

CITY OF  
**BROWNELL**



HAZARDOUS MATERIALS

Area Plan

2007 Revision

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## I. INTRODUCTION

### I.1 Purpose and Scope

This plan has been developed pursuant to the California Health and Safety Code, Division 20, Chapter 6.95. It's designed to identify responsibilities and provide coordination of emergency response at a local level. Identification and coordination of needed response levels of agencies involving local, county, regional, state and federal resources are indicated. This plan is designed to provide guidelines to minimize danger to the public, to protect their property and the environment from exposures as a result of a hazardous materials incident. Assurance is made that the most qualified personnel will respond to mitigate situations that may occur and to provide follow-up procedures that may be deemed necessary.

This plan involves mitigation of incidents pertaining to hazardous materials that pose a threat to life, property and the environment. It identifies the responsibilities of those Brownell and Santa Luisa County departments that have a significant role in mitigating a hazardous materials incident. This plan promotes a formal incident notification system within the City of Brownell, and insures a trained, knowledgeable, well-equipped group of personnel representing various local agencies will respond in a timely fashion to assist a designated Incident Commander.

The plan is based on the mutual aid concept, which will provide the jurisdiction initially impacted with the level of response required to alleviate the problem, with a minimum negative effect on the community and the environment. Support is provided for overall hazardous materials management including coordination of data management, disclosure and inspection of emergency response plans.

The Brownell Fire Department is the Certified Unified Program Agency (CUPA) for the City of Brownell. As such, the CUPA has the responsibility for establishing the Area Plan for emergency response to a release or threatened release of a hazardous material within its jurisdiction.

The 2007 edition of the Area Plan has been reformatted to enhance compliance with California's Standard Emergency Management System and the National Incident Management System (SEMS/NIMS). In addition, protocols for responding to pesticide drift incidents have been updated to include the specific provisions required by SB 391 (Florez), and are underlined within the document.

## **I.2 Current Revision Date**

March 23, 2007

## **I.3 Jurisdiction Information**

The Brownell Fire Department is a Metropolitan department located in the southern Santa Luisa Valley, 100 miles North of Metropolis. Brownell's population of approximately 310,000 reside within the City limits consisting of approximately 122 square miles.

The resulting population per square mile equals 2540 for the City proper. By agreement, the Brownell Fire Department's Hazardous Materials Response Team also responds with Santa Luisa County Fire Department's Hazardous Materials Response Team throughout Santa Luisa County serving its 662,000 population. Brownell has three (3) major highways; Freeway 86, the North/South route that bisects the City; Freeway 444, and Freeway 61 passing through the metropolitan area East and West. Two (2) trans-continental railroads, Santa Monica and Western Pacific, have rail quantities of hazardous materials. Our community is mainly residential, however, bordered by a rapidly growing light industrial area and compounded by a major farming community at the periphery of the metropolitan area. Several oil refineries are located within the metro area offering additional possibilities for catastrophic chemical incidents.

There are over 1300 businesses in the City of Brownell that use or store reportable quantities of hazardous materials on site. Over 600 of those businesses also manage hazardous wastes on site as well. There are, however, only 8 businesses in the City which handle "extremely hazardous substances" or "regulated substances" subject to the California Accidental Release Prevention (CalARP) and/or federal Risk Management Plan (RMP) requirements.

## II. PREPAREDNESS:

### II.1 Pre-Emergency Planning

Chapter 6.95, Section 25503c (2), Health & Safety Code places the responsibility for pre-emergency planning with the administering agency (Brownell Fire Department).

Section 2723 of the California Code of Regulations, Title 19, identifies the minimum area plan requirements to be included in pre-emergency planning. The requirements are to be met as follows:

- A. As detailed in the CUPA Inspection and Enforcement Plan, pre-incident surveys of business sites will generally be conducted by in-service fire suppression companies. In the case of target hazards, efforts may be augmented by the Prevention Services Division as “combined inspections.”
- B. Pre-emergency planning and coordination occurs between Santa Luisa County and Brownell Fire Departments through Quarterly Hazardous Materials Response Team Proficiency Trainings. At least one of these Quarterly Trainings will address pesticide-related incident response issues each year. These pesticide trainings will also involve public health professionals who specialize in pesticide illness diagnosis and treatment and are to include either a table-top or full-scale exercise.
- C. At incidents where a responsible party has not been identified, and/or does not assume financial responsibility for clean-up costs, procedures for accessing local, state and federal funds have been developed into Standard Operating Procedures and department policies.

Application for recovery of costs incurred during a hazardous materials incident shall be incumbent upon the Incident Commanders. This is further facilitated by a “Finance” element of the Incident Command System for tracking and controlling costs on major inter-agency incidents.

- D. Santa Luisa County Emergency Medical Services (EMS) has an existing contact list for hospitals, clinics, private doctors, etc. and will take the lead role in providing information on eligibility for medical cost reimbursement for victims of non-occupational pesticide drift exposure. The Department of Pesticide Regulation (DPR) has developed a brochure on the eligibility for medical cost reimbursement for this purpose. The Brownell Metropolitan Medical Response System (MMRS) Committee will also assist to disseminate the pesticide drift protocols and the DPR brochure regarding eligibility for medical cost reimbursements to their network of member agencies and medical providers.
- E. Provisions for access to State approved emergency response and clean-up contractors have been developed into Standard Operating Procedures and department policies.

- F. All departments within the City of Brownell accept basic responsibility for protection of life, property and the environment from any threatened or discharge/spill of hazardous materials.

Scene Manager responsibility is a major consideration in dealing effectively with a hazardous material incident. Such responsibility for on-road situations is assigned in the California Vehicle Code, Sections 2453 and 2454 to law enforcement agencies. Legislation later allowed delegation of this authority to other public agencies by mutual agreement. Both Santa Luisa County Sheriff's Department and the Brownell Police Department have allowed their respective fire departments to assume scene management/incident manager responsibilities. On State highways, however, the California Highway Patrol has retained command authority.

Roles and responsibilities, by agency function, have been identified under this Area Plan after consultation with the various agencies, including the County Agricultural Commissioner and Local Health Officer for any pesticide drift exposure incidents in particular.

- G. At the beginning of each year, the County Agricultural Commissioner will develop a list of the top 25 to 50 most heavily used agricultural chemicals (other than baits that are used frequently at low rates), particularly identifying those fumigants which are known to drift or volatilize and are applied at high rates per acre. This list will be provided to the Brownell and Santa Luisa County Fire Department Haz-Mat Teams. These chemicals will be cross-referenced by trade name and/or synonym as also found in the Crop Protection Handbook, which is carried on the Hazardous Materials Response vehicles in their reference library. Material Safety Data Sheets (MSDS) will also be made available for the reference library for the substances on this list, supplemented with information from a total of at least of three reference sources. This will help provide immediate access to pesticide-specific information, including proper decontamination procedures and emergency medical treatment procedures based on chemical name, common name, and/or trade name being known.

## II.2 Data Management

The City of Brownell utilizes a local area network computer system with several remote stations to record, maintain and retrieve hazardous materials information related to the CUPA Program requirements. The business plan and chemical inventory information submitted and approved are physically stored at Prevention Services, 1600 Tapioca Ave., Ste 222, in Brownell. The information from each plan is then inputted into the hazardous materials computer in the following categories:

- I. Occupancy overview consisting of a Response Summary, Employees to contact in an emergency and the location of utility shut offs.
- II. Hazardous Materials Training level of employees.
- III. Notification and evacuation procedures for the employees as well as affected public.
- IV. Prevention, mitigation and abatement data.
- V. Location of utility shut offs.
- VI. Location of available water and fire protection at the facility.
- VII. Hazardous Materials Inventory showing:
  - A. Common name or trade name for the material;
  - B. A listing of hazardous components of the material;
  - C. The maximum quantity on hand at anyone time;
  - D. The annual through put quantity;
  - E. The location of the material throughout the facility;
  - F. The type of container;
  - G. The container temperature and pressure;
  - H. The use of the material;
  - I. The CAS number for the material and it's hazardous ingredients.
- VIII. Summary of prior incidents.
- IX. Summary of inspections.
- X. Special Hazard Summary.
- XI. A summary of the Off Site Consequences and Risk Management and Prevention Program for all facilities requiring same. The information available on the Hazardous Materials computer also includes a Summary

of the area plan including the Multi-Agency Response Plan and contact information. Also included is extensive specific chemical information on the hazardous components identified in the hazardous materials inventory of the business plans. This hazardous materials portion of the software provides an extensive library of chemical components that cross - reference CAS numbers, DOT identification numbers and DOT Emergency Response guide data. This data is compiled and maintained by the Northridge Tox Center.

### **DISTRIBUTION AND ACCESS**

In addition to hard copies of the business plan on file, this computerized information is available at the Brownell Fire Department Prevention Services office. The information is also available on a 24 hour basis, on line, at the communication center located at 6502 Bonanza Drive, as well as two (2) portable units available in the field for on scene access. A computer located in the Hazardous Materials van is updated with all business plans and inventory information weekly. The hazardous materials information is also available on a portable computer assigned to Prevention Services and is available by telephone, pager or radio contact.

### **BACK-UP MEASURES IN PLACE**

Multiple copies of the software and data are available on separate computer drives and a tape drive back up. These back ups are made on a scheduled routine basis to insure against loss of the data. The back up integrity as well as the regular updating of additional computers is maintained by Prevention Services.

## II.3 Supplies and Equipment

### PERSONNEL

- A. The educational goal for each member of the Brownell Fire Department's Hazardous Materials Team is to obtain Specialist certifications rapidly as current budget constraints and schedule restrictions allow. The present on-duty team membership is made of personnel rated from Specialist to Technician equivalent. On-duty alternates vary from Technician to Intermediate Level used for decon operations.

### EMERGENCY RESPONSE VEHICLE

- B. 1990 International conversion 32', 2 ton bobtail with air conditioning and walk through utility coach.

1. Generator

- A. 7.5 KW Onan
- B. 2 - 150' electrical reels
- C. Adjustable exterior lighting

i. Refrigerator

- D. 2 cubic feet RV typed

ii. Cascade Air System

- E. 400 cubic feet @ 4000 psi storage
- F. 2 - 200' entry lines
- G. 2 - 50 dress out lines
- H. 6 - 10' dress out lines
- I. 2 - 25' decon line
- J. 6' refill hose
- K. 10 piece manifold set

A. Work Stations

- L. Reference desk
- M. 14' observation deck
- N. Umbilical air
- O. Haz-Cat hood unit
- P. 20 gal. water tank with holding tank

C. REFERENCE MATERIAL

1. Communications

- 4 mobile radios
- Bands: VHF HI, VHF LO, UHF

PA System

Cellular Telephone.

Cellular Facsimile Machine

Entry Ensemble

6-HT Portable Radios

6-S.C.B.A. Radio Facemasks with cables

Cellular Answering Machine

2. Reference Material

25 Piece Standard Haz-Mat Reference Library

D.O.T. 90 E.R.G.	ACGIH 2 <sup>nd</sup> Protective Clothing Guide
NIOSH 85-114 Guide	N.F.P.A.'s 9 <sup>th</sup> Haz-Mat/Fire Guide
CHRIS Manuals	Hawleys Condensed Crop Chemicals Dictionary
Genium M.S.D.S.	I.L.O.'s Health/Safety Encyclopedia
SAX Manual 6 <sup>th</sup> Edition	B.O.E.'s 87 Surface Transport Hazmats
Farm Chemicals Handbook (99) 4 <sup>th</sup> Edition	Bronsteins Emergency Care Haz- mat Expore
Title 22 CCR	ITI (Chinese Industrial Chem Manual)
Gosselin 5 <sup>th</sup> Toxic Commercial Products	S.O.P.'s/Protocols/Policies
Uniform Fire Code/Art 80/ Inspection Guide	CFR 40 Waste Class Guide
Sitting's 2 <sup>nd</sup> TOX, HAZ, CARC Handbook	Underground Pipeline Map
CFR 29 OSHA	
ACGIH TLV's	
Area Plan/Regional Plan/ MFHP/HMICP	

3. Computer (Mobile)

Model 386 IBM Compatible

Software

Northridge Tox Center M.S.D.S.

Data Base

Hazardous Materials Business Plans (City Limits)  
Chemical Data

Printer

4. Instruments

Air Monitoring Field Survey Instrument

G-400 (LeI, O <sub>2</sub> , CO H <sub>2</sub> S	Eberline ESP-1 Alpha Detector
Leak Hunter (Non-Flamm's)	Eberline AC3-8
G-86 (LeL, O <sub>2</sub> , CO, H <sub>2</sub> S	Scintillation Probe
SO <sub>2</sub> Monitor	Victoreen 450 P Beta/Gamma
Gas Trac (Methane)	AIM 3000 (Downloadable)
HNU P.I.D.	
Victoreen Personal	
Monitors (4)	

Sampling Instruments

Sensidyne Haz-Cat Kit  
1 Dox. Composite liquid waste sampler (Coliwas)  
Colorimetric Tubes (30 pc)

Miscellaneous Instruments

Wahl Infra Read Heat Spy	Binoculars
Raytech Ultra Violet S/L	Scope with Tripod
Raytech Ultra Violet Long Wave	35mm Camera with Zoom
Class I, Division I Hand Lanterns (3)	Stopwatches (3)

Calibration, Testing and Repair

Multi Test Meter  
40 pc Jewelers Tool Set  
Trelleborg Suit Test Kit  
Trelleborg Suit Repair Kit  
Span Gases: S<sub>0</sub>2, H<sub>2</sub>S, CO, N<sub>2</sub>, CH<sub>4</sub>, ISO Butane, Natural Gas  
1 doz. Batteries: 9v, AA, C cell

5. Breathing Apparatus

6 - 60 Minute S.C.B.A.'s with 6-Radio Masks (Survivair)  
3 - 60 Minute S.C.B.A.'s without Radio Masks (Survivair)  
13 Reserve 60 Minute Air Bottles  
6 Reserve 30 Minute Air Bottles  
Anti-fog Compound

6. Protective Clothing

Level A

3 Trelleborg Super X, XLG, Viton Butyl with Boots  
2 Trelleborg Super X, XLG, Viton Butyl With Socks  
1 Trelleborg HPS XLG with Pass Thru & Socks  
4 Responder Disposable XLG with Teflon Face Shields

Level B

24 PVC Splash Coverall  
24 Saranex Splash Coverall  
24 Chemrell Fully Encapsulating  
24 Saranex Fully Encapsulating

Thermal

7 Aluminized Flash Suits  
4 Structural Turnouts  
7 PBI Hoods & Gloves  
4 Cryogenic Suits

Boots

12 Pair PVC Size 13	6 Pair Neoprene Size 13
6 Pair PVC Size 12	6 Pair Neoprene Size 12
4 Pair PVC Size 11	4 Pair Neoprene Size 11
2 Pair PVC Size 10	2 Pair Neoprene Size 10
12 Pair PVC Overshoes	

Gloves

50 Pair Latex	24 P.V.A.
24 Pair Vinyl	12 Neoprene
12 Pair Butyl	6 Trelleborg Viton Butyl
24 Pair Nitrile PVC	24 Silver Shield

Miscellaneous Safety Equipment

4 Cool Vests	9 Nomex Jump Suits
4 Hard Hats	2 Escape Cutters

First Aid/Rescue

Inhalator	Splint Bag
Trauma Kit	12 Rescue Blankets
2 HOT ZONE Medical Kits	2 Cases Gatorade

7. Scene Management/Site Control

10 Command Vests  
Incident Status Boards  
1000 yards Equivalent Chalk  
I.C.S. Check Sheets

Waste Manifests  
20 Large Traffic Cones  
1000 Yards Barrier Tape  
Cyalume Glo Sticks

Decontamination

2 - 12' x 18' Salvage Covers  
8 - Step Stools  
12 Inflatable Pools  
POR Decon System  
2 - 10 Gallon tubs  
2 - Wash Wands  
10 Piece Adaptor Set

5 Assorted brushes  
2 3/4" Garden Hose  
10 lbs. Tide Detergent  
25 lbs. CaCl<sub>2</sub>  
300' roll, 10 Gallon Bags  
50 - 30 Gallon Plastic Bags

Decontamination Shower Trailer – Located at Fire Station #2, 1630 E. 21<sup>st</sup> St.

Treatments/Absorbent

12" x 100" Absorbent Roll  
3" x 8" Hydrocarbon Dike  
6 - 3" x 8" Absorbent Dike  
12 - 3" x 4" Absorbent Dike  
100 lbs. Soda Ash  
5 Gallon Bleach

5 lbs. Snow Jelling Agent  
(Freeze dried isobutene)  
4 Gallon HCL  
40 lbs. Caustic Neutralizer  
NF Neutralizer  
Activated Charcoal Carbon  
4 lbs. Baking Soda

Patch and Plug

30 lbs. Plug-n-Dike Clay  
20 pc. Epoxy, Putty, Sealant Kit  
2 - 5 lbs. Lead Shot Bags  
20 pc. Misc. Assortment Kit  
11 pc. Clamp Patch Kit  
4 Test Balls  
8 Frangible Rupture Disks  
Chlorine "B" Kit

30 lbs. Plug-n-Dike Granular  
Polymerizing Foam  
Plug Kit  
5 lbs. Lead Wool  
Expanding Grommet Bolt Config.  
Edwards & Cromwell Series "A"  
Clamping Corset

8. Control Equipment

10A-80 BC Dry Chemical Extinguisher  
Hand Transfer Pump  
LPG Flare

6 pc. Salv/Ovrpk Drums  
Hand Truck

## Hand Tools

### Non-Sparking/Non Magnetic 31 pc.

1 - 24" Prybar	4" Putty Knife
Wire Brush	Scoop Shovel
Claw Hammer	9" Tapered Drift Pin
2 - Castellated Bung Wrench	15" Bung Wrench
2 - Channel Lock Pliers	8" Lineman's Pliers
Slip Joint Pliers	4 pc. Phillips Screwdrivers
4 pc. Asst. Blade Screwdrivers	3 Crescent Wrench
	3 pc. P Wrench
	4 pc. Box-End 5/16 -25/32

### Regular Hand Tools

5 pc. XLG Combo Wrench	6 pc. Socket Set
15/16 - 1 1/4"	Socket Ext. 3/4" Dr.
11 pc. Asst. Combo Wrench	Socket Adapter
1/4 - 7/8"	10" Shears
6 pc. Pipe Wrench 8" - 18"	14 pc. Asst. C-Clamps
Chain Tongs	1 Gauge Rod Wrench (Railroad)
2 pc. Vise Grip Clamps	

## Maintenance Testing

### Haz-Mat Van #15

Once per shift @ 0800 Hours ( Basics)  
After each use (As Needed)  
Once per week (Tuesday-Comprehensive)

### S. C. B. A.'s

Once per shift @ 0800 Hours (Basics)  
After each use (As Needed)  
Once per week (Fri-comprehensive)  
D. O. T. Spec. (5 Year Hydrostat Test)

### Level A Repeat Use Fully Encapsulated Suits

3<sup>rd</sup> Sunday of Each Month (Press. Test Manufacture Specs)  
After Each Use (As Needed)  
Acceptance Test (Before Placement in Service)  
Pre-Use Test

### All Instruments, equipment & Supplies

Minimum Testing to Mfg. Recommendations  
After each use  
Once per week (Thursday)

## 9. Inventory Availability Guide

The entire inventory or specialized haz-mat emergency response equipment and supplies is located in Southwest Brownell, at 4570 Spontaneous Highway, Brownell Fire Department Station #15. The equipment is stocked, stored and maintained in a readily available status, 24 hours per day. Additionally, further resources may be accessed at the following locations:

1. 4570 Spontaneous Highway ( Station # 11) 1000 lbs. Soda Ash (Calcium Carbonate)
2. 1630 East 21<sup>st</sup> Street (Station #2) 600 Gallons AFFF concentrate
3. 4101 Tapioca Avenue (Corporation Yard) 15 yards of Sand

## **II.4 Initial Response Notifications**

### Local On-Call Response Agencies

- A. Fire Protection
  - 1. Brownell 911
  - 2. Santa Luisa County 911
  - 3. State of California
  - 4. Federal
  
- B. Law Enforcement
  - 1. Brownell Police 911
    - a. Bomb Squad 911
    - b. Patrol Division 911
  - 2. County Sheriff 911
    - a. Bomb Squad 911
  - 3. California Highway Patrol 911
  
- C. Public Works/Highway Department
  - 1. Brownell Corporation Yard 555-3274
  - 2. Santa Luisa County Public Works 556-1300
  - 3. State - Cal Trans 395-2808
  
- D. Health and Environmentally Related Operations (Santa Luisa County and State)
  - 1. City Fire – Prevention Services Division 555-3002
  - 2. Environmental Health 556-6502
  - 3. Public Health Services

a.	Communicable Diseases	556-3422
b.	Emergency Medical Services	556-0001
c.	State Department of Radiological Health Services (Donald Bunn-Health Physicist)	916-323-2756
4.	Solid Waste	556-9630
5.	Air and Water Quality	
a.	Air Pollution Control District	555-6000
6.	State Department of Fish and Game	833-8699
E.	General Services (Brownell & Santa Luisa County)	
1.	Communications (Brownell & Santa Luisa County)	911
F.	Agricultural Department	
1.	Santa Luisa County	556-0965
2.	Brownell	555-2202
G.	District Attorney (Santa Luisa County)	557-9857
H.	Risk Management (Brownell)	555-3888
I.	<u>Support Agencies</u>	
1.	State of California	
a.	Attorney General	
2.	Department of Conservation	
a.	Division of Oil & Gas	322-4081
3.	Department of Food and Agriculture	
a.	Shipping Point Inspection	395-2816
b.	Market News Bureau	327-5596

- c. Market News Bureau Recorder 323-0727
- 4. Department of Health Services
  - a. Medi-Cal Investigations 395-2705
  - b. Nursing Home Complaints 800-554-0351
- 5. Department of Industrial Relations
  - a. Apprenticeship Standards 395-2717
  - b. Industrial Accidents
    - i. Workers Comp Benefits 395-2723
    - ii. Workers Comp Appeals 395-2723
  - c. Labor Standards Enforcement
    - i. Working conditions. 395-2710
    - ii. Labor Commissioner 395-2710
    - iii. Occupational Safety (OSHA) 213-514-6387
- 6. Department of Water Resources
  - a. Santa Luisa Field Division 558-5555
  - b. Confused Hills O & M Sub-Center 797-2391
  - c. Mobile Equipment Shop 858-2211
  - d. Santa Luisa District Water 395-2815
- 7. Military Department
  - a. National Guard - Army 395-2821
- 8. Office of Emergency Services 800-852-7550
- 9. Regional Water Quality Control Board (Outer Valley) 700-444-5555
- 10. State Lands Commission

- |     |                                       |              |
|-----|---------------------------------------|--------------|
| 11. | State Water Resources Control Board   | 858-2211     |
| 12. | Department of Toxic Substance Control | 916-322-5169 |
| 13. | California EPA                        | 916-445-3846 |

### III. RESPONSE

#### III.1 Specific Responsibilities by Agency

1. Law Enforcement
  - A. The Brownell Police Department, having relinquished command responsibilities and primary functions to the fire department, will assume a support role on hazardous materials incidents within the City of Brownell.
  - B. Santa Luisa County Sheriff's Department, having relinquished command responsibilities and primary functions to the fire department, will assume a support role on hazardous materials incidents within the City of Brownell.
  - C. California Highway Patrol (CHP) will function as Scene Manager on all State highway incidents.
  - D. With CHP as Scene Manager, efforts will be initiated to identify materials involved in the accident.
  - E. Law Enforcement establishes traffic control, area security and crowd control throughout the operation.
  - F. CHP and Santa Luisa County Control 5 will share notification responsibilities as outlined in the concept of operation.
  - G. When the designated Incident Commander determines the need for evacuation or shelter-in-place, assistance can be gained from the Prevention Services (City) or Environmental Health (County) representative or computerized projections from either the Emergency Communication Center (ECC) or Brownell/Santa Luisa County Fire Departments' Hazardous Materials Van.
  - H. Assist rescue operations of patients in cooperation with Emergency Medical Services and ambulance services.
  - I. Provide assistance (emergency transportation, access to closed areas, radio use, etc.) to technical advisors summoned by the Scene Manager.

- J. As Incident Commander, coordinate all press releases with the designated media coordinator.
- K. As Incident Commander, complete California Hazardous Materials Report form by gathering input from all other officially recognized responders. When responding in support of another agency's Incident Commander, provide input to insure a complete report to the Office of Emergency Services.
- L. Support local hazardous materials response scene managements training programs.

2. Fire Department

- A. Per City Resolution, assume Scene Manager/Incident Command responsibilities when appropriate.
- B. Satisfy all fire suppression requirements.
- C. Assist with on-scene material identification using available systems.
- D. Assist in rescue operations, basic patient decontamination and handling of injured in cooperation with law enforcement agencies, ambulance services and the Emergency Medical Services Agency.
- E. Initiate containment operations as required, in cooperation with the Prevention Services (City) or Environmental Health (County) on-scene representative.
- F. Coordinate rescue activities with ambulance services and the Emergency Medical Services when large numbers of patients are involved, contamination is a concern, lengthy transportation times are a factor, and/or when several jurisdictions are responding to the operation.
- G. Coordinate on-scene acquisition of support equipment (lights, generators, necessary heavy equipment, special rescue materials, etc.).
- H. Utilize the guidelines in the Brownell Fire Department/Santa Luisa County Fire Department Joint Hazardous Operational Procedures. Work with Prevention Services (City) or Environmental Health (County)

personnel to provide monitoring and decontamination for patients and emergency responders. Following the guidelines in the Brownell Fire Department's Hazardous Material Incident Procedure Manual incorporated as Section III.3 of the Area Plan.

- I. As Incident Commander, complete the California Hazardous Materials Incident Report Form, gathering input from all other officially recognized responders. When responding in support of another agency's Incident Commander, provide input to insure a complete report to Office of Emergency Services. File California Hazardous Materials Incident Report with the Office of Emergency Services for all Brownell hazardous materials incidents on a monthly basis. These reports are forwarded to the office of the State Fire Marshal, Sacramento, California.
- J. Encourage annual on site inspections of all hazardous materials handlers within the City of Brownell to insure compliance with all applicable hazardous materials regulations.
- K. Support local hazardous material and scene management training programs.

3. Public Works/Highway Department

- A. Cal Trans, in coordination and cooperation with California Highway Patrol, will deal with any suspected/actual hazardous material situation on a State Highway (Freeway and/or Highway route in an incorporated area), as outlined in their "Unusual Incident Guide". This includes accomplishing or arranging for both identification and removal of spilled material.
- B. Local Jurisdiction Streets Division
  - i. Provide the Scene Manager with and immediate assessment to the short term traffic impact for all road spills, and actively assist with any traffic control problems with men and equipment as required.
  - ii. Furnish equipment and supplies by agreement to support containment operations initiated by on scene fire departments.

- iii. Provide the Scene Manager with information on drainage area influence when wash down operations/spills runoff is a consideration.
- iv. Assist in estimating clean up costs by providing data on normal road repair requirements (equipment, time, costs, etc.)
- v. City/County road personnel will coordinate with the Incident Commander and Prevention Services (City of Brownell) or Environmental Health (unincorporated Santa Luisa County) in obtaining equipment, trained personnel and the proper method of removing any hazardous material/waste within their area or responsibility.
- vi. Supply data to support the Incident Commander's California Hazardous Materials Incident Report.

4. California Department of Fish and Game

- A. Respond upon request and assist local authority in determining possible effects and the mitigation measures required to protect wild lands, fish and game.
- B. Supply information to the Incident commander to complete required California Hazardous Materials Incident Report.

5. California Department of Water Resources

- A. Respond on request and assist local authority in determining and impact and/or necessary mitigation steps involving a water project.
- B. Provide laboratory analysis of water samples when required to substantiate contamination.
- C. Assist in compiling a final incident report.

6. Air Pollution Control District (San Joaquin Valley Unified APCD)

- A. Respond upon request and assist local authority with advice on air quality, potential downwind threats and actual air sampling that may be required to support documentation of responsibility.

- B. Assist in compiling California Hazardous Materials Incident Report.
7. Communicable Disease Control Division (Santa Luisa County)
- A. Assist the Public Health Officer's representative, on request, in the determination of immediate an/or long term public health hazards.
  - B. Document the occurrence of symptoms among exposed persons (emergency responders and general public).
  - C. Provide information necessary for the Incident Commander to submit California Hazardous Materials Incident Reporting System Report.
8. Prevention Services (City of Brownell)
- A. Work in cooperation with the Incident Commander and the Brownell or Santa Luisa County Fire Department Hazardous Materials Teams.
  - B. Maintain vehicles, equipment and manpower to respond 24 hours a day, upon notification, and provide technical information, incident risk assessment, and advice to the Incident Commander. Included are:
    - i. Assessing Chemical Exposure Risks
 

Report to and cooperate with the Incident Commander. Help assess the immediate concern and/or threat to human health from the reported chemical emergency. Upon control of said emergency, coordinate efforts with the Incident Commander to determine the likelihood and intensity of potential human exposure to the released chemical(s).
    - ii. Sampling
 

Devise and oversee environmental sampling methodologies for collection analysis of environmental specimens providing enough information to:

- Support evacuation distances
- Establish clean-up levels
- Conduct follow-up health studies
- Determine validity of post-incident claims

Prior to a declaration of Scene Control by the Incident Commander, there need not be actual environmental sampling or investigation within the Contamination Reduction or Exclusion Zones during the emergency phase. However, they may ensure the samples will support health related decisions.

“Verification by duplication” of Chemical Field identification is intended to encourage and enable a closely coordinated consensus on this vital issue of product identification.

- C. In coordination with the Agricultural Commissioner, identify areas of safe refuge where further pesticide exposure via inhalation or dermal contact will not occur, and assist in the coordination of an evacuation, if deemed necessary by emergency response personnel.
  - D. As the Certified Unified Program Agency (CUPA) for the City of Brownell for hazardous materials and hazardous waste regulations, determine appropriate clean-up and hazardous materials/waste removal actions and completion.
  - E. Access State or Federal superfund monies through the Cal/EPA Department of Toxic Substance Control, for clean-up and removal of hazardous materials. Maintain on scene contractor supervision when appropriate.
  - F. Assist the Incident Commander with necessary information in order that an accurate and complete California Hazardous Materials Incident Report be rendered.
9. Environmental Health Department (Santa Luisa County)

- A. To inform the medical community and general public about chemical hazards, precautions and symptoms related to exposure, health officials may:
- Hold press conferences
  - Issue advisories
  - Declare state of local public health emergency
  - Establish hotlines for individual's inquires
- B. In coordination with Emergency Medical Services Agency, assist medical providers (ambulance and hospital staffs) in coping with contamination problems.
- C. In coordination with the Agricultural Commissioner, identify areas of safe refuge where further pesticide exposure via inhalation or dermal contact will not occur, and assist in the coordination of an evacuation, if deemed necessary by emergency response personnel.
- D. Devise a plan, supervised by the Health Department, which will render the site suitably free of health hazards to the civilian population at large.
- The right to allow entry of the public into a hazardous materials site by another agency will not pre-empt the right to deny entry by the Incident Commander.
- The right to refuse entry will supersede the right to allow entry.
- E. As an agent of the Santa Luisa County Public Health Officer, declare area safe for re-entry to the public for their use, if a public health emergency has been declared.
- F. Assist the Incident Commander with necessary information in order that an accurate and complete California Hazardous Materials Incident Report be rendered.
- G. In the unincorporated areas of metropolitan Brownell, where the Environmental Health Department is the Certified Unified Program Agency (CUPA), Environmental Health will provide all of the support listed in item 8 above.

10. Emergency Medical Services Agency (Santa Luisa County)
  - A. Respond upon request to directly coordinate the medical response (primarily when large numbers of patients or several jurisdictions are involved).
  - B. Determine the need for and coordinate the activation of triage teams.
  - C. Coordinate ambulance dispatching and patient destination determination.
  - D. Obtain necessary medical information related to specific chemicals involved in the incident. (Through contact with the Environmental Health Division, accredited Poison Control Agency or other special contacts). Transfer this information to the appropriate receiving hospital(s).
  - E. In conjunction with the Environmental Health Division, assist hospital staffs and ambulance crews in coping with possible contamination problems.
  - F. Assist the Incident Commander in compiling and submitting a final California Hazardous Materials Incident Reporting System Report.
  
11. Agriculture Department (Santa Luisa County)
  - A. Respond upon request and assist in identification or confirmation of the involvement of agriculture chemicals. Advise of potential hazards (toxicity, pervasiveness, etc.) and safety precautions to be taken when dealing with known pesticides (fumigants, insecticides, herbicides, fungicides, nematocides, defoliants, rodenticides, and plant growth regulators, which includes fertilizers).
  - B. When the suspected material is potentially an agriculture product, assist the Hazardous Materials Team and the Prevention Services (City) or Environmental Health (County) representative in determining the best action, including, but not limited to, notifying residents of a pesticide drift exposure incident and coordination of an evacuation to a safe refuge area, if deemed necessary by emergency response personnel.

- C. Maintain current listings and access to local manufacturers who maintain an emergency response team for their product.
  - D. Investigate all suspected violations of law pertaining to the safe use of pesticides as related to the hazardous material incident in question.
  - E. Assist the Incident Commander in compiling the California Hazardous Materials Incident Report.
12. Communications  
(Brownell Emergency Communication Center)
- A. When notified of a Hazardous Materials Incident, Emergency Communications Center (ECC) shall activate the Hazardous Materials First Responder emergency response as set forth in the Brownell Fire Department's Emergency Communications Center Policy Manual.
  - B. ECC shall alert all additional local responders, per policy, upon confirmation of the incident.
  - C. ECC shall notify the California Warning Center (Office of Emergency Services) providing currently available information and will update the State periodically, as required.
  - D. ECC shall monitor the field operation and provide all communication coordination required.
  - E. ECC shall access the AT&T Language Line translation service to assist the Incident Commander in communicating with affected individuals in their native language, should there be no other emergency responder on-scene who can do so in person.
  - F. ECC shall maintain a log of calls (agency and person contacted and time of contact) and will provide this list to the Incident Commander for inclusion in his final report and the California Hazardous Materials Incident Reporting System Report.
  - G. ECC shall maintain a current call list of local agencies with contact phone and/or number.

- H. Upon request, shall notify the news media of incidents in their area in order to disseminate information on protective measures including evacuation or shelter-in-place.
- I. As necessary, provide information on shelter in place techniques.

13. Emergency Services

- A. When evacuations occur, coordinate reception and care requirements with City/County and local volunteer agencies.
- B. Coordinate local disaster declarations.
- C. Provide direct assistance to the Incident Commander when the incident involves radioactive materials:
- D. Access to radiation detection equipment.
- E. Access to basic isotope data.
- F. Advise on specific techniques and options available.
- G. Collect and compile dosimetric information.
- H. Assist the CUPA in all initial phases of planning and insure compatibility with all hazard plans.
- I. Assist the Incident Commander in compiling the California Hazardous Materials Incident Report (CHMIRS).

14. District Attorney (County) & Risk Management (City)

- A. Respond upon request and provide incident investigation.
- B. In coordination with Prevention Services (City) or Environmental Health (County) representative, directs the taking of samples to document any legal action that may become necessary.
- C. Documents incident information with photographs or recorded statements.
- D. Assists in determining liability and cost recovery.

- E. Interviews witnesses or suspects to gain information useful to identify ownership or properties or materials involved.
  - F. Supply data to the Incident Commander to support a California Hazardous Materials Incident Report.
15. Coroner (S.L.C.S.O.)
- A. The Coroner has the responsibility to determine the circumstances, manner and cause of death in all fatalities involving hazardous materials (California Government Code, Section 27491).
  - B. When notified by the Incident Commander or ECC of any death(s) due to hazardous materials, the responding investigator will ascertain the number of deaths known at that time and the type of hazardous material. The bodies of deceased persons shall not be moved or disturbed from their positions without permission from the Coroner. Any personal property shall remain with the body.
  - C. An investigator or investigative team will respond to the scene and coordinate with the Incident Commander to ascertain possible hazards to the Coroner Staff and to facilitate an orderly removal/disposition of remains. They will coordinate requests for special facilities with the Incident Commander.
  - D. As the Coroner Staff has no special safety equipment, those needs will be accommodated by the Brownell Fire Department.
  - E. Remains and personal property of deceased persons will be transported to the Santa Luisa County Coroner's Facility or designated staging areas for processing by Coroner Staff or their designees.
  - F. Coroner Staff will process the remains to determine identification and cause of death. The Coroner Staff will make notification to the next of kin and release the personal property.
  - G. The Coroner will provide input for the Incident Commander to complete the California Hazardous Materials Incident Report.

- H. The coroner will participate in appropriate post incident critiques.
- I. The Coroner will assist in the post incident evaluation and any necessary revision of specific duties and/ or assignments for future incidents.
- J. Coroner will support an inter-agency Hazardous Materials Training Program.

## III.2 Preliminary Assessment of Public Safety and Information

### SAFETY PROCEDURES DURING AN EMERGENCY

#### 1. Site Employees

Businesses regulated by the business plan requirements are responsible for providing training for personnel in or around a hazardous materials site, e.g., the correct procedures to take during an emergency. This training must be taught and should include evacuation procedures through pre-planning.

The first arriving emergency personnel shall follow proper hazardous first responder procedures. Communications methods should include, but not be limited to, face to face, public address systems, department radios and news media information broadcast should give instructions to follow that would minimize danger. ECC shall access the AT&T Language Line translation service to assist the Incident Commander in communicating with affected individuals in their native language, should there be no other emergency responder on-scene who can do so in person.

#### 2. Affected Public

During the course of an incident, the public must be advised of proper safety procedures to follow. This may be done in several ways, ECC shall access the AT&T Language Line translation service to assist the Incident Commander in communicating with affected individuals in their native language, should there be no other emergency responder on-scene who can do so in person:

- A. Door to door, when practical.
- B. Public address systems from police and fire units.
- C. Public address systems in buildings or on site.
- D. If large scale public alerting is appropriate, notification of Control 5, through our Emergency Communications Center of a Santa Luisa-Alert can take place. This request will activate alert monitor receivers located in local radio and TV stations serving Santa Luisa County. This alert system is activated by a tone from Control 5, followed by the emergency message from the originating agency.

- E. Amateur Radio Operators “Civilian Emergency Service” is a volunteer organization of Ham Radio personnel who have been allowed space for equipment and operation at Control 5's communication failure, the Amateur Radio Network will communicate emergency messages through out the county using their equipment. Control 5 coordinates this operation.

## EVACUATION PLANNING

1. In the event of a release or threatened release of hazardous materials that poses a threat to life, property or the environment, the Incident Commander shall have the authority to initiate evacuation, as deemed necessary.
2. In the determination of the nature and limit of the threat, the Incident Commander shall coordinate with the Haz-Mat Team Leader. Information from Environmental Health representatives, business plan information and additional reference materials shall be also utilized. This is to include, but not be limited to, Chemtrec, the Hazardous Materials Coordinator, computerized information and the Northridge Tox-Center.
3. When giving evacuation orders, the Incident Commander shall announce the perimeters of the area to be evacuated, the locations of emergency shelters, and transportation availability if needed. This order should include routes of travel and the location of an evacuation center for people to seek shelter. The Incident Commander shall consider people oriented problems; basic needs (food, water, diapers, telephone access for contacting family members), medical needs: (eye-washes, prescriptions), animal welfare (pets), and patient transportation (wheelchairs). Special problems are to be expected while evacuating schools, jails, hospitals, nursing homes, high-rise buildings, etc. Law enforcement agencies will initiate the notification process to the public using one or more of the procedures in Part I of this appendix. Security for the evacuated area is the responsibility of the law enforcement agency having jurisdiction.
4. The Incident Commander and his advisors will monitor the situation for changes that may affect the evacuation boundaries or the duration and act accordingly.
5. Environmental Health representative(s) will advise the Incident Commander when the area is declared safe for re-entry by civilians.

### **III.3 Response Resources and Mitigating Actions**

#### **Chapter 1**

##### **1.1 First Arriving Company**

The first arriving company is responsible for providing initial size-up, initiating the Incident Command System, initiating strategic priorities (see Chapter 2), and requesting additional resources, if needed.

##### **1.2 Incident Commander**

The Incident Commander is responsible for: formulating an action plan based upon the Fire Department's strategic priorities and standardized approach, establishing a command post, acquiring the necessary resources, declaring a local emergency, and coordinating with command representatives from other agencies until the emergency has ended or order has been restored.

The Incident Commander has ultimate authority to determine when control over the affected area has been established to a sufficient degree to terminate the response activities and establish safe criteria for recovery and preoccupation of that area.

##### **1.3 Hazardous Materials Teams**

The Hazardous Materials Teams are responsible for assessment of the immediate hazard(s), providing the Incident Commander with technical assistance, and conducting and/or coordinating measures to minimize the effect of the hazard on people, the environment, and property.

##### **1.4 Decontamination Team**

The Decontamination Team is responsible for establishing a decontamination plan and supporting the Hazardous Materials Team.

##### **1.5 Hazardous Materials Medical Group Supervisor**

The Medical/Group Supervisor is responsible for assessment and treatment of sick, injured and/or exposed persons, and medical monitoring of personnel who enter the Exclusion Zone.

The Hazardous Materials Medical/Group Supervisor also acts as liaison between the paramedic ambulances and the hazardous materials operation.

## **1.6 Assistant Safety Officer - Hazardous Materials**

The Assistant Safety Officer - Hazardous Materials oversees operations of the Hazardous Materials Task Force; is responsible for identifying and evaluating hazards inside the Exclusion Zone; for providing direction with respect to the safety of operations; and notifying the Incident Commander of any unsafe condition.

The Assistant Safety Officer - Hazardous Materials has the authority to alter, suspend, or terminate any activity which he/she may judge to be unsafe.

## **1.7 Safety Officer**

The Safety Officer is responsible for identifying and evaluating hazards and providing direction with respect to the safety of Fire Suppression operations and the public during a hazardous materials incident. The Safety Officer will notify the Incident Commander of any necessary action needed to correct hazards at an emergency scene. The Safety Officer has the authority to alter or terminate any operation which may be judged to be unsafe. The Safety Officer shall be in constant communication with the Hazardous Materials Medical/Group Supervisor and the Incident Commander in order to be up-to-date at all times.

## **1.8 Fire Safety Education Specialist**

The Fire Safety Education Specialist is responsible for handling all releases of public information. The Fire Safety Education Specialist should closely coordinate the information distributed by local, regional, and State centers for consistency and clarity. Public information materials including press release information forms, emergency broadcast system messages, and news releases should be retained for documentation and evaluation. The Fire Safety Education Specialist shall be placed in a safe location in the Support Zone remote from the Incident Command Post.

## **Chapter 2**

### **Strategy**

#### **2.1 Strategic Priorities**

When dealing with hazardous material incidents, the priorities of the Fire Departments are listed below in order of importance:

- A. Protection of life

- B. Protection of the environment
- C. Protection of property

## 2.2 Strategic Approach

- A. Approach with caution: Uphill, upwind, and upstream when possible, or use discretion based on facts, if not possible. Continually check the wind direction on the way and at the scene.
- B. Analyze and identify problem, i.e., spill, leak, vapor cloud, illegal dumping, etc. Specific identification of the material(s) involved is primarily the responsibility of the Hazardous Materials Team. However, the first arriving company may assist in the identification of the material(s) in the following ways:
  - 1. By using the Emergency Response Guide Book,
  - 2. By identifying the "proper shipping name," the U.N./ N.A. number or the Hazard Class designation recorded on the shipping paper,
  - 3. By observing placards and labels, and pesticide application signs,
  - 4. By requesting Material Safety Data Sheets,
  - 5. By observing types of containers, pesticide application equipment, tarped fields, and other evidence of pesticide application nearby.
  - 6. By observing the physical state and behavior of the material(s),
  - 7. By consulting with the person responsible or witness to the facts,
  - 8. By observing the signs and symptoms of possible pesticide exposure victims: headache, nausea, dizziness, and increased secretions, such as sweating, salivation, tearing and respiratory secretions. Progressive symptoms include muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea.
  - 9. By consulting with Chemtrec.

**NOTE:** Assume that all unknown materials are highly flammable and a lethal poison until proven otherwise.

- C. **Rescue:** Take immediate action to rescue persons providing for the safety of rescuers.

**NOTE: When determining the rescue needs at hazardous materials incidents, it is important to consider the possibility that the rescuers, without proper protective equipment, may become victims who will also need rescuing.**

1. If the decision to effect rescue is made by the first responder, command will be passed to the next arriving company or to a higher-ranking officer. Incoming units shall be notified that rescue is being attempted. If the initial Rescue Team goes down, do not attempt a secondary rescue until circumstances are reassessed.
2. Whenever practical, a rescue plan will be formulated and the Rescue Team(s) will be briefed on the plan prior to entry. The minimum rescue plan should identify:
  - a. The boundaries of the Exclusion Zone.
  - b. The location of Safe Refuge Areas within the Exclusion Zone.
  - c. The location of the Contamination Reduction Corridor outside the Exclusion Zone. Safe refuge areas need to be areas where further pesticide exposure via inhalation or dermal contact will not occur.
  - d. The location of the Access Control Points into and out of these zones. Rescue teams should approach the spill from uphill/upwind whenever possible.
  - e. Backup team for the Rescue Team will be established prior to entry operations.
3. Rescue Team Leaders will be responsible for providing the Incident Commander (through Chain-of-Command) with ongoing status reports.
4. Egress from the Exclusion Zone for all people and equipment will be through Access Control Points into a Contamination Reduction Zone.
5. If victims must be moved prior to the establishment of a Contamination Reduction Zone, they should be moved to a predetermine location of safe refuge within the Exclusion Zone where they can remain until the Contamination Reduction Zone can be established. Safe refuge areas need to be areas where

further pesticide exposure via inhalation or dermal contact will not occur.

6. If the initial rescue effort results in serious injury or death to first-in rescue companies, and if it is the judgment of the Incident Commander that the hazardous nature of the materials involved is the cause of the injuries or death, then no further rescue operations will be attempted until the arrival of the Hazardous Materials Team.
- D. **Isolate area:** Isolate area and deny entry. The first arriving company(s) shall be responsible for controlling activities at the scene to ensure proper management of the incident and to prevent any contamination. Isolation of the material must continue throughout the entire operation. The Incident Commander should:
1. Establish a basic operational area which includes a Exclusion Zone and a Support Zone with designated Access Control Points between each zone.
    - a. The size of the Exclusion Zone should be based on an estimate of the hazards involved. The Exclusion Zone should be far enough away from the material that no special clothing or respiratory protection are needed to establish the Exclusion Zone.
    - b. The Support Zone should be large enough to accommodate the resources necessary to handle the incident.
    - c. Wherever practical, zones should be delineated using fire line and/or hazardous materials tape.
  2. Order all nonessential personnel out of the operational area.
  3. Request the appropriate law enforcement agency to establish traffic and crowd control lines that will effectively deny entry of unauthorized personnel into the operational area.
- E. **Contain:** Attempt to contain in a safe manner. Dike ahead of the product, keep clean, and use appropriate protective clothing and breathing apparatus.
- F. **Protective action:** Evacuation or sheltering in place should be carried out in a safe and systematic order.

1. **Shelter in place:** Sheltering in place is an appropriate action for:
  - a. Severe incidents in which an evacuation cannot be implemented because of inadequate lead time.
  - b. When local conditions such as inclement weather dictate that directing the public to seek shelter is a more feasible and effective measure than evacuation.
  - c. As a precautionary measure, while determination of the need to evacuate is made, particularly in the case of an unidentified material. The decision to conduct in-place sheltering should be based upon existing known conditions during an emergency. Consideration should be given to facility conditions, nature of the incident, and offsite response considerations.
  
2. The legal authority for a peace officer to carry out an evacuation is found in the California Penal Code, Section 409.5. Evacuation is an appropriate protective action for:
  - a. An incident involving a release or potential release in which the lead time between recognition of the emergency and population relocation is compatible with the dynamics of the emergency.
  - b. Situations which do not provide adequate lead time or advance warning but a substantial reduction of the impact on the population can be made by avoiding exposure. Inadequate shelter would be a good example.
  
3. The responsibility for evacuation outside the Exclusion Zone usually rests with the appropriate law enforcement agency. However, the Fire Department Incident Commander is almost always consulted before evacuation is initiated. The Incident Commander should:
  - a. Make a decision to evacuate early in the incident.
  - b. Meet with a representative of the law enforcement agency to plan:
    1. The areas to be evacuated.
    2. The priorities of the evacuation.
    3. The access and egress routes.

4. The location of evacuation shelters.
    - c. Request the representative from the law enforcement agency to take responsibility for implementation of the evacuation once plans are completed.
    - d. Periodically monitor the evacuation process.
- G. The Incident Commander is responsible for warning the population of the impacted area. Mobile public address systems and/or the Emergency Broadcast System (EBS) in cooperation with local television and radio stations normally accomplish notifications. The reverse 9-1-1 automated call-back system (Teleminder) can be used in the Brownell response area.
- H. **Decontamination:** A separate and distinct Contamination Reduction Zone should be established between the Exclusion Zone and the Support Zone whenever decontamination procedures are anticipated.
- I. **Agencies:** The Incident Commander shall request assistance from the Santa Luisa County Environmental Health Services Department or Brownell Fire Department Prevention Services Division, depending on jurisdiction, on all hazardous materials incidents (except motor vehicle fluids less than 42 gallons, sewage overflows and leaks in low pressure natural gas lines to residential property. Other outside agencies and resources should be requested early in the incident.
- J. **Person Responsible:** The Incident Commander should make every effort to identify the person responsible for the release or threatened release of hazardous materials and keep him/her at the scene. The person responsible should be asked to remain at the scene voluntarily. However, if necessary, the Incident Commander can instruct the appropriate law enforcement agency to detain him/her until released by the appropriate authority, normally the Santa Luisa County Environmental Health Services Department or the Brownell Fire Department Prevention Services Division.
- K. **Documentation:** Record observations and facts. Use Arson Investigators or law enforcement personnel if on scene. Treat the scene as a crime scene; look for evidence or suspicious acts; sketch out the scene. (ICS 208.)

### Chapter 3

#### Agency Notification for Hazardous Materials Releases

Depending on jurisdiction, for all incidents involving hazardous substances notify:

Brownell Fire Department Prevention Services Division 555-3799  
*or* Santa Luisa County Environmental Health Services Department 556-8000  
*and* State of California Office of Emergency Services 1-800-852-7550

If spill equals or exceeds CERCLA FED R.Q.'s, NRC 1-800-424-8802.

In addition, if release or threatened release of a hazardous substance affects any of the following, notify or request a response from the appropriate agency.

**Note: Telephone numbers are in the telephone directory**

<u>Area Affected</u>	<u>Agency Contact</u>
For serious injuries or harmful exposure to workers	Cal/OSHA
Waste discharge or proposed discharges that threaten or may impact water quality	Regional Water Quality Control Board
Hazardous waste releases or secondary containment releases	Department of Toxic Substance Control
Oil spill at a fixed facility	Division of Oil and Gas
Airborne release	Santa Luisa Valley Unified APCD
Fish and wildlife habitat threatened	California State Department of Fish and Game
Hazardous waste spill	Brownell Fire/Prevention Services Santa Luisa County Environmental
Health	
Illegal dumping	Brownell Code Enforcement Brownell Police Department Santa Luisa County Sheriff's
Department	
Sewer	City of Brownell Sanitation Santa Luisa County Sanitation
District	City of Brownell Public Works Dept. Santa Luisa County Public Works Department

<b><u>Area Affected</u></b>	<b><u>Agency Contact</u></b>
Storm drains, flood control channel, or navigable Dept.	Brownell Public Works Dept. Santa Luisa County Public Works Waterway Department Brownell Flood Control Dept. Santa Luisa County Flood Control
	Brownell Waste Water Div. Brownell Water Resources Santa Luisa County Water Agency
Wildland	California Department of Fish and Game
Storm drains, flood control channel, or navigable waterway	State Department of Fish and Game United States Coast Guard
State Highway	California Highway Patrol Cal Trans Office of Emergency Services
Underground Pipeline	City of Brownell Public Works Santa Luisa County Public Works  Pipeline Leaks Hotline
Underground Tank	Brownell Fire Prevention Services Santa Luisa County Environmental
Health	
Bio-Medical Material	Santa Luisa County Environmental Health Services Department
Clandestine Laboratory	Brownell Police Department Santa Luisa County Sheriff
Pesticide Drift Incidents Dept.	Santa Luisa County Agriculture
Radioactive Material Health	Santa Luisa County Environmental  Brownell Fire Prevention Services

## **Chapter 4**

### **Command**

#### **4.1 Hazardous Materials Incident Command System**

The organizational structure for hazardous materials incidents shall be consistent with the Hazardous Materials Area Plan. A Hazardous Materials Group shall be subordinate to the Operations Chief. (See Firescope Incident Command Structure)

#### **4.2 Command Post Location**

The Command Post for hazardous materials incidents should be at a location which is uphill, upwind, and upstream from the incident and which is large enough to accommodate the resources necessary for command of the incident.

#### **4.3 Staging Uphill, Upwind, and Upstream**

All companies not immediately assigned to duty at the scene of a suspected hazardous materials incident should be staged at a remote location uphill, upwind, and upstream from the incident. The location of the Staging Area shall be made known to all responding units.

#### **4.4 Scene Management/on Scene Coordinator**

The Fire Department will assume scene management duties at all hazardous materials incidents except those occurring on highways where the C.H.P. has primary traffic investigative authority. The Incident Commander is responsible for notifying the appropriate agencies, acquiring the necessary resources, and coordinating all of the activities at the scene to properly handle an incident. Scene management responsibilities continue until the emergency has ended and order has been restored.

#### **4.5 Clean up**

The Santa Luisa County Environmental Health Services Department or the Brownell Fire Department Prevention Services Division, depending on jurisdiction, will supervise the cleanup of all hazardous materials incidents along with Fire Department personnel. The cleanup of a hazardous materials incident is the responsibility of the Santa Luisa County Environmental Health Services Department or the Brownell Fire Department and the jurisdiction's private cleanup companies and the person responsible. (Exception: Positively identified motor vehicle fluids less than 42 gallons.)

## **4.6 Enforcement**

The responsibility for enforcement of hazardous waste laws falls on the Santa Luisa County Environmental Health Services Department or the Brownell Fire Department Environmental Services Division, depending on jurisdiction, the local law enforcement agency, and the City Attorney, County Counsel, or District Attorney's Office.

## **4.7 Final Clearance**

All personnel and equipment involved in a hazardous materials incident will be checked for contamination by the Medical Group Supervisor or his designee before being released from the scene.

The only agency with the authority to declare a hazardous materials incident over and the incident area clean is the jurisdictional health agency or their representative. Re-entry by civilians into a hazardous materials spill area can only be authorized by the appropriate health agency. (Health and Safety Code 6.5).

# **Chapter 5**

## **Safety**

### **5.1 Uphill/Upwind/Upstream Approach**

All companies responding to a suspected hazardous materials incident will approach from uphill/upwind/upstream, whenever possible.

### **5.2 Prepare for Immediate Egress**

All apparatus at the scene of a suspected hazardous materials incident will be positioned for immediate egress and maximum safety. All units, not immediately assigned to duty, shall be staged at a remote location uphill, upwind, and upstream away from the incident area.

### **5.3 Protective Clothing**

All personnel operating at a suspected hazardous materials incident will wear full Personal Protective Equipment (PPE). Minimum full protective clothing includes helmet, S.C.B.A., coat, pants, rubber boots and gloves.

**NOTE: Personnel responding to support zone or in support zone area do not need PPE until assigned. (See Chapter 6)**

#### **5.4 Hazardous Substance Containment**

This function is primarily the responsibility of the Hazardous Materials Team. However, first responders have the option to intervene and take a defensive action if the hazardous material(s) is moving and threatening public safety and/or the environment.

- A. Attempts by first responders to contain hazardous materials should be made at remote locations away from the leading edge of the material(s).
- B. The distance between the containment area and the leading edge of the material will be determined by estimating the time it would take to construct the containment area safely without any need for personal protective equipment.
- C. The first responder should plan to construct the entire containment area prior to the arrival of the spreading hazardous material(s).

#### **5.5 Consider Worst Case**

All unknown substances will be considered flammable and lethal poison until proven otherwise.

#### **5.6 Avoid Chemical Contact**

First responders should not enter the Exclusion Zone unless a life-threatening situation dictates a decision to effect rescue. If the initial rescue effort results in serious injury or death to first-in rescue companies, and if it is the Incident Commander's judgment that the hazardous nature of the material(s) involved is the cause of the injuries or death, then no further rescue operations should be attempted until the arrival of the Hazardous Materials Team.

#### **5.7 Entry into the Exclusion Zone**

Unless a life-threatening situation dictates otherwise, no entry should be made into an area containing a substance that possesses a potential or immediate danger to life and health until:

- A. Trained Hazardous Materials Team is present with sufficient staffing to provide entry teams of two or more (buddy system) with an equal number of backup.

B. A Contamination Reduction Zone has been established, staffed, and is equipped at a level sufficient to deal with the decontamination requirements of the incident.

C. A site characterization (preliminary evaluation of a site's characteristics to aid in selecting the appropriate personnel protection methods) has been made.

D. An action plan has been developed by the Incident Commander.

E. The Incident Command System is in place with a Safety Officer.

F. A paramedic ambulance unit is on scene.

G. All required support units and equipment are at the scene and functional.

## **5.8 Equipment**

Equipment used in flammable atmosphere should be intrinsically safe and non-sparking. When this is not practical, flash protection should be worn.

## **5.9 Contamination Reduction**

In no instance shall anyone travel from the Exclusion Zone to the Support Zone of a hazardous materials incident unless they have first passed through, been evaluated, and then decontaminated, if necessary, within a separate and distinct Contamination Reduction Zone.

# **Chapter 6**

## **Personal Protective Equipment**

### **6.1 Breathing Apparatus**

A. Safety: The Hazardous Materials Response Teams should:

1. Use sixty-minute rated self-contained breathing apparatus when in Level A protection.
2. Initiate egress from the Exclusion Zone after being on air 20 minutes.
3. Operate, test, and maintain breathing apparatus as per manufacturer's instructions.

## 6.2 Communications

A. Safety: The Entry Team members shall maintain constant communication with the Hazardous Materials Team Leader while in the Exclusion Zone.

1. Communication systems are to be used according to manufacturer's instructions.

2. A radio frequency separate from all other on-scene communications must be used.

3. Entry Team members shall leave the Exclusion Zone if communications should fail.

4. All communications to the Entry Team shall pass through the Hazardous Materials Group Supervisor.

B. Hand Signals: The following hand signals shall be used whenever radio communications are not possible:

Low on air	Raise one hand overhead
Out of air	Hand gripping throat
Leave area immediately	Grip partner, point toward decon zone
Need assistance	Both hands on top of head
Ok, I'm all right	Thumb(s) up
No	Thumb(s) down

**NOTE:** Care should be taken to avoid unnecessary contamination of personal protective equipment by touching them with contaminated gloves. These hand signals can usually be performed without direct suit contact.

## 6.3 Levels of Protection

Personal protective equipment shall be divided into four categories based on the degree of protection afforded.

**NOTE: An asterisk (\*) after the description indicates optional, as applicable.**

- A. Level A: To be selected when the greatest level of skin, respiratory, and eye protection is required. The following constitutes Level A equipment:
1. Pressure-demand, full face piece self-contained breathing apparatus (SCBA), or pressure-demand supplied air respirator with escape SCBA, approved by NIOSH.
  2. Totally-encapsulating chemical protective suit.
  3. Nomex jumpsuit.
  4. Long underwear.\*
  5. Gloves, outer, chemical-resistant.
  6. Gloves, inner, chemical-resistant.
  7. Boots, chemical-resistant, steel toe and shank.
  8. Hard hat (under suit).\*
  9. Disposable protective suit, gloves and boots (depending on suit construction, may be worn over totally-encapsulating suit).\*
  10. Two-way radios (worn inside encapsulating suit).
- B. Level B: To be selected when the highest level of respiratory protection is necessary but a lesser level of skin protection is needed. The following constitutes Level B equipment:
1. Pressure-demand, full face piece self-contained breathing apparatus (SCBA), or pressure-demand supplied air respirator with escape SCBA, approved by NIOSH.
  2. Hooded chemical resistant clothing (overalls and long sleeve jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical resistant overalls).
  3. Nomex jumpsuit.\*
  4. Gloves, outer, chemical resistant.
  5. Gloves, inner, chemical resistant.

6. Boots, outer, chemical resistant, steel toe and shank.
  7. Boot covers, outer, chemical resistant (disposable).\*
  8. Hard hat.\*
  9. Two-way radios (worn inside encapsulating suit).
  10. Face shield.\*
- C. Level C: To be selected when the concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met. (Neither department operates on Level C protection - this is included for information only.) The following constitutes Level C equipment:
1. Fullface or half-mask air purifying respirators (NIOSH approved).
  2. Hooded chemical resistant clothing (overalls; coveralls; two piece chemical-splash suit; disposable chemical resistant overalls).
  3. Nomex jumpsuit.\*
  4. Gloves, outer, chemical-resistant.
  5. Gloves, inner, chemical-resistant.
  6. Boots, outer, chemical-resistant, steel toe and shank.
  7. Boot covers, outer, chemical-resistant (disposable).\*
  8. Hard hat.
  9. Escape mask.\*
  10. Two-way radios (worn outside protective clothing).
  11. Face shield.\*
- D. Level D: A work uniform affording minimal protection. The following constitutes Level D equipment:
1. Coveralls

2. Gloves\*
3. Boots/shoes, chemical-resistant, steel toe and shank
4. Boots, outer, chemical-resistant, (disposable)\*
5. Safety glasses or chemical splash goggles
6. Hard hat
7. Escape mask\*
8. Face shield\*

#### **6.4 Selection of Personal Protective Equipment**

- A. All Entry Team and Rescue Team members shall wear the same level of protection.
- B. All Decon Team members who are in the Contamination Reduction Zone shall wear protective clothing that is not more than one level of protection below the Entry Team.
- C. Level A protection should be used when:
  1. The chemical substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on either:
    - \* Measured (or potential for) high concentration of atmospheric vapors, gases, or particulates.

or

    - \* Site operations and work functions involving 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 intact skin.
  2. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible.

3. Operations must be conducted in confined, poorly ventilated areas until the absence of conditions requiring Level A protection is determined.

**NOTE: Full encapsulating suit material must be compatible with the substances involved.**

D. Level B protection should be used when:

1. The type and atmospheric concentrations of substances have been identified and require a high level of respiratory protection. This involves atmospheres:
  - \* With IDLH concentrations of specific substances that do not represent a severe skin hazard.
  - or
  - \* That do not meet the criteria for use of air-purifying respirators.
2. Atmosphere contains less than 19.5 percent oxygen.
3. Presence of incompletely identified vapors or gases is indicated by direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.

**NOTE: Use only when the vapor or gases present are not suspected of containing high concentrations of chemicals that are harmful to skin or capable of being absorbed through the intact skin. Use only when it is highly unlikely that the work being done will generate either high concentrations of vapors, gases, or particulates or splashes of material that will affect exposed skin.**

E. Neither department uses Level C protection, but Level C protection may be used by some agencies when:

1. The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect any exposed skin.
2. The types of air contaminants have been identified, concentrations measured, and a canister is available that can remove the contaminant.

3. All criteria for the use of air-purifying respirators are met.

**NOTE: Atmospheric concentration of chemicals must not exceed IDLH levels. The atmosphere must contain at least 19.5 percent oxygen.**

- F. Level D protection should be used when:

1. The atmosphere contains no known hazard.
2. Work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

**NOTE: This level should not be worn in the Exclusion Zone. The atmosphere must contain at least 19.5 percent oxygen.**

- G. Chemical compatibility charts shall be used according to manufacturer's instructions to determine which suit shall be used. Other compatibility charts may also be used. Compatibility charts shall be kept in the Hazardous Materials Team response vehicle library (see Hazardous Materials Equipment Manual).

**NOTE: A variety of materials are used to make the fabric from which chemical protective clothing is manufactured. Each material will provide protection against certain specified chemicals or mixtures of chemicals. It is most important to note that there is no material that provides satisfactory protection from all chemicals.**

- H. Flash Suits shall be worn:

1. Over other protective clothing.
2. When flammable materials are suspected.
3. In situations where 10% of the lower explosive limit is encountered.

- I. Tyvek-Saranex disposable suits shall be considered Level B protection only.

## **6.5 Chemical Protective Suit Donning Procedure**

All chemical protective suits shall be donned and doffed per manufacturer's instructions and the following:

1. Remove jewelry and personal effects.
2. Don Nomex jumpsuit.
3. Lay out all equipment:
  - \* On salvage cover or other protected place.
  - \* In order of donning.
  - \* Roll up cuffs on suits.
4. Sit down on stool.
5. Don bottom of suit.
6. Don boots, overboots.
7. Pull cuffs over boots.
  - \* Don bottom of flash suit.
  - \* Don flash boots.
8. Don air bottle. Secure radio and pressure switch
9. Don radio and suit up to shoulders
10. Pull suit hood into place
11. Don gloves
12. Don SCBA face piece.
13. Don PBI hood
14. Connect radio and zip up suit and test
15. Hook up to air
16. Zip into suit \*flash suit up

**Note: \* Flash suit to be used when possibility of flammable atmosphere exists**

## **6.6 Protective Clothing Maintenance**

**Note: Three types of chemical stresses affect encapsulated suits at hazardous materials incidents: degradation - physical destruction or decomposition; penetration - flow of hazardous substance through zippers, stitching, seams, pin holes, and other imperfections; permeation - process by which a hazardous liquid moves through protective clothing material at a molecular level. All three may result in loss of life and serviceability of the suits. Any of these can lead to a hazard for the suit user. The following maintenance procedures should help to reduce these hazards.**

- A. Use: Care shall be exercised:
1. When preparing to use a suit in a hazardous environment to ensure that the products involved will not immediately affect the suit.
  2. When using the suit to try to stay as clean as possible.
  3. When using the suit to avoid unnecessary stress.
- B. Inspection: All encapsulated suits shall be tested:
1. Per manufacturer's instructions.
  2. Once a month and after drill.
  3. After every exposure to hazardous environments. Post exposure testing shall be performed as soon as practical following an incident.
- C. Record Keeping: An entry shall be made on each suit's log sheet, in the Hazardous Materials Equipment Log Book, whenever a suit is:
1. Used
  2. Tested
  3. Repaired
- D. Decontamination: In all cases, efforts shall be made to decontaminate encapsulated suits at the incident scene. Additional decontamination may also be performed as necessary if residual amounts of material are still

detected during post incident inspection. Instruments may be useful in this inspection. All decontaminated protective clothing and equipment shall be bagged for transportation back to the station where it will be evaluated for additional decontamination prior to being put back in service.

- E. Storage: All encapsulated suits shall be stored:
1. In a cool, dry place.
  2. Out of direct sunlight.
  3. In protective covers.
  4. Per manufacturer's instructions.

## **Chapter 7**

### **Hazardous Materials Team Operations**

#### **Introduction**

If a Level A Entry is to be made, the minimum team size shall be five (5) members and a Decon Team.

#### **7.1 Briefing**

The Hazardous Materials Group Supervisor shall receive a briefing from the Incident Commander.

- A. En route, if possible;
- B. Complete briefing upon arrival on scene;
- C. Get as much information as possible about the material involved, type of leak or spill, and exposures.

#### **7.2 Research**

The Hazardous Materials Team will research information on materials involved via reference library, material safety data sheets, tox centers, Chemtrec, responsible party, etc. (ICS 208)

#### **7.3 Recommendations**

The Hazardous Materials Team will make recommendations to the Hazardous Materials Group Supervisor regarding handling procedures and personal protective equipment. The Hazardous Materials Group Supervisor shall relate this information to the Incident Commander.

#### **7.4 Coordination**

The Hazardous Materials Group Supervisor will coordinate and communicate Hazardous Materials Operations with the Incident Commander and other agencies as necessary.

#### **7.5 Suit up**

The Hazardous Materials Team will suit up.

- A. Entry Team first;
- B. Rescue Team second (same level of protection as Entry Team);
- C. Personnel suited up shall conserve energy until entry is made (shade and sitting, if possible).

#### **7.6 Contamination Reduction Corridor**

The Decon Team will establish the Contamination Reduction Corridor while the Entry Team and Back-Up Team suit up.

#### **7.7 Safety Check**

Before entry into the Exclusion Zone, the Hazardous Materials Team will conduct a final safety check of all equipment and personal protective equipment to be used.

- A. Monitoring equipment shall be bagged prior to entry.
- B. Monitoring equipment shall be turned on and warmed up prior to entry in accordance with operating instructions.
- C. Communication equipment shall be checked for proper channel and operation prior to entry.

#### **7.8 Entry**

- A. The Hazardous Materials Team will make entry into the Exclusion Zone.

- B. Entry Team shall be a minimum of two persons (buddy system).
- C. Back-Up Team stands by the Access Control Point leading into the Exclusion Zone and makes entry into the Exclusion Zone to rescue Entry Team members, if necessary; Back-Up Team keeps record of time each individual is on air - twenty minutes Suit-Up and Entry, twenty minutes for Egress and twenty minutes for Decon.
- D. Hazardous Materials Group Supervisor maintains communication with Entry Team and Rescue Team.

### **7.9 Objectives**

- A. Entry Team will attempt to accomplish predetermined objective(s).
- B. Entry Team should stay as clean as possible.
- C. Entry Team members should be cautious not to expose entry suits to unnecessary stress.
- D. One member of the Entry Team should do most of the work, when possible.
- E. Second member of Entry Team should assist first member, if necessary.
- F. Second member should constantly monitor work area for lower explosive limit (LEL) in all atmospheres of unknown or flammable materials.
- G. Entry Team shall leave the work area whenever LEL exceeds 10%.

### **7.10 Decontamination**

- A. The Entry Team shall be decontaminated by the Decon Team.
- B. The Entry Team shall leave the Exclusion Zone through Access Control Points.
- C. Usually the most contaminated Entry Team member will be decontaminated first unless another member is short on air supply or having some other problem.

### **7.11 Debriefing**

The Hazardous Materials Team shall conduct debriefing to:

- A. Discuss whether objectives were accomplished; and
- B. Decide if another entry is needed. (Repeat the entire procedure if another entry is needed.)

The Hazardous Materials Group Supervisor shall report results to the Incident Commander.

### **7.12 Demobilization**

The Hazardous Materials Group Supervisor shall initiate demobilization of the Hazardous Materials Operations at the request of the Incident Commander when hazardous materials operational objectives have been accomplished.

## **Chapter 8**

### **Dispatch**

#### **8.1 Dispatch**

- A. Dispatch Information:

The Communication Operator should attempt to identify, document, and relay to the responding Incident Commander and first responding companies:

1. Specific location of the incident;
2. Owner/occupant name;
3. Chemical name with correct spelling;
4. Quantity of material involved;
5. Incident type (spill, leak, dumping, vapor release);
6. Physical state (gas, liquid, solid, unknown);
7. Contact person. (Request they meet the responding engine company and provide them with Material Safety Data Sheets, if possible.)

#### **8.2 Standard Response**

- A. The standard response for a hazardous materials incident shall be closest available engine or truck company (Hazardous Materials Level I).

### **8.3 Additional Help**

- A. The responding engine or truck company shall request the Hazardous Materials Team (Hazardous Materials Level II), as needed.

### **8.4 Battalion Chief Notification**

- A. The Communication Operator shall notify the on-duty Battalion Chief of all hazardous materials responses. The Battalion Chief may request the Hazardous Materials Team or other units to respond prior to the arrival of the first responder.

### **8.5 Hazardous Materials Team**

- A. The Hazardous Materials Teams shall be utilized as a resource, not as first responders outside their first-in areas, and shall respond at the request of the on-scene Company Commander or the on duty Battalion Chief.

Other responses to be considered by the Hazardous Materials Team:

1. The other Fire Department Hazardous Materials Team, or any other team if unavailable (Hazardous Materials Level III).
2. Medical Team consisting of an appointed Medical Group Supervisor and a minimum of one (1) Paramedic Ambulance crew of three(3); one (1) Paramedic, one (1) EMT, and one (1) Field Supervisor.
3. One Air Van.
4. Additional engine company if one of the Hazardous Materials Teams is first responder.

### **B. Other Responses:**

The Hazardous Materials Team will respond to the following incidents where City Fire personnel are operating:

1. The fire call address shows reportable quantities of hazardous materials are present on site as shown in the Hazardous Materials computer.

2. A working fire threatens an exposure known to contain, or suspected of containing, hazardous materials.
3. Any drug lab.
4. Any fire or other emergency where known or suspected hazardous materials are found.
5. Any heavy rescue/confined space rescue operation for air quality monitoring.
6. In the event of injury to fire personnel or to the public, to assure that the proper treatment protocols are followed by ambulance and hospital personnel.

## **8.6 Personal Protection for Team Response to Site Monitoring Calls**

### **A. Personal Protection:**

Types of personal protection (uniforms) utilized by Hazardous Materials Team members during site monitoring responses will be governed by Chapter 6 of these Operational Procedures.

### **B. Response to Site:**

The Hazardous Materials Team shall report to the Incident Command Post, which shall be established uphill, upwind, upstream, and outside the fire line, in the support zone. The Hazardous Materials Team Leader shall receive a briefing from the Incident Commander. A Safety Officer will be appointed from the Hazardous Materials Team and make recommendations to the Incident Commander, as necessary, concerning Fire Suppression Operations.

### **C. Monitoring:**

The Hazardous Materials Team shall monitor the area with all necessary equipment. The Safety Officer shall report all findings and make recommendations for site safety to the Incident Commander. The Safety Officer shall give the "all clear" for use of Level "D" protection only after all harmful gases or vapors are below permitted levels and a complete area survey has shown no hazardous materials or spills on site.

### **D. Service Duration:**

The Hazardous Materials Team, when outside of their second in area, will be given priority for release from the scene to allow the Hazardous Materials Team's quick return to service.

## **Chapter 9**

### **Operational Procedures**

#### **Site Characterization**

##### **Introduction**

The following S.O.P.s for the Hazardous Materials Team are for furthering safety and productivity in the specialized area of advanced product I.D. and corrective action in the Exclusion Zone.

##### **Given**

That the Hazardous Materials Team consisting of minimum staffing of one (1) Hazardous Materials Group Supervisor, two (2) Entry Team Members, two (2) Backup Team Members, and two (2) Decon Members will conduct their operations along the following standard procedures.

##### **Site Characterization**

The Hazardous Materials Group Supervisor is responsible for gathering all possible information in order to tailor personal protective measures to actual or potential hazards associated with entry to hazardous materials site.

This ongoing size-up generally proceeds in three (3) phases:

1. Offsite characterization (support zone) means interviewing people, researching records, and conducting perimeter recon.
2. Onsite survey (Exclusion Zone) restricted to Hazardous Material Entry Team with Decon and Backup, and site controls in place.
3. Site monitoring (Support, Contamination Reduction, Exclusion) continuous survey to update health and safety plan.

##### **Offsite Characterization**

Focus on identifying all conditions that may pose I.D.L.H. inhalation hazards or any other condition that may be immediately dangerous to life and health.

The Hazardous Materials Group Supervisor shall receive a briefing from Incident Commander, en route if possible:

- |                      |                            |
|----------------------|----------------------------|
| * Status of Response | * Nature of Release        |
| * Dispersion Paths   | * Hazardous Materials      |
| * Population Centers | * Activities at Site, etc. |

The Hazardous Materials Group Supervisor will further interview:

- |                       |                          |
|-----------------------|--------------------------|
| * Responsible Parties | * Witnesses              |
| * Reporting Parties   | * First Responders, etc. |

The Hazardous Materials Team will research information and materials involved via:

- |                     |                   |
|---------------------|-------------------|
| * Reference Library | * M.S.D.S. Sheets |
| * Business Plans    | * Manifests       |
| * Chemtrec          | * Placards/Labels |

The Hazardous Materials Team will make recommendations to Hazardous Materials Group Supervisor regarding handling procedures and personal protective equipment.

### **Perimeter Reconnaissance**

Where hazards are largely unknown or there is no need to enter the Exclusion Zone immediately, the Hazardous Materials Team will make visual observations, perform air monitoring, and collect samples at the outer perimeter of Exclusion Zone.

The Hazardous Materials Team will look for:

- |                              |                                  |
|------------------------------|----------------------------------|
| * Confined Space Hazards     | * Bulging Drums                  |
| * Visible Vapor Clouds       | * Corroded Containers            |
| * Dead Animals/Vegetation    | * Instrument Readings            |
| * Pools of Liquid            | * Odors                          |
| * <u>Pesticide Equipment</u> | * <u>Pesticide Posting Signs</u> |
| * <u>Tarped Fields</u>       |                                  |

and make recommendations to the Hazardous Materials Group Supervisor regarding P.P.E. and handling procedures.

The Hazardous Materials Group Supervisor will relate this information to the Incident Commander and establish a contamination reduction zone, and will coordinate and communicate operations with Incident Commander and other agencies.

(See Chapter 4 - "Command.")

Decon Team will establish decon corridor while Entry Team suits up.

**Onsite Survey  
(Exclusion Zone)**

Purpose is to verify and supplement offsite survey information and/or take hazard mitigation action.

Prior to going on site, develop a site safety plan that addresses the work to be done and prescribes the procedures to protect their health and safety.

**Suit Up  
(See Hazardous Materials Suit up Procedure Chapter)**

- \* Entry Team first / Level "B" minimum
- \* Back Up Team, same level as Entry Team
- \* Personnel shall conserve energy until entry is made. (Shade and sitting if possible.)
- \* Safety check of all equipment to be used by Entry Team before entry to Exclusion Zone
- \* Turn on and warm up monitoring equipment bag as required in Air Monitoring chapter

**Site Entry  
(See Safety Chapter)**

1. Entry Team shall be a minimum of two (2) people.
2. Back Up Team stands by in same level of P.P.E. as Entry Team. Level "B" minimum.
3. Hazardous Materials Group Supervisor maintains communications with Entry Team, has them egress after 20 minutes.

**Monitor and Assess Hazards  
(Using standard reference guides)**

The following monitoring shall be conducted during site entry when the site evaluation produces information which show the potential for ionizing radiation or I.D.L.H. conditions, or when site information is not sufficient to rule out these possible conditions.

Entry Team will leave the Exclusion Zone when:

L.E.L. = > 10% explosion  
O<sub>2</sub> = > 25% fire  
Ionizing = > 2M REM/hr radiation  
>T.L.V./R.E.L./P.E.L. toxicity

other dangerous conditions (catastrophic container failure).

### **Objectives for Onsite Entry Team**

- \* Priorities shall be established for hazard assessment and Exclusion Zone activities.
- \* Entry Team will attempt to accomplish predetermined objectives.
- \* Stay as clean as possible.
- \* Don't expose suits to unnecessary stress.
- \* One member should do most of work, if possible; second member assist first member, when necessary.
- \* Second member should constantly monitor work area for I.D.L.H. conditions (L.E.L.).

**Brownell Fire Department  
Supplement to  
Joint Brownell Fire Department and Santa Luisa County Fire Department**

**Hazardous Materials Operational Procedures**

**Chapter I**

**Administration**

**1.1 Minimum Staffing**

The Brownell Fire Department Hazardous Materials Team shall have three (3) members on duty at all times at Station 15. An effort will be made to maintain six (6) trained alternates per shift.

**1.2 Level of Training**

All personnel shall be certified as Title 19 CCR Division 2 Chapter 1, sub chapter 2 Sections 2510 through 2560 Hazardous Materials Technician or Specialist.

**1.3 Personnel Made Available**

When team members and alternates are on duty, they shall be made available to the Hazardous Materials Team Leader as required for training and hazardous materials incidents.

**1.4 Transportation**

When the Hazardous Materials van is out of service, transportation will be provided to transport the Hazardous Materials Team, countywide, to assist the Santa Luisa County Fire Department Hazardous Materials Team.

**1.5 Hazard Pay**

The Hazardous Materials Team Members shall receive pay at the rate of \$10 per shift above their current pay scale for each total shift or portion of a shift when assigned to Station 15.

**1.6 Hazard Pay - Alternates**

Alternate personnel on duty at Station 15 shall receive pay at the rate of \$10 per shift above their current pay scale or when called to assist on a hazardous materials call.

**1.7 Emergency Call Back for Incidents**

Additional Hazardous Materials Team Members shall be called back to duty upon request of the Incident Commander so all necessary positions are filled to assure the maximum safety of the Hazardous Materials Team.

Special requests for a particular Hazardous Materials Team Member or Alternate may be made when that individual possesses certain knowledge or skill that will assist in the safe stabilization of an incident.

### **1.9 Emergency Call Back - Personnel**

Persons will be called back based on:

- A. Position of card in file
- B. Level of training satisfies requested knowledge level

Persons not possessing the proper knowledge level will not be called and the next person having the proper level of training will be called back. The skipped person's card will not go to the end of the file, but will retain its place until that individual is successfully called back.

### **1.10 Emergency Call Back - Rate of Pay**

Emergency call back of Station 15 personnel and alternates will be paid at the appropriate rate in their present capacity plus hazard pay of \$10 per shift.

## **Chapter 2**

### **Authority**

#### **Introduction**

The Brownell Fire Department must continue to be apprised of the laws governing and authorizing the Fire Department's authority in respect to Hazardous Material Operations. The Fire Department's authority is regulated by Federal, State, and local regulations. Although the Fire Department may not be the administering agency in compliance of the various forms of legislations, they will have a coordination function in complying with the laws as Scene Manager of hazardous materials incidents within the City of Brownell.

### **2.1 Federal Statues**

- B. Refuse Act

1. Prohibits any throwing or discharging of refuse into navigable waters
  2. Enforced by Army Corp. of Engineers
  3. Penalties are criminal in nature
- C. Clean Water Act/Federal Water Pollution Control Act
1. Enacted due to shortcomings of Refuse Act
  2. Designed to clean up nation's waterways by 1985
  3. Provides for NPDES permits
  4. Defined standards for direct/indirect discharges
  5. Basis for Coast Guard Environment Response Program
  6. Does not exempt Federal facilities
  7. Deals with surface waters and adjoining shore lines
- D. Clean Air Act
1. Designed to protect public health and welfare from harmful effects of air pollution
  2. Requires development of primary and secondary National Ambient Air Quality Standards and National Emission Standards for Hazardous Air Pollutants
  3. State governments must develop State implementation plans to enforce standards
  4. Significant deterioration provision prohibits new air pollution sources in certain pristine areas of the country
- E. Comprehensive Environment Response Compensation and Liabilities Act (CERCLA)
1. Commonly called Super Fund
  2. Environment includes all media
  3. Establishes National Contingency Plan
  4. Cleanup releases into environment and inactive waste sites
  5. Covers hazardous substances found in Clean Water Act, Clean Air Act, Resources Conservation and Recovery Act, and Toxic Substances Control Act
  6. Environmental Protection Agency and the Coast Guard are the enforcers of CERCLA, the Pacific Coast Strike Team responds on coastal incidents, and the E.P.A. establishes their Strike Team by arranging for contractors on inland incidents
- F. Resources Conservation and Recovery Act (RCRA)
1. Cradle-to-Grave System is the documented control of hazardous waste
  2. Closed Loop documentation
  3. Establishes Manifest System
  4. Establishes standards for generator, transporters, and treatment, storage, and disposal facilities

5. Defines characteristics of hazardous waste
- G. Toxic Substance Control Act
1. Provides control over toxic chemicals before they enter commerce
  2. Inventory of chemicals approved for import or manufacture in the United States. Can export unauthorized chemicals, i.e., EDT to Mexico.
  3. Provides for pre manufacture agreement. The EPA requires a 90-day notice of a new product.
- H. Federal Insecticide, Fungicide, Rodenticide Act
1. Require registration of pesticides before they are marketed
  2. Development of Application Training Program for persons using certain restricted use of pesticides
  3. Requires E.P.A. to develop procedures and regulations for storage and disposal of pesticide containers
- I. Safe Drinking Water Act
1. Provides for safety of the United States' drinking water supplies\*
 

\*Note: Fifty percent of the population of the United States use ground water for drinking purposes and 50 percent of this resource is contaminated and not drinkable.
  2. Establishes water quality standards
- J. Occupational Safety and Health Act
1. Provides for safe and healthful working conditions
  2. Requires development of handling and labeling requirements and safety precautions
  3. Requires employee health record keeping
  4. Development and enforcement of maximum contaminant levels for toxins in workplace air
- K. Super Fund Amendments and Reauthorization Act (SARA)
1. Regulates employee safety and health at hazardous waste operations and during emergency response to hazardous substance incidents
  2. SARA to include hazardous materials cleanup operations at CERCLA sites, RCRA sites, operations involving hazardous waste storage, disposal, and treatment facilities, hazardous waste cleanup sites, and emergency response operations
  3. SARA also increases funds for cleanup operations
- L. CFR 40

1. Regulations for enforcement of Toxic Substance Control Act (TSCA), Clean Air Act (CAA), Clean Water Act (CWA), and Comprehensive Environment Response Compensation and Liability Act (CERCLA)
2. Defines criteria for placing waste sites on National Priority List
3. EPA is enforcing agency

M. CFR 49

1. Regulations for enforcement of the Hazardous Materials Transportation Act
2. U.S. Department of Transportation is the enforcing agency

N. CFR 29 - Part 1910

1. Regulations for enforcement of SARA
2. Administered by OSHA (Federal)\*

\*Note: State OSHA is to develop a comparable standard applicable to SARA.

O. Health and Safety Code - Chapter 6.5

1. Hazardous Waste Control Law
2. Defines hazardous waste, storage, and treatment
3. Establishes criteria for hazardous waste haulers and is also regulated in the California Administrative Code Title 22 and administered by D.O.T
  - a. Forbids hazardous waste from being transported by, or transported to, an unlicensed hauler except;
    1. Human or animal waste
    2. Amounts not exceeding five (5) gallons or fifty (50) pounds when no single container is over one (1) gallon or ten (10) pounds, waste is in closed containers, wastes are not mixed, and person hauling waste is the generator
4. Establishes Civil and Criminal Penalties Enforcement (Article 8):
  - a. Delegates enforcement of the Health and Safety Code to the local Health Officer or his designee
  - b. Allows any traffic or peace officer to enforce transportation section
  - c. Authorizes up to \$100,000 over twelve (12) months for any single cleanup and \$2,000 for immediate onsite emergencies

P. Civil Penalties

1. False statement - Up to \$25,000/violation/day
2. Any violation - Up to \$25,000/violation/day
3. Intentional illegal disposal - \$1,000 to \$25,000/violation/day

4. Negligent illegal disposal - up to \$25,000/violation/day
- Q. Criminal Penalties
1. Illegal disposal - \$5,000 to \$50,000/violation/day and up to one year in the County Jail or up to two years in the State prison
  2. False statement - First offense up to \$25,000/violation/day and/or up to one year in the County jail. Second and subsequent offenses \$2,000 to \$50,000/violation/day and/or up to one year in the County jail or up to two years in the State prison
- R. Witness Program
1. A reward of 10 percent of civil penalties up to a maximum of \$5,000
- S. Health and Safety Code, Chapter 6.6 - Established by Proposition 65
1. Requires Governor to publish and yearly update a list of known carcinogens
  2. Requires designated employees to notify the local Health Officer of release or threatened release of a hazardous waste within 72 hours. Additionally, the County Board of Supervisors and the media will also be notified
- T. Health and Safety Code, Chapter 6.7
1. Defines criteria for underground storage of hazardous materials
  2. Requires registration of underground vessels with one of the nine State Water Resources Boards
  3. Requires permit from the Department of Health for underground storage tanks
  4. Requires daily inventory of motor fuel tanks. Gas stations must comply
  5. Requires secondary containment on tank and piping on new tanks after July 1987 and requires pressure test on tanks
- U. Health and Safety Code, Chapter 6.8
1. State Super Fund - See Chapter 12, Appendix III, "Funding Hazardous Substance Spills Cleanup through State Super Fund" for further details
  2. Also, known as SB 618, Hazardous Substance Account
- V. Health and Safety Code, Chapter 6.95 - Established by AB 2185, AB 2187, and AB 3777
1. Deals with hazardous materials
  2. Requires businesses to disclose quantities of 500 pounds, 55 gallons, or 200 cubic feet of compressed gas at any one time to the administering agency

3. Requires businesses to notify the administering agency within 30 days of any changes in the required disclosure amounts
  4. Provides for a Data Base Management System to be established by the administering agency
  5. Requires an area plan, including Pesticide Drift Incident Protocols, updated every three years, and a business plan, updated every two years, and must be made available to the Fire Department
- W. Porter-Cologue Water Act
1. Establishes Statewide system for water regulation
  2. Operates at three jurisdictional levels
  3. Establishes State Water Resources Board
  4. Established Regional Water Quality Control Boards
- X. Mulford-Carrell Air Act
1. Repealed in 1975 and replaced with Health and Safety Code 39000 to 44701
  2. Established State Air Resources Board
  3. Established Air Pollution Control Districts
- Y. California Vehicle Code, Section 2454 and AB 2109
1. California Highway Patrol to serve as Statewide information, assistance, and notification coordinator for spills on highway
  2. Scene management vested in primary traffic investigative authority\*
- \*Note: The Brownell Fire Department has accepted responsibility as Scene Manager through agreement with the Brownell Police Department.
- Z. Title 13 C.C.R. (California Code of Regulations)
1. Transportation regulations for hazardous materials in California
  2. Equivalent to 49 CFR
- AA. Title 22 C.C.R (California Code of Regulations)
1. Regulations for Chapter 6.5 of the Health and Safety Code
  2. Set criteria for classification of waste as hazardous or nonhazardous
  3. Establishes storage and manifest requirements for hazardous waste
  4. List of characteristics of hazardous waste:
    - a. Toxic
    - b. Ignitable (Flash point less than 140 degrees F.)
    - c. Corrosive (pH less than two or greater than 12.5.)
    - d. Reactive (reacts with water, air, or contains sulfur or cyanide)

- BB. Title 19 C.C.R (California Code of Regulations)
  - 1. Regulations for Chapter 6.95 of Health and Safety Code
  
- CC. Title 23 C.C R. (California Code of Regulations)
  - 1. Regulations for Chapter 6.7 of Health and Safety Code
  
- DD. California Penal Code, Section 409.5
  - 1. Authorized police officers to close off an area during an emergency\*

\*Note: An exception is an authorized news representatives.
  
- EE. County Regulations
  - 1. Brownell Fire Department Prevention Services Division is not authorized to regulate outside its jurisdiction under the State of California Health and Safety Code 6.5 and 6.95
  - 2. Coordination of enforcement of State and local Hazardous Waste Program requirements.
  
- FF. Brownell Fire Department Prevention Services Division Enforcement of California Health and Safety Code 6.5 and 6.95
  - 1. Nuisance Abatement Code and Proposition 65 Notification. (Health Department)
  - 2. Authorizes Brownell Fire Prevention Services employees to:
    - a. Request responsible party to abate nuisance or condition endangering public health in writing.
    - b. Abate the problem of the responsible party refuses or is negligible
  - 3. Responsible party is liable for cost of cleanup.
  
- GG. Local Authority
  - 1. Brownell Fire Department/Brownell Police Department agreement:
    - a. Under the California Vehicle Code, Section 2454 the Scene Manager responsibility is vested to the primary traffic investigative authority
    - b. This authority was amended in the City of Brownell to give the Scene Management responsibility to the Brownell Fire Department
  
- HH. Brownell Municipal Code
  - 1. Unlawful to dispose of refuse on public property, except in designated areas.
  - 2. Unlawful to dispose of refuse on another person's private property.
  
- II. Uniform Fire Code, Article 8001.5

1. Hazardous materials not released
  2. Unauthorized discharge, notification preparation, control responsibility for cleanup
- JJ. Penal Code
1. Sections 374, 374.3, 374.4, 374.8
- KK. Vehicle Code
1. Sections 23.112, 113, 115

## **Chapter 3**

### **Medical Program**

#### **3.1 Hazardous Materials Team Surveillance Program**

All Hazardous Materials Team Members and alternates who will respond into the exclusion zone of the hazardous materials emergency will receive a physical examination consisting of the following:

- A. Height, weight, temperature, pulse, respirations, and blood pressure
- B. Head, nose, and throat
- C. Eyes which include vision tests that measure refraction, depth perception, and color vision.
  1. Vision quality is essential to safety, the accurate reading of instruments and labels, the avoidance of physical hazards, and for appropriate response to color-code labels and signals.
- D. Ears which include audiometric tests performed at 500, 1000, 2000, 3000, 4000, and 6000 hertz pure tone in an approved booth
  1. The integrity of the eardrum must be established since perforated eardrums provide a route of entry for chemicals into the body
- E. Chest which include heart and lungs
  1. Lungs
    - a. 14" x 17" posterior/anterior view chest x-rays taken in the last 12-month period, as well as the oldest chest x-ray available, shall be obtained and used for comparison

- b. Pulmonary function testing includes measurements of forced expiratory volume in one second forced vital capacity and FEV-to-FVC ratio with comparison to normal predicted values corrected for age, height, race, and sex
  - 2. Heart
    - a. Electrocardiogram (EKG) 12 lead resting EKG and a 'stress test' will be administered to determine the ability to work in the added stress environment, particularly where heat stress may occur
- F. Blood includes a complete blood count (CBC), white cell count (WBC), red blood count (RBC), hemoglobin (HGB), alkaline phosphates, gamma glut amyl trans peptidase (GGTP), lactic dehydrogenase (LDH), serum glutamicaxaloacetic transaminase (SGOT), serum glutamicpyruvic transaminase (SGPT), blood urea nitrogen (BUN), cretonne, uric acid, metallic content, RBC cholinesterase, triglycerides, cholesterol, platelet count, and serum PCB's
- G. Urine shall include a urinalysis consisting of color, appearance, specific gravity, ph. qualitative glucose, protein, bile, and acetone.
- H. The following additional tests will be performed on female team members and alternate female team members:
- 1. Pap smear
  - 2. Pelvic exam
  - 3. Mammogram
- I. The listed examinations will be given to the following personnel at least every 24 months:
- 1. Hazardous Materials Team Members and alternates prior to assignment on the Hazardous Materials Team
  - 2. Personnel presently on the Hazardous Materials Team
  - 3. At the termination or reassignment for a team member to a non Hazardous Materials Team permanent assignment
  - 4. As soon as any member of the Fire Department has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or when any department member has been injured or exposed above the permissible exposure limit or published exposure limit while in the service of the Brownell Fire Department or the City of Brownell

- J. Records - Each member will be given a complete copy of the examination(s) report for personal records and a copy to be kept on file in Risk Management for a period of thirty (30) years

### **3.2 Medical Group Supervisor**

- A. The Medical Group Supervisor will oversee the medical monitoring and treatment of all individuals in the exclusion zone, and act as liaison to all medical support personnel by:
  - 1. Overseeing assessment and treatment of sick and injured and/or exposed persons inside the Exclusion Zone
  - 2. Emergency treatment inside the CRZ will be performed by the Entry Team(s)
  - 3. Assures victims are properly decontaminated before releasing patients to the ambulance personnel for further treatment and transport. Communicate information to lessen the victim's fears about the emergency process and ensure their cooperation throughout all phases of the response. Protect the victim's modesty and properly handle the victim's personal items.
  - 4. As liaison between the Incident Commander and ambulance personnel, responds them from the fire department staging area to the end of the Contamination Reduction Zone for treatment and transportation of injured
  - 5. Oversees physical assessment of Entry Team(s). Performs medical assessments and keeps records of each team member to reduce the risk of injury from:
    - a. Heat stress
    - b. Physical exhaustion
    - c. Chemical exposure
    - d. Radiation
    - e. Noise

**Note: See Physical Hazards Booklet.**

- B. Advises Incident Commander to discontinue any operation that is unsafe for the Hazardous Materials Team's health and safety

### **3.3 Emergency Guidelines at Incidents**

- A. Medical treatment and first aid - The Medical Group Supervisor shall assure all Hazardous Materials Team Members are fully trained EMT-1's and possess CPR certificates. Haz-Mat Paramedics may also be utilized if available.

- B. The Medical Group Supervisor will establish contact with local medical personnel as may be necessary, 24-hour on call physician, medical specialists (toxicologist), local hospitals, ambulance services, and chemical and poison control centers. Inform and educate these personnel about incident hazards so they can be optimally helpful if an emergency occurs. Emergency response procedures should follow a sequence that begins with notification of an injury/or exposure and continues through the preparation of equipment and personnel for the next emergency.
- C. Notification - Alert all Hazardous Materials Team Members to the emergency. Sound a site alarm to:
1. Notify all personnel
  2. Stop work in the Exclusion Zone if necessary
  3. Begin emergency procedures

The Entry Team(s) or Back-Up Team(s) shall notify the Medical Group Supervisor of the emergency and include the following information if possible:

1. What happened?
  2. Where did it happen?
  3. Whom did it happen to?
  4. When did it happen?
  5. How did it happen?
  6. Extent of damage?
  7. What aid is needed?
- D. Size-Up - Available information regarding the accident and the Hazardous Materials Team's ability to respond should be evaluated. The following should be determined if possible:
1. What happened?
    - a. Type of accident
    - b. Cause of accident (e.g. could it be pesticide related?)
    - c. Extent of chemical release and movement
    - d. Extent of damage to structures, equipment, and terrain
  2. Casualties
    - a. Victims (number, location, and condition)
    - b. Treatment required
    - c. Missing personnel
  3. What could happen? Consider the following:
    - a. Type of chemicals in the Exclusion Zone

- b. Potential for fire, explosion, and release of hazardous substances
  - c. Location of all personnel in the area relative to possible expanded Exclusion Zone
  - d. Potential for danger to off site population and environment
4. What can be achieved? Consider the following:
- a. Equipment and personnel resources needed for victim rescue and hazard mitigation
  - b. Number of uninjured personnel available for response
  - c. Resources available on site
  - d. Resources available from outside groups and agencies
  - e. Time for outside resources to reach the site
  - f. Hazards involved in rescue and mitigation
- E. Rescue/Response Action - Based on available information, the type of action required should be decided and the necessary steps implemented. Some actions may be accomplished concurrently. No one should attempt a rescue until backup personnel are available. Actions may include:
1. Enforce the “buddy system.” Allow no one to enter the Exclusion Zone without a partner. Personnel in the Exclusion Zone shall have radio contact with the Hazardous Materials Team Leader or Sector Leader at all times.
  2. Survey casualties. Locate all victims and assess their condition. Determine resources needed for stabilization and transport.
  3. Assess existing and potential hazards to personnel and to the off site population. Determine the following:
    - a. Whether and how to respond
    - b. The need for evacuation of off site personnel, personnel outside the protection zone and off site population
    - c. The resources needed for evacuation and response.
  4. Allocate resources. Allocate onsite personnel and equipment to affect a rescue.

5. Call for assistance. Contact the required offsite personnel or facilities. If pesticide related, the County Agricultural Commissioner shall be notified as early as possible.
6. Bring the hazardous situation under complete or temporary control; use measures to prevent the spread of the emergency.
7. Extricate or assist victims from the area. Utilize Shelter in Place techniques as necessary to prevent further exposure to the community. In coordination with the Agricultural Commissioner, identify areas of safe refuge where further pesticide exposure via inhalation or dermal contact will not occur, and assist in the coordination of an evacuation, if deemed necessary by emergency response personnel.

During Incident	How Achieved
Establish Communication	Members of agency make direct personal contact and introduce self to those in need of information and help. Request to speak to a spokesperson that may represent a larger group, and establish a sustaining contact. Utilize Emergency Communications Center (ECC) translation services or available field personnel to speak in the victim's language.
Maintain Communication	Do not forget or dismiss those with whom the agency has established a contact. Establish a routine by which those contacted will receive repeated updates on a reliable basis.
Communicate Vital and Pertinent Information	Victims and civilians will anxiously want to hear reassuring and guiding information. Members of the agency must provide vital and pertinent information regarding the situation, e.g., why are they here, what is going on, how bad is the "stuff," are we in harms way, what are you doing about it, when can we go back to work, are things contaminated, how do we clean and protect ourselves, what medical aid is necessary, where do we receive medical aid?
Communicate Clearly & Concisely	Speak and convey information in strict lay terms. Avoid getting technical, or too detailed into specific departmental procedures, as this will often lose the listener. Speak clearly, concisely, deliberately, confidently, and be organized in the thought process.
Provide Updates	The agency's liaison should announce and provide periodic progress reports with regard to what is being done. Progress reports aid substantially in continuing to calm the public.
Respect Privacy	On issues concerning one's privacy, conduct specific interviews with individuals in a private and separate location. Make arrangements to address privacy issues of any kind.

8. Decontaminate the area. Use established procedures to decontaminate uninjured personnel in the contamination reduction zone. If the emergency makes this area unsafe, establish a new decontamination area at an appropriate

distance. In coordination with the Agricultural Commissioner, identify areas of safe refuge where further pesticide exposure via inhalation or dermal contact will not occur. Decontaminate victims before or after stabilization as their medical condition indicates. Utilize the following Decontamination Considerations:

Decontamination Considerations:

Question or Concern of Victim	Information or Reply by First Responder
Why do you only want to remove some of my clothing, and nothing else?	As a precautionary measure. It is highly unlikely that any harm has come to you, but we strongly suspect that the hazard may have come in contact with your clothing only. Removing the outer layer of clothing is sufficient response to removing the hazard from you, and no further on-scene cleansing or decontamination is necessary.
Why do you want to remove some of clothing, and also decontaminate me?	As a precautionary measure. It is unlikely that any harm has come to you, but we do suspect that the hazard may have come into contact with your clothing and various surfaces of your skin. Taking a shower or allowing someone to assist you in decontamination is highly efficient in removing the hazard.
Why must I be decontaminated?	We have a reasonably strong belief that a substance, no matter how slight, has come into contact with you, and it must be removed. The best way to do that is by cleansing. Removing the substance will increase the likelihood that you will not become ill.
What is on me?	Tell them what you know or suspect.
Why was I singled out not to be decontaminated?	We determined that you were far enough away, or were not in the immediate vicinity so as not to have come into contact with the substance.
What part of me are you going to decontaminate or wash?	Explain accordingly.
Where will you decontaminate me?	Explain the procedure and location.
How will you decontaminate me?	Explain the procedure.
What do you use?	If you are instructed to cleanse yourself, we may provide soap, water, and towels. If we administer full decontamination, it will be just plain water, but lots of it. We might hand you a soft sponge to help sponge off the excess water. Sponging off is good because it helps remove surface contamination if there is any.
What should I do when I get home?	A nice long warm shower cannot hurt, but is unnecessary. When we release you from here, we have met our goals in removing suspect hazards from you.
Are you going to remove my clothing?	No – (explain why) Yes – (explain which items and why): This will vary, depending upon what part of your body we suspect might have been contaminated.

9. Stabilize victims. Administer any medical procedures necessary before victims are moved. Stabilize or permanently correct the hazardous condition if possible, and remove anything endangered by the condition if possible.

<b>Question or Concern of Victim</b>	<b>Information or Reply by First Responder</b>
What do you do with my clothing?	We will "bag" and mark it.
Will I get my clothing back?	If "Yes," explain.
Why can't I have my clothing back?	It is our determination that they are soiled or contaminated too seriously, and a regular washing cycle will not adequately cleanse them. We will take responsibility for disposing of it.
If you give me my clothing back, what do I do with it? Isn't it dangerous?	No, it is not dangerous, or we could not give it back to you. We had you remove some clothing so as not to get it wet, or some or your clothing may be soiled, but it is not dangerous. When you get home, wash it immediately in a regular washing cycle in your washing machine. If you do not want to do this, you can dispose of your garments in the regular refuge.
Are you going to provide for privacy?	Be ready to explain the procedure.
Will you separate us by gender?	Be ready to explain the procedure.
What if I refuse?	Be ready to explain options.
What will I wear?	We will provide you with temporary or disposable garments
Will I be separated from my family?	There is that chance, but we will reunite you as soon as possible.
What about my personal belongings, jewelry, wallet, purse, cell phone?	If need be, we will collect and bag them separately from clothing, and mark them. They will be transferred to police, liaison officer, etc. and will be available for you to identify and pick up.
Who is going to lock up my business/home?	We can contact an associate of yours, and have them respond here to do that, or we or the police can do that for you. Do you have your keys with you?

#### Further Considerations:

Do I have to go to the hospital or see a doctor?	Only if advised to do so. If it is urgent in our opinion that you should have medical attention, our system incorporates procedures for your immediate transportation. If it is advisable in our opinion that you should have follow-up medical attention only, you will be released to your own recognizance for you to contact your personal doctor.
Am I going to get sick?	I am not a doctor, but if we all follow the procedures we are instituting, we will be doing everything possible to substantially reduce that possibility. Time is also of the essence, so the sooner we can attend to these details, the less likely an illness will prevail.
Do I need medicine?	You should ask that question of the doctor at the hospital when you arrive, or you should call your own personal physician and discuss the matter with him. If there are circumstances that later determine that medication is recommended, we will advise you.
Who pays for my medical treatment?	Be ready to provide an answer. If a pesticide use violation causes illness or injury, violators will be legally responsible to pay for certain medical costs of victims.

10. Transport victims. Take measures to minimize chemical contamination of the transport vehicle and ambulance and hospital personnel. Adequately protected rescuers should decontaminate the victims before transport. If appropriate, have response personnel accompany victims to the medical facility to advise on decontamination. The chemical exposure treatment protocol will accompany each victim to the hospital with available treatment requirements. (See Emergency Operations Guide, Chemical Exposure and Treatment Protocol, and Emergency Care for Hazardous Materials Exposure, Bronstein/Currence & CEMSA Protocols.)
  11. Evacuate the site. Move site personnel to a safe distance upwind of the incident. Monitor the incident for significant changes. The hazards may diminish, permitting personnel to reenter the site, or increase and require public evacuation.
- F. Follow up - After the emergency is secured, certain items need to be addressed.
1. Notify appropriate government agencies as required. For example, OSHA must be notified if there have been any fatalities or five or more hospitalizations.
  2. Review the emergency response by having required critique of each call, noting problems and making corrections.

## IV. RECOVERY

### Debriefing

Once the presence and concentrations of specific hazardous substances and health hazards have been established, the risks associated with these substances shall be identified. Employees who will be working on the site shall be informed of any risks that have been identified.

**Note: Risks to consider include, but are limited to:**

- A. Exposures exceeding the appropriate T.L.V.s, P.E.L.s, R.E.L.s, I.D.L.H.s.
- B. Potential skin absorption and irritation sources.
- C. Explosion sensitivity.
- D. Flammability changes.

Discuss whether objectives were accomplished. (Survey only or specific containment measures.) Decide if another entry is necessary.

### Demobilize

The Hazardous Materials Group Supervisor shall demobilize hazardous materials operations at the request of Incident Commander when hazardous materials operations have been accomplished.

### Incident Critique and Follow-up

The Incident Commander shall initiate the investigation and documentation of the accident. This is important in all cases, but especially when the incident has resulted in personal injury, onsite property damage, or damage to the environment. Documentation may be used to help avoid recurrences. Methods of documenting can include a written transcript taken from tape recordings made during the emergency or notes written in a bound book. (Do not use a loose-leaf book for documentation.)

- A. The document must be:
  - 1. Accurate  
All information must be recorded objectively.
  - 2. Authentic  
A chain of custody procedure should be utilized. Each person making an entry must date and sign the document. Keep the number of documentors to a minimum to avoid confusion as they may have to give testimony at hearings or in court. If details

change or revisions are needed, the person making the notation should mark a horizontal line through the old material and initial the change. Notations should not be erased.

3. Complete  
Chronological history of the incident, facts regarding the incident and when they become available, title and names of personnel, composition of teams shall be included.
4. Actions  
Decisions made and by whom; orders given to whom, by whom, and when; and actions taken. who did what, when, where, and how. Also, include types of samples and test results; air monitoring results. Include exposures of all emergency personnel and a history of all injuries or illnesses during or as a result of all emergency responses or other exposures.

### **Reimbursement of Medical Costs for Pesticide Drift Incidents**

The California Department of Pesticide Regulation has developed an informational brochure explaining the new requirement for violators of pesticide rules to pay certain medical costs of victims exposed to pesticide drift incidents.

The brochures are printed in both English and Spanish. The brochures have been distributed to health care providers in Santa Luisa County through both Santa Luisa County Emergency Medical Services Department and the Brownell Metropolitan Medical Response System.

## V. TRAINING

### **Emergency Response Personnel Training:**

All personnel shall be certified as Title 19 CCR Division 2 Chapter 1, sub chapter 2 Sections 2510 through 2560 Hazardous Materials Technician or Specialist.

### **Training Documentation**

Each member shall be responsible for carrying their Hazardous Materials Certification ID cards while on duty. A copy of which may be kept in the Hazardous Materials Response Van as well.

### **Training Exercises**

Refresher training shall be conducted on a quarterly basis, for all three shifts. At least one of these Quarterly Trainings will address pesticide-related incident response issues each year. These pesticide trainings will also involve public health professionals who specialize in pesticide illness diagnosis and treatment and are to include either a table-top or full-scale exercise.



# Brownell Fire Department Hazardous Materials Response Team Quarterly Proficiency Training 2007

<b>February/ March-</b>	Topic Location Time	BNSM Rail Car/ Emergency Response Training TBA 0900 <b>A- March 2</b> <b>B- Feb. 28</b> <b>C- March 1</b>
<b>May-</b>	Topic Location Time	Pesticide Drift ODFTF 0900 <b>A- May 24</b> <b>B- May 22</b> <b>C- May 25</b>
<b>August-</b>	Topic Location Time	Radiological ODFTF 0900 <b>A- Aug. 30</b> <b>B- Aug. 22</b> <b>C- Aug. 31</b>
<b>November-</b>	Topic Location Time	Manipulative Drill ODFTF 0900 <b>A- Nov. 14</b> <b>B- Nov. 6</b> <b>C- Nov. 7</b>

Haz Mat make-up to be scheduled for the month of December: TBA