PURPOSE
The purpose of this document is to ensure that each individual on the Hazardous Materials Team is medically monitored to protect the employee's safety and to comply with OSHA regulations.

PROCEDURE Pre-Entry
Pre-entry vital signs and weights shall be taken prior to performing any strenuous activity or donning any chemical protective equipment. Baseline vital signs should include:

- Blood Pressure
- Pulse
- Respirations
- Weight
- Temperature

The Medical Monitor shall calculate the following values for each Team member:

- Maximum Heart Rate (220-Age)
- 85% of Maximum Heart Rate
- 60% of Maximum Heart Rate
- 5% Body Weight
- 3% Body Weight

All information shall be entered on the Medical Monitoring Forms.

Any team member with any of the following conditions shall not be allowed to don Personal Protective Equipment (PPE). NO EXCEPTIONS.

Temperature > 99.8 degrees F Blood Pressure > 150/90
Heart Rate > 60% of Maximum Heart Rate, or
Respirations > 25

The Medical Monitoring Leader shall obtain Hazard and Toxicity information from the Technical Specialist - Hazardous Materials Reference. Also, signs and symptoms of chemical exposure shall be ascertained if the chemical is known.

The Medical Monitoring Leader shall brief on-site EMS crews. The following information, if known, shall be conveyed:

- Chemical Name

- Hazard Class and Name
- Hazard and Toxicity Information
- Potential for Secondary Contamination
- Pre-Hospital Management After Initial Decontamination
- Procedure for Transfer of Patients to EMS
- Pre-Hospital Management of Medical Emergencies

Post-Entry Procedures
After team members doff PPE, they shall immediately proceed to the Medical Monitoring Station. The Medical Monitors will obtain the following:

- Pulse - first minute
- Pulse - 3 minutes after first pulse (recovery rate)
- Temperature
- Weight
- Blood Pressure
- Respirations

Only one entry per individual, per incident will be allowed.

If any one of the following criteria is met, the team member shall not be allowed to perform duties requiring the use of PPE for 24 hours:

Pulse > 85% of Maximum Heart Rate
Temperature > 100.4 degrees F
Recovery Heart Rate > 10 BPM (initial pulse - 3 Min. pulse) Blood Pressure > 160/100
Weight Loss ≥ 3%

The Medical Monitoring Leader shall immediately report the name of any team members meeting the above criteria to the Safety Officer - Hazardous Materials and the Entry or Decontamination Leader as appropriate.

Any team member exhibiting signs or symptoms of heat exhaustion or heatstroke, or who has had a weight loss ≥ 5%, shall be transported by ambulance to the nearest hospital for evaluation.

Any team member who is exposed to hazardous materials shall be assessed by medical personnel for signs and symptoms of exposure at toxic levels. Any person exhibiting signs and symptoms of exposure shall be transported to a hospital emergency department by ambulance according to local medical guidelines. If the individual is not exhibiting any signs and symptoms of a hazardous material exposure, the individual may still be required to be evaluated at a hospital emergency department. This decision shall be based on the opinion of the Haz-Mat Safety Officer. For any team member who needs transport to the hospital, transportation shall be arranged through the Medical Unit Leader or appropriate supervisor.

While at the Medical Monitoring Station, team members should drink plenty of water or other suitable substance for rehydration (Gatorade, Powerburst). Soda, or other liquids containing caffeine, carbonation, or alcohol will not be allowed.

After all operations are terminated, the Medical Monitoring Leader shall collect all Medical Monitoring Forms and give them to the Hazardous Materials Group Supervisor. This shall include documentation for all cost-recoverable items. All recoverable equipment used by the Medical Monitoring Team should be cleaned and returned to the Haz-Mat Unit. All waste materials shall be disposed of by the appropriate methods.

SITE CONTROL 13-1

PURPOSE

The purpose of this document is to minimize the harm resulting from a hazardous materials incident by proper utilization of site control procedures that will isolate people from hazards related to the incident and allow an orderly, efficient, and safe response operation.

PROCEDURE

The very nature of the hazardous materials incident makes site control both difficult and necessary to establish and maintain. Site control measures must be designed to minimize chaos and to provide direction and efficiency to the response operation. Site control procedures shall allow for accountability so that the location and status of all personnel and equipment on site are known at all times during the response operation.

Response personnel not directly involved in activities in the hazard area shall be kept at a safe distance to minimize the effects of unexpected events, such as explosions or sudden large-quantity releases that may enlarge the hazard area.

In an emergency response operation, all boundaries and security measures must be strictly adhered to, without regard to an individual's status or position. Persons not involved in the emergency response must be kept outside the site perimeter.

Law enforcement and plant security personnel are generally better trained and equipped for crowd control and site security than Haz-Mat Team members.

Access Control

The first-in unit's initial actions shall be to control access to the hazard area and to establish an isolation perimeter. The isolation perimeter can be considered the outer boundary of the site or incident scene. This distance may be measured in feet or miles, depending on the specifics of the incident.

In establishing the isolation area, utilize applicable geographic and physical barriers such as walls, fences, and bodies of water that will reduce the need for perimeter patrol.

Keep isolation area to a manageable size; it is desirable to make the isolation area as large as possible. It is easier to reduce the isolation area than to expand it as the response operation progresses. As crowds and traffic increase around a site, expansion may involve much more than simply moving barriers. Also, the unpredictable nature of haz-mat incidents makes a large buffer zone desirable. On the other hand, an isolation perimeter requires valuable resources to patrol. Inadequate perimeter control that allows unauthorized entry to the site may result in a breakdown of site control. A smaller perimeter that is secure may therefore be preferable to a larger perimeter that is not well controlled.

Provide for protective action such as evacuation and/or shelter-in-place (See Protective Action SOP).

Zoning

After the isolation perimeter has been established, the area within it shall be subdivided into control zones with distinct lines of demarcation. Site zones shall be plotted on site maps based on information gathered during assessment of an incident and used in planning and conducting response operations. These zones shall be called the “Exclusion Zone", the “Contamination Reduction Zone", and the "Support Zone".

Exclusion Zone

The Exclusion Zone shall contain the actual hazard area. This shall include the location of the release and any areas to which hazardous substances have migrated or are likely to migrate in hazardous concentrations. This is the most hazardous location on site, and entry requires the use of Proper Protective Equipment.

The Exclusion Zone shall be marked in red barrier tape when applicable.

Direct-reading hazard detection equipment can be invaluable in establishing the Exclusion Zone boundary location.

The Exclusion Zone shall include enough room for mitigation activities to take place and must be large enough to provide protection for on-scene personnel outside the zone in the event of an explosion, a fire, a change of wind direction, or an unexpected release during response activities.

Contamination Reduction Zone

The Contamination Reduction Zone serves as a buffer between the Exclusion Zone and the Support Zone. The Contamination Reduction Zone provides an extra margin of safety from the primary hazards of the incident for support. The Contamination Reduction Zone shall be marked with yellow barrier tape when applicable. Decontamination activities shall be performed within the Contamination Reduction Corridor (CRC), which is a sub-part of the Contamination Reduction Zone.

Equipment needed to support the primary response operation (such as spare air cylinders, tools, adsorbents, firefighting equipment, first aid supplies, etc.) may be staged within the Contamination Reduction Zone. For heavy equipment (such as loaders and backhoes) used in the Exclusion Zone, a separate decontamination corridor shall be designated and equipped.

Traffic to and from the Contamination Reduction Zone must be controlled to prevent the spread of contamination. The contamination control line marks the outer boundary

of the Contamination Reduction Zone. Contaminated materials shall not be transported beyond this line.

The CRC shall be located upwind from the Exclusion Zone within the Contamination Reduction Zone.

Support Zone

The Support Zone shall be the area of an incident scene located beyond the contamination control line. Command functions and supporting operations are to be carried out in the Support Zone.

The Support Zone should remain free of contaminants so that no chemical protective equipment is required for response personnel working in this area.

Access Control Points

Access control lines should be used to mark the different zone boundaries. These points may be marked with barrier tape. These lines will be used to limit the free access by the public and media to command and other support operations.

PHYSICAL EXAMINATIONS 14-1

PURPOSE
The purpose of this document is to comply with OSHA regulations and to ensure that all personnel have baseline physical examinations.

PROCEDURE
All Hazardous Materials Response Team (HMRT) members will receive a baseline physical examination and will be placed under a program of medical surveillance.

The medical examination must be conducted:

- Before assignment to a haz-mat team.
- At least annually during haz-mat team membership.
- After overexposure or the appearance of potentially exposure-related symptoms.
- Whenever deemed necessary by the physician.
- At the time of reassignment to an area or job which does not require medical surveillance.
- At the time of termination or reassignment.

No termination or reassignment examination is required if an employee has received a complete examination within six (6) months of the time of termination or job reassignment, and has had no significant exposures or potentially exposure-related symptoms since the exam.

Medical examinations must be performed at no cost or loss of pay to the employee, at a reasonable time and place, and by a licensed physician.

Exams shall include a complete or updated medical and work history, and shall focus on any symptoms which may be related to chemical exposure. Fitness for duty under site conditions (such as the use of required PPE under expected temperature extremes) should be emphasized.

An employee covered by the medical surveillance program is entitled to receive a written physician's opinion. The results of specific exams and tests will be included if requested by the employee. The opinion must state any medical conditions which require treatment or place the employee at greater risk due to expected hazards and duties. Any recommended work assignment limitations will also be included in the written physician's opinion.

The standard mandates confidentiality of medical examination results. Therefore, specific findings unrelated to occupational exposure cannot be revealed by the examining physician to the employer.

SKILLED SUPPORT PERSONNEL 15-1

PURPOSE

The purpose of this document is to serve as a guideline for using skilled support personnel on hazardous materials incidents.

PROCEDURE

Personnel, not necessarily an employer's own employees, who are skilled in the operation of certain equipment, such as mechanized earth-moving or digging equipment or crane and hoisting equipment, etc., and who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed in a timely fashion by an employer's own employees, and who will be or may be exposed to the hazards at an emergency response scene, are not required to meet the training required in CFR 1910.120.

However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. The initial briefing shall include instruction in the wearing of appropriate personal protective equipment, what chemical hazards are involved, and what duties are to be performed. All other appropriate safety and health precautions provided to the employer's own employees shall be used to assure the safety and health of these personnel.

TECHNICAL SPECIALISTS 16-1

PURPOSE

The purpose of this document is to provide for the safety of Technical Specialist personnel used at the scene of a hazardous materials incident, and that all actions will comply with 29 CFR 1910.120, as well as NRS.

PROCEDURE

Specialist personnel who work with specific hazardous substances in the course of their regular job duties, and are knowledgeable about the hazards of those substances of which the incident is confronted with, may be called on to provide assistance to the individual in charge of the response to a hazardous substance release. For example, if two chemicals are accidentally mixed in an incident, a chemist may be called upon to predict the reaction which will occur. No specific training requirements for specialist employees are listed in the standard. However, specialist employees are required to receive training appropriate for their areas of specialization, or to demonstrate competence in their areas of specialization, annually.

Consultants/Specialists

The following are consultants who have agreed to provide assistance to the Quad County Haz-Mat Team.

Laura Link, J.D. 784-6477 (W) All areas of chemistry 972-0438 (H)

Glen Miller, Ph.D. 784-4108 (W) Bio-Chem, Pesticides 786-0462 (H)

John Nelson, Ph.D. 784-6588 (W) Inorganic

TERMINATION 17-1

PURPOSE

The purpose of this document is to ensure that proper termination procedures for hazardous materials incidents are established.

PROCEDURE

Once the final clearance has been obtained from the responsible health agency, it is important that every hazardous materials incident be formally terminated by a specific, written procedure. This documentation process should include:

- Safety procedures that were taken.
- Description of site operations.
- Hazards that were faced and lessons learned.

Termination procedures also provide a record of the information and data which may be required to be documented in order to comply with local, state, and federal laws. They will help prepare for any litigation procedures that may arise from the incident.

Termination activities should be divided into three phases:

1. DEBRIEFING THE INCIDENT

This debriefing should occur at demobilization as soon as the emergency operation is completed. Debriefing should include the initial responders, Haz-Mat Response Team, Decontamination Team, EMS workers, Command Staff, General Staff, Division/Group supervisors, agency representatives, and other key players as specified by the Incident Commander. An effective debriefing should:

- Inform responders what hazards they were (possibly) exposed to and explain signs and symptoms, what actions to take if they exhibit symptoms of exposure, and to ensure personnel exposure is documented.

- Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.

- Assign information-gathering responsibilities for a Post-Incident Analysis and Critique.

- Summarize the activities performed by Divisions/Groups.

- Reinforce positive aspects of the response.

2. POST-INCIDENT ANALYSIS

Post-incident analysis (PIA) activities should be assigned to a member of the Command Staff. PIA is a reconstruction of the incident to establish a clear picture of the events that took place during the incident, and should be started as soon as possible after the emergency phase of the incident. A brief chronological review of who, what, when, and where should be outlined.

3. INCIDENT CRITIQUES

Critiques for Level II and Level III hazardous materials incidents are mandated by the Final Rule of 29 CFR 1910. The Incident Commander has the direct responsibility to schedule and organize the critique. Critiques should be held after the incident has been completely terminated and information has been gathered and analyzed.

TESTING OF HAZARDOUS MATERIALS 18-1

PURPOSE

The purpose of this document is to ensure personnel safety when testing or sampling hazardous materials.

PROCEDURE

Due to the potentially dangerous nature of testing hazardous materials (Haz-Cat), personnel shall be required to wear a minimum level of safety gear.

Prior to beginning Haz-Cat or Hazardous Materials testing procedures, personnel shall don disposable latex gloves, Sarenex/Tyvek suit, and safety glasses. Personnel shall work under a hood that ventilates the work area to the outside. Avoid breathing the fumes at all times. The testing of certain materials may require a higher level of PPE to be worn. This recommendation should come from a Tech/Specialist and be approved by the Haz-Mat Safety Officer.

These safety items will be stored on the Hazardous Materials Response Unit. The latex gloves and any byproducts of the testing are to be disposed of properly, and the Saranex/Tyvek suits and safety glasses can be cleaned and reused.

INSPECTING PERSONAL PROTECTIVE EQUIPMENT 19-1

PURPOSE

The purpose of this document is to ensure that all Personal Protective Equipment (PPE) is inspected on a regular basis to provide for personnel safety and to comply with federal regulations.

PROCEDURE

PPE should be fully inspected before each use. A PPE inspections checklist such as the following may be used. Refer to manufacturer's recommendations for individual suit particulars.

General Inspection Procedure (Chemical Protective Clothing-CPC)

- Determine that the clothing material is correct for the specified task at hand.
- Inspect visually for imperfect seams, non-uniform coatings, tears, and malfunctioning closures.
- Hold Chemical Protective Clothing up to light and check for pinholes.
- Flex the product and observe for cracks and other signs of shelf deterioration.
- If the product has been used previously, inspect it inside and out for signs of chemical attack, such as discoloration, swelling, and stiffness.

Inspecting Fully Encapsulating Suits

- Check the operation of pressure relief valves.
- Inspect the fittings of wrists, ankles, and neck.
- Check the face shield, if so equipped, for cracks, crazing, and/or fogginess.
- Total Encapsulating Chemical Protective Suits require periodic pressure testing of whole suit in-use testing (as described in Appendix A of 29 CFR 1910.120).

Inspecting Gloves

- Before use, check for pinholes. Blow into the glove, and then roll the gauntlet toward the fingers and hold it underwater. No air should escape.

EXCLUSION ZONE ENTRY 20-1

PURPOSE

The purpose of this document is to provide for personnel safety when making entry into the Exclusion Zone of a hazardous materials incident.

PROCEDURE

Prior to entering the Exclusion Zone, the following shall be completed:

1. Hazardous Materials and Safety Action briefings will be given.
2. Decontamination Procedures will be established.
3. Personnel Decontamination Station will be set up.
4. Entry and Back-Up Teams will be in Proper Protective Equipment.
5. The Back-Up Team will be ready and in position.
6. Tools and equipment will be checked.
7. Communications equipment will be checked.
8. Site Safety Plan will be completed

The Entry Team is responsible for making entry into the Exclusion Zone, and accomplishing the objectives called out for in the Incident Action Plan. All Entry Team members must be Hazardous Materials Technicians or Specialists. The primary Entry Team shall consist of a minimum of two people in Proper Protective Equipment. The team must maintain communications with the Entry Team Leader. The leader must report on conditions inside the Exclusion Zone, identify the product or gather samples, if necessary, assess the degree of hazard (i.e., size and/or quantity of spill), and mitigate or contain the hazard as directed.

Back-Up Team

The Back-Up Team shall consist of an equal number of personnel in the same protective equipment as the Entry Team. They must be prepared to rescue the Entry Team, assist and/or relieve the Entry Team in the containment of the hazard, and furnish additional equipment or supplies to the Entry Team as needed.

Technical Support Team

The Technical Support Team provides additional personnel who are not assigned to the Primary Entry Team or the Back-Up Team. They assist the Primary Entry and Back-Up Teams in donning PPE, establish and maintain the Haz-Mat Reference Library, assist Entry Team Leader with maintenance of time records, and maintain communications with Entry Team Leader, Primary Entry Team, and Back-Up Team.

The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to the incident or site hazards, to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the **"buddy system"** in groups of two.

Basic Life Support personnel, at a minimum, shall stand by with medical equipment and transportation capability.

Upon **initial entry**, representative air monitoring shall be conducted to identify any Immediately Dangerous to Life and Health (IDLH) condition, exposure over permissible exposure limits or published exposure levels, exposure over a radioactive material's dose limits, or other dangerous condition such as the presence of flammable atmospheres or oxygen- deficient environments.

INJURY - INCIDENT RELATED 21-1

PURPOSE

The purpose of this document is to ensure personnel safety and prompt medical attention following a hazardous materials exposure.

PROCEDURE

Any Hazardous Materials Response Team (HMRT) member or any other response personnel who suffers an incident-related injury and is displaying symptoms shall be evaluated immediately to determine the necessary treatment course.

The team member's copy of their physical, which shall be stored in a locked box on the Hazardous Materials Response Unit, shall accompany the team member to the hospital. Once the team member has been stabilized, he/she along with their copy of the medical physical, shall be transported as soon as possible to the nearest hospital. The hospital shall be notified immediately that a team member is en-route to the facility, and shall also be advised as to the nature of the injury.

EQUIPMENT REPLACEMENT 22-1

PURPOSE

The purpose of this document is to ensure that equipment inventory on the Hazardous Materials Unit is maintained and ready for response at any given time.

PROCEDURE

The Hazardous Materials Team Members shall recommend minimum inventory amounts that shall allow an adequate supply of replacement disposable equipment for the Hazardous Materials Response Unit. The inventory shall be checked by a Hazardous Materials Team Member on a monthly basis during the first Wednesday of every month, along with any time that equipment has been removed for response or training.

Ordering procedures for replacement equipment are to follow the current Carson City Fire Department purchase requisition system.

COMMUNICATIONS AT HAZARDOUS MATERIALS INCIDENTS 23-1

PURPOSE

The purpose of this document is to ensure that communication is maintained throughout a hazardous materials incident.

PROCEDURE

Communication is the key to maintaining control during a response operation. Few things will throw an incident into chaos faster than a breakdown in communication.

Site activities shall be visually monitored by command staff personnel, when possible. However, this is not always the case, so communication must be maintained between response personnel.

One radio channel shall be dedicated solely to the use of the Incident Commander (IC) and Team or Unit Leaders. When entry teams are in the Exclusion Zone, a dedicated channel shall be used solely for communication between them and their team leader. In all cases, unnecessary radio communication shall be eliminated.

Communication procedures shall be established prior to entry.

Back-up communication procedures (such as horn blast, bell, or hand signals) shall be developed and learned by all employees for use in the event of primary communication failure.

When the entry team is required to work out of sight of the Entry Team Leader, a radio check shall be conducted to confirm communications at regular intervals. If communication cannot be confirmed during an entry, it may be appropriate to consider that the team members are in trouble, and the back-up team may need to enter for assistance.

AIR MONITORING 24-1

PURPOSE

The purpose of this document is to ensure that personnel at a hazardous materials incident do not exceed permissible exposure limits. The Carson City Fire Department has adopted and will adhere to the levels of a hazardous materials incident as developed by the Occupational and Health Safety Standards for General Industry (29 CFR 1910.120).

PROCEDURE

Monitoring shall be performed where there may be a question of employee exposure to hazardous concentrations of hazardous substances in order to ensure proper selection of work practices and personal protective equipment, so that employees are not exposed to levels which exceed permissible exposure limits, or published exposure levels if there are no permissible exposure limits, for hazardous substances.

Air monitoring shall be used to identify and quantify airborne levels of hazardous substances to determine the appropriate level of personal protective equipment.

Initial Entry

In order to monitor conditions in the actual hazard area, an initial entry must be made. Upon initial entry, representative air monitoring shall be conducted to identify any Immediately Dangerous to Life and Health (IDLH) condition or exposure over permissible exposure limits. If the material cannot be specifically identified, the hazard it represents shall be classified in one or more of the following groups:

- Combustible gases or vapors
- Oxygen deficiency or enrichment
- Toxic gases, vapors, or particulate
- Radioactivity

The objectives must be clearly outlined and communicated before the entry so that the team can conduct the survey efficiently and leave the hazard area quickly. The initial entry should be a brief survey of the hazard area to identify and outline areas of high air concentration or other IDLH conditions.

The entry objectives may include:

- Establishing that airborne hazards exist or potentially exist at the site.
- Locating and delineating areas of high air concentration of the released materials.
- Verifying preliminary or existing information with respect to the nature of the release.
- Establishing boundaries for the site control zones based on visual observations of the current location and potential movement of the released materials.

- Collecting information related to the specific protective measures and equipment required for response personnel.
- Collecting information useful in choosing response actions.

Periodic Monitoring

The changing nature of emergency response activities and site conditions makes periodic monitoring necessary. The objective of this type of monitoring is to detect changes that may affect the emergency response activities. It may also be necessary to do termination monitoring to be sure that all sources of contamination have been contained.

Maintenance of Monitoring Equipment

Maintenance and calibration of monitoring equipment shall be done as per manufacturer's recommendations. Testing and inspections shall be done periodically to ensure that equipment is ready to use. If the equipment is battery operated, it may require periodic maintenance such as charge-discharge cycles or battery replacement. Special maintenance and storage shall be in accordance with manufacturer's recommendations.

CLEANUP 25-1

PURPOSE

The purpose of this document is to outline the standard operating procedure for the appropriate cleanup and disposal of hazardous waste and contaminated material for the Quad County Hazardous Materials Response Team.

PROCEDURE

After the incident has been stabilized and life, environmental, or serious property- threatening situations have been mitigated, follow-up actions will be taken leading to the appropriate cleanup of the incident. This action will depend on the situation; products involved; input from reference sources; industry, state, federal, and local agencies and laws; and any other factors influencing the outcome of the incident. The Hazardous Materials Response Team (HMRT) will ***not*** normally become involved in cleanup or disposal unless a situation exists for which the HMRT is uniquely qualified to assist private parties, industry, contractors, and other disposal agencies.

The HMRT will ***not*** transport any type of hazardous waste or material; however, small Level 1 incidents often can be cleaned up and restored to normal services by the local responding agencies–usually the fire department in conjunction with public works and law enforcement under the direction of the Environmental Control Authority.

On larger incidents where the responsible party cannot be found, refuses, or is unable to assume clean-up responsibilities in a timely fashion, there are funds available through state and federal resources. To access these funds, contact should be made through the Nevada State Division of Emergency Management.

HMRT personnel will ***not*** initiate any call for private disposal contractors. The private party is responsible for any cleanup and decontamination.

Refer to the *Carson City Hazardous Materials Emergency Resource Directory* for a list of clean-up companies.

WEEKLY INSPECTIONS 26-1

PURPOSE

The purpose of this document is to ensure that the Hazardous Materials Response Unit is ready for response at any given time.

PROCEDURE

The Hazardous Materials Response Unit shall receive a thorough "check-out" on the first Sunday of each month by a Hazardous Materials Team Member. Any equipment found to be inoperable shall be tagged, removed from the vehicle, and given to the Captain at Station 2 for repairs or replacement. Any mechanical problem shall be identified and an appointment with Vehicle Maintenance shall be made as soon as possible for repairs.

All equipment assigned to the Hazardous Materials Response Unit will be inventoried on the first Sunday of each month. A complete inventory sheet shall be forwarded to the Battalion Chief for documentation.

If a Hazardous Materials Response Team member is not on duty, the covering personnel will, at a minimum, complete the basic vehicle weekly, and the next shift that a Hazardous Materials Response Team Member is on duty, the weekly or monthly vehicle inspection shall be completed.

The current inventory list for the Hazardous Materials Response Unit shall be carried in an appropriate place in the vehicle. All Hazardous Materials Response Team Members shall be made aware of the location.

INITIAL OPERATIONS 27-1

PURPOSE

The purpose of this document is to establish a standard operating procedure that defines the initial first on-scene operational responsibilities of emergency response personnel when responding to or when discovering a hazardous materials incident.

PROCEDURE

The first arriving personnel will respond to any incident that is suspected to be involved with hazardous materials in the following manner:

- Stay upwind and uphill, keep out of low areas, and position vehicle/apparatus away from incident.
- Isolate the hazard area and deny entry (refer to reference material for initial isolation distances).
- Establish a command post using the Incident Command System.
- Identify an area of safe refuge and hot, warm, and ~~cold~~ support zones.
- Attempt to identify product without undue risk to personnel.
- Keep unnecessary people away - only those emergency personnel in the proper level of Proper Protective Equipment and positive pressure self-contained breathing apparatus are to operate within the inner perimeter.
- Determine need for protective action; i.e., evacuation or sheltering-in-place.
- Notify Dispatch that you have a hazardous materials incident.

MAINTENANCE OF PROTECTIVE EQUIPMENT 28-1

PURPOSE
The purpose of this document is to ensure that the Proper Protective Equipment is properly maintained for the safety of the employee.

PROCEDURE
Effective maintenance is vital to the proper functioning of Proper Protective Equipment. The specific maintenance schedules and procedures shall be in accordance with manufacturer's recommendations for all reusable items of Proper Protective Equipment.

Maintenance can generally be divided into three levels:

- Level 1: User or wearer maintenance, requiring a few common tools or no tools at all.
- Level 2: Shop maintenance, which can be performed by the employer's maintenance shop.
- Level 3: Specialized maintenance, which can be performed only by the factory or an authorized repair person.

Each type of Proper Protective Equipment will be classified into the level recommended by the manufacturer and followed by all team personnel.

STORAGE OF PERSONAL PROTECTIVE EQUIPMENT 29-1

PURPOSE

The purpose of this document is to ensure that Proper Protective Equipment is stored in the appropriate manner to assure safety of the employee.

PROCEDURE

Storage is an important aspect of Proper Protective Equipment use for emergency responders since haz-mat equipment is typically not used on a regular basis. Improper storage may lead to damage due to contact with dust, moisture, sunlight, damaging chemicals, extreme temperatures, and physical abrasion. The following considerations should be observed in storing Chemical Protective Clothing (CPC):

- Potentially contaminated clothing should be stored in an area separate from street clothing.
- Potentially contaminated clothing should be stored in a well-ventilated area, with good air flow around each item.
- Different types and materials of clothing and gloves should be stored separately to prevent issuing the wrong material by mistake.
- Protective clothing should be folded or hung in accordance with manufacturer's recommendations.

RECORDS AND REPORTS 30-1

PURPOSE

The purpose of this document is to ensure that proper records and reports are maintained for incident documentation and cost recovery. The sample documents provided are standardized forms utilized by all participants of the Quad County Team. All other forms are designed to meet the individual organization's needs and are not included with the samples.

PROCEDURE

The following forms and reports shall be utilized for a Hazardous Materials Response, and shall be forwarded to the IC for documentation for the incident. Some documents will vary depending on the format utilized by each organization.

Incident Report - Will be filled out by the Incident Commander to provide documentation of the incident. This document will vary for each organization.

Hazardous Materials Incident Report - To be filled out by the Hazardous Materials Group Supervisor to provide an accurate account of situation encountered, service performed, equipment used, etc. This document will vary for each organization.

Supply/Equipment - To be filled out by the Hazardous Materials Group Supervisor to provide record of incidents where expendable supplies were used or equipment was used that cannot be reused or decontaminated.

Medical Record - Will be filled out by the Medical Monitoring Personnel and/or Medical Unit Leader to provide pre-and post-entry team data for on-scene evaluation.

Incident Command System Forms - To be filled out by the Incident Commander or his designee as needed to assist officers in site/incident management. These forms shall include:

ICS 201ICS 206
ICS 202ICS 207
ICS 203ICS 209
ICS 204ICS 211
ICS 205ICS 214

Emergency Medical Forms - To be filled out by the Paramedic or Emergency Medical Technician in charge of the patient(s) as needed. This document will vary for different organizations.

Exposure Report - Will be filled out by the individual responder to provide a record of personnel contamination or exposure. This document will vary for each organization.

FOG Guide for the Incident Commander - To guide the Incident Commander with all aspects of the operation.

ICS Command Structure - To assist with the command structure for the various levels of incidents.

Haz-Mat Checklist – Will assist with identifying operational key points.

Safety Officer Checklist - Supplies a list of areas of responsibilities to be performed by the Safety Officer.

Evacuation Plan Elements - Provides key elements for construction of a functional evacuation plan.

State Notification List - Provides a list of state agencies to be contacted at the various levels of incidents.

Clean-Up Companies - Lists of Haz-Mat clean-up companies that could be utilized.

Site Safety Plan Checklist - Provides a list of elements necessary for proper construction of the Site Safety Plan.

INVESTIGATION 31-1

PURPOSE

The purpose of this document is to provide investigation assistance to a hazardous materials incident.

PROCEDURE

During the course of a hazardous materials incident where it is determined that it will be necessary to investigate the incident, the following resources should be utilized to assist with the investigation:

Haz-Mat Investigators

EPA 415-744-2000 Advise on-scene coordinator of situation and request assistance. Travel time 6-8 hours.

CHEMICAL PROTECTIVE CLOTHING 32-1

PURPOSE

The purpose of this procedure is to provide for firefighter safety regarding hazardous materials response, and to identify the process and factors to be considered in maintaining and selecting the proper level of protective clothing and proper level of respiratory protection during a Haz- Mat incident.

RESPONSIBILITY

It is the responsibility of the incident commander, in conjunction with the Haz-Mat/Assistant Safety Officer, to follow this procedure.

PROCEDURE

When evaluating protective clothing for use at a haz-mat incident, primary concern should focus upon chemical resistance, the integrity of the entire protective clothing ensemble (including the garment, visor, zippers, gloves, boots, etc.), and the tasks to be performed. When evaluating chemical compatibility recommendations, three sources should be considered, which may include the following:

- The primary reference source for chemical compatibility recommendations should be the Chemical Protective Clothing (CPC) manufacturer's technical documentation.

- Other credible sources may include CPC reference manuals and computer databases.

- *Guidelines for the Selection of Chemical Protective Clothing*, American Conference of Government Industrial Hygienists, Inc.

- *Quick Selection Guide to Chemical Protective Clothing*, Krister Forsberg, S.Z. Mansdorf.

There may be a conflict in compatibility recommendations between sources. Responders should initially rely upon the protective clothing manufacturer's chemical resistance recommendation. Always select the most conservative data. When evaluating chemical vapor protective suits; acquire a complete inventory of all suit components and their construction materials.

<u>Ensemble Selection Consideration</u>

The ensemble selection shall depend on:

- The nature and severity of the hazard.
- The type and duration of the tasks to be performed.
- The performance features and limitations of the available clothing and cost.

Respiratory Protection

Only positive pressure devices which maintain positive pressure in the face piece during both inhalation and exhalation should be used during haz-mat response operations. Decontamination, clean-up, and remedial operations are other examples for such use.

Maintenance and Inspection Procedures

The manufacturer's maintenance and testing recommendations should be consulted for maintenance and procedures. Protective clothing shall be fully inspected at the following benchmarks:

- Upon receipt from the manufacturer or distributor.
- Before and after each use or annually during the first weekly check in the month of January, whichever comes first.

Level "A" protective clothing shall be pressure tested:

- After each use or annually during the first weekly check in the month of January, whichever comes first.

At any time a level "A" suit is utilized where the product contaminating the suit material is unknown or the suit cannot be properly decontaminated, the suit shall be removed from service.

Documentation and maintenance of all appropriate records shall be recorded for chemical protective clothing. The documentation shall note each time the clothing is worn and inspected, maintenance data, unusual conditions or observations, decontamination solutions and procedures, and dates with appropriate signatures. This documentation shall be kept in a binder on the Haz-Mat Van.

RADIOLOGICAL RESPONSES 33-1

PURPOSE

- To reduce the potential for human casualties and the destruction of public and private property.
- To provide a coordinated response by city, state, and federal resources.

The Fire Department, Sheriff's Office, and Nevada Highway Patrol are usually the first on- scene in the event of most transportation accidents. When such accidents involve radioactive material, first responders shall implement radiation exposure reduction techniques, including the use of time, distance, and shielding principles.

PROCEDURE

The following are priorities and responsibilities for first-arriving companies when confronted with a hazardous materials incident involving radiological material:

- Life safety
- Environmental conservation
- Property protection

Note: Incident stabilization could result in any or all of the above.

First On-Scene

As soon as arriving units discover that an incident involves radiological hazardous materials, notification shall follow immediately to any additional responding units dispatched. Apparatus shall be properly positioned, and the following initial safe distance criteria shall be followed:

Residential	1 block
Large structures/industrial	500 feet
Open areas	1,000 feet
Staging area	2,500 feet

Other Operations to Establish

- Command/safety
- Staging
- Identifying the hazard
- Conducting a hazard risk assessment

Incident Operations

The State Department of Human Resources, Health Division, Radiological Section, has the primary responsibility for response assistance and radiological emergencies as stated in NRS 459. The Health Division, Radiological Section, will provide monitoring, evaluation of dose and dose rates, and consultation concerning containment and disposal of radioactive material. In addition, the United States Department of Energy, Nevada Operations Office, under agreement with the State of Nevada, will provide radiological assistance upon request by the state. If requested, the Nevada Department of Energy will provide a radiological assistance team, laboratory analysis, whole body counters, meteorological assistance, aerial survey, and clean-up operations for those incidents which involve spill or release of radiological material. The Nevada Division of Emergency Management (DEM) will provide a point of coordination for radiological emergencies. DEM has telephone numbers for federal, state, and city personnel and resources, in addition to businesses that have the technical expertise and equipment to contain and dispose of radiological material.

Tank Fire Response

Tank Fires

Strategy and Tactics
A PASSIVE STRATEGY should be used when there is little chance of extinguishing a tank fire and the area may have to be evacuated because of the possibility of a boil over or other life threatening reason. ☐ Personnel and materials (foam and water) are insufficient for a safe and complete extinguishment attempt. ☐ Recommended foam application rates and times cannot be met. ☐ There is imminent danger of a boil over, tank failure, or other life-threatening occurrence, dictating immediate evacuation of the area. **A DEFENSIVE STRATEGY** should be used when there is little chance of extinguishing a tank fire but the area will not have to be evacuated. The fire fighters should take action to confine the fire within the tank and minimize exposure damage; however, when additional personnel and equipment become available, the strategy shifts to an offensive one. Typically this would occur when the Operations Fire Team handles the initial response and is relieved by the Fire Brigade. **AN OFFENSIVE STRATEGY** should be used when sufficient foam supplies, equipment, and personnel are available to extinguish the fire. The following factors should be considered when an offensive attack on a tank fire is contemplated: ☐ Adequate foam supplies and equipment must be available to apply foam at the recommended application rates. ☐ Weather should permit extinguishment. ☐ When foam is applied to a hot burning liquid (for example, an asphalt tank), a slopover should be anticipated and appropriate action plans developed.
☐ Leave unmanned water streams in place. ☐ Sound the fire ground evacuation

Defensive Tactics

Defensive tactics are considered when intervention cannot immediately and safely influence the outcome of the incident. Defensive tactics may include:

☐ Cooling flame impingement immediately, with the following priorities:

Exposed Pressurized Tanks - Cool the area exposed to flame or heat above the liquid level to maintain structural integrity and lower the vessel's internal pressure. At points of flame impingement, apply cooling agent quickly to prevent vessel failure and the resulting boiling-liquid-expanding-vapor explosion (BLEVE). BLEVEs have been documented to occur in about 10 minutes. Cool areas of direct flame impingement on vessels that may be caused by flames from pressure relieving devices.

Exposed Atmospheric Tanks - Protect by cooling the roof (excluding floating roofs) and the tank shell above the liquid level.

Exposed Product Line Valves and Flanges - Bolted flanges and repair clamps have exposed bolts that lengthen when exposed to flame impingement or high heat loads. Gaskets exposed to high heat often fail, which can result in the release of additional quantities of fuel. Cooling of these areas should be coordinated with extinguishment efforts. Product pipeline valves must be protected from the outset because they may have to be operated (opened and closed) during firefighting operations. This is especially important if a product pump-out or subsurface injection through the product line is to be attempted.

Exposed Product Piping - If product piping is blocked in, it can fail when exposed to flame impingement or high heat loads. Maintain flow through piping, if possible, to carry away heat and reduce risk of failure.

Radiant Heat Exposures - Without direct flame impingement to mitigate the effects of radiant heat, water must be applied directly to the surface requiring protection. Radiant heat protection is generally not a high priority. Stop cooling a radiant heat exposure if a cooling stream produces no steam or quick flash-off of cooling water. This test should be made periodically to verify the heat load on the vessel or structure in question. Consideration should be given to the tank product and temperature. Cooling water may be desirable for light products and/or high storage temperatures. Water walls and water curtains should not be used because they waste water and are of questionable effectiveness. Be alert for potential drainage problems caused by excessive use of water.

☐ Extinguish any ground fires with foam and prevent these fires from spreading to other areas.

Offensive Tactics
☐ Maintain the integrity of the tank penetrations by controlling ground fires. ☐ Secure all valves, flanges, pumps, mixers, manways, etc. with cooling streams. Isolate as necessary. ☐ Protect adjacent tanks from impingement flame and heat. *Wet steel is good steel…Dry steel is bad steel* ☐ Request drawings of the area. ☐ Determine all of the pipeline products within the tank dike area and in the overhead. ☐ Be aware of electrical conduits in the dike area. ☐ Be aware of levels in the tank, levels in the dike and water being applied. Water management is a key issue. ☐ Foam Application: Refer to the tank pre-plans for foam requirements. ***Caution: Do Not begin foam operations until all of the required foam is on site. Exception is for Life Safety.***

SECTION15: HAZARD AND RISK ANALYSIS

TABLE OF CONTENTS

Risk Assessment

Overview

The following Risk Assessment will examine the risks of a hazardous materials release within Lyon County, Nevada.

Emergency planners, fire services, police departments, medical services and environmental protection departments can use this risk assessment as they prepare for, respond to, and recover from emergencies involving hazardous materials. The information provided in this overview is applicable to the risk assessments performed in the following areas:

- Motor Transportation
- Railroad
- Pipeline
- Waterways, Ditches and Canals
- Fixed Facilities

It should be understood by all persons, who refer to this section of the plan that hazard analysis is an ongoing process that provides information to assist the emergency response teams in mitigating a hazardous materials release.

This document should be considered a "living document" and as such needs to be cared for and maintained. Information gathered here conceivably can be outdated by the time it's distributed. Our entire system that we live in is changing on a daily basis and while the principles that contribute to this assessment will remain sound, the numbers will change and so must the preparedness. Therefore, qualified emergency response personnel should NOT use this section without competent review, verification and correction. Nothing in this section shall be determined as an obstacle to the experience, initiative, and ingenuity of the responders in overcoming the complexities that exist under actual emergency conditions.

The three guidelines used in preparation of this report are:

SARA Title III

SARA Title III Section 303, also known as the Community Right to Know Act, requested the NRT to publish guidance to assist LEPCs with development and implementation of comprehensive hazardous materials emergency response plans.

NRT-1 National Response Team (NRT) Hazardous Materials Planning Guide

A government emergency planning document developed in March 1987 by a panel of 14 federal agencies to give guidance to LEPC hazardous materials planning.

Technical Guidance for Hazard Analysis

Emergency planning for Extremely Hazardous Substances published by the USEPA, FEMA, and USDOT in December 1987. This document offers information on "how to" conduct a hazardous analysis.

Hazard Analysis

Comprehensive planning depends upon a clear understanding of what hazards exist and what risk they pose to personnel, property and the environment. Hazard Analysis is a three step decision-making process used to identify the potential hazards within a community. The three steps include hazard identification, vulnerability analysis, and risk analysis. A brief overview is presented below:

Hazard Identification typically provides specific information on situations that have the potential for causing injury to life or damage to property and the environment due to a hazardous materials spill or release.

Vulnerability Analysis identifies areas in the community that may be affected or exposed, individuals in the community who may be subject to injury or death from certain specific hazardous materials, and what facilities, property or environment may be susceptible to damages should a hazardous materials release occur.

Risk Analysis is an assessment of the probability of an accident and the actual consequences that might occur based on the estimated vulnerable zones. Risk analysis is the judgment of probability and the severity of consequence based on the history of previous incidents, experience and the best available current technological information.

The hazard analysis looks at hazardous materials located in fixed facilities and in transportation corridors. The following description defines the diversity of the hazardous products that move through Lyon County.

1. **Transportation Routes** - Highways, railways, and commercial and military aviation routes constitute a major threat because of the multitude of chemicals and hazardous substances transported along them. Interstate 80, Highway 95 and Highway 50 (including their alternates), and other main thoroughfares are areas of concern, as is the Union Pacific railroad tracks.

2. **Pipeline** - Several pipelines transect the Lyon County corridor carrying a wide variety of products for industrial, commercial and residential use. The Kinder Morgan Pipeline Company, possibly the largest of the pipelines, services Northern Nevada Bulk Storage Facilities and the Fallon Naval Air Station with petroleum products. The Paiute Pipeline and subsidiaries supply high-pressure natural gas for service to the communities and businesses.

3. **Business and Industry** - The manufacturing and light industrial firms within Lyon County offer the potential for hazardous materials incidents. These facilities use and/or store products that may be harmful to the population living and working in the area, and to the sensitive ecosystems of the region.

4. **Agriculture** - Accidental releases of pesticides, fertilizers, and other agricultural chemicals may be harmful to human health and the environment. The majority of agricultural industry consists of ranching and farming operations located throughout Lyon County.

5. **Illegitimate Business** - Illegitimate business, such as clandestine drug laboratories, are a significant threat to human health, property, and the environment. In many instances, the residue is dumped in remote areas of the county or along the side of the road, posing a serious health threat to the unsuspecting person who stumbles across it.

6. **Hazardous Waste** - Hazardous waste (e.g., used motor oil, solvents, or paint) is occasionally dumped in remote areas of the county or along roadways. Like drug lab residue, illegally dumped hazardous waste poses a threat to human health, property, and the environment.

7. **Radioactive Materials** - Interstate 80, Highways 50 and 95, other main thoroughfares and the railroads are authorized routes for the shipment of radioactive materials.

8. **Acts of Terrorism** - Terrorist acts are becoming more common today and much more sophisticated. Events of recent years have prompted a move towards terrorist preparedness.

Hazard Identification

The U.S. Department of Transportation (HM-181) divides hazardous materials into nine major hazard classes. A hazard class is a group of materials that share a common major hazardous property, i.e., radioactivity, flammability, etc. These hazard classes include:

Class 1-Explosives
Class 2-Compressed Gases
Class 3-Flammable Liquids
Class 4-Flammable Solids
Class 5-Oxidizers
Class 6-Toxic and Infectious Substances*
Class 7-Radioactive Materials**
Class 8-Corrosives
Class 9-ORMD-Other Regular Materials (Dangerous)

Notes:

*The words “poison and poisonous” are synonyms with the word “toxic”.

**Radioactive and Department of Defense (DOD) shipments are not subject to Department of Transportation (DOT) shipping regulations. Radioactive material is the least carried of the hazard classes listed above.

In some emergency response procedures for DOT hazard classes, a distinction is made between bulk or package quantities. Bulk indicates quantities that equal or exceed 110 gallons liquid or 1,000 pounds. Package quantities are less than these quantities.

"Other Regulated Materials (ORMS)" are materials that do not meet the definitions of hazardous materials, but possess enough hazardous characteristics that they require some regulation.

Chemical Identity

Hazardous Material - Is a substance (solid liquid, or gas) capable of posing an unreasonable risk to health, safety, environment or property.

Extremely Hazardous Substances (EHS) - EPA uses this term for chemicals that must be responsible pursuant to SARA, Title III. The list of these substances and the threshold planning quantities are identified in 40 CFR 355. Releases of extremely hazardous substances as defined by EPA must be reported to the National Response Center.

Highly Hazardous Substance - Hazardous substance, as used by the Nevada State Emergency Response Commission, encompasses every chemical regulated by both the Department of Transportation (hazardous materials) and the Environmental Protection Agency (hazardous waste), including emergency response. (See listing in Appendix)

Level of Concern (LOC) - The concentration of an extremely hazardous substance (EHS) in the air above which there may be serious irreversible health effects or death as a result of a single exposure for a relatively short period of time. (Typically one-tenth the Immediately Dangerous to Life and Health value established in the NIOSH Guide)

Note 1: The LEPC can declare the LOC for any EHS product.
Note 2: The LEPC can declare any site or product eligible for planning.

Level of Response
Level of response is described in two methods; Level I, II, III - describing the type of scene response and Level "A" or "B" describing the capabilities of the response team. The following narrative explains each of the level types for the purpose of allowing the reader to understand the intent of this document.

Determining Level of Incident
Hazardous materials incidents are classified into three levels, determined by their complexity. Graduating from Level I (least serious) to Level III (most serious), the magnitude of the emergency will determine the extent of involvement from local, state and federal agencies. From the initial size- up, an incident commander must be able to determine the level of emergency, at least for the purpose of making the appropriate notifications.

Level I

Level I emergencies are those *minor incidents* that can be handled within the capabilities of the initial responders. Level I spills are those releases that involve *less* than the reportable quantity (RQ) established for that particular substance by the reporting requirements which is contained in the CERCLA and SARA Title III statutes.
For example: a motor vehicle fuel spill of less than forty-two (42) gallons, or a release of anhydrous ammonia of less than 100 lbs.

Level II

These incidents are *more complex,* in that they usually require a significant resource commitment, and/or a level of expertise beyond the normal capabilities of the responding agency. Level II incidents require activation of the local hazardous materials area response plan with notification to state and federal agencies, and may require local evacuation. Spills of motor vehicle fuels in excess of forty-two gallons and spills involving established RQs (reportable quantities) or *any* quantity of an *unknown* substance fall into this category

Level III

A level III emergency is a *major incident* that has escalated beyond the capabilities of local and state agencies to handle. Therefore, a level III emergency requires the intervention of federal agencies, such as the EPA. These are the "worst case scenarios," such as a major train derailment or an airplane crash, and require the establishment of a unified command structure and scene management system. Level III incidents require mandatory reporting to the National Response Center (1-800-424-8802).

Level "A" and "B"

It is important to understand the difference between Level "A" and Level "B" capabilities. Level "A" and "B" refers to a classification of personal protective clothing (PPE). It can also be thought of as the level of response capabilities of a team because the selection of PPE is directly related to the type of hazardous material involved in the release. The following explanation is provided in common terms for clarity.

Level A protection is required when the greatest potential for exposures to hazards exists, and when the greatest level of skin, respiratory, and eye protection is required. The following are examples of appropriate Level A equipment:

- Positive pressure, full face-piece self-contained breathing apparatus (SCBA) or positive pressure supplied air respirator with escape SCBA.
- Totally encapsulating vapor/splash chemical resistant suit.
- Inner and outer chemical resistant gloves.
- Steel toe, steel shank chemical resistant boots.

Meeting any of the following criteria warrants use of Level A protection:

- Hazardous substances which have been identified and require the highest level of protection for skin, eyes, and respiratory system;
- The atmosphere contains less than 19.5% oxygen;

- Site operations involve a high potential for splash, immersion, or exposure to unexpected materials that are harmful to the skin;
- Operations are being conducted in confined, poorly ventilated areas, and the absence of hazardous materials has not yet been determined; or
- Direct reading instruments indicate a high level of unidentified vapors or gases in the air it may be necessary to base the decision to use Level A protection on indirect evidence. Other conditions that may indicate the need for Level A protection include:
- Confined spaces;
- Suspected or known highly toxic substances, especially when field equipment is not available to test concentrations;
- Visible indicators such as leaking containers or smoking chemical fires; and,
- Potentially dangerous tasks, such as initial site entry.

Level B protection is required under circumstances requiring the highest level of respiratory protection, with a lesser level of skin protection. Potential Level B equipment includes:

- Positive pressure, full face-piece SCBA or positive pressure supplied air respirator with escape SCBA;
- Inner and outer chemical resistant gloves;
- Chemical resistant steel toe and steel shank outer boots;
- Liquid/splash chemical resistant fully encapsulating suit.

Meeting any of the following criteria warrants use of Level B protection:

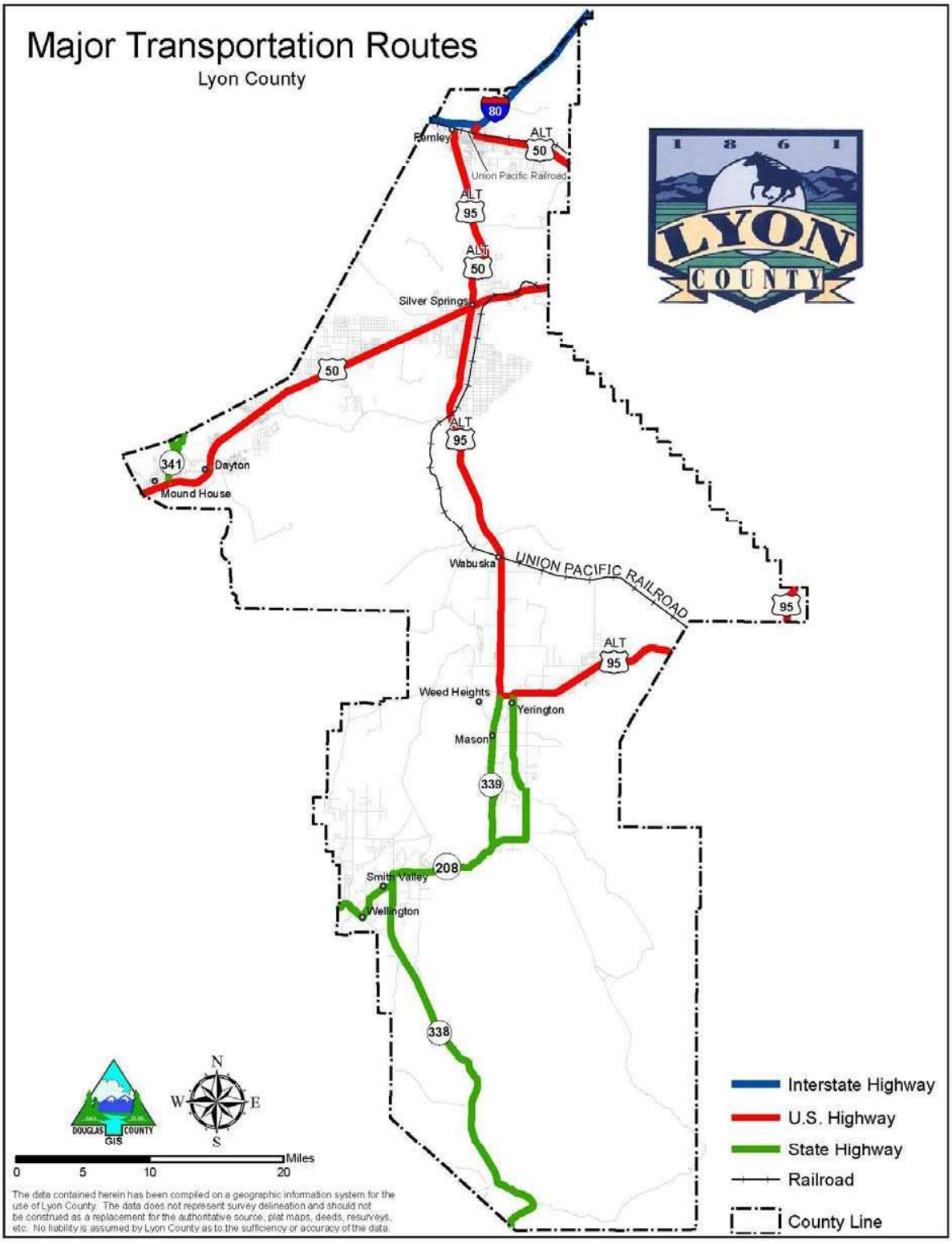
- The type and atmospheric concentration substances have been identified and require a high level of respiratory protection, but less skin protection than Level A;
- The atmosphere contains less than 19.5% oxygen; or
- The presence of incompletely identified vapors and gases is indicated but they are not suspected of being harmful to the skin.

Response Capabilities

Lyon County agencies are currently upgrading all responders to the First Responder Operations Level including decontamination. A recommendation for a contractual agreement for additional support from a private company providing First Responder Technician Level capability is pending.

29CFR1910.120

Response to hazardous materials events is strictly regulated by 29CFR1910.120 (CFR: Code of Federal Regulations). These regulations specifically address required levels of training for all responders and what they can or cannot do on the scene of a hazardous materials event. In California the equivalent to 29CFR is Title 8, additionally NFPA standard 471-472 deal with suggested HAZMAT protocols.


Major Transportation Routes
Lyon County
80
Fernley
ALT 50
Union Pacific Railroad
ALT 95
ALT 50
Silver Springs
50
ALT 95
341
Dayton
Mound House
Wabuska
UNION PACIFIC RAILROAD
95
ALT 95
Weed Heights
Yerington
Mason
339
208
Smith Valley
Wellington
338
N
W
E
S
DOUGLAS COUNTY GIS
Miles
0 5 10 20
The data contained herein has been compiled on a geographic information system for the use of Lyon County. The data does not represent survey delineation and should not be construed as a replacement for the authoritative source, plat maps, deeds, resurveys, etc. No liability is assumed by Lyon County as to the sufficiency or accuracy of the data.
Interstate Highway
U.S. Highway
State Highway
Railroad
County Line

Motor Transport Risk Assessment

Overview

Lyon County has several roadways designated within the Interstate or US Highway system.

- Interstate-80 crosses northern Lyon County east to west through the Town of Fernley.
- US Highway 95-Alt. enters Lyon County near Schurz, Nevada and runs in a northerly direction until it intersects with I-80 in Fernley.
- US Highway 50 runs in an east-west route entering Lyon County at the Carson City line and leaving Lyon County approximately four miles west of the Lahontan Dam.
- US 50-Alt. leaves Fernley at the southeastern edge of town and run in a southeasterly direction through Hazen and onto Fallon.
- Additional state highways include State Route 339, State Route 341, and State Route 208. These highways provide a domestic transportation corridor linking the Lyon County communities to one another.

There have been several studies regarding hazardous materials commodity shipments through these corridors. NDOT did a study in 1993, the State Emergency Response Commission did a study in 1995 and ERT Consulting completed a snap shot survey in 1999. These reports vary due to the time of year, time of day and the other variables. They do, however, give an indication of commodity travel through Lyon County.

Unfortunately, no new studies have been performed. However, the development of major industrial uses, including manufacturing and warehousing, has produced an increase in the transportation of goods within Lyon County and the region.

The focus of these studies was based on the major transportation corridors. Obviously the I-80 Corridor is the one corridor that has the most truck movement on a month by month basis. The weigh station operated by the California Highway Patrol in Truckee, California reports an average of 40,000 trucks a month that pass through that facility. Approximately 8% of the trucks or 3,200 trucks per month display hazardous materials placards. Assuming each vehicle had an average load weight of 35,000 lbs. that would convert to approximately 56,000 tons of placarded material a month moving through the I-80 corridor.

Nevada Department of Transportation

*Total tonnage of hazardous materials transported through the I-80 corridor by class percentage daily.

Tons		
Class 1 - Explosives	5.0%	114.13
Class 2 - Gasses	10.2%	230.20
Class 3 - Flammable liquid	49.0%	1109.23
Class 4 - Flammable Solids	1.6%	36.20
Class 5 - Oxidizers and organic peroxides	7.7%	174.73
Class 6 - Toxic materials and infectious substances	1.9%	43.71
Class 8 - Corrosive materials	23.7%	536.46
Class - Misc. dangerous goods	0.7%	16.89
Total		2217.84

ERT Consulting Snap Shot Study

Wednesday, April 14, 1999
8 hour period
Interstate 80
Total trucks - 701
Hourly average - 87.5
Vehicles placarded - 42
Products Carried included:
Flammable Liquid
Corrosives
Hydrochlorite solution
Caustic soda

Nevada State Emergency Response Commission

Interstate 80 Flow Analysis		
	Value	**Source**
Road Miles in Community (first response coverage)	60	Miles of highway within jurisdiction
Placarded Loads	150	NDOT maximum daily count
Placarded Loads	8850	Cell 1 X Cell 4
Per Million Miles	0.00885	Cell 4/1,000,000
Nevada's Accident Frequency (per million miles)	2.07	Given
Expected Accident Frequency for Placarded Loads	0.0183195	Cell 10 X Cell 8
Normalized Segment Study Hours	1	24 Study hours/24
Expected accidents with Placarded Loads per year	**7**	**Cell 12/Cell 14 * 365**
Expected Accident Frequency = 1 ever	2 months	

US 95 ALT. and Highway 50 each have a considerable amount of truck traffic averaging approximately 140 trucks during the daytime hours and 120 trucks during the evening traffic. Approximately 10% of these vehicles consisted of placarded loads the majority of which were hydrocarbons.

ERT Consulting Snap Shot Study

Wednesday, April 02, 1999
8 hour period - daytime
Intersection of US 50 and Alt 95
Total trucks - 140
Vehicles placarded - 14
Primary Products Carried included:
Flammable Liquid
Corrosives
Resin
Propane

ERT Consulting Snap Shot Study

Wednesday, April 05, 1999
8 hour period - Evening
Intersection of US 50 and Alt 95
Total trucks - 121
Vehicles placarded - 15
Products Carried included:
Flammable Liquid
Corrosives
Resin

Nevada State Emergency Response Commission

US 95 Alt. North/South		
Condition	**Value**	**Source**
Road Miles in Community (first response coverage)	48	Miles of highway to which first responders automatically respond
Placard Loads	30	Count
Placard Miles	1440	Cell 1 X Cell 4
Per Million Miles	0.00144	Cell 4/1,000,000
Nevada's Accident Frequency (per million miles)	2.07	Given
Expected Accident Frequency for Placarded Loads	0.0029808	Cell 10 X Cell 8
Normalized Segment Study Hours	1.75	42 Study hours/24
Expected accident with Placarded Loads per year	**0.62**	**Cell 12/Cell 14*365**
Expected Accident Frequency = 1 every		**19.30 months**

Nevada State Emergency Response Commission

US 50 East/West		
Condition	**Value**	**Source**
Road Miles in Community (first response coverage)	62	Miles of highway to which first responders automatically respond
Placarded Locals	10	Count
Placarded Miles	620	Cell 1 X Cell 4
Per Million Miles	0.00062	Cell 4/1,000,000
Nevada's Accident Frequency (per million miles)	2.07	Given
Expected Accident Frequency for Placarded Loads	0.0012834	Cell 10 X Cell 8
Normalized Segment Study Hours	1.75	42 Study hours/24
Expected accidents with Placarded Loads per year	**0.27**	**Cell 12/Cell 14 *365**
Expected Accident Frequency = 1 every		**44.8 months**

Communities may be at risk when delivery routes are near residential areas. National statistics have shown that the majority of accidents involving tractor trailer rigs occur during turning operations in city areas. Lyon County should identify the products being transferred, the method of delivery, frequency of delivery and the primary and secondary routes to be used when considering issuance of a hazardous materials permit to a fixed facility.

Railroad Risk Assessment

Union Pacific Railroad - 24hr. Emergency Number 1(888) 877-7267

Overview

The Union Pacific Railroad maintains a main line track that travels east and west through the City of Fernley in North Lyon County. Data supplied by Union Pacific for the calendar year of 1998 consisted of a total of 10,352 loads of hazardous materials. It is interesting to note that substantially more hazardous materials move westbound than eastbound. The amount of westbound hazardous materials is almost 3 times that of eastbound traffic.

Union Pacific Railroad
2011 Hazardous Materials Commodity Report

Car loads	4,381
Intermodal loads	0
Total	4,381

Hazard Class	Number of Loads
Class 1	0
Class 2	996
Class 3	1,096
Class 4	31
Class 5	21
Class 6	7
Class 7	0
Class 8	1,072
Class 9	690
CL	468

It should be noted that these loads can and will be mixed with other freight being moved by the train on any given day. The amount of hazardous materials transported is dictated by product demand and can vary based on the season. (Example: Substantially more hydrocarbons will be shipped in the winter months than summer.)

Additionally Union Pacific has a spur line that runs from the Hazen area south through Silver Springs on to Wabuska, terminating at the munitions depot in Hawthorne. The spur, named the Throne Branch, belongs to the federal government from Wabuska to Hawthorne. Either Union Pacific or a contract engine located at the depot may be used to move munitions on that portion of the spur. The Hawthorne plant is primarily used for either storage or milling of explosives. Most information regarding the munitions is considered classified. Responders need to understand the following rules of engagement regarding haz-mat incidents on the area of track from Hazen to Hawthorne.

1. Emergency Response Guide (ERG) Book or standard placards may not apply to Department of Defense shipments; therefore, shipments may not be placarded.

2. Any suspected hazardous materials incident on or near the spur involving munitions between Wabuska and Hawthorne should NOT BE HANDLED by local response. Standard isolate and deny entry protocols should be employed as prescribed in the ERG Guide 112.

3. Contact 24-Hour Dispatch Center at **(775) 945-7555** and request assistance. They will send specially trained personnel to handle the situation or provide technical assistance in what can or cannot be done.

Union Pacific is acutely aware and proactive in preparation for any incident that may occur and are well prepared to respond in the event of a train related incident. (See main plan "Notification Section" for immediate response guidelines).

Pipeline Risk Assessment

Fuel Pipeline

Kinder Morgan - 24hr. Emergency Numbers:
Reno, NV (775) 358-6971
Orange, CA (213) 624-9461.

Overview Kinder Morgan Pipeline
Kinder Morgan operates an underground pipeline that transports approximately 13 million barrels of petroleum products (gasoline, diesel, and jet fuel) from the pump station in Rocklin, California to the Sparks, Nevada Terminal. Jet fuel is then pumped from the Sparks terminal to the Fallon Naval Air Station. Kinder Morgan also shares a storage facility in the City of Sparks.

Fuel enters the pipeline in Rocklin, California and traverses the western slope of the Sierra with booster pumps at Colfax and Cisco Grove. Once the fuel reaches Donner Summit gravity forces the fuel the rest of the way to Sparks. The pipeline varies in size from 6 inch to 10-inch diameter and was constructed in the 1950's of high-grade steel pipe. Valves have been installed at the most critical locations along the pipe. These valves are a combination of automated motor driven block valves and manual block valves located along the full length of the pipeline (see table). The motor driven block valves can be operated remotely from the terminal. All the valves can be operated manually onsite.

Pipeline Location - North Lyon County
The Fallon Naval Air Station portion of the pipeline follows Highway 80 and the railroad right-of-way for about 16 miles to the Tracy power plant. East of the Tracy power plant, near the Eagle Pitcher Mine, the pipeline veers to the south leaving the Truckee River and railroad corridor for about 11 miles. The pipeline rejoins the railroad corridor following the Truckee Canal southwest of Wadsworth and heads east along the railroad right of way through the City of Fallon until it reaches its final destination at the Fallon N.A.S.

Hazard Analysis
Since the 1950's only one major incident has been reported. That spill was caused by construction equipment working over the pipeline. Over the past 40 years the pipeline has been subjected to extensive stream erosion, landslides, and tectonic activity. The fact that the pipeline has survived relatively undamaged over the years is a testament to the quality of the original construction and the ongoing efforts to maintain the pipeline.

While the products in this pipeline do not constitute an EHS (extremely hazardous substance) they could certainly present an extreme hazard. The location of the pipeline in respect to the Truckee River and the populated areas of Fernley increase the need for comprehensive planning.

Kinder Morgan has established an emergency response plan in the unlikely event that an accident may occur. The manual includes notification procedures, actions, and checklists for involving personnel, reporting forms, and information on Incident Command and Unified

Command Systems. There is also a program for drills and exercises on response in accordance with DOT and EPA regulations.

This emergency plan can be activated by calling:

Kinder Morgan – 24 hr. Emergency Number
Reno, NV (775) 358-6971
Orange, CA (213) 624-9461

There are several locations along the pipeline where leak detection can occur, the threshold of detection is about one tenth of one percent over a period of about 15 minutes. In the event of a catastrophic break, the pipeline can be shut down in about 30 seconds using automatic shutoff valves (Table 1). Isolation of manual valves is dependent on weather conditions and could require 30 minutes to an hour to close. Once the pipeline is isolated, the product remaining in the pipe can be estimated based on the distance of the block valve from the point of release.

If this break is caused by a single isolated event such as a landslide or rockslide, the damage could be detected, contained, and repaired relatively quickly assuming fair weather conditions and transportation routes are clear.

If the event is wide spread major earthquake or flood then fuel distribution would be hampered due to power outages, road closures, and perhaps pipeline shut down. Emergency services would be limited to the fuel supplies on hand. Even access to this fuel might be limited to the availability of mobile generators to power pumps. Additional emergency crews would more than likely have to be brought in to repair ruptures along the pipeline, since available personnel would be occupied at the terminal and urban core areas during a major catastrophic event.

Vulnerability Analysis

Any release from the pipeline may have severe consequences to the population and the environment. The proximity of the pipeline to the Truckee River, its inlets and outlets, signifies a potential threat to the water system. All of the communities located along the Truckee River draw their water supply from the river or from wells that are directly affected by any product release from the pipeline. Environmental damage, including the potential for wildland fire, is an additional consideration.

Risk Analysis

The risk associated with the pipeline is minimal due to the construction and the continued preventative maintenance programs in place by Kinder Morgan. But, this is not to say that the potential for pipeline failure does not exist. The following narrative describes probable scenarios of pipeline failure.

1. Construction

Excavation is the most likely cause of damage to the pipeline. The potential for rupture due to nearby excavation is greatest in areas where the pipeline corridor intersects highways and

railroad right of ways and areas of new construction. Breaks in the pipeline caused by excavation are also the most easily preventable type of break. Public education and awareness of the need for pipeline locates before digging or operating heavy equipment near the pipeline and coordinated efforts to make pipeline and utility locates easy to acquire and to identify will help to prevent future breaks.

As the area within the pipeline corridor continues to grow and expand the potential for damage will also continue to grow.

2. Earthquake

Earthquakes pose a threat to the Kinder Morgan pipeline as well as the terminal and fuel stations that are part of the distribution system fed by the pipeline. An earthquake has the potential of damaging the pipeline through three major forms of ground deformation liquefaction, surface rupture, and landslide. The Kinder Morgan pipeline is constructed of high- grade steel using modern full penetration welding techniques. Pipelines constructed similarly to the Kinder Morgan Pipeline have withstood major earthquakes in the past with minor to no damage due to the ability of welded steel pipe to withstand considerable ground deformation without failure. The ductility of high-grade steel pipe provides the pipe with a large amount of resistance to rupture due to most ground deformation and shaking.

Damage to tanks and connections, however, are common during events of extreme shaking. Tank damage such as sidewall buckling, separation of sidewalls from the bottom plate, and sloshing of liquids can result from severe shaking. If connections between pipes and tanks are not flexible they are vulnerable to damage during earthquakes. Containment dikes serve as a good line of defense in the event pipe connections break. Once contained within the dikes the petroleum products can be kept from ignition sources and the spill can be controlled.

3. Flood and Erosion

River and stream crossings and locations where the pipeline is near embankments are subject to erosion. Floodwaters pose the greatest threat to breaking the pipeline since flooding can result in large amounts of erosion and mass wasting along drainage over a very short period of time. The pipe was originally buried at least 3 feet below the riverbed. Erosion has worn away the river bottom at some stream and river crossings sometimes leaving the pipe exposed.

Kinder Morgan Pipeline has been vigilant about keeping embankments in place using riprap and other erosion control measures and retrenching and reburying the pipe when it becomes exposed. These preventative measures have kept stream erosion from causing any breaks in the pipe in the past, however heavy flood waters can change the whole course of a river or stream in minutes. Some of these crossing may be at higher risk of erosion or embankment failure due to soil types, nearby tectonic activity, and gradient of the embankments and river.

There are many more washes, dry creeks, marshes, and irrigation ditches that drain into the Truckee River that are traversed by the pipeline. It is imperative that, in the event of a spill, an assessment of the location is made to determine if it is in a drainage.

4. Corrosion & Settlement

Pipelines are often subject to corrosion due to saline or alkaline ground water or in some cases chemical spills near the pipeline. Corrosion can in extreme cases lead to seepage and leakage underground. Kinder Morgan has a pilot fly the pipeline once a week looking for signs that such an underground leak has occurred. Unfortunately often by the time above ground detection is made, damage may have already occurred to the watershed.

5. Landslide

In the mountainous terrain along the west portion of the pipeline through Verdi, landslides and avalanches have the potential of uncovering and/or damaging the pipeline. The greatest hazard exists where the pipeline crosses steep mountainous areas due to landslides and stream erosion. Earthquakes, flooding and times of high run off can lead to an increased likelihood of landslides. During the original construction of the pipeline crews took into account the probability of avalanche and landslides and buried the pipe along steep inclines with up to 5 feet of ground cover. This foresight has probably saved the pipe from ever being subject to breakage from an avalanche or landslide in the past.

Summary

While potential for a leak would appear to be minimal, cause for concern should be taken seriously. A leak could cause problems anywhere along the corridor particular up stream form Chalk Bluff water treatment plant and downstream from Sparks on the spur to Fallon where the pipeline crosses the river six times. A seepage of fuel would be the most difficult to detect and may be the most probable type of leak to impact the Truckee River watershed. Any release or potential for release within the Truckee River watershed area should be cause to review the Truckee River Regional Hazardous Materials Response Plan.

Table 1

Location of Pipeline Isolation Valves

Area	Valve Type	Location
Donner Lake	Automatic	West end of Donner Lake
Truckee	Manual	West River Road, Truckee
Prosser Creek Incoming	Manual	South West bank of Prosser Reservoir
Prosser Creek Outgoing	Manual	East bank or Prosser Reservoir
Woodchopper Springs	Manual	1.1 mi. East of Prosser Reservoir
Hoke Valley	Manual	2.2 mi. East of Prosser Reservoir
California/Nevada	Automatic	Stateline in Verdi
Northridge	Manual	Northridge Golf Club
West Reno	Automatic	Dickerson Road, Reno
Coney Island	Manual	Coney Island Drive, Reno
Reno Incoming	Manual	KMEP Terminal, Sparks
Reno Outgoing	Manual	KMEP Terminal, Sparks
East Vista	Manual	3.5 mi. East of Terminal, near R.R.
West Lockwood	Manual	Lockwood Exit, near R.R.
East Lockwood	Manual	Mustang Exit, near R.R
Clark	Manual	Eagle Pitcher Mine
Fernley6	Manual	Fernley, Nevada

High Pressure Natural Gas Transmission Line

Paiute Pipeline
Emergency Number 1-775-882-0148

Overview Paiute Pipeline

This 16" high-pressure transmission line is part of a pipeline that moves natural gas from the Trans Canada Pipeline into Nevada and supplies most Western Nevada communities and some parts of eastern California. The main line is in North Lyon County and roughly parallels the I-80 corridor to Reno. Feeder lines run to Fallon and from Fernley to Silver Springs where the line parallels Hwy 50 to Carson City. Additionally there is a feeder line that supplies the community of Yerington and some areas of Mason Valley.

The pipeline is constructed in 1963 is made of steel. This line is generally buried a minimum of 24" but more like 36" to 48" depending on terrain. Line pressure may be as high as 1440 PSI. This pipeline is monitored via telemetry and pumping stations as well as block valves can be remotely controlled. Vertical line markers are placed above ground level in a line of site method for distance. Special valves known as “city gates” reduce working line pressure from three or four digit numbers to about 53-60 PSI depending on local requirements for each community.

Natural gas has an odorizer, ethyl mercaptan, present in small quantities for detection purposes. Pipeline block valves are located at required distances. Standard haz-mat protocols should be employed and responders may call the Paiute Pipeline **24 hour number 1-775-882- 0148** for assistance in any Incident involving this high-pressure line.

Operations persons and incident Commanders working in wildland fire conditions may want to request technical support from Paiute (or Southwest Gas) as the potential exists that dozers cutting fire line could damage the pipeline under certain conditions.

Responder Notes

- Natural gas is lighter than air upon release it dissipates into the atmosphere.
- Gas is in vapor form and its components are 96% methane, 2% ethane and 1.5% nitrogen the remaining 0.05% is carbon dioxide, propane, butane, pentane, and other hydrocarbons. Additionally mecapton is added as an odorizer.
- LEL is 5% and the UELS are 75%
- As the gas pressure decreases the potential for ignition moves closer to the source. Related ignition of combustibles materials can occur within 750 meters (820 yards) of a pipeline fire.
- Extreme noise levels may be encountered.
- Full PPE and SCBA for area searches is highly recommended.
- The shock wave of the gas release will make the ground shake.

Note: The Kinder Morgan Pipeline Risk Analysis applies to the Paiute Pipeline.

Rivers and Associated Waterways

Truckee River

Overview

The Truckee River Basin encompasses an area of approximately 3,060 square miles in the states of California and Nevada. The basin stretches in a generally north by northeast direction from Lake Tahoe, located in the Sierra Nevada Mountains on the border between California and Nevada, to Pyramid Lake, located approximately 50 air miles away in the desert of northwestern Nevada. Connecting this alpine source lake and the basin's desert terminal lake (Pyramid) is the 105-mile long Truckee River.

Hydrologic Overview of the Truckee River Basin

Major hydrologic features of the Truckee River Basin include Lake Tahoe and the Lake Tahoe Basin, the 105-mile long Truckee River, a number of lesser upstream storage lakes and reservoirs, various tributaries, and the Truckee River's terminus, Pyramid Lake. The Truckee River system may be thought of as consisting of five (5) major river reaches including:

1. The 15-mile reach between the Truckee River's origin beginning at the Lake Tahoe Dam near Tahoe City, California.
2. The 20-mile reach flowing through the upper Truckee River canyon between Truckee, California, and Verdi, Nevada, a reach that cuts through the Carson Range of the Sierra Nevada Mountains.
3. The 15-mile reach through the Truckee Meadows and the cities of Reno and Sparks, Nevada, to Vista.
4. The 30-mile reach from Vista to Wadsworth through the lower Truckee River canyon, and cutting through the Virginia Mountain Range.
5. The 25-mile reaches below Wadsworth, Nevada, transversing a broad alluvial valley to Pyramid Lake.

Fernley Area

The Truckee Canal begins at Derby Dam and carries water 31.5 miles to Lahontan Reservoir on the Carson River. Along the canal route, about 25 diversions leave the canal for agricultural irrigation and small public water supplies. Return flows from about half of these enter the Truckee or Carson River basins. However, return flows from agricultural fields immediately east of Fernley move northward into a small, closed basin. Thus, this basin is hydrologically connected to the Truckee-Carson system and is considered a separate subunit. The subunit extends from the Truckee-Carson system drainage boundaries to the low point of the closed basin in the Fernley State Wildlife Management Area, and covers about 103 mi^2.

The water budget of the Fernley Area is based upon flows in the Truckee Canal, leakage and diversions from the canal, the ground-water system, and runoff into the canal during rainstorms. Leakage from the Truckee Canal, which is mostly unlined, augments the local groundwater supply as does percolation of diverted water. Agricultural return flows provide the sustenance of wetlands north of the fields to the playa near Interstate Highway 80.

Vegetation and open water there became attractive to waterfowl and other animals, and the area was made into a wildlife preserve. A part of the agricultural return flows returns to the Truckee River in the vicinity of Wadsworth, resulting in increased base flows and contributing to the load of dissolved solids in the river.

Water-quality problems are directly tied to the condition of the water in the Truckee Canal. Not only does canal water go to ground water and crops, but local residents also use the canal for swimming and fishing. The future of the water resource for the Fernley Area will be heavily dependent upon decisions reached about water supply and quality in the Reno-Sparks Metropolitan Area, and consequent discharges to the Truckee River and Canal.

Carson River

Overview

Carson River mainstream is formed from its East and West forks northeast of Walley's Hot Springs and southeast of Genoa. The Carson River heads north and then northeast, crosses U.S. Highway 395 and then exits the Carson Valley by passing between Hot Springs Mountain and Prison Hill. The Carson River then travels north along the eastern edge of Eagle Valley and the present site of Carson City to the old site of Empire City, where the river turns east and enters the upper end of the relatively narrow Dayton Valley. On its course through this canyon to Dayton, the river drops nearly 240 feet over a distance of just over ten miles.

At Dayton, located approximately 10.6 miles downstream from Empire City, Gold Canyon joins Dayton Valley and empties into the Carson River. Below Dayton, the Carson River enters the Carson Plains and continues east for nearly 15 miles to Table Mountain. Just over nine miles downstream from Table Mountain the Carson River meets the Adrian Valley, which enters the lower Carson River valley from the south.

Nearly ten miles downstream from the Adrian Valley, the Carson River flows into Lahontan Reservoir. Following the contours of this reservoir, the Carson River's bed travels a circuitous 17.4 miles through Lahontan Reservoir to Lahontan Dam, where the waters of the Carson River merge with those of the Truckee River, which have been diverted at Derby Dam and enter Lahontan Reservoir from the north via the Truckee Canal. Six miles below the Lahontan Dam, the Carson River arrives at the Carson Diversion Dam, which marks the beginning of the Lahontan Valley and the primary distribution system regulating the diversion of the Carson River's waters into the principal "T" (T-Line) and "V" (V-Line) canals of the Newlands Project. Below this point, the Carson River enters the labyrinth of canals, laterals, and ditches making up the Newlands Project water distribution system, and, except during high flow periods, effectively loses its identity as a river system.

While no waters are diverted out of the Carson River Basin, this basin receives waters diverted from the Truckee River Basin.

Travel Time for River and Waterway Flows

Travel time of flows is a basic hydrologic consideration in water management and in understanding the transport of many water-quality constituents. Travel time is the time it takes for constituents placed in the river to move downstream form one point to another. Therefore, travel time is important in estimating, for example, how long it will take for sewage discharge or a spilled contaminant to move from its point of origin to a critical place downstream.

Constituents in water disperse as they move downstream, some lagging along blanks and in pools while others near the surface in the center of flow move more rapidly. Thus, the constituents may be spread out over a considerable reach of river by the time they have moved significantly downstream.

During low flows, constituents tend to spread out over great distances and remain in a given reach of the river for long periods. During high flows, constituents tend to spread out more slowly and pass through a given reach of the river more quickly.

Measurement of travel time thus includes measurement of dispersion and dilution as well as velocity of flow. Information on travel times would be useful, for example, in timing the discharge from a sewage treatment plant to coincide with high flows released from a reservoir upstream, or to avoid conflict with planned diversions downstream. Consideration of travel time is fundamental to modeling the flow and water-quality characteristics of a river, and to managing the river to meet desired goals for water quality and quantity at specific points along the river.

The potential exists for a hazardous materials event to occur with a product release in the river or waterway. Travel times for any contaminant in the river are subject to many influences and because of these influences the prudent use of personnel and monitoring equipment is essential to the success of any response effort. During hazardous materials events that either threaten or are confirmed to be near the river, monitoring teams and the data that they supply will be of the utmost importance to decision-makers. Incident commanders should contact experts in the field of hydrology to assist in determining the travel times based product release. Assistance can be found with the following agencies:

- US Geological Survey
- US Coast Guard
- National Weather Service
- Nevada Division of Emergency Management
- Federal Water Master

Bulk Fuel Storage Facilities

Overview

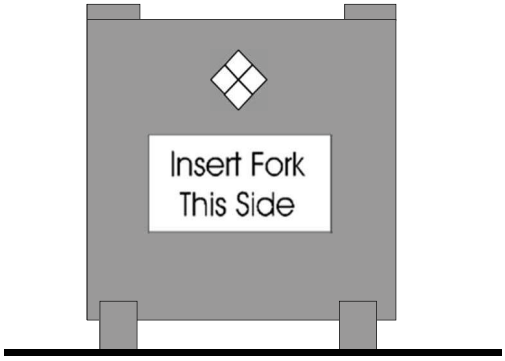
Bulk Storage Areas within Lyon County carry a wide range of flammable and combustible products listed as petroleum products (gasoline, diesel, kerosene, asphalts etc.) and liquefied petroleum gases (LPG) (propane, butane etc.). This bulk storage is a combination of locations for product distribution and locations for private use by industry.

Petroleum Products do not present the same type of risk as other hazardous materials. Although there can be significant damage to the environment from a product release, the higher danger is the threat of fire. The following information is applicable to bulk storage of flammable and combustible liquids and gases and is included because of the high probability of fire accompanying a hazardous materials release.

Bulk Storage List

SEE the Facilities Lists section.

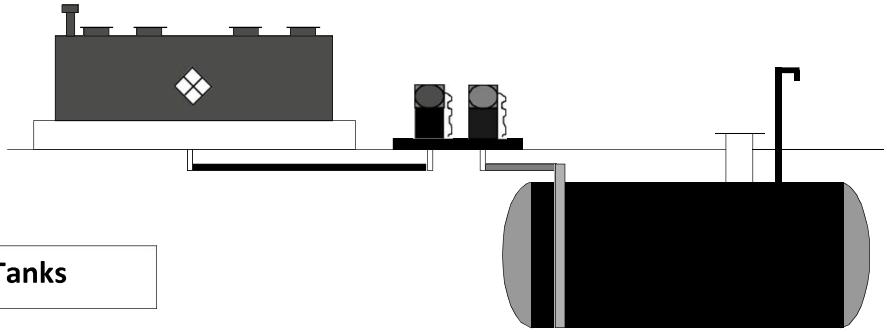
Note: This list DOES NOT include facilities with storage of less than 1000 gallons and all Gas Stations.



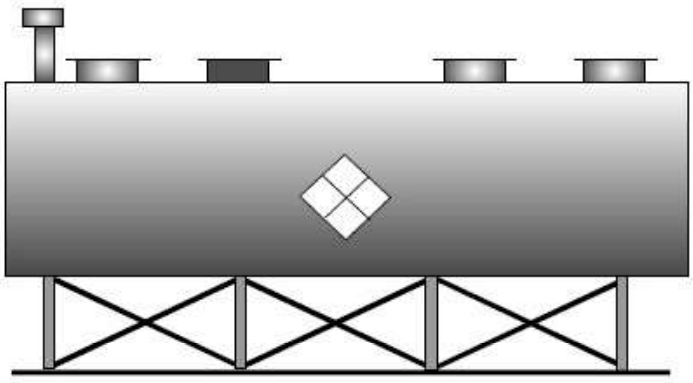
Portable Tanks

Transporting bulk solids, liquids, and gases
Also known as intermediate bulk containers (IBC's)
3 Types:

1. Metal
2. Plastic within metal frame
3. Reinforced Cardboard

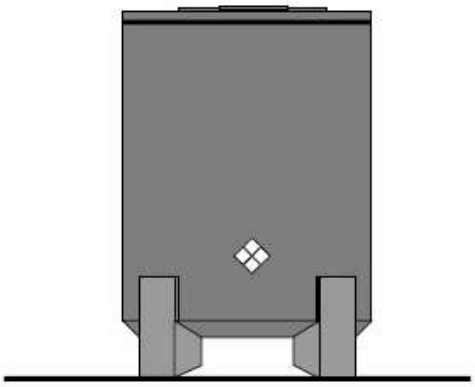


Petroleum Storage Tanks



Horizontal Tanks

Flammable and combustible liquids, corrosives, poisons, etc.

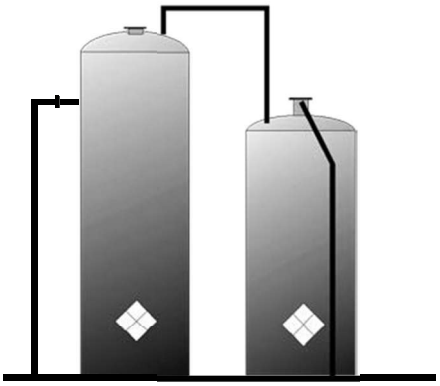


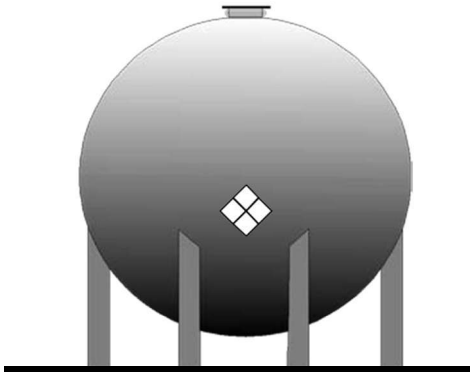
Cryogenic Liquid Storage Tank

Liquid oxygen, liquid nitrogen, liquid carbon dioxide, etc.

Dome Roof Tanks

Flammable and combustible liquids, fertilizers, chemical solvents, etc.



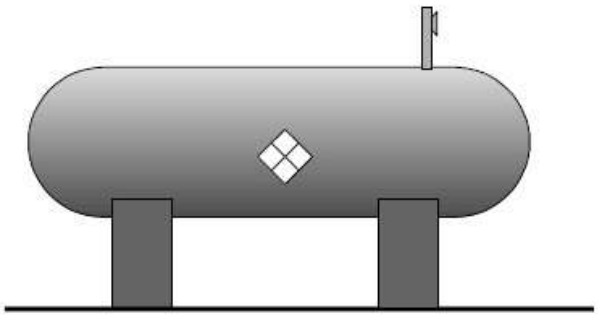


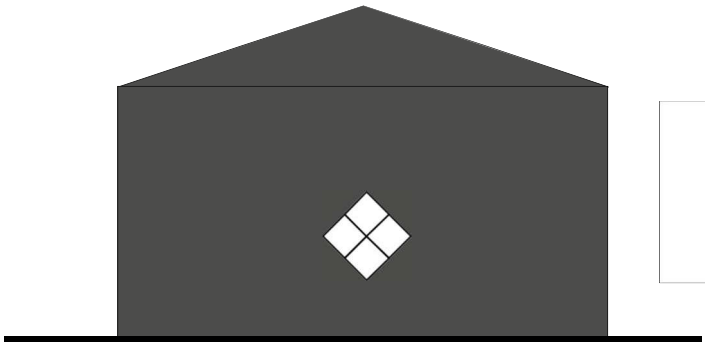
High Pressure Spherical Storage Tank

LP Gases

High Pressure Horizontal Tank

LP Gases, anhydrous Ammonia, high vapor pressure flammable liquids



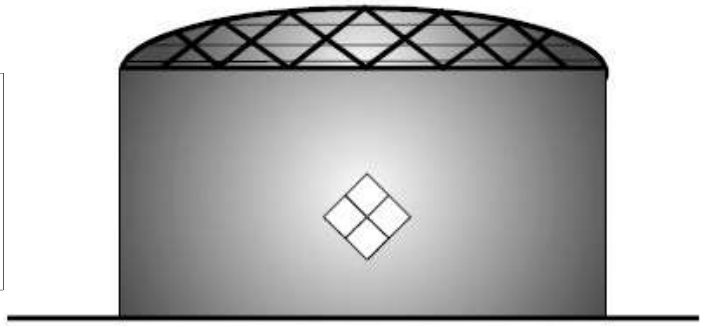


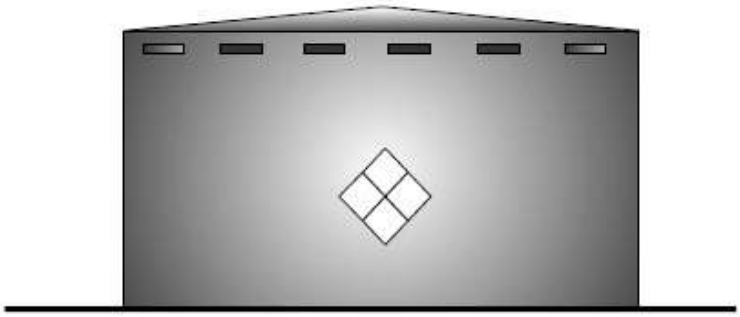
Cone Roof Tank

Flammable Combustible and Corrosive Storage

Covered Top Floating Roof Tank with Geodesic Dome

Flammable liquid storage



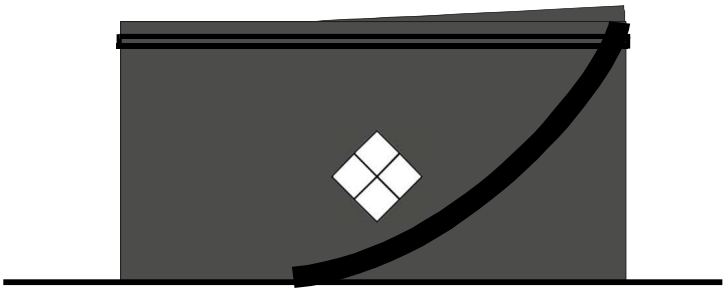


Covered Top Floating Roof Tank

Flammable and Combustible Storage

Open Top Floating Roof Tank

Flammable and Combustible Storage



Future Location of Fixed Facilities

Overview

Determining the location of fixed facilities that could manufacture, use, or store hazardous materials within Lyon County is a complex issue that requires procedures and continuous planning and monitoring. Community leaders should consider the planning and zoning ordinances that currently exist and make a risk determination for the area. Several industrial complexes are already in place or have been zoned to accept industry. These locations as well as future sites should be compared closely with the residential, commercial, and recreational development areas.

Reporting

Lyon County Land Use Regulations (Title 10), Section 10.04.04 C-4, "Authorization of Substances" states: "All users that will be handling any substances regulated by Federal superfund Amendment and Reauthorization Act (SARA) Title III section 302 when held in quantities requiring notification under section 311 and 312 of the Act shall, prior to commencing operation, obtain authorization from the Board of County Commissioners of Lyon County. Said authorization shall be duly considered at a duly noticed public hearing, held not more than forty five (45) days after written request by an applicant."

Note: A listing of chemicals including quantities is included at the end of this section.

The Lyon County Land Use Regulations do not offer a clearly defined guideline for determining locations or for enforcing the reporting by facilities. An assessment of the Tier II reports indicates that not all of the chemicals were reported correctly (For example, 35,000 lbs. of Hydrofluoric Acid was NOT reported as an EHS.). Regulating and enforcing hazardous materials within the County is an ongoing process that will develop with time.

It is difficult to establish a general guideline that can be used for all fixed facilities. There are too many variables to consider. The Lyon County Planning Commissioners must make their decision based on the type of industry, the chemicals on site and the impact on the population and the environment. The following are general guidelines to be considered prior to approving the location of a fixed facility. The County should insist that the permit applicants provide answers to the following guidelines. If the County is not satisfied with the response or need further assistance, it is recommended that the County and applicant seek third party interpretation.

Determining the Location

1. **Is there an existing population density within a 1 mile radius of the proposed facility? What is the long term potential for population encroachment into the proposed site?**
   - Minimum isolation zones for hazardous materials incidents begin at 500' and extend to several miles depending on the type of product. Standard protocol, for example, of explosive products is 1/2 mile. Airborne products, such as chlorine, have evacuation zones of up to 3 miles and greater. It is important, regardless of the

probability of the release is to determine and maintain a comfortable first layer of protection for the citizens.

2. **Are there any sensitive facilities located within a 2.0 mile radius?**
   - Sensitive facilities are those facilities that require assistance during evacuation or shelter-in-place activation and may include schools, hospitals, rest homes, day cares, clinics, fire stations, communications complexes, jails, prisons, etc. These facilities, by their very nature, are highly susceptible to all spills and airborne releases. Consideration must be given to this group when determining locations for fixed facilities and also the transportation corridors used to receive and deliver hazardous products.

3. **Are there any sensitive environmental zones that could be in jeopardy from a release near the site?**
   - The facility requesting approval for location should provide some type of environmental impact study that will satisfy the planning group.

4. **Is the proposed site served by rail, pipeline or interstate?**
   - Changing the railroad, pipeline or interstate is not practical. But, knowing what travels the corridor and preparing for incidents through planning and training is practical. Fixed facilities may not store hazardous materials that meet or exceed the reporting quantities, but, that does not mean that the transportation mode used to transport is not in excess of reportable quantities. For each product manufactured, stored or used in the county the planner must assume a transportation accident is possible.

5. **Are there adequate (multiple egress routes) travel routes in and out of the area?**
   - Determining alternate routes in case of an accident is critical to evacuation efforts. In addition, alternate routes need to exclude hazardous materials transport if it involves transporting products through congested residential and commercial areas or travel close to sensitive populations.

6. **Are the local responders trained to respond to the material?**
   - If the planning group allows a fixed facility to locate within the county, then the fixed facility should provide adequate information and training about their products to ensure the safety of the emergency response groups and the citizens who may affected by their location.

7. **The fixed facility should be required to provide the following information**
   - Is the proposed site going to have chemicals that meet federal EHS criteria?
   - Does the facility provide an in-house response team?
   - How does the facility monitor for release?
   - How does the facility notify local response agencies that a release has occurred?

SECTION 16: FACILITIES LISTS

All Fixed Facilities

EHS Fixed Facilities

Bulk Storage Facilities

Sensitive Facilities and Populations

All Fixed Facilities

Total Fixed Facilities For Lyon County: 228

Company Name	Facility Name	Facility Address	EHS >TPQ
21st Century Environmental Management of Nevada LLC.	21st Century Environmental Management of Nevada LLC	2095 E Newlands Dr , Fernley, NV 89408	Yes
7-ELEVEN INC.	7-ELEVEN INC STORE #23201	855 E MAIN St , FERNLEY, NV 89408	No
ACCUPART INTERNATIONAL, INC.	ACCUPART INTERNATIONAL INC	7 Black Rock Rd , CARSON CITY, NV 89706	No
All American Auto Body.	All American Auto Body	10046 E US Hwy 50 Hgwy , Mound House, NV 89706-7433	No
All American Auto Body.	All American Auto Body Fernley	250 Logan Ln Bldg #330, Fernley, NV 89408	No
American Highway.	American Highway - Fernley	190 Resource Dr , Fernley, NV 89408	No
AMERICAN TOWER CORP.	306912 - Hazen NV 2	5550 US-50 Alt / 95A Hgwy , Fernley, NV 89408	No
AMERICAN TOWER CORP.	American Tower - Eagle Ridge NV 2 #306801	16520-U S 95A Hgwy , Fernley, NV 89429	No
AMERICAN TOWER CORP.	American Tower - South Dayton #306915	151 Old Como Rd , DAYTON, NV 89403-8808	No
AmeriGas Propane, LP.	AMERIGAS - SILVER SPRINGS	3125 TOIYABE St , SILVER SPRINGS, NV 89429	No
AmeriGas Propane, LP.	AMERIGAS YERINGTON	20 N HIGHWAY 95 -A Hgwy , YERINGTON, NV 89447	No
AmeriGas Propane, LP.	Bi-State-22 Bulk Plant Rd	22 Bulk Plant Rd , Yerington, NV 89447	No
APRO LLC, dba United Pacific.	United Pacific 6070	605 E Main St, Fernley, NV 89408	No
Arch Precision Technology, Inc.	17 Airpark Vista Blvd	17 Airpark Vista Blvd Bldg , Dayton, NV 89403-8302	No
ART WILSON COMPANY.	Adams Claim	145 Linehan Rd , Moundhouse, NV 89706	No
ART WILSON COMPANY.	Ludwig Mine	9510 Delphi Rd, Smith Valley, NV 89430	No
A T & T Corp.	Nevada Bell Telephone Company - 01045	9520 W 50 Hwy, Churchill Butte, NV 89429	No
A T & T Corp.	Nevada Bell Telephone Company - 01087	390 Ziller Way, Dayton, NV 89403	Yes
A T & T Corp.	Nevada Bell Telephone Company - 01144	30 east St, Fernley, NV 89408-7672	Yes
A T & T Corp.	Nevada Bell Telephone Company - 01156	1060 Lake Ave, Silver Springs, NV 89429	Yes
AUTOZONE INC.	AUTOZONE #3742	1210 Chisholm Trl , FERNLEY, NV 89408	No
B&R Holdco LLC	B&R Auto Wrecking	34 Newman Ln , Mound House, NV 89706	Yes
BLUE BEACON, INC.	Blue Beacon Truck Wash of Fernley (Blue Beacon U.S.A., L.P. II)	865 Pilot Rd , FERNLEY, NV 89408	Yes

Company Name	Facility Name	Facility Address	EHS >TPQ
CAL-NEVADA PRECISION BLASTING INC.	Fernley Yd	1 Speedway Rd , Fernley, NV 89408	No
Carboline Company.	Carboline - Dayton	95 Airpark Vista Blvd , Dayton, NV 89403	Yes
CEA Dairy RNG Nevada LLC.	Desert Hills Dairy RNG	360 Cambell Ln, Yerington, NV 89447	No
CEA Dairy RNG Nevada LLC.	Smith Valley	40 Hunewill Ln, wellington, NV 89444	No
CEA Dairy RNG Nevada LLC.	Stagecoach	8320 U.S Hwy 50, Stagecoach, NV 89429	No
CEMEX CONSTRUCTION MATERIALS LP.	CEMEX CONSTRUCTION MATERIALS LP	200 Mull Ln , FERNLEY, NV 89408	No
CEMEX CONSTRUCTION MATERIALS LP.	CEMEX CONSTRUCTION MATERIALS LP	95-B INDUSTRIAL PARKWAY Pkwy , MOUNDHOUSE, NV 89709	No
Chaparral Auto Body.	chaparral auto body	12 Pearl Street, Yerington, NV 89447	No
CHARTER COMMUNICATIONS.	NV-0001_Charter Communications	65 Snyder Ave , Yerington, NV 89447	No
CHARTER COMMUNICATIONS.	NV-30697_Charter Communications	1090 E 50 Hgwy , SILVER SPRINGS, NV 89429	No
CHARTER COMMUNICATIONS.	NV-8100_Charter Communications	210 Farm District Rd , Fernley, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	Wastewater Treatment Plant	500 NEVADA PACIFIC Pkwy , FERNLEY, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	WATER TREATMENT PLANT	1315 MESA Dr , FERNLEY, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	WELL #13	900 COMMERCE CENTER Dr , FERNLEY, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	Well 11	355 COTTONWOOD Ln , FERNLEY, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	WELL 14	427 LOGAN Way , FERNLEY, NV 89408	No
CITY OF FERNLEY PUBLIC WORKS DEPT.	WELL 4	212 MULL Ln Well , FERNLEY, NV 89408	No
City of Fernley Utilities Department.	NE Booster Pump Station	1200B Truck Inn Way, Fernley, NV 89408	No
CITY OF YERINGTON.	Arsenic Treatment Plant	20 S California St , Yerington, NV 89447	No
CITY OF YERINGTON.	City Hall Campus	14 E Goldfield Ave Bldg , Yerington, NV 89447	No

Company Name	Facility Name	Facility Address	EHS >TPQ
CITY OF YERINGTON.	CITY OF YERINGTON/Airport Lift	200 TROWBRIDGE Ln , YERINGTON, NV 89447	No
CITY OF YERINGTON.	CITY OF YERINGTON/SHOP	215 Trowbridge Ln , YERINGTON, NV 89447	No
CITY OF YERINGTON.	CITY OF YERINGTON/WWTP	220 TROWBRIDGE Ln , YERINGTON, NV 89447	No
CNH Industrial.	CNH Industrial	1600 E Newlands Dr Bldg , Fernley, NV 89408	Yes
Comstock Propane Inc.	Moundhouse	36 Miles Rd , Carson City, NV 89706	No
Comstock Metals LLC.	Comstock Metals	600 Lake Ave, Silver Springs, NV 89429	No
Country's Sunflower LLC.	Country's Sunflower LLC	1 Willhoyt Ln , YERINGTON, NV 89447	No
CRAMER AUTOMOTIVE, INC.	CRAMER AUTOMOTIVE, INC	502 W BRIDGE St Suite b, YERINGTON, NV 89447	No
Daehan Solution Nevada, LLC.	Daehan Solution Nevada, LLC	1600 E. Newlands Drwy, Fernley. NV 89408-8903	No
Dayton Valley Fuel & Liquor.	Dayton Valley Fuel & Liquor	409 Dayton Valley Road, Dayton, NV 89403	No
Dayton Valley Mini Mart.	Dayton Valley Mini Mart	35 NE Dayton Valley Rd. Bldg 35 Dayton, NV 89403	No
Deceunick North America.	Deceuninck North America - Fernley	240 Nevada Pacific Pkwy, Fernley, NV 89408	Yes
DEPT OF INFORMATION TECHNOLOGY.	DEPT OF INFORMATION TECHNOLOGY	12 W Industrial Parkway Pkwy Suite D, MOUNDHOUSE, NV 89706	No
DOLAN AUTO GROUP.	Dolan Fernley Chrysler Jeep Dodge Ram	1395 E Newlands Dr , Fernley, NV 89408	No
DOLLAR TREE STORES INC.	Dollar Tree 03159	6 Pine Cone Rd Suite 7, Dayton, NV 86403	No
DOLLAR TREE STORES INC.	Dollar Tree 05071	1525 E Newlands Dr , Fernley, NV 89408	No
DRY TECH CORP.	DRY TECH CORP	19 Carry Way Bldg C, MOUNDHOUSE, NV 89706	No
Emerald Cascade Restaurant Systems dba Jack in the Box.	JACK IN THE BOX	225 US HIGHWAY 95A Hgwy , FERNLEY, NV 89408	No
ESSENTIAL INDUSTRIES, INC.	Essential Industries, Inc	15 Salvadore Dr , FERNLEY, NV 89408	Yes
F & M MAFCO, INC.	F & M MAFCO, INC	67 N INDUSTRIAL Pkwy , MOUND HOUSE, NV 89706	No
Family Dollar Stores.	Family Dollar 28922	398 W Goldfield Ave , Yerington, NV 89447	No
Family Dollar Stores.	Family Dollar 30149	295 E Main St , Fernley, NV 89408-7655	No
Family Dollar Stores.	Family Dollar 30378	565 E US 50 Hgwy , Dayton, NV 89403	No
Fernley Swimming Pool District.	Fernley Swimming Pool	300 Cottonwood Ln, Fernley, NV 89408-9269	

Company Name	Facility Name	Facility Address	EHS >TPQ
Finley Industries, Inc.	Napa Auto & Truck Parts	140 Shadow Ln Bldg , Fernley, NV 89408	No
Frontier Telecommunications.	Frontier Communications PINE GROVE - 934-51050-95672	10192 Forest Rd , PINE GROVE, NV 89447	No
Frontier Telecommunications.	Frontier Communications YERINGTON - 934-51044-82695	21 Van Ness Ave , YERINGTON, NV 89447	Yes
GE Transport.	GE Transport Fernley	155 Lyon Dr, Fernley, NV 89408	No
GEO NEVADA INC.	Spring Valley Mine	170 Highway 341 Hgwy , MOUNDHOUSE, NV 89706	No
GIOMI, INC.	GIOMI, INC	119 BRIDGE St , YERINGTON, NV 89447	No
Golden Gate Petroleum of Nevada, LLC.	GGP #79 Yerington	1001 Goldfield Ave, Yerington, NV 89447	No
GRANITE PROPANE INC.	GRANITE PROPANE INC	2685 ALMOND Dr , SILVER SPRINGS, NV 89429	No
GURPAL, INC.	PAUL'S TRUCK WASH	500A Truck Inn Way, FERNLEY, NV 89408	No
H E HUNEWILL CONSTRUCTION CO.	Desert Creek East Pit	574 SE Hwy338/ Desert Creek Hgwy , WELLINGTON, NV 89444	No
H E HUNEWILL CONSTRUCTION CO.	Desert Creek West Pit	575 S S.R. 338 Hgwy , WELLINGTON, NV 89444	No
H E HUNEWILL CONSTRUCTION CO.	Wellington Office/Shop	315 Artist View Ln , WELLINGTON, NV 89444	No
Henry Company.	Henry Company	300 Industrial Dr , Fernley, NV 89408	No
HODGES TRANSPORTATION, INC.	HODGES TRANSPORTATION, INC	605 Ft. Churchill Road Rd , SILVER SPRINGS, NV 89429	No
Humason and Sons Inc.	McDonald's #12110	1500 HWY 343. Fernley, NV 89408	No
IMERYS MINERALS.	Imerys Minerals	100 Front Street St Bldg Industrial, FERNLEY, NV 89408	No
JACKSONS FOOD STORES INC.	Jacksons Food Stores #027	210 US 40 Hgwy , FERNLEY, NV 89408	No
JACKSONS FOOD STORES INC.	Jacksons Food Stores #138	Hwy 95 A Goldfield St , Yerington, NV 89447	No
JAMES GASKETS, INC.	JAMES GASKETS, INC	37 ENTERPRISE Way , DAYTON, NV 89403	No
Jim Menesini Petroleum LLC.	Jim Menesini Petroleum LLC	27 Bulk Plant Rd , Yerington, NV 89447	No
Jim Menesini Petroleum LLC.	Propane Storage	104 McLeod St St , Yerington, NV 89447	No
JOHNS MANVILLE.	Johns Manville	325 Industrial Dr , Fernley, NV 89408	No
LINCARE INC.	LINCARE INC	105 GOLDFIELD Ave Suite B, YERINGTON, NV 89447	No
Load Right, LLC.	MH1	59 N Cowee Dr Suite B, Mound House, NV 89706	No

Company Name	Facility Name	Facility Address	EHS >TPQ
LOUIE'S HOME CENTER, INC.	Louie's Home Center	3 Flowery 3 Flowery Ave , Dayton, NV 89403	No
LOWE'S HIW, INC.	LOWE'S OF FERNLEY, NV (Store #2661)	375 Stanley Dr , Fernley, NV 89408	No
LYON CO SCHOOL DIST.	COTTONWOOD ELEMENTARY	925 FARM DISTRICT Rd , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	DAYTON ELEMENTARY SCHOOL	285 OLD DAYTON VALLEY Rd , DAYTON, NV 89403	No
LYON CO SCHOOL DIST.	DAYTON HIGH SCHOOL	335 OLD DAYTON VALLEY Rd , DAYTON, NV 89403	No
LYON CO SCHOOL DIST.	DAYTON INTERMEDIATE	315 DAYTON VALLEY Rd , DAYTON, NV 89403	No
LYON CO SCHOOL DIST.	EAST VALLEY ELEMENTARY	4180 FARM DISTRICT Rd , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	FERNLEY ELEMENTARY	450 HARDIE Ln , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	FERNLEY HIGH SCHOOL	1300 S 95A Hgwy , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	FERNLEY INTERMEDIATE	320 S HWY 95A Hgwy , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	FERNLEY TRANSPORTATION DEPARTMENT	1320 S 95-A Hgwy , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	LYON CO SCHOOL DIST - MAINTENANCE DEPT	25 E GOLDFIELD Ave , YERINGTON, NV 89447	No
LYON CO SCHOOL DIST.	LYON CO SCHOOL DIST - WAREHOUSE	25 E GOLDFIELD Ave , YERINGTON, NV 89447	No
LYON CO SCHOOL DIST.	RIVERVIEW ELEMENTARY SCHOOL	1200 FERRETTO Pkwy , DAYTON, NV 89403	No
LYON CO SCHOOL DIST.	SILVER STAGE ELEMENTARY SCHOOL	3900 SPRUCE St , SILVER SPRINGS, NV 89429	No
LYON CO SCHOOL DIST.	SILVER STAGE HIGH SCHOOL	3755 W SPRUCE St , SILVER SPRINGS, NV 89429	No
LYON CO SCHOOL DIST.	SILVER STAGE MIDDLE SCHOOL	3800 SPRUCE St , SILVER SPRINGS, NV 89429	No
LYON CO SCHOOL DIST.	SILVERLAND MIDDLE SCHOOL	1100 JASMINE Ln , FERNLEY, NV 89408	No
LYON CO SCHOOL DIST.	SMITH VALLEY SCHOOLS	20 DAY Ln , SMITH, NV 89430	No
LYON CO SCHOOL DIST.	SUTRO ELEMENTARY SCHOOL	190 DAYTON VILLAGE Pkwy , DAYTON, NV 89403	No
LYON CO SCHOOL DIST.	YERINGTON ELEMENTARY	112 N CALIFORNIA St , YERINGTON, NV 89447	No
LYON CO SCHOOL DIST.	YERINGTON HIGH SCHOOL	114 PEARL St , YERINGTON, NV 89447	No
LYON CO SCHOOL DIST.	YERINGTON INTERMEDIATE SCHOOL	215 PEARL St , YERINGTON, NV 89447	No
LYON CO SCHOOL DIST.	YERINGTON TRANSPORTATION DEPT.	25 E GOLDFIELD Ave , YERINGTON, NV 89447	No
LYON COUNTY PUBLIC WORKS.	Silver Springs Road Yard	3590 GRAHAM Ave , SILVER SPRINGS, NV 89429	No

Company Name	Facility Name	Facility Address	EHS >TPQ
LYON COUNTY PUBLIC WORKS.	Smith Valley Road Yard	139 Day Ln , Smith, NV 89430	No
LYON COUNTY PUBLIC WORKS.	Yerington Road Yard	18 Highway 95A North , Yerington, NV 89447	No
LYON COUNTY UTILITIES.	Mound House Lift Station	54 Kit Kat Dr , Mound House, NV 89403	No
LYON COUNTY UTILITIES.	Old Miox Building	2000 Hwy 50 East Hgwy , Dayton, NV 89403	No
LYON COUNTY UTILITIES.	Rolling A Well 20	376 N Comstock , Dayton, NV 89403	No
LYON COUNTY UTILITIES.	Rolling A WWTF	1165 Ferretto Pkwy , DAYTON, NV 89403	No
LYON COUNTY UTILITIES.	Silver Springs GID	1900 Eureka St , Silver Springs, NV 89429	No
LYON COUNTY UTILITIES.	South Dayton WWTF & Maint. Shop	200 Lakes Blvd Bldg , DAYTON, NV 89403	No
M F BARCELLOS, INC.	M F BARCELLOS, INC	18 BULK PLANT Rd , YERINGTON, NV 89447	No
MASON VALLEY FIRE PROT DIST.	MASON VALLEY FIRE PROT DIST	118 S. Main St Bldg , YERINGTON, NV 89447	No
MAVERIK COUNTRY STORES INC.	Maverik Store #412	247 Riverboat Rd , Dayton, NV 89403	No
MAVERIK COUNTRY STORES INC.	Maverik Store #440	402 W Goldfield Ave Bldg , Yerington, NV 89447	No
Mil-Spec Paint Company LLC.	Mil-Spec Paint Co	20 Adair Dr Suite B, Carson City, NV 89706	No
MOTORCYCLE MANIA.	MOTORCYCLE MANIA	10 W MAIN St , FERNLEY, NV 89408	No
MOUNDHOUSE HARDWARE & STORAGE.	MOUNDHOUSE HARDWARE & STORAGE	10189 Highway 50 East , CARSON CITY, NV 89706	No
MSC INDUSTRIAL DIRECT CO INC.	MSC INDUSTRIAL DIRECT CO INC	2300 East Newlands Drive Rd , FERNLEY, NV 89408	Yes
NEVADA CEMENT COMPANY.	NEVADA CEMENT COMPANY	None N 1290 W. Main St Hgwy , FERNLEY, NV 89408-0840	Yes
Nevada Department of Transportation, District II.	Fernley Maintenance Station	750 W Main St , FERNLEY, NV 89408	No
Nevada Department of Transportation, District II.	Log Cabin Maintenance Yard	#50 339 Hgwy , Yerington, NV 89447	No
Nevada Department of Transportation, District II.	Silver Springs Maintenance Station	1840 West Highway 50 , Silver Springs, NV 89429	No
Nevada Department of Transportation, District II.	Wellington Maintenance Station	3 Wellington Cutoff Rd , Wellington, NV 89444	No
Nevada Department of Transportation, District II.	Yerington Maintenance Station	306 North Main St , YERINGTON, NV 89447	No

Company Name	Facility Name	Facility Address	EHS >TPQ
NEVADA HEAT TREATING, INC.	NEVADA HEAT TREATING, INC	12-C INDUSTRIAL Pkwy Bldg , CARSON CITY, NV 89706	No
NEVADA OFFICE OF VETERANS SERVICES.	Northern Nevada Veterans Memorial Cemetery	14 Veterans Way , Fernley, NV 89408	No
NEVADA STATE PARKS - WESTERN REGION.	DAYTON STATE PARK	825 Highway 50 East , DAYTON, NV 89403	No
NEVADA STATE PARKS - WESTERN REGION.	FORT CHURCHILL STATE HISTORIC PARK	10000 HWY 95A , SILVER SPRINGS, NV 89429	No
NEVADA STATE PARKS - WESTERN REGION.	Walker River State Recreation Area	11 E Walker Rd , Yerington, NV 89447	No
New Cingular Wireless PCS LLC.	AT&T - USID271552	151 Old Como Rd , DAYTON, NV 89403	No
New Cingular Wireless PCS LLC.	AT&T - USID317743	400 N Main St , YERINGTON, NV 89447	No
.North Lyon County Fire Protection District.	NLCFPD St.61	195 E Main St , Fernley, NV 89408	No
Nutrien Ag Solutions.	Nutrien Ag Solutions 2083	439 339 Hgwy , Yerington, NV 89447	Yes
NV DEPARTMENT OF WILDLIFE.	Mason Valley Fish Hatchery	50 Hatchery Way Bldg , Yerington, NV 89447	No
NV DEPARTMENT OF WILDLIFE.	MASON VLY WILDLIFE MGMT AREA	1 LUX Ln , YERINGTON, NV 89447	No
NV ENERGY.	Eagle Ridge North telecom site	17500 Ruby Ave , Lyon, NV 89408	No
NV ENERGY.	Ft. Churchill Power Station	1000 Sierra Way , YERINGTON, NV 89447	Yes
NV ENERGY.	Pinenut telecom site	, Dayton, NV 89403	No
O'Reilly Auto Parts, Inc. c/o Verisk 3E.	O'Reilly Auto Parts #3599	255 N US Highway 95a Hgwy , Fernley, NV 89408	No
O'Reilly Auto Parts, Inc. c/o Verisk 3E.	O'Reilly Auto Parts #3647	9 Retial Rd Suite 2, Dayton, NV 89403	No
O'Reilly Auto Parts, Inc. c/o Verisk 3E.	O'Reilly Auto Parts #3673	522 W Goldfield Ave , Yerington, NV 89447	No
Ozark Materials, LLC.	Ozark Materials, LLC	80 E Airpark Vista Blvd Bldg 80 E Airpa, Dayton, NV 89403	No
Pannu Properties LLC.	spring market	1000 s hwy95a Hgwy , silver spring, NV 89429	No
PAPE' MACHINERY.	PAPE MACHINERY AG & T - YERINGTON	402 W BRIDGE St , YERINGTON, NV 89447	No
Paramount Iron & Handrail, Inc.	Paramount Iron & Handrail, Inc	18 Jones Rd , Carson City, NV 89706	No
PAUGHCO, INC.	PAUGHCO, INC	30 COWEE DRIVE Rd , CARSON CITY, NV 89706	No
PAULS AUTO PAINTING.	PAULS AUTO PAINTING	30 Hillside Dr , Moundhouse, NV 89706	No
Peri & Sons Farms, Inc.	Peri & Sons Farms, Inc.	430 HWY 339 Hgwy , Yerington, NV 89447	No
Peri & Sons Farms, Inc.	Peri & Sons Farms, Inc.	186 HWY 208 Hgwy , Yerington, NV 89447	No
Peri & Sons Farms, Inc.	Peri & Sons Farms, Inc.	102 McLeod St , Yerington, NV 89447	No

Company Name	Facility Name	Facility Address	EHS >TPQ
PILOT TRAVEL CENTERS, LLC.	Pilot Flying J Store No. 1005	480 Truck Inn Way , Fernley, NV 89408	No
PILOT TRAVEL CENTERS, LLC.	Pilot Travel Center #340	465 Pilot Rd , Fernley, NV 89408	No
PNAC, LLC.	Fernley, NV Terminal	425 S Logan Ln , Fernley, NV 89408	No
Polaris PG&A Distribution.	Polaris MDC	1755 Nevada Pacific Pkwy , Fernley, NV 89408	Yes
POLYGLASS USA INC.	POLYGLASS USA INC	150 Lyon Dr , FERNLEY, NV 89408	No
PRESCRIPTION FERTILIZER SVCS.	PRESCRIPTION FERTILIZER SVCS	90 ALBRIGHT Ln , SMITH, NV 89430	No
PURCELL TIRE NW.	Purcell Tire NW	1505` E Newlands Dr , FERNLEY, NV 89408	No
QUIK STOP MARKETS INC.	Quik Stop Market #171	360 S Hwy 95A Hgwy , Fernley, NV 89408	No
R. Wilson & Sons, Inc.	Dayton Auto Parts	670 E US Hwy 50 E Hgwy , Dayton, NV 89403	No
R. Wilson & Sons, Inc.	Yerington Auto Parts	800 W Goldfield Ave , Yerington, NV 89447	No
RALEYS.	RALEY'S #122	1400 N US HIGHWAY 95a Hgwy , FERNLEY, NV 89408	No
RALEYS.	RALEY'S #123	176 W GOLDFIELD Ave , YERINGTON, NV 89447	No
Rice Lake Weighing Systems.	Rice Lake Weighing Systems	265 Logan Lane Ln , Fernley, NV 89408	No
Shark Holdings Corporation.	Stagecoach Market	8970 E US Highway 50 Hgwy , Stragecoach, NV 89429	No
SHERWIN-WILLIAMS COMPANY-NV.	SHERWIN-WILLIAMS FERNLEY PLANT	1891 DUFFY Rd , FERNLEY, NV 89408	Yes
SIERRA PRE-FINISH.	SIERRA PRE-FINISH	44 Cowee Dr , CARSON CITY, NV 89706	No
Silver Crossing Chevron.	Silver Crossing Chevron	2900 Nevada Ave Bldg , Silver Springs, NV 89429	No
SILVER SAVER MART, INC.	SILVER SAVER MART, INC	1000 S Hwy 95 Alt. Highway, Bldg Gas statio, SILVER SPRINGS, NV 89429	No
Silverado Gas and C Investments LLC.	Silverado Chevron	1340 W W NEWLANDS Drive Dr , FERNLEY, NV 89408	No
Sims Metal Management.	Sims Metal-Fernley	175 Lyon Rd , Fernley, NV 89408	No
Smith's Food and Drug Centers.	SMITHS FOOD & DRUG #392	2200 E 50 Hgwy , DAYTON, NV 89403	No
Southwest Critical Materials LLC.	Pumpkin Hollow Project	61 East Pursel Ln , Yerington, NV 89447	No
SOUTHWEST GAS CORP.	Fernley Operations Center	5900 MacDonald Dr , Fernley, NV 89408	No
Speedco.	Love's Travel Stop #246	825 Commerce Center Dr , Fernley, NV 89408	No
Speedco.	Speedco #917	900 Pilot Rd , Fernley, NV 89408	No
Stella-Jones Corp.	SJC - Silver Springs	1680 Spruce Ave , Silver Springs, NV 89429	No

Company Name	Facility Name	Facility Address	EHS >TPQ
Superior Plus Energy Services Inc.	High County Propane - Wellington	4249 NV-208 Hwy, Wellington, NV 89444	No
SYLVAN AMERICA, INC.	SYLVAN AMERICA, INC	87 Lakes Blvd , DAYTON, NV 89403	No
TREX COMPANY INC.	TREX COMPANY INC	1800 E Newlands Dr , Fernley, NV 89408	No
TREX COMPANY INC.	TREX POLYCO WAREHOUSE	2375 E Newlands Dr , Fernley, NV 89408	No
UNION PACIFIC RAILROAD.	UNION PACIFIC RAILROAD/FERNLEY	400 W STREET St , FERNLEY, NV 89408	No
Valley Agronomics LLC.	Valley Agronomics - Yerington	15 North Hwy 95A, Yerington, NV 89447	Yes
VALLEY JOIST, LLC.	VALLEY JOIST	255 LOGAN Rd , FERNLEY, NV 89408	No
VERIZON WIRELESS.	SOUTH YERINGTON - B (ID:616522207)	1275 State Route 208 , Yerington, NV 89447	No
VERIZON WIRELESS.	Verizon Wireless - CARSON WAY (ID:624962451)	.5 Miles SE of Lincoln Rd , Silver Springs, NV 89429	No
VERIZON WIRELESS.	Verizon Wireless - Country Night - A (ID:616243319)	5 Yermo Ln , Yerington, NV 89447	No
VERIZON WIRELESS.	Verizon Wireless - Smith - New Build (ID:27824083)	1 Hardie Ln , Smith, NV 89430	No
VERIZON WIRELESS.	Verizon Wireless Desert Peak (ID:13203876)	0 CC Comm Site , Fernley, NV 89404	No
VERIZON WIRELESS.	Verizon Wireless Fernley East (ID:27755478)	6 Salvadore Dr , Fernley, NV 89408	No
VERIZON WIRELESS.	Verizon Wireless-Black Butte (ID:12557444)	5550 US 50A Hgwy , Fernley, NV 89430	No
VERIZON WIRELESS.	Verizon Wireless-Dayton (ID:1247923)	151 Old Como Rd , Dayton, NV 89403	No
VERIZON WIRELESS.	Verizon Wireless-Eagle Ridge (ID:311576)	6 miles NW of Silver Springs , Silver Springs, NV 89429	No
VERIZON WIRELESS.	Verizon Wireless-Fernley (ID:4987369)	NE of I-80 & Hwy 40 , Fernley, NV 89408	No
VERIZON WIRELESS.	Verizon Wireless-Mason Butte (ID:53531)	5 Miles N of Yerington , Yerington, NV 89447	No
VERIZON WIRELESS.	Verizon Wireless-Silver Springs (ID:3314641)	7800 Micro Rd , Silver Springs, NV 89429	No
VERIZON WIRELESS.	Yerington (ID:55024)	20 S California St , Yerington, NV 89447	No
Walgreen Co. c/o Verisk 3E.	Walgreens #12488	1280 N U.S. Highway 95A , Fernley, NV 89408	No
Walmart, Inc.	WALMART #4370	1550 E NEWLANDS Dr , FERNLEY, NV 89408	Yes
Waste Management of Nevada, Inc.	Churchill County Refuse Service (Fernley Transfer Station & Churchill Sanitation)	1100 Highway 95 A South Hgwy , FERNLEY, NV 89408	No
Waste Management of Nevada, Inc.	Refuse Inc. (Sutro Transfer Station)	3000 Enterprise Rd , DAYTON, NV 89403	No
WebstaurantStore.	853	111 E Airpark Vista Blvd. Bldg 111, Dayton. NV 89403	Yes

Company Name	Facility Name	Facility Address	EHS >TPQ
WebstuarantStore.	873	125 Lakes Blvd, Dayton, NV 89403	Yes
WESTERN BIG R INC.	Big R of Fernley	465 E Main St , Fernley, NV 89408	No
WILD WEST MOTORS.	Wild West Chevrolet	750 W Goldfield Ave , Yerington, NV 89447	No
Xtreme Bullets MFG	X-Treme Bullets, MFG. LLC	25 Stokes Dr , Mound House, NV 89706	Yes
YERINGTON STATION INC	YERINGTON STATION INC	423 N N Main St Bldg , YERINGTON, NV 89447	No

EHS Fixed Facilities

Total Fixed Facilities with EHS for Lyon County: 49

The following is a list f those fixed facilities in Lyon County reporting Extremely Hazardous Substances (EHS) as reported to the State Emergency Response Commission.

Company Name	Facility Name	Maximum Daily EHS Amount (lbs)	Number of EHS Chemicals	Number of EHS Exceeding TPQ Chemicals
A T & T CORP	AT&T NEVADA - 01144	2261	1	1
A T & T CORP	AT&T NEVADA - 01087	1107	1	1
A T & T CORP	Pacific Bell - 01045	605	1	0
A T & T CORP	AT&T Nevada - 01153 - 01156	605	1	0
A T & T CORP	AT&T NEVADA - NV0070	581	1	0
Amazon.com.nvde Inc	RNO1	57885	1	1
AUTOZONE INC	AUTOZONE #3742	3550	2	2
BLUE BEACON INTERNATIONAL	Blue Beacon Truck Wash of Fernley	2086	1	1
Carboline Company	Carboline - Dayton	5000	1	0
CITIZENS COMMUNICATIONS	Frontier Telecommunications YERINGTON	1283	1	1
CITIZENS COMMUNICATIONS	Frontier Telecommunications PINE GROVE	487	1	0
CITIZENS COMMUNICATIONS	Frontier Telecommunications SMITH	156	1	0
DEPT OF INFORMATION TECHNOLOGY	DEPT OF INFORMATION TECHNOLOGY	5000	1	1
DISPOSAL SERVICES	Fernley Transfer Station/ Fernley Sanitation	720	1	0
DRY TECH CORP	DRY TECH CORP	250	1	0
FRADE RANCH INC	FRADE RANCH INC	122	1	1
FRAM Group Operations LLC	FRAM Group Operations LLC	11346	1	1
GEO NEVADA INC	Spring Valley Mine	15	2	0
GURPAL, INC.	PAUL'S TRUCK WASH	400	2	0
Hectatone Inc.	Fernley Organoclay Plant	40000	1	0
KEMET Blue Powder Corp.	KEMET Blue Powder Corp	41093	2	2
LOWE'S HIW, INC	LOWE'S OF FERNLEY, NV (Store #2661)	310	1	0
LYON COUNTY PUBLIC WORKS	Silver Springs Road Yard	736	1	0
LYON COUNTY UTILITIES	South Dayton WWTF & Maint. Shop	45	1	0
MSC INDUSTRIAL DIRECT CO INC	MSC INDUSTRIAL DIRECT CO INC	24988	1	1

NAPA AUTO AND TRUCK PARTS	NAPA AUTO AND TRUCK PARTS	400	1	0
NEVADA CEMENT COMPANY	NEVADA CEMENT COMPANY	800	1	1

Company Name	Facility Name	Maximum Daily EHS Amount (lbs)	Number of EHS Chemicals	Number of EHS Exceeding TPQ Chemicals
Nevada Copper, Inc.	Pumpkin Hollow Project	6779	1	0
NORTHWEST TERRITORIAL MINT	Medallic Art Company	4203	2	2
NV ENERGY	Ft. Churchill Power Station	43700	2	2
PARAMOUNT-NV ASPHALT CO LLC	PARAMOUNT-NV ASPHALT CO LLC	35440	1	1
Patua Project, LLC	Patua I, Lyon County	882	1	0
PRESCRIPTION FERTILIZER SVCS	PRESCRIPTION FERTILIZER SVCS	50481	3	1
QG Printing Corp.	Quad/Graphics Printing Corp.	85665	5	5
RENNER EQUIPMENT COMPANY	RENNER EQUIPMENT COMPANY	605	1	0
SHERWIN-WILLIAMS COMPANY-NV	SHERWIN-WILLIAMS FERNLEY PLANT	29650	2	0
Stanislaus Farm Supply	Silverado Farm Supply	4800	3	0
TREX COMPANY INC	TREX COMPANY INC	6115	1	1
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Yerington	629	3	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Fernley	622	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Silver Springs	557	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Mason Butte	557	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Dayton	557	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Black Butte	557	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Smith	557	1	0
VERIZON WIRELESS NOR CAL/NV	Verizon Wireless-Eagle Ridge	232	1	0
WAL*MART STORES INC	WALMART #4370	12500	1	0
X-TREME BULLETS, INC.	X-TREME BULLETS INC	400	1	1
X-TREME BULLETS, INC.	X-TREME BULLETS INC.	400	1	1

Bulk Storage Facilities

ID No.	Company	Phone	Product Name
1.	AmeriGas - Bi-State Propane/Yerington 20 Highway 95-A North, Yerington, NV 89447	344-4166 463-2994	• Liquefied Petroleum Gas
2.	AmeriGas – Bi-State Propane/Yerington 22 Bulk Plant Road, Yerington, NV 89447		• Liquefied Petroleum Gas
3.	AmeriGas Propane/Silver Springs 3125 Toiyabe Street, Silver Springs, NV 89429		• Liquefied Petroleum Gas
4.	Berry-Hinckley Industries Route 1 Exit 48, Fernley, NV 89408	575-1990	• Petroleum Hydrocarbon Mixture
5.	Berry-Hinckley Industries 6 Colusa Rd (Bulk Plt Rd) Yerington, NV 89447	463-2750	• Petroleum Hydrocarbon Mixture
6.	Berry-Hinckley Industries 1 Hwy 95-A & Goldfield, Yerington, NV 89447	463-4510	• Petroleum Hydrocarbon Mixture
7.	Bi-State Propane/Mound House 10001 Highway 50 East, Moundhouse, NV 89706	246-3070	• Petroleum Hydrocarbon Mixture
8.	Buckboard General Store 2160 Highway 208, Smith, NV 89430	465-2289	• Petroleum Hydrocarbon Mixture
9.	Carson Plains Market 6950 Highway 50 East, Dayton, NV 89403		• Petroleum Hydrocarbon Mixture
10.	City of Yerington 215 Trowbridge Road, Yerington, NV 89447	463-2729	• Petroleum Hydrocarbon Mixture
11.	Comstock Propane 36 Miles Road, Carson City (Mound House), NV 89706	246-2558	• Liquefied Petroleum Gas
12.	Dayton Chevron 35 Dayton Valley Road, Dayton, NV 89403		• Petroleum Hydrocarbon Mixture

ID No.	Company	Phone	Product Name
13.	Dayton Valley Corner Store 409 Dayton Valley Road, Dayton NV 89403		• Petroleum Hydrocarbon Mixture
14.	Essential Industries 15 Salvadore Drive, Fernley, NV 89408	575-5211	• Petroleum Hydrocarbon Mixture
15.	Fernley Redi-Mix 200 Mull Lane Fernley, NV 89408	575-4343	• Petroleum Hydrocarbon Mixture
16.	Frade Ranch Inc 123 Mac Kenzie Lane, Yerington, NV 89447	463-2922	• Petroleum Hydrocarbon Mixture
17.	Granite Construction 150 Old Como Road, Dayton, NV 89403	246-0765	• Petroleum Hydrocarbon Mixture
18.	Granite Propane 2685 Almond Drive, Silver Springs, NV 89429	577-2361	• Liquefied Petroleum Gas
19.	HE Hunewill Construction Wellington, NV	465-2448	• Petroleum Hydrocarbon Mixture
20.	Hodges Transportation 605 Fort Churchill Road, Silver Springs, NV 89429	629-2000	• Petroleum Hydrocarbon Mixture • Liquefied Nitrogen
21.	Jacksons Food Stores #027 210 US Highway 40, Fernley, NV 89408		• Petroleum Hydrocarbon Mixture
22.	Jacksons Food Stores #138 Highway 95A & Goldfield St., Yerington, NV 89447		• Petroleum Hydrocarbon Mixture
23.	Jackson Oil #5794 202 N Main Street, Yerington, NV 89447		• Petroleum Hydrocarbon Mixture
24.	Jakes Gas 1340 W Newlands Drive, Fernley, NV 89408		• Petroleum Hydrocarbon Mixture
25.	Jim Menesini Petroleum, LLC 27 bulk Plant Road, Yerington, NV 89447	463-2076	• Petroleum Hydrocarbon Mixture

ID No.	Company	Phone	Product Name
26.	Jim Menesini Petroleum, LLC 102 McLeod Street, Yerington, NV 89447	463-2076	• Liquefied Petroleum Gas
27.	Kemet Blue Powder Corp. 16 Bruce Way, Mound House, NV 89706	246-4480	• Sodium • Numerous Others
28.	Kohart Mfg.	246-5888	• Cupros Cyanide • Cyanide of Sodium • Cuastic Soda
29.	Love's Travel Stop #246 825 Commerce Center Drive, Fernley, NV 89408		• Petroleum Hydrocarbon Mixture
30.	MF Barcellos Inc 18 Bulk Plant road, Yerington, NV 89447	463-2916	• Petroleum Hydrocarbon Mixture
31.	Maverik Store #412 247 Riverboat Road, Dayton, NV 89403		• Petroleum Hydrocarbon Mixture
32.	Maverik Store #440 402 W Goldfield Avenue, Yerington, NV 89447		• Petroleum Hydrocarbon Mixture
33.	Medallic Art Company 80 Airpark Vista Blvd. Dayton, Nevada 89403	246-6000	• Oxygen • Acetylene • Anhydrous Ammonia
34.	Moltan Company I-80 East Exit 65, Fernley, Nv 89408	423-6668	• Petroleum Hydrocarbon Mixture
35.	Nevada Cement Company I-80 at Exit 46, Fernley, NV 89408	575-2281	• Petroleum Hydrocarbon Mixture • Coke Petroleum • Methanol • Kerosene
36.	NDOT 750 West Main St US 40, Fernley, NV 89408	577-2000	• Petroleum Hydrocarbon Mixture
37.	Quebecor Printing Nevada 2200 East Newlands Drive, Fernley, NV 89408	575-1400	• Petroleum Hydrocarbon Mixture • Toluene • LPG

ID No.	Company	Phone	Product Name
38.	Quick Stop Market #171 360 S Highway 95A, Fernley, NV 89408		• Petroleum Hydrocarbon Mixture
39.	Ron Menesini Petroleum Products 27 bulk Plant Road, Yerington, NV 89447	463-2076	• Petroleum Hydrocarbon Mixture
40.	S & S Mini Mart 215 E Highway 50, Dayton, NV 89403		• Petroleum Hydrocarbon Mixture
41.	Sierra Pacifc Power Company 1000 Sierra Way, Yerington, NV 89447	689-4153	• Petroleum Hydrocarbon Mixture • LPG
42.	United Gilsonite Laboratories 20 Enterprise Way, Dayton, NV 89403	246-7611	• Aromatic Hydrocarbons • Kerosene

Sensitive Facilities and Populations

Note: A sensitive population is any group of persons who would need outside assistance to either evacuate, relocate or shelter in place.

Site No.	Name	Address	Phone	Fax
	Hospitals			
1.	South Lyon Medical Center	213 Whitacre, Yerington, NV 89447	463-2301	
	Skilled Nursing Facilities			
2.	South Lyon Medical Center	213 Whitacre, Yerington, NV 89447		
	Group Care Facilities			
3.	Just Like Home	426 Pearl Street, Yerington, NV 89447	463-4443	
4.	Mason Valley Residence	705 South Street, Yerington, NV 89447	463-5346	
5.	Fernley Estates	1130 Chisholm Trail, Fernley, NV 89408	372-8525	
6.	Golden Years Castle	575 Farm District Road, Fernley, NV 89408	575-9200	
	Day Care Centers			
7.	Calvary Baptist School	4 Flowery Street, Dayton, NV 89403	246-4100	
8.	Dayton Valley Learning Center	357 Dayton Valley Road, Dayton NV. 89403	246-5111	
9.	From Cradles to Crayons Learning Ctr.	801 Overland Loop 105/106 Dayton, NV 89403	246-3932	
10.	A Step Ahead Pre-School	2040 Farm District Road, Fernley NV 89408	575-1122	
11.	ABC Adventures Family Child Care	1736 Olive Branch, Fernley, NV 89408	575-2540	
12.	Busy Bees Daycare	1353 Winnies Lane, Fernley, NV 89408	835-8610	
13.	Cherie's Family Daycare	1441 Shadow Lane, Fernley, NV 89408	858-768-1999	
14.	Lynette Ryan	186 Jennys Lane, Fernley, NV 89408	835-8491	
15.	Melissa Cryer	587 Shadow Lane, Fernley, NV 89408	575-6202	
16.	Tots and Tumbleweeds	233 Jenny's Lane, Fernley, NV 89408	315-8957	
17.	Zoo'n Around Preschool	380 Crimson Road, Fernley, NV 89408	774-0994	
18.	Great Park Childrens Center	307 Broadway Ave., Yerington, NV 89447	463-3869	
	Lyon County Schools			
19.	Dayton Elementary School	285 Dayton Valley Road, Dayton, NV 89403	246-6262	
20.	Sutro Elementary School	190 Dayton Village Pkwy., Dayton, NV 89403	246-6270	
21.	Dayton Intermediate School	315 Dayton Valley Road, Dayton, NV 89403	246-6250	
22.	Dayton High School	335 Dayton Valley Road, Dayton, NV 89403	246-6240	
23.	Fernley Elementary School	450 Hardie Lane, Fernley, NV 89408	575-3420	
24.	Cottonwood Elementary School	925 Farm District Road, Fernley, NV 89408	575-3414	
25.	Fernley Intermediate School	320 Hwy 95A South, Fernley, NV 89408	575-3390	
26.	Fernley High School	1300 Hwy 95A South, Fernley, NV 89408	575-3400	
27.	Silver Springs Elementary School	3900 Spruce Street, Silver Springs, NV 89429	577-5060	
28.	Silver Stage Middle School	3800 Spruce Street, Silver Springs, NV 89429	577-5050	

29.	Silver Stage High School	3755 Spruce Street, Silver Springs, NV 89429	577-5071	
30.	Smith Valley Schools	20 Day Lane, Smith, NV 89429	465-2332	

29.	Yerington Elementary School	112 N. California Street, Yerington, NV 89447	463-6844	
30.	Yerington Intermediate School	215 Pearl Street, Yerington, NV 89447	463-6833	
31.	Yerington High School	114 Pearl Street, Yerington, NV 89447	463-6822	

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SECTION 17: RESOURCES

Fire District

Law Enforcement

Search and Rescue

Public Works

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
FIRE DISTRICTS										
Engine	7	CLCFD	X							E32, E34, E35, E36, E37, E38, E39
Engine	2	MVFD	X							E1, E2
Engine	3	NLCFD	X							E61, E161, E62
Engine	2	SVFD	X							E40, E42
Engine	2	MVFD		X						E3, B1
Engine	1	SVFD		X						E41
Engine	5	CLCFD			X					B32, B34, B35, B37, B38, B39
Engine	2	MVFD			X					B1, B2
Engine	2	SVFD			X					B40, B140
Engine	2	NLCFD			X					B61, B62
Engine	1	SVFD							X	P42 (Type 7- Patrol, F- 350 w/ Light Tower)
Engine	2	MVFD						X		B3, B4, B5
Engine	4	NLCFD						X		P61, P161
Engine	1	SVFD				X				B42
Squad	1	CLCFD							X	S34 (Light Technical Rescue Unit)
Squad	1	CLCFD							X	S138 (Rehab Unit)
Squad	1	CLCFD							X	S38 (HazMat, Air & Light Unit)
Squad	1	MVFD							X	R1 (Medium Technical Rescue Unit)
Vehicle, UTV	1	SVFD							X	RA42 (4–Seat 4x4)
Water Tender	3	CLCFD	X							WT32, WT37, WT38, WT39
Water Tender	2	MVFD	X							WT1, E3
Water Tender	2	NLCFD	X							WT61, WT62 (currently out of service for repairs)
Water Tender	2	SVFD	X							WT40, WT42 (Both Type S2)
Water Tender	1	CLCFD		X						WT38
Water Tender	1	SVFD		X						WT41 (Type S3)
Ladder (Truck)	1	NLCFD	X							T61 (currently out of service for respairs)
Ladder (Truck)	1	MVFD	X							L1

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
HazMat Entry Team	1	QCHM	X							CLCFD, MVFD, NLCFD, SVFD, SCFD, CCFD, EFFD, TDFD (Covers CLCFPD, MVFPD, NLCFD, SVFPD)
Ambulance	6	CLCFD	X							ALS Coverage District Wide
Ambulance	4	NLCFD	X							ALS Coverage District Wide
Ambulance	4	MVFD	X		X					ILS Coverage District Wide
Ambulance	3	SVFD	X							ILS Coverage District Wide, 1 BLS Coverage Dist. Wide
Sign, mobile electronic	1	NLCFPD								Sign 61
LAW ENFORCEMENT										
SWAT	1	LCSO			X					
Mobile Command Post	1	YPD		X						
Trailer, Crime Scene	1	YPD								
HMMWV (Humvee)	1	YPD								
SEARCH AND RESCUE										
Boat, 12 foot	1	LCSO-SAR							X	SAR 12 foot aluminum boat, 9.8 hp
Boat, 14 foot	1	LCSO-SAR							X	SAR 14 foot aluminum boat, 9.9 hp
Boat, Rigid Inflatable	1	LCSO-SAR							X	SAR 21 foot Brigg Rigid Inflatable Boat
Boat, Jon 14 foot flat bow	1	LCSO-SAR							X	For HRD team water use, 9.8 hp
Camera, Mine/Cave Rescue	1	LCSO-SAR							X	Mine/Cave Rescue Camera
GPS Receiver	22	LCSO-SAR							X	Portable GPS Units
Mobile Command Vehicle	1	LCSO		X						GMC Kodiak
Mobile Command Center	1	LCSO-SAR		X						Sandstorm Trailer
Personnel, EMT	5	LCSO-SAR							X	Basic EMT
Personnel, ATV Operator	17	LCSO-SAR							X	ATV Operators
Personnel, Boat Operator	19	LCSO-SAR							X	Boat Operators
Personnel, First Aid	40	LCSO-SAR							X	First Aid & CPR Certified
Personnel, EMR	6	LCSO-SAR							X	Emergency Medical Responders
Personnel, Rope Technician	4	LCSO-SAR							X	Rope Technicians
Personnel, Swift Water Rescue	7	LCSO-SAR							X	Swift Water Rescue-Operations
Personnel, Tracker	38	LCSO-SAR							X	Man trackers
Canine-Search Specialist – Land-	1	LCSO-SAR	X							

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
Canine Search Specialist - Water	1	LCSO-SAR	X							
Team, Cave Search & Rescue	0	LCSO-SAR								
Team, Mountain Search & Rescue	0	LCSO-SAR				X				
Team, Radio Direction Finding	6	LCSO-SAR		X						
Team, Swiftwater/Flood Search & Rescue	0	LCSO-SAR				X				
Team, Wilderness Search & Rescue	1	LCSO-SAR		X						
Trailer, Boat	1	LCSO-SAR							X	Double Boat Trailer / ATV on Tracks
Trailer, Logistics	1	LCSO-SAR							X	25' Logistics Trailer – not sure what this is
Vehicle, Communication	1	LCSO-SAR							X	SAR Advanced Communications, 1-Ton
Vehicle, Ropes	1	LCSO-SAR							X	SAR Rope Vehicle, 1-Ton
Vehicle, Rescue	3	LCSO-SAR							X	1-Ton 4x4 SAR Light Rescue Vehicles
Vehicle, Rescue	2	LCSO-SAR							x	2-Ton 4x4 SAR Medium Rescue Vehicles
Vehicle, SUV	5	LCSO-SAR							X	4x4 SAR SUV's
Vehicle, UTV	2	LCSO-SAR							X	UTV 4-seater
Engine	1	LATR						X		
Vehicle, Rescue	1	LATR							X	On-board 12kv generator with 20-ft. telescoping light tower, deployable lighting equipment
Structural Steel Panels	542 ft.	LATR							X	6′ X 12′ Structural steel panels with quick drop-pin connectors
PUBLIC WORKS										
Air Compressor	1	COY							X	Airman Air Compressor Trailer
Air Compressor	1	LCRD								Leroi Air Compressor
Backhoe	1	COY							X	1997 New Holland 555e
Backhoe	1	COY							X	1975 John Deere
Backhoe	1	LCRD								416b Cat Backhoe
Backhoe	1	LCRD								John Deere 410G
Backhoe	1	LCRD								John Deere 410L
Chain Saw	1	COY							X	Stihl MS310
Chain Saw	1	COY							X	Poulan Pro
Chain Saw	1	COY							X	Poulan Pro
Chain Saw	1	COY							X	Poulan Pro

Chain Saw	1	LCRD								Stihl MS 271

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
Chain Saw	1	LCRD								Stihl O66
Chain Saw	1	LCRD								Stihl MS 029
Chain Saw	1	LCRD								Stihl MS 170
Concrete Saw	1	LCRD								Concrete Saw Model Pac F1116bv
Cut Off Saw	1	COY							X	Stihl
Dozer	1	LCRD								D7g Cat Dozer
Dump Trailer, Belly	1	LCRD								Coulson Commander Trlr Belly Dump
Dump Trailer, Belly	1	LCRD								Coulson Commander Trlr Belly Dump
Dump Trailer, Bottom	1	LCRD								Roadmaster 28 Ft Bottom Dump Trlr
Dump Trailer	1	COY							X	Power Lift
Dump Truck	1	COY							X	1985 F-800
Dump Truck	1	COY							X	1989 F-800
Dump Truck	1	LCRD								Kenworth T470 10yd Dump
Dump Truck	1	LCRD								IH F2574 10yd Dump
Dump Truck	1	LCRD								IH F2574 10yd Dump
Dump Truck	1	LCRD								IH F2574 10yd Dump
Dump Truck	1	LCRD								IH F2574 10yd Dump
Dump Truck	1	LCRD								IH F2574 10yd Dump
Dump Truck	1	LCRD								Sterling LT9500 10yd Dump
Forklift	1	LCRD								Pettibone Fork Lift
Front End Loader	1	LCRD								930 Cat Loader
Front End Loader	1	LCRD								Cat 950e Loader
Front End Loader	1	LCRD								Cat Loader 950
Generator, Skid Mounted	1	COY								Military Surplus Unit 3 Phase
Generator, Trailer Mounted	1	COY								Shop Generator
Generator, Portable	1	COY								1500 Watt Unit

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
Generator	1	LCRD								Sears Generator
Generator	1	LCRD								Honda 3kw
Jack Hammer	1	LCRD								Atlas Copco M#FB60
Generator, Trailer Mounted	1	LCRD								Cat 100kw Gen Set On Ly-92 Trlr
Motor Grader	1	LCRD								John Deere 770GP
Motor grader	1	LCRD								12g Cat Blade
Motor grader	1	LCRD								12g Motor Grader
Motor Grader	1	LCRD								140M2 Cat Grader
Motor grader	1	LCRD								JD670d Motor grader
Pressure Washer	1	COY								B&S Portable Unit
Rock Rake	1	LCRD								Rock Rake
Roller	1	COY								Bomag BW-100ADS Roller
Roller	1	LCRD								Hyster Roller Model C850b
Roller	1	LCRD								Ingersol Rand Drum Roller
Roller	1	LCRD								PS-130 Roller
Sander	1	LCRD								Flink 1.8 Cy Sander M#Fm-8-Et
Sander	1	LCRD								Sander, 8 yd
Sander	1	LCRD								Sander, 8 yd
Self-Propelled Broom	1	LCRD								Superior DT80K
Self-Propelled Broom	1	LCRD								Schwarze A9000
Self-Propelled Broom	1	LCRD								Walden Self-Propelled Broom
Semi-Tractor	1	LCRD								IH Semi Tractor 2574
Health POD Trailer	2	LCRD								Medical supplies
Shelter Trailer	3	LCRD								Cots, blankets, toiletries

RESOURCE	Quantity	Owner	Type							Miscellaneous
			1	2	3	4	5	6	N/A	
Semi-Tractor	1	LCRD								KW Semi Tractor
Semi-Tractor	1	LCRD								Freightliner 122SD
Snow Plow Truck w/ Sander	1	COY								Hiniker Plow
Snow Plow	1	LCRD								8.5' Snow Plow
Snow Plow	1	LCRD								8.5' Snow Plow
Snow Plow	1	LCRD								Hiniker 8' Snow Plow
Snow Plow	1	LCRD								Hiniker 8' Snow Plow
Snow Plow	1	LCRD								Hiniker 8' Snow Plow
Sprayer	1	LCRD								300 Gal Sprayer
Sprayer	1	LCRD								300 Gal Sprayer
Trailer	1	LCRD								Loadking Phd 70/90-2 Trlr
Trailer, Concrete Saw	1	LCRD								Parker Concrete Saw Trailer
Trailer, Lowboy	1	LCRD								Peerless Lowboy Trailer
Trailer, single axle	1	LCRD								PJ Trailer 8’
Trailer, Tilt	1	LCRD								Towmaster 20 Ton Tilt Trlr
Wacker, Upright	1	LCRD								Upright Wacker
Wacker, Upright	1	LCRD								Upright Wacker
Wacker,Plate	1	LCRD								Wacker-Plate Model WP 1550
Water Pump, Portable	1	COY							X	Northstar
Water Pump, Portable	1	COY							X	IPT
Water Pump, Portable	1	COY							X	IPT

RESOURCE	Quantity	Owner	Type							Miscellaneous
			1	2	3	4	5	6	N/A	
Water Pump, Portable	1	COY							X	Honda
Water Pump, Portable	1	COY							X	Multiquip
Water Pump, Portable	1	COY							X	Honda
Water Pump, Portable	2	LCRD								2-1/2" Gorman Rupp Port Water Pump
Water Pump, Portable	1	LCRD								3" Gorman Rupp Port Water Pump
Water Pump, Portable	1	LCRD								Portable Gorman Pump 6"
Water Truck	1	COY							X	International 2000 Gallon Cap.
Water Truck	1	LCRD								Ford Water Truck
Water Truck	1	LCRD								Ford Water Truck
Water Truck	1	LCRD								International Water Truck
Water Truck	1	LCRD								Western Star Water Truck
Water Truck	1	LCRD								International Water Truck
Water Truck	1	LCRD								International Water Truck
Water Truck	1	LCRD								KW Water Truck
Water Truck	1	LCRD								KW Water Truck
Weed Burner, Propane	1	COY							X	Trailer Mounted Tank
Weed Burner, Propane	1	LCRD								Weed Burner
Weed Burner, Propane	1	LCRD								Weed Burner
Weed Burner, Propane	1	LCRD								Weed Burner
Weed Burner, Propane	1	LCRD								Weed Burner
Welder with Generator, Truck Mount	1	COY							X	Stick Welder
Welder	1	LCRD								Miller Wire Welder
Welder, Portable	2	LCRD								Ranger 8 Welder
Atmospheric Test Meter	1	LCU							X	Atmospheric Monitor, Four Gas-O2, CO, H2S, LEL
Backhoe	1	LCU	X							Backhoe Loader, JD 410, 4x4, extend-a-hoe
Dump Truck	1	LCU						X		Dump Truck-On Road, 5yd

RESOURCE	Quantity	Owner	Type 1	2	3	4	5	6	N/A	Miscellaneous
Forklift	1	LCU							X	Forklift, Clark, 5000 lb.
Forklift	1	LCU							X	Forklift, Hyster, 5000 lb.
Generator	1	LCU						X		Generators, portable, 1 Kw
Generator	1	LCU						X		Generators, portable, 3 Kw
Harness, Rescue	1	LCU							X	Rescue Harnesses
Pump, Trash	1	LCU							X	Trash pump, 3"
Pump, Trash	1	LCU							X	Trash pump, 4"
Semi-Tractor	1	LCU							X	Semi-Tractor Truck
Tractor	1	LCU							X	Tractor, JD 4300, 32 hp, 4x4, bucket, backhoe, brush cutter
Trailer, Dump	1	LCU							X	Dump Trailer, 3yd, 9090 lbs
Trailer, Flatbed	1	LCU							X	Trailer, Flatbed, Bumper-pull
Tripod	1	LCU							X	Rescue Tripod
Vacuum Truck	1	LCU							X	Vacuum Truck, 4000 gal.
Vacuum Truck, Combination	2	LCU							X	Vacuum Combination Truck (Vactor), 9yd
Ventilator Fan	1	LCU							X	Manhole Ventilator (12v)
Ventilator Fan	1	LCU							X	Manhole Ventilator (gas)
Water Tanker Trailer, Potable	1	LCU							X	Water Tanker Trailer, Potable, 5000 gallons
Water Tanker Trailer, Potable	1	LCU							X	Water Tanker Trailer, potable, Doubles Configuration 3500 gal. ea.
Weed Burner, Propane	1	LCU							X	Propane Tank Weed Burner, 180 gal.
										W/Briggs & Stratton 3hp Motor
										W/Briggs & Stratton 7hp Motor
										Wisconsin Tjd Motor
SCHOOL DISTRICT										
School Bus	112	LCSD								
Passenger Van	19	LCSD								
SUV (Yukons)	22	LCSD								
Passenger Car	46	LCSD								
Pickup Truck	36	LCSD								

Ditchwitch	1	LCSD								
Construction Bed Pickup Truck	1	LCSD								
Dump Truck	1	LCSD								
Refrigerated Van	1	LCSD								
Truck	4	LCSD								
Utility Trailer	13	LCSD								
Mini Excavator	1	LCSD								
Forklift	1	LCSD								

CLCFD – Central Lyon County Fire District COY – City of Yerington

COF – City of Fernley

LCRD – Lyon County Road Division

CSO – Lyon County Sheriff's Office

LCSO-SAR – Lyon County Sheriff's Office - Search & Rescue LCU – Lyon County Utilities

LCSD – Lyon County School District

LTAR – Large Technical Animal Rescue

MVFD – Mason Valley Fire District

NLCFD – North Lyon County Fire District SVFD – Smith Valley Fire District

YPD – Yerington Police Department

SECTION 18: EMERGENCY TELEPHONE LISTINGS

Law Enforcement	PHONE	FAX	DISPATCH	DISPATCH FAX
Lyon County Sheriff's Department	463.6600	463.6610	463.6620	463.6630
Yerington Police Department	463.2333	463.6610	463.6620	463.6630
Yerington Paiute Tribe Police Department	463.3310		463.6620	463.6630
Nevada Department of Public Safety-Dispatch	684.4808	684.4809	687.0400	
Carson City Sheriff's Department	887.2500	887.2016	887.2007	887.2222
Churchill County Sheriff's Department	423.3116	423.6689	423.3116	423.6689
Douglas County Sheriff's Department	782-9990		782.9911	782.9919
Fallon Police Department	423.2111	423.6527	423.2111	423.6527
Mineral County Sheriff's Department	945.2434	945.5484	945.2434	945.5484
Reno Police Department	334.2175	334.2157	334.2677	334.2157
Sparks Police Department	353.2231		353.2231	353.2491
Storey County Sheriff's Department	847.0950	847.0927	847.0950	847.0927
Washoe County Sheriff's Department	328.3001		785.4629	

Fire Department	PHONE	FAX	DISPATCH	DISPATCH FAX
Central Lyon County Fire District	246.6209	246.6204	577.5023	463.6630
Mason Valley Fire District	463.6535	463.6537	463.6620	463.6630
North Lyon County Fire District	575.3310	575.3314	577.5023	463.6630
Smith Valley Fire District	465.2577	465.2255	463.6620	463.6630
Carson City Fire Department	887.2210	887.2209	887.2007	887.2222
East Fork Fire & Paramedic Districts	782.9040	782.9043	782.9911	782.9919
Fallon-Churchill Fire Department	423.6521		423.3116	423.6689
Mineral County Fire Department	945.2497	945.8465	945.2434	945.5484
Storey County Fire Department	847.0954	847.0987	847.0950	847.0927
Tahoe Douglas Fire District	588.3591	588.3046	782.9911	782.9919

Emergency Management	PHONE	FAX	DISPATCH	DISPATCH FAX
Lyon County	344.8325	463.5305	463.6620	463.6630
City of Fallon	423.1345	423.0381	423.2111	423.6527
City of Reno	334.2300	334.3826	334.2677	334.2157
City of Sparks	353.2358	353.1651	353.2231	353.2491
Carson City	887.2210	887.2209	887.2007	887.2222
Churchill County	423.4188	423.5677	423.3116	423.6689
Douglas County	782.9040	782.9043	782.9911	782.9919
Mineral County	945.2497	945.8465	945.2434	945.5484
Storey County	847.0954	847.0987	847.0950	847.0927
Nevada Division of Emergency Management	687.0300	687.0322	687.0400	

Public Works	PHONE	FAX	DISPATCH	DISPATCH FAX
Lyon County Buildings & Grounds - South	463.6551	463.6555	463.6620	463.6630
Lyon County Buildings & Grounds - North	246.6227	246.6223	577.5023	463.6630
Lyon County Road Department-South	463.6551	463.6555	463.6620	463.6630
Lyon County Road Department-North	577.5011	577.5031	577.5023	463.6630
Lyon County Utilities	246.6220	246.6223	577.5023	463.6630
City of Fernley Public Works	784.9910	784.9966	577.5023	463.6630
City of Yerington Public Works	463.2729	463.0030	463.6620	463.6630

Hospitals-Emergency Rooms	PHONE	FAX	DISPATCH	DISPATCH FAX
South Lyon Medical Center	463.2301			
Banner Churchill Community Hospital	423.7888			
Carson Tahoe Regional Medical Center	445.8005			
Carson Valley Medical Center	782.1500			
Northern Nevada Medical Center	356.4040			
Renown Regional Medical Center	982.4140			
St. Mary's Regional Medical Center	770.3000			
Sierra Medical Center	799.7320			

Utilities-Emergency	PHONE	FAX	DISPATCH	DISPATCH FAX
NV Energy	329.2063			
Southwest Gas Corp.	800.772.4555			
Lyon County Utilities	246.6220	246.6223	577.5023	463.6630
City of Fernley Public Works	784.9910	784.9966	577.5023	463.6630
City of Yerington Public Works	463.2729	463.0030	463.6620	463.6630

Volunteer Groups	PHONE	FAX	DISPATCH	DISPATCH FAX
American Red Cross	856.1000			
The Salvation Army	688.4567			

Federal Agencies	PHONE	FAX	DISPATCH	DISPATCH FAX
ATF - Reno Duty Agent	784.5251			
Bureau of Land Management-HM Coord Carson	885.6155			
Bureau of Reclamation-Northern Nevada	884.8351			
Centers for Disease Control	770.488.7100			
Department of Energy-EOC	702.295.1381			
DEA-Reno Agent	784.5617			
FBI-Reno	825.6600		702.385.1281	
FEMA-On Call Duty Officer	510.627.7100			
Homeland Security Operations Center	202.282.8100			
National Response Center	800.424.8802		800.424.8802	
National Weather Service-Reno	673.8109			
U.S. EPA Region 9 - Duty Officer	800.300.2193		800.424.8802	
USFS-Bridgeport Ranger District	760.932.7070			
USFS-Carson Ranger District	882.2766			
United States Geological Survey	887.7600			

State Agencies	PHONE	FAX	DISPATCH	DISPATCH FAX
Community Health Nursing – Dayton	**246.6211**			
Community Health Nursing – Fernley	**575.3363**	**575.3364**		
Community Health Nursing – Yerington	**463.6439**	**463.6534**		
Department of Agriculture	856.1180			
Department of Transportation	834.8399		834.8300	
Division of Forestry	684.2500		883.5995	
Division of State Lands	687.4363			
Division of State Parks	687.4384		688.2830	
Division of Environmental Protection	687.9485		888.331.6337	
Highway Patrol	687.0400		687.0400	
Nevada Division of Emergency Management	687.0300	387.0322	687.0400	
State Emergency Response Commission	684-7511		800.300.2193	
State Fire Marshal Division	684-7500	684-7507	687.0400	

Contractors-Emergency Response Teams	PHONE	FAX	DISPATCH	DISPATCH FAX
Clean Harbors	331.9400		800.645.8265	
H2O Environmental	351.2237		351.2237	
NRC Environmental	510.719.0205		800.899.4672	
Stericycle	575.2760		877.577.2669	
Reno Drain Oil Service	342-0351			

Other	PHONE	FAX	DISPATCH	DISPATCH FAX
Chemtrec	800.424.9300		800.424.9300	
Kinder Morgan	358.6971		358.6971	
Paiute Pipeline	775.882.0148		800.624.2153	
Union Pacific Railroad	888.887.7267		888.887.7267	
Fallon Naval Air Station	426.2715		426.2715	
Hawthorne Army Depot	945.7107		445.7417	
National Response Center	800.424.8802		800.424.8802	