



STATE OF CALIFORNIA
CALIFORNIA EMERGENCY MANAGEMENT AGENCY
Revised January 2011

Hazardous Materials Tool Kit



Serving as a supplement to the
State Toxic Disaster Contingency Plan
California Government Code, Section 8574.17

Prepared by the State of California
California Emergency Management Agency
Hazardous Materials Section

Acknowledgements

**Prepared by the California Emergency Management Agency
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State Agencies

- Attorney General, Office of
 - *Department of Justice*
- California Business, Transportation and Housing Agency
 - California Highway Patrol
 - California Department of Transportation
- California Environmental Protection Agency
 - *Air Resources Board*
 - *Office of Environmental Health Hazard Assessment*
 - *Department of Pesticide Regulations*
 - *Department of Toxic Substances Control*
 - *State Water Resources Control Board*
 - *Regional Water Quality Control Boards*
- California Health and Human Services Agency
 - Emergency Medical Services Authority
 - Department of Public Health
- California Department of Industrial Relations
 - *Occupational Safety & Health Administration*
- California Military Department, National Guard
 - *Civil Support Team*
- California Public Utilities Commission
 - *Railroad Safety Branch*
- California Resource Agency
 - Bay Conservation & Development Commission - San Francisco
 - California Coastal Commission
 - California Conservation Corps
 - California Department of Boating and Waterways
 - California Department of Conservation
 - *Division of Oil, Gas & Geothermal Resources*
 - California Energy Commission
 - California Department of Fish and Game
 - *Office of Spill Prevention and Response*
 - California Department of Forestry and Fire Protection
 - *State Fire Marshal's Office*
 - California Department of Parks and Recreation
 - California Department of Resources Recycling and Recovery
 - California Department of Water Resources
- State Lands Commission

Federal Agencies

- US Department of Agriculture
 - *US Forest Service*
- US Department of Commerce
 - *National Oceanic and Atmospheric Administration*
- US Department of Defense
- US Department of Energy
- US Environmental Protection Agency
 - US General Services Administration
- US Department of Health and Human Services
 - *Agency for Toxic Substances and Disease Registry*
 - *Centers for Disease Control and Prevention*
- US Department of Homeland Security
 - US Coast Guard
 - Federal Emergency Management Agency
- US Department of Interior
 - *US Fish & Wildlife Service*
 - *US Geological Survey*
 - *US Bureau of Reclamation*
 - *US Bureau of Indian Affairs*
 - *US Bureau of Land Management*
 - *US Minerals Management Service*
 - *US National Park Service*
 - *US Office of Environment Policy and Compliance*
- US Department of Justice
 - *Drug Enforcement Agency*
 - *Federal Bureau of Investigation*
- US Department of Labor
 - *Occupational Safety and Health Administration*
- Nuclear Regulatory Commission
- US Department of Transportation
 - *Pipeline and Hazardous Materials Safety Administration*
 - *Federal Aviation Administration*
 - *Federal Highway Administration*
 - *Federal Railroad Administration*
- National Transportation Safety Board

Local Agencies

- County Agricultural Commissioners
- County Air Pollution Control Officers
- Public Works Departments
- San Joaquin County Environmental Health Department
- Ventura County Fire Department

Non-Governmental Agencies

- Amateur Radio Emergency Service
- American Lifeline Alliance
- American Red Cross
- Civil Air Patrol
- Community Awareness and Emergency Response
- Radio Amateur Civil Emergency Service
- Salvation Army

Private Industry

- ChemTrec
- National Poison Antidote Center
- Oiled Wildlife Care Network

Much of the information contained in the Hazardous Materials Tool Kit was obtained from agency representatives, laws and regulations, public sector plans, and emergency planning guidance documents.

PREFACE

Overview

Since the 1980's, the State Toxic Disaster Contingency Plan (STDCP) has been developed and known as the "Hazardous Materials Incident Contingency Plan" (HMICP). The different title was to better reflect the wide range of hazardous substances that would be subject to a disaster, not just "toxic".

In the past, the HMICP has not had to go before the California Emergency Council (CEC) for approval; however, in 1999, it was decided that it needed approval by the CEC since it was an annex to the State Emergency Plan. The HMICP is a dynamic plan that is subject to on-going changes. Every minor change that is made to the Plan would require CEC approval. To avoid this situation, it was decided to split the HMICP into two documents: (1) the STDCP, which will meet the letter of the law and will be approved by the CEC; and (2) the Hazardous Materials Tool Kit (**Tool Kit**), which will remain as it is currently and will function as a guidance document to the STDCP, without having to be approved by the CEC. In this manner, the Tool Kit can be changed at any given time and still be an "approved" document without being held up by the CEC. The Tool Kit will be reflected in the STDCP as a supporting document.

The Tool Kit is intended to serve primarily as the state level hazardous materials reference document, which provides information that may be useful to federal, state, and local response agencies for hazardous materials preparedness, response, and recovery purposes.

The Tool Kit is **NOT** intended to be used as the primary field level operational plan. The Tool Kit also does not provide the detailed response and recovery information that would be used by on-scene personnel in the management of a hazardous materials incident. The actions taken by agencies during an emergency are contingent on the specific conditions at the time. Actions may vary from those in this document in order to protect life, property, and the environment.

Prior to responding to a spill, the Tool Kit should be read and utilized as a reference document in developing local, area, and/or regional hazardous materials emergency response plans. Additionally, the Tool Kit should be used in conjunction with city, county, operational area and other state agency plans, and associated standard operating procedures. Other planning and/or technical documents may also support this guidance document.

The Tool Kit is composed of four major parts which are common to the types of hazardous materials incidents covered in this document, and the incident-specific supporting documents referenced in the Appendices.

Part One

Part One provides background information on the Tool Kit, including its purpose, who uses it and when it's used, objectives, and kinds of toxic substances encountered in emergency response within the State of California.

Part Two

Part Two contains the "Concept of Operations". It is separated chronologically into the four stages of emergency management to better assist those agencies and personnel involved in hazardous materials emergencies. The four stages are listed below.

- Preparedness
- Response
- Recovery
- Mitigation

Each section incorporates the required information that is pertinent to a particular stage of emergency management, including such information as:

- Notification
- California's Standardized Emergency Management System (SEMS)
- National Incident Management System (NIMS)
- The Incident Command System (ICS)
- Training
- Drills and Exercises
- After-Action Reporting

Part Three

Part Three contains a description of agency roles and responsibilities, including interagency, state, local, federal, and non-governmental agencies, and the resources and support that are available during hazardous materials emergencies.

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Part Four consists of **Attachments** which include:

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HAZARDOUS MATERIALS TOOL KIT

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- California Emergency Management Agency (Cal EMA)
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 - Office of Environmental Health Hazard Assessment (OEHHA)
 - Department of Pesticide Regulation (DPR)
 - Department of Toxic Substances Control (DTSC)
 - State Water Resources Control Board (SWRCB)
- California Health and Human Services Agency (CHHS)
 - Emergency Medical Services Authority (EMSA)
 - Department of Public Health (CDPH)
- California Department of Industrial Relations
 - Occupational Safety and Health Administration (Cal OSHA)
- California Military Department - National Guard (CNG)
 - Civil Support Team
- California Public Utilities Commission (PUC)
 - Railroad Safety Branch
- California Resources Agency
 - Bay Conservation & Development Commission, San Francisco (BCDC)
 - California Coastal Commission (CCC)
 - California Conservation Corps (Corps)
 - California Department of Boating and Waterways (Cal Boating)

- California Department of Conservation (DOC)
 - o Division of Oil, Gas, and Geothermal Resources (DOGGR)
- California Energy Commission (CEC)
- California Department of Fish and Game (DFG)
 - o Office of Spill Prevention and Response (OSPR)
- California Department of Forestry and Fire Protection (Cal Fire)
 - o State Fire Marshal's Office (SFM)
- California Department of Parks and Recreation (DPR)
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 - U.S. Geological Survey (USGS)
 - Bureau of Reclamation (BOR)
 - Bureau of Indian Affairs (BIA)
 - Bureau of Land Management (BLM)
 - Minerals Management Service (MMS)
 - National Park Service (NPS)
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- U.S. Department of Justice (DOJ)
 - Drug Enforcement Administration (DEA)
 - Federal Bureau of Investigation (FBI)
- U.S. Department of Labor (DOL)
 - Occupational Safety and Health Administration (OSHA)
- Nuclear Regulatory Commission (NRC)
- U.S. Department of Transportation (DOT)
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PART ONE: INTRODUCTION

Purpose

The purpose of the Tool Kit is to provide an integrated and effective response to a hazardous materials incident within the State of California. Its purpose is to guide all levels of emergency responders of hazardous materials incidents to comply with requirements outlined in the Standardized Emergency Management System (SEMS) and to improve coordination with other Federal, State, and local emergency response agencies. On February 8, 2005, Governor Schwarzenegger issued Executive Order S-2-05, directing the then Governor's Office of Emergency Services to integrate the National Incident Management System (NIMS) with SEMS. California has met the goals and milestones set forth in the federal requirements and have integrated SEMS with NIMS.

Integration of SEMS with NIMS provides a statewide consistency with emergency response activities as well as a nationwide approach for Federal, State, local, and tribal governments to work together more effectively and efficiently.

The Tool Kit is intended to be used as a resource tool, and as a supplement to the State Toxic Disaster Contingency Plan (STDCP) to:

- Address an acute release, or threatened release, of hazardous materials which requires an immediate response to protect human health and safety, and the environment;
- Assist State and local agencies and their employees to appropriately prepare for and respond to a hazardous materials incident;
- Complement and serve as a comprehensive reference document for hazardous materials emergency planning, response, and recovery programs; and
- Provide a general planning overview of the concept of hazardous materials business plans developed by the private sector, local area plans developed by Certified Unified Program Agencies/Administering Agencies/Participating Agencies (CUPA/AAs/PAs), and regional emergency plans developed by the Local Emergency Planning Committees (LEPCs).

The Tool Kit describes the State's hazardous materials emergency response organization and emergency management system; the roles and responsibilities of local, State, and Federal agencies; the relationship of government agencies, industry, volunteers, and private organizations; and the relationship of the Tool Kit with other plans relating to the release, or threatened release, of hazardous materials, including chemical, oil, radiological, and biological materials.

Objectives

The objectives of the Tool Kit are to:

- Protect public health and safety, the environment, and property;
- Provide a standardized and comprehensive resource tool to aid emergency officials in their functional duties;
- Describe the overall emergency response organization for hazardous materials incidents within California;
- Delineate the authorities, roles and responsibilities, and capabilities of local, state, and federal agencies in preparing for and responding to hazardous materials incidents;
- Provide planning, response, and recovery guidance which is consistent with California's Standardized Emergency Management System (SEMS), National Incident Management System (NIMS), and the *State of California Emergency Plan*; and
- Facilitate mutual aid to supplement state and local resource needs.

If those who have a role in hazardous materials emergency management read and understand the Tool Kit's contents, and are prepared to fulfill their responsibilities, then the intent of improving the overall hazardous materials response capabilities within California will become real and tangible. It is through consistent training, exercising, identifying and addressing capability shortfalls, and communicating and coordinating with all those who have responsibilities in the multi-faceted aspects of hazardous materials incident response that the objectives of this plan will be met.

Who should use the Tool Kit?

The Tool Kit is written primarily for local and State response agencies in California to guide them in understanding the various agencies with responsibilities in hazardous materials emergencies. Federal government and private industry may also use the Tool Kit to clarify their roles and relationships with other responsible agencies concerning hazardous materials emergencies.

When should the Tool Kit be used?

The Tool Kit should be primarily used as a tool for pre-incident planning and preparedness for an acute, or threatened, release of hazardous materials. Examples of an acute release may range from an unidentified white powder spilled on a road (unless identified as non-hazardous) to a catastrophic chemical release causing mass casualties. During a hazardous materials response, this guidance document should be used in conjunction with an agency or jurisdiction specific plan. In the event of a catastrophic incident, the Tool Kit should be used in conjunction with the *State Toxic Disaster Contingency Plan and the State of California Emergency Plan*.

The Tool Kit should be used for guidance and clarification where a State agency also has responsibility and/or jurisdictional authority, and should be read and understood prior to the release or threatened release of hazardous materials. This document should not be used to address problems associated with the cleanup of non-emergency or long-term hazardous waste sites.

Tool Kit Availability

The Tool Kit is available in pdf format on the Cal EMA website at www.calema.ca.gov.

Tool Kit Review

The Tool Kit will be reviewed on a semi-annual basis. Based upon updated information from Cal EMA and other State and Federal agency personnel, as well as the lessons learned from exercises and actual events, the Plan will be updated as necessary. While the STDCP must be submitted to the California Emergency Council (CEC) for their review and approval, the Tool Kit will remain a dynamic guidance document, which can be revised without having to go through the CEC review and approval process.

Types of Incidents

California and its people are susceptible to a wide range of hazards that have the potential to result in a release of hazardous materials. Those hazards are categorized as natural hazards and human-caused hazards, which includes technological hazards and threats or acts of terrorism.

The Tool Kit will focus on incidents involving technological hazards; however, natural, human-caused, and terrorist-related disasters usually consist of a technological hazards component in some form or another (such as a hazardous materials release). In planning for disasters involving natural or terrorist-related hazards, response to a release of technological hazards is typically overlooked - possibly due to their unique technical and policy considerations.

An incident involving technological hazards is considered to have potentially serious adverse impacts on public health and the environment, no matter what the cause – be it natural, human-caused, or terrorist-related. A response to an incident involving technological hazards - biological, oil, radiological, or hazardous materials - remains relatively constant, utilizing the same responding agencies, resources, and methodologies. The types of incidents that could potentially result in a release or threat of a release of hazardous materials are listed below as examples, under each type of hazard category:

NATURAL HAZARDS

- Earthquakes
- Tsunami
- Fire
- Floods
- Volcanoes
- Landslides and mudslides
- Extreme weather conditions – Tornadoes, Hurricanes, Winter storms

HUMAN-CAUSED HAZARDS

- **Technological hazards**
 - Industrial accidents resulting in an off-site release of chemical, biological, or radiological materials
 - Transportation-related accidents (aircraft, highway, railway, vessel, or pipeline)
 - Oil and HazMat spills into marine and inland waters
 - Explosions due to a ruptured gas pipeline or propane tank
 - Large tire fire
 - Terrorism

Due to the different types of technological hazards that may occur, their specialized response, and their potential to cause serious adverse effects on public health and the environment, they are included in the Tool Kit as supporting documents in separate Appendices. For further detailed information on response to each of these types of incidents, please refer to the Appendices section of this plan, which incorporates these supporting documents by reference.

In planning for these types of incidents, the Tool Kit should be used in conjunction with other local, state, regional, and federal emergency plans that address hazardous materials releases or threats of a release (such as the *State Emergency Plan, California Terrorism Response Plan, State Toxic Disaster Contingency Plan, Local Area Contingency Plans, LEPC Emergency Plans, Regional Contingency Plan, National Response Framework, etc.*)

Types of Toxic Substances

California Government Code, Section 8574.18 requires the State Toxic Disaster Contingency Plan (STDCP) to provide a listing of the types of “toxic substances” that pose potential hazards to human health and the environment, which could be the subject to “toxic disasters.” Since the Tool Kit is a supplemental guidance document to the STDCP, it addresses the same types of substances that are listed in the STDCP. And like the STDCP, the Tool Kit is not limited to just “toxic substances”, as that would overlook the many other types of hazardous materials or wastes that are just as harmful to public health and the environment.

Federal and State laws and regulations contain a plethora of definitions for hazardous materials, hazardous substances, hazardous wastes, and so on; however, the term “hazardous materials” is quite broad and under its umbrella, it includes the definitions of oil, toxic substances, hazardous substances, hazardous wastes, and biological and radioactive materials. Therefore, for purposes of this document, the term “toxic substances” will be replaced with the term “hazardous materials” or “HazMat.”

While it was not the intent of the law to get caught up in semantics, the term “toxic” has a very distinctive, as well as restrictive, legal definition. In order to be clear and avoid any confusion, the Tool Kit will address toxic substances, as well as hazardous substances, hazardous materials, and hazardous wastes. The terms toxic substance, hazardous substance, hazardous material, and hazardous waste incorporate a wide variety of materials that could cause harm to human health and/or the environment (regardless of how they are used, handled, stored, transported, or disposed), including (but not be limited to) the following:

- Oil and petroleum products;
- Hazardous materials & hazardous wastes;
- Radioactive materials and wastes;
- Mixed wastes (combination of radioactive and chemical);
- Biological agents;
- Sewage and infectious wastes;
- Industrial and Agricultural chemicals (pesticides, herbicides, fungicides, etc.);

- Explosives;
- Air contaminants; and
- Marine pollutants.

Although the Tool Kit does not individually list the toxic substances that would be under the purview of the HMICP, it does list the major State and Federal laws and regulations that further define, identify, and/or list the different types of hazardous materials (including oil, toxic substances, hazardous substances, and hazardous waste, pollutants and contaminants) that are regulated and could cause harm to human health and/or the environment, regardless of how those materials are used, handled, stored, transported, or disposed. Those hazardous materials that could be the subject of a toxic disaster are listed, characterized, or broadly defined in the State and Federal laws and regulations listed in Appendix 11.
