

HAZARDOUS MATERIALS

7741

(No. 9 November 1993)

DEFINITION

7741.1

(No. 9 November 1993)

Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (Health & Safety Code, section 25501[k]).

IMMEDIATE THREAT

7741.1.1

(No. 9 November 1993)

The immediate threat from a hazardous materials release may include any or all of the following:

- leak, spill, fire and/or explosion.
- contamination of people, property, wildlife and/or the environment.
- immediate adverse health effects (e.g., chemical/thermal burns, central nervous system reactions, death).

DELAYED\LONG TERM EFFECTS

7741.1.2

(No. 9 November 1993)

The delayed/long term effects from a hazardous materials release may include any or all of the following:

- adverse health effects (e.g., cancer, heart and/or respiratory disease, genetic damage, death, permanent disability).
- permanent environmental damage.
- severe economic loss.

EMERGENCY RESPONSE DEFINED

7741.1.3

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A response effort by employees from outside the immediate release area or by other designated responders to an occurrence which results in, or is likely to result in an uncontrolled release which may cause high levels of exposure to toxic substances, or which poses danger to employees and which requires immediate attention. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no immediate safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

EMERGENCY RESPONSE PLANNING

7741.2

(No. 9 November 1993)

STATE CONTINGENCY PLAN

7741.2.1

(No. 9 November 1993)

The California Hazardous Material Incident Contingency Plan (HMICP) was established to provide for an integrated and effective state procedure to respond to the occurrence of toxic disasters within the state (Government Code Section 8574.16). The HMICP is administered under the direction of the California Office of Emergency Services (OES). A current revision of the HMICP shall be maintained at the unit level as part of the unit's emergency response plan. The objectives of the plan are to:

- save lives and protect the environment and property.
- describe the overall emergency response organization within California.
- delineate the respective responsibilities of local, state and federal agencies.
- establish lines of authority and coordination for hazardous material incidents.
- facilitate mutual aid to supplement local needs.

CAL FIRE RESPONSIBILITIES UNDER THE HMICP (No. 9 November 1993)

7741.2.2

CAL FIRE performs fire suppression and prevention duties for about 30 million acres of land in the state. In addition to the state responsibility areas, CAL FIRE provides fire service to some local jurisdictions under contract. In such cases, CAL FIRE carries out responsibilities of local fire suppression agencies as they relate to hazardous materials incidents. In the event of a significant hazardous materials incident, the Department will:

- support emergency feeding operations of other state agencies.
- provide communications and logistics support as requested by the State agency coordinator or the scene manager.
- monitor environmental contamination as requested by the State agency coordinator.
- support local fire fighting in accordance with fire mutual aid agreements; and
- coordinate and manage the use of inmate, ward, and CCC Corps-member personnel under its control in combating hazardous materials incidents.

LOCAL GOVERNMENT AREA PLANS (No. 9 November 1993)

7741.2.3

Each county in California is required to establish an area plan for emergency response to a release or threatened release of a hazardous material within its jurisdiction. Units must become involved with local agencies in the local planning process. A city may, by ordinance or resolution, assume the responsibility for area plans and jurisdiction over hazardous materials incidents within the boundary of the city (Health and Safety Code, Sections 25502, 25503). Area plans shall provide for all of the following:

- procedures and protocols for emergency rescue personnel, including the safety and health of those personnel.
- pre-emergency planning.
- notification and coordination of onsite activities with state, local, and federal agencies, responsible parties, and special districts.
- training of appropriate employees.
- onsite public safety and information.

- required supplies and equipment.
- access to emergency response contractors and hazardous waste disposal sites.
- incident critique and follow up.
- requirements for notification to the Office of Emergency Services (State Warning Center).

EMERGENCY RESPONSE PLANS

7741.2.4

(No. 9 November 1993)

Each unit shall implement an emergency response plan which addresses procedures and protocols for handling hazardous material incidents. Units should use local area plans, Multi-Hazard Functional Plans, and the state HMICP as part of their emergency response plan to avoid duplication. The plan shall be in writing and readily available to employees (CCR Title 8, Chapter 4, Section 5192, Paragraph [q] [1]). The unit's emergency response plan shall address, at a minimum, the following topics to the extent that they are not addressed elsewhere:

- pre-emergency planning and coordination with outside parties.
- personnel roles, lines of authority, training and communication.
- emergency recognition.
- safe distances and places of refuge.
- site security and control.
- evacuation routes and procedures.
- decontamination.
- emergency medical treatment and first aid.
- emergency alerting and response procedures.
- critique of response and follow-up.
- personal protective equipment (PPE) and emergency equipment.
- notification requirements.

INCIDENT COMMAND/SCENE MANAGEMENT

7741.3

(No. 9 November 1993)

Under the HMICP the response to a hazardous materials incident in California will be directed by a scene manager and/or an incident commander. In some cases the scene manager and the incident commander may be the same person (HMICP Section 3-4).

- Scene management entails the coordination of overall operations while utilizing the expertise and command structures of all responders.
- Incident command entails the direct management of all incident operations and related activities.

INCIDENT COMMANDER

7741.3.1

(No. 9 November 1993)

The California Highway Patrol is responsible for incident command of all hazardous materials incidents on all freeways and unincorporated roadways in California. For all other areas the incident commander will be locally designated (HMICP Section 3-6).

The senior emergency response official who has ultimate site control responsibility shall confirm that the incident command system is in place and the position of incident commander instituted (CCR Title 8, Chapter 4, Section 5192[q][3][a]).

SCENE MANAGER - ON HIGHWAY

7741.3.2

(No. 9 November 1993)

On-highway scene management is vested with the local law enforcement agency having primary traffic investigative responsibilities (Vehicle Code Section 2454[a]).

On roadways in unincorporated areas and all freeways in California, the responsibility for scene management is vested with the California Highway Patrol.

On roadways in incorporated areas, including nonfreeway highways, the local governing body may assign the authority for scene management to either the local law enforcement agency or fire protection agency.

SCENE MANAGER - OFF HIGHWAY

7741.3.3

(No. 9 November 1993)

State law addresses only on-highway incidents. Off-highway scene management responsibilities are jurisdiction specific (HMICP Section 3-5).

STATE AGENCY COORDINATOR (SAC)

7741.3.4

(No. 9 November 1993)

On incidents where state agency participation is required, a State Agency Coordinator (SAC) will support the incident commander by coordinating state resources and maintaining a liaison with the federal On-scene Coordinator (if present). The SAC will be a representative of either the CHP (for on-highway incidents) or the Department of Fish and Game (for off-highway incidents). The first state official on the scene shall assume the responsibility of the SAC until relieved by CHP or the Department of Fish and Game (DFG) (HMICP Section 3-12).

In the event of a major hazardous materials incident, the DFG will request, through the dispatch office or the OES the need for assistance in establishing a unified incident command system. The assistance rendered by CAL FIRE would be secondary to our primary mandates required by law and does not affect any other agreement entered into by CAL FIRE or DFG.

CAL FIRE resources that may be requested by the Department of Fish and Game to respond to an incident may include, but are not limited to, an incident management team, logistic support such as communication units, mobile kitchens with stores, and/or medical unit (Memorandum of Understanding between California Department of Fish and Game and California Department of Forestry and Fire Protection).

FEDERAL ON-SCENE COORDINATOR (OSC)

7741.3.5

(No. 9 November 1993)

The OSC is the federal official that directs response efforts and coordinates all other federal efforts at the scene. In California, the OSC is generally the U.S. Coast Guard for the greater coastal areas and the U.S. Environmental Protection Agency for the inland areas (HMICP Section 3-12).

LEVELS OF RESPONSE

7741.4

(No. 9 November 1993)

There are five levels of employees who participate or are expected to participate in emergency response to hazardous materials incidents. Each level has minimum training requirements which must be met and the employer must certify that the employee has demonstrated competence to perform at that level. Annual refresher training is also required for each level (CCR Title 8, Chapter 4, Section 5192, Paragraph [q][5]).

First Responder Awareness Level - Individuals who are likely to witness or discover a hazardous substance release and who have been trained to recognize that a hazard exists and to initiate an emergency response sequence.

First Responder Operational Level - Individuals who respond to releases or potential releases as part of the initial response for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release.

Hazardous Materials Technician - Individuals who respond to releases or potential releases for the purpose of stopping the release.

Hazardous Materials Specialist - Individuals who respond with and provide support to Hazardous Materials Technicians. Their duties require a more directed or specific knowledge of the various substances they may encounter.

On-scene Incident Commander - Individuals who will assume control of the incident beyond the First Responder Awareness Level.

CAL FIRE AS A FIRST RESPONDER

7741.4.1

(No. 9 November 1993)

CAL FIRE participates in hazardous materials incidents as a first responder. Units must address, as part of their emergency response plan, what roles are expected of their personnel. Under no circumstances will individuals working under the direction of the Department be permitted to participate in a hazardous materials incident at a level for which they have not been trained to meet Title 8 requirements.

AWARENESS LEVEL: As members of a recognized statewide fire protection agency, CAL FIRE employees, particularly uniformed employees traveling in vehicles with radio or phone capabilities, would have a responsibility to secure a safe perimeter and initiate an emergency response sequence should they witness or discover a hazardous materials incident.

OPERATIONS LEVEL: CAL FIRE employees may be dispatched to hazardous materials incidents as part of the initial response through mutual aid agreements or by virtue of a local government contract for fire protection services.

TECHNICIAN/SPECIALIST: CAL FIRE employees may respond to hazardous materials incidents as part of a hazardous materials team for the purpose of plugging, patching, or otherwise stopping the release.

INCIDENT COMMAND: As with other emergencies to which CAL FIRE responds, the position of incident commander will normally be filled and held by CAL FIRE, if first at the scene, until formally relieved by the responsible agency. In some cases CAL FIRE, through local government contracts, may be the responsible agency for incident command.

EMERGENCY RESPONSE TRAINING

7741.4.2

(No. 9 November 1993)

CAL FIRE personnel who participate in or who are expected to participate in emergency response to hazardous materials incidents shall receive State mandated training before they are permitted to take part in actual emergency operations on an incident. The training will be based on the duties and functions to be performed by each responder of an emergency organization (CCR Title 8, Chapter 4, Section 5192, Paragraph [q][6]). Unit managers are responsible for ensuring that training requirements are being met.

USE OF INMATE, WARD, AND CCC CREWS

7741.4.3

(No. 9 November 1993)

Inmate, ward, and CCC crews shall not respond to hazardous materials incidents as part of the initial emergency response. The crew may be assigned to a hazardous materials incident to perform support and/or clean up operations providing the following conditions have been met:

- the safety officer for the hazardous materials group has determined, in conjunction with O.S.H.A. and/or the local health agency, that personal exposure levels in the work area are safe; and
- crew leaders and crew members have been given sufficient training to safely perform the task, including a full safety and health briefing, appropriate personal protective equipment and instruction in its proper use.

If CAL FIRE is not represented on the management team for the incident, then a CAL FIRE agency representative knowledgeable in camp operations shall be assigned to the incident and no CAL FIRE crews will perform any work in areas of potential exposure until the CAL FIRE agency representative has been assured that the above conditions have been met.

It is the responsibility of the incident commander, the CAL FIRE Agency representative, and the crew leader to ensure that the requirements of this section have been met.

PROCEDURES FOR HANDLING EMERGENCY RESPONSE

7741.5

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FIRST OPERATIONAL PRIORITY

7741.5.1

(No. 9 November 1993)

The first operational priority is to isolate the hazard area and deny entry by establishing perimeters around the incident with controlled entry and exit points. Units must address safe distances, site security and control as part of their emergency response plans (Title 8, chapter 4, Section 5192, paragraph [q][2]).

ADDITIONAL OPERATIONAL CONSIDERATIONS

7741.5.2

(No. 9 November 1993)

After isolating the scene the incident commander should consider the following tasks. The order of completion is incident specific and should be based on protecting life, the environment, and property.

- Identify the product and product characteristics from a safe distance.
- Establish a command post using the incident command system.
- Rescue victims, if the rescue can be performed safely.
- Assess the incident and request appropriate resources.
- Ensure notification of appropriate agencies.
- Provide emergency medical care, including decontamination of exposed persons.
- Determine the need for public protective actions.
- Conduct evacuation, if appropriate.

SAFETY OFFICER ON THE SCENE

7741.5.3

(No. 9 November 1993)

The incident commander and/or scene manager shall designate a safety officer, who is knowledgeable in the hazardous materials operations being implemented at the emergency response site. When activities are judged by the safety officer to be immediately dangerous to life and health and/or involve an imminent danger condition, the safety officer shall have the authority to alter, suspend, or terminate those activities. In a multi-hazard response a safety officer should be assigned to the hazardous materials group in addition to the overall incident safety officer (CCR Title 8, Chapter 4, Section 5192, Paragraph [q][3][G]).

HAZARDOUS MATERIALS CONTROL ZONES

7741.5.4

(No. 9 November 1993)

Three perimeters should be formed around a hazardous materials incident. They are the inner perimeter, the decontamination control line, and the outer perimeter. These three perimeters form the boundaries for three hazardous materials control zones (HMICP Section 4-3).

- Exclusion/Hot Zone - That area, within the inner perimeter, where contamination has occurred or could occur. Special protection is required for all personnel while in this zone.
- Contamination Reduction/Warm Zone - The area between the inner perimeter and the decontamination control line intended to serve as a buffer between mitigation efforts and support operations. All personnel and equipment moving between the exclusion and support zones must pass through a decontamination corridor in the contamination reduction zone.
- Support/Cold Zone - The outermost zone located between the decontamination control line and the outer perimeter. This is where resources immediately supporting the operation are located. The command post and media briefing site are generally located in this area.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

7741.5.5

(No. 9 November 1993)

Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, body, and hearing. Employees will not enter an area of a hazardous materials incident unless they have the proper level of protection for the area they are working in. Employees are not to use personal protective equipment unless they have been properly trained and are comfortable with its use. Proper respiratory protection (e.g. SCBA, respirators, etc.) will be worn at all times when working around hazardous materials, unless it has been determined that no inhalation hazards exist. There are four levels of protective equipment:

Level A - To be selected when the greatest level of skin, respiratory, and eye protection is required (vapor protective or fully encapsulated suits with SCBA).

Level B - The highest level of respiratory protection is necessary, but a lesser level of skin protection is needed (liquid splash protection with SCBA).

Level C - Respiratory protection can be provided with respirators and skin contact with the material will not cause an adverse effect.

Level D - A work uniform affording minimal protection, used for nuisance contamination only.

PROTECTIVE ACTIONS

7741.5.6

(No. 9 November 1993)

When a hazardous material is released or is threatened to be released it may become necessary to take action to protect the public from exposure. There are two alternatives available for protecting the public: evacuation or in-place protection. The decision to use either of these two methods is determined by the incident commander (HMICP Section 4-6).

- Evacuation entails removing people from the path of the threatened exposure.
- In-place protection uses existing shelters as a buffer to allow the threatened exposure to pass by.

HAZARDOUS MATERIALS IDENTIFICATION

7741.6

(No. 9 November 1993)

Identification of the materials involved in a hazardous materials incident should be coordinated by the incident commander/scene manager. There are many methods for identifying hazardous materials including placards and labels, shipping papers, container shapes, etc.

Due to the increasing number of materials being produced, utilized, shipped, and stored, a minimum of three references should be used before deciding what defensive/offensive actions should be taken. Reference sources with guidelines for handling the product should be readily available to first responders (e.g., DOT Emergency Response Guidebook, NIOSH Chemical Guidebook, CHRISS Manual, etc.).

DOT EMERGENCY RESPONSE GUIDEBOOK

7741.6.1

(No. 9 November 1993)

The DOT Emergency Response Guidebook contains information which will assist emergency responders in determining the identity, flammability, reactivity, toxicity, and other characteristics of the hazardous materials. In addition, the guidebook offers suggested methods of mitigating the hazard and evacuation tables. All CAL FIRE vehicles shall carry the most current edition of the guidebook. The DOT Guidebook is intended for use in transportation incidents only. The guidebook is available at no charge from O.E.S. regional offices or the U.S. Department of Transportation.

DOT PLACARDS AND LABELS

7741.6.2

(No. 9 November 1993)

The DOT system of hazardous materials identification includes the use of warning labels on shipping containers/cartons and warning placards on transportation vehicles/railcars. The purpose of labels and placards is to provide visual information concerning the contents of packages, motor vehicle, railcars, and other types of containers holding hazardous materials. A description of the placard and labeling system can be found in the DOT Emergency Response Guidebook.

CHEMTREC

7741.6.3

(No. 9 November 1993)

The Chemical Transportation Emergency Center (CHEMTREC), a public service of the Chemical Manufacturers' Association, can provide immediate general assistance for emergency responders and will contact the shipper of the hazardous materials for more detailed assistance and appropriate follow-up. The incident commander should have all pertinent information as outlined in the DOT Emergency Response Guidebook prior to contacting CHEMTREC. CHEMTREC operates a toll-free hotline 24-hours a day, 7 days a week at (800) 424-9300.

SHIPPING PAPERS

7741.6.4

(No. 9 November 1993)

The contents of motor vehicles, railcars, aircraft and watercraft may be determined by reading the shipping papers for that mode of transportation. Shipping papers are the responsibility of the individual responsible for operating the transportation vehicle and should be located in an inconspicuous place within the operator's compartment.

Shipping papers include:

Highway -	Bill of Lading
Railroad -	Waybill or Consist
Aircraft -	Airbill or Hazardous Materials Declaration
Watercraft -	Dangerous Cargo Manifest

NOTIFICATION OF INCIDENT

7741.7

(No. 9 November 1993)

Government notification of hazardous materials releases is mandatory under several state and federal statutes. Immediate notification is required if there is a belief that the release or threatened release poses a significant present or potential hazard to human health, safety, property, or the environment. A single point of notification has been established at the state and federal levels to meet notification requirements.

State Agency Notification

Federal Agency Notification

OES State Warning Center
(800)-852-7550 or
(916)-427-4341

National Response Center
(800)-424-8802 or
(202)-426-2675

Additional notifications are required at the local level. These notifications will be identified in the local unit's Hazardous Materials Emergency Response Plan.

REPORTING

7741.8

(No. 9 November 1993)

CHMIRS REPORT

7741.8.1

(No. 9 November 1993)

The agency responsible for incident command shall complete a California Hazardous Materials Incident Reporting System form (CHMIRS) immediately after the conclusion of the emergency response phase of the incident. Procedures for submitting CHMIRS reports should be included in area plans for all administering agencies. Forms and instruction manual are available from the Office of the State Fire Marshall or from OES.

ACCIDENT/INJURY REPORTING

7741.8.2

(No. 9 November 1993)

Emergency responders to hazardous materials incidents must have a positive safety attitude and maintain a mental safe approach at all times. In spite of preventive measures, injuries may occur. Accident/Injury/Exposure reporting is described in the [Health, Safety, and Physical Fitness Procedures Handbook 1700](#). The 1700 Handbook includes instructions pertinent to completing the form SCIF-3067, State Employer's Report of Occupational Injury and Illness. Employees who feel they may have been exposed to a hazardous material must complete the SCIF-3067 form at the earliest opportunity. Employees are also encouraged to complete the Perceived Exposure Report available through CAL FIRE EA/CPF.

PUBLIC INFORMATION

7741.9

(No. 9 November 1993)

PUBLIC INFORMATION OFFICER

7741.9.1

(No. 9 November 1993)

Because a hazardous materials incident can result in an extreme reaction from the public, information released should be accurate, clear, and timely. The assignment of a Public Information Officer should be considered at the earliest possible time on a significant hazardous materials incident. On large or complex incidents, PIOs from all responding agencies should work together in a joint information effort, with a lead PIO appointed by the IC.

NEWS MEDIA ACCESS

7741.9.2

(No. 9 November 1993)

Section 409.5 of the California Penal Code allows "duly credentialed" members of the media to cross access lines in exercising their first amendment rights. If law enforcement personnel determine that unrestricted access of press representatives to a disaster site will interfere with emergency operations, restrictions on media access may be imposed only for so long and only to such extent as is necessary to prevent actual interference. Members of the media should be advised that any persons and/or equipment exiting the exclusion zone may be subject to decontamination procedures.

QUALIFIED IMMUNITY FROM LIABILITY

7741.10

(No. 9 November 1993)

The California Legislature has declared that a threat to the public health and safety exists whenever there is a discharge, spill, or presence of a hazardous material on public or private property and that public safety employees should be encouraged to mitigate such hazards (Health & Safety Code Section 25400).

To that end, neither CAL FIRE nor its employees are liable for any injury caused by an action taken within the scope of employment to abate or attempt to abate hazards reasonably believed to be an imminent peril to public health and safety. There is no immunity in cases wherein action taken was performed in bad faith or in a grossly negligent manner.

SPECIAL FUNDS

7741.11

(No. 9 November 1993)

Superfund, Federal - A federal account established under Public Law 96-510 to clean up abandoned hazardous waste sites and provide funds for emergency response to hazardous materials incidents. State funds must be expended before the Federal Superfund may be accessed.

Superfund, State - A state account established under Health & Safety Code, Section 2518.d6 and Revenue & Taxation Code, Section 43001, to clean up abandoned hazardous waste sites and provide funds for emergency response to hazardous materials incidents. Local funds must be expended before the State Superfund may be accessed.

County/Local Funds - Some county health departments maintain accounts to clean up hazardous materials releases.

(see next section)

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(see Forms or Forms Samples)