The National Response Team (NRT) — composed of 14 Federal agencies having major responsibilities in environmental, transportation, emergency management, worker safety, and public health areas — is the national body responsible for coordinating Federal planning, preparedness, and response actions related to oil discharges and hazardous substance releases.

NRT member agencies are: Environmental Protection Agency (Chair), Department of Transportation (U.S. Coast Guard) (Vice-chair), Department of Commerce, Department of the Interior, Department of Agriculture, Department of Defense, Department of State, Department of Justice, Department of Transportation (Research and Special Programs Administration), Department of Health and Human Services, Federal Emergency Management Agency, Department of Energy, Department of Labor, and Nuclear Regulatory Commission.

Under the Superfund Amendments and Reauthorization Act of 1986, the NRT is responsible for publishing guidance documents for the preparation and implementation of hazardous substance emergency plans.

## National Response Team

of the National O Lana Hazardous
Substances Contingency Plan
G-WER/12, 2100 2nd Street SW, Washington, DC 20593

March 17, 1987

NRT

Environmental Protection Agency

United States Coast Guard

Department of Commerce

Department of Interior

Department of Agriculture

Department of Defense

Department of State

Department of

Department of Transportation

Department of Health and Human Services

> Federal Emergency Management Agency

Department of Energy

Department of Labor

The National Response Team (NRT) Hazardous Materials Emergency Planning Guide is a product of the cooperative efforts of the 14 Federal agencies that constitute the NRT. The guide fulfills a Congressional requirement that the NRT provide unified Federal guidance for hazardous materials emergency planning and presents a Federal consensus upon which future guidance, technical assistance, and training will be based. It also reflects many comments and suggestions received on earlier drafts from State and local governments, industry representatives, emergency managers, environmental organizations, and members of the public actively concerned with hazardous materials preparedness, response and prevention.

This guide is an important step in a program of implementation that will occur at Federal, State and local levels of government throughout the United States. Thank you for your involvement in this important undertaking. We trust this document will assist you in your efforts.

James L. Makris

U.S. Environmental Protection Agency

Chairman

National Response Team

Captain Robert L. Storch

U.S. Coast Guard Vice-Chairman

National Response Team

# — Hazardous Materials Emergency — Planning Guide —

March 1987



## **Table of Contents**

		P	AGI	=
PRE	FACE .			i
THE	BACK	GROUND OF THIS GUIDANCE		ii
CHAPTER 1: INTRODUCTION				
1.1	The N	eed for Hazardous Materials Emergency Planning		1
1.2	Purpos	se of This Guide		1
1.3	How to	o Use This Guide	•	2
1.4	Requir	rements for Planning	•	4
	1.4.1	Federal Requirements	•	4
	1.4.2	State and Local Requirements	•	8
1.5	Relate	d Programs and Materials	•	8
	1.5.1	FEMA's Integrated Emergency Management System (CPG 1-8)	•	8
	1.5.2	EPA's Chemical Emergency Preparedness Program (CEPP)		8
	1.5.3	DOT Materials	•	9
	1.5.4	Chemical Manufacturers Association's Community Awareness and Emergency Response Program (CMA/CAER)		9
CHA	PTER 2	2: SELECTING AND ORGANIZING THE PLANNING TEAM	. , 1	1
2.1	Introdu	uction	1	1
2.2	The P	lanning Team	1	1
	2.2.1	Forming the Planning Team	1	. 1
	2.2.2	Respect for All Legitimate Interests	1	.2
	2.2.3	Special importance of Local Governments	. , 1	4
	2.2.4	Local Industry Involvement	. , 1	4
	2.2.5	Size of Planning Team	1	4
2.3	Organ	izing the Planning Process	1	4
	231	Selecting a Team Leader	1	4

## Table of Contents (Continued)

	PA	GE				
	2.3.2 Organizing for Planning Team Responsibilities	. 16				
2.4	Beginning to Plan	. 18				
CHAPTER 3: TASKS OF THE PLANNING TEAM						
3.1	Introduction	19				
3.2	Review of Existing Plans	19				
3.3	Hazards Analysis: Hazards Identification, Vulnerability Analysis, Risk Analysis 2					
	3.3.1 Developing the Hazards Analysis	21				
	3.3.2 Obtaining Facility Information	24				
	3.3.3 Example Hazards Analysis	25				
3.4	Capability Assessment	28				
	3.4.1 Facility Resources	28				
	3.4.2 Transporter Resources	31				
	3.4.3 Community Resources	32				
3.5	Writing an Emergency Plan	34				
CHAPTER 4: DEVELOPING THE PLAN						
4.1	Introduction	35				
4.2	Hazardous Materials Appendix to Multi-Hazard EOP	35				
4.3	Single-Hazard Emergency Plan	36				
CHA	APTER 5: HAZARDOUS MATERIALS PLANNING ELEMENTS	39				
5.1	Introduction	39				
5.2	Discussion of Planning Elements	40				
CHAPTER 6: PLAN APPRAISAL AND CONTINUING PLANNING						
6.1	Introduction	67				
6.2	Plan Review and Approval	67				
	6.2.1 Internal Review	67				
	6.2.2 External Review	67				

## Table of Contents (Continued)

		PAG	Ε
	6.2.3	Plan Approval	68
6.3	Кеері	ing the Plan Up-to-Date	69
6.4	Conti	nuing Planning	70
	6.4.1	Exercises	70
	6.4.2	Incident Review	71
	6.4.3	Training	71
APP	ENDIC	ES	
APP	ENDIX	A: IMPLEMENTING TITLE III: EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW; SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986	٧
APP	ENDIX	B: LIST OF ACRONYMS AND RECOGNIZED ABBREVIATIONS	
APP	ENDIX	C: GLOSSARY	
APP	ENDIX	D: CRITERIA FOR ASSESSING STATE AND LOCAL PREPAREDNESS	
APP	ENDIX	E: BIBLIOGRAPHY	
APF	ENDIX	F: FEDERAL AGENCY ADDRESSES	
EXH	IIBITS		
Exhi	ibit 1:	Overview of Planning Process	3
Exhi	ibit 2:	Potential Members of an Emergency Planning Team	13
Exhi	ibit 3:	Example Hazards Analysis for a Hypothetical Community	26
Exhi	ibit 4:	Sample Outline of a Hazardous Materials Emergency Plan	37
Exhi	bit 5:	Key Title III Dates A-	10
Exhi	bit 6:	Title III Major Information Flow/Requirements	11
Exhi	bit 7:	Information from Facilities Provided by Title III in Support of LEPC Plan Development	12
Evhi	hit 8	Title III Chemical Lists and Their Purposes	13

#### **Preface**

All over America, large and small communities are learning about hazardous materials nearby. Trains derail. Trucks overturn. Pipelines rupture. Chemical plants have accidental leaks and releases.

This guidance will help local communities prepare for potential incidents involving hazardous materials. Some communities already have integrated multi-hazard plans; other communities are only now beginning to plan. This guidance describes how to form a local planning team, find a team leader, identify and analyze hazards, identify existing response equipment and personnel, write a plan, and keep a plan up to date.

This guidance can be used both by local communities developing their own plan, and by local emergency planning committees formed in accord with the "Emergency Planning and Community Right-to-Know Act of 1986." This legislation makes it mandatory for local emergency planning committees to prepare an emergency plan for possible releases of hazardous substances, and for fixed facilities to cooperate in this planning process. A detailed summary of this legislation appears in Appendix A; the legislation is referenced throughout this guide.

Information gathered during the planning process will help communities take steps to make the impact of incidents less severe. Improved warning systems, increased hazardous materials training of industry and local response personnel, and other efforts at the local level, can all make a community better prepared to

prevent and respond to hazardous materials incidents.

Each community must plan according to its own situation:

- The size of the community (smaller communities might have fewer hazards, but also fewer planning and response resources for the hazards they do have);
- ☐ The level of danger (small communities are sometimes surrounded by large industry); and
- Preparedness for planning (some communities have active planning agencies, but other communities have yet to form their first planning committee).

There is no single right way to write a plan. This guidance presents a comprehensive approach to planning. Small communities with few planning resources, or communities with few or no threatening hazards, can choose the planning elements appropriate to their circumstances. Every community, however, should evaluate its preparedness for responding to a hazardous materials incident, and plan accordingly.

Fourteen Federal agencies have cooperated to produce this guidance. We have tried to make this guide consistent with other guides you might use during the planning process. We hope that this unified approach will help your community.

#### The Background of This Guidance

This Hazmat Emergency Planning Guide has been developed cooperatively by 14 Federal agencies. It is being published by the National Response Team in compliance with Section 303(f) of the "Emergency Planning and Community Right-to-Know Act of 1986," Title III of the "Superfund Amendments and Reauthorization Act of 1986" (SARA).

This guide replaces the Federal Emergency Management Agency's (FEMA) Planning Guide and Checklist for Hazardous Materials Contingency Plans (popularly known as FEMA~10).

This guide also incorporates material from the U.S. Environmental Protection Agency's (EPA) interim guidance for its Chemical Emergency Preparedness Program (CEPP) published late in 1985. Included are Chapters 2 ("Organizing the Community"), 4 ("Contingency Plan Development and Content"), and 5 ("Contingency Plan Appraisal and Continuing Planning"). EPA is revising and updating CEPP technical guidance materials that will include sitespecific guidance, criteria for identifying extremely hazardous substances, and chemical profiles and a list of such sub-Planners should use this general planning guide in conjunction with the CEPP materials.

In recent years, the U.S. Department of Transportation (DOT) has been active in emergency planning. The Research and Special Programs Administration (RSPA) has published transportation-related reports and guides and has contributed to this general planning guide. The U.S. Coast Guard (USCG) has actively implemented planning and response requirements of the National Contingency Plan (NCP), and has contributed to this general planning guide.

The U.S. Occupational Safety and Health Administration (OSHA) and the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) have assisted in preparing this general planning guide.

In addition to its FEMA-10, FEMA has developed and published a variety of plan-

ning-related materials. Of special interest here is Guide for Development of State and Local Emergency Operations Plans (known as CPG 1-8) that encourages communities to develop multi-hazard emergency operations plans (EOPs) covering all hazards facing a community (e.g., floods, earthquakes, hurricanes, as well as hazardous materials incidents). This general planning guide complements CPG 1-8 and indicates in Chapter 4 how hazardous materials planners can develop or revise a multi-hazard EOP. Chapter 4 also describes a sample outline for an emergency plan covering only hazardous materials, if a community does not have the resources to develop a multi-hazard EOP.

The terms "contingency plan," "emergency plan," and "emergency operations plan" are often used interchangeably, depending upon whether one is reading the NCP, CPG 1-8, or other planning guides. This guide consistently refers to "emergency plans" and "emergency planning."

This guide will consistently use "hazard-ous materials" when generally referring to hazardous substances, petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals. Title III of SARA uses the term "extremely hazardous substances" to indicate those chemicals that could cause serious irreversible health effects from accidental releases.

The major differences between this document and other versions proposed for review are the expansion of the hazards analysis discussion (Chapter 3) and the addition of Appendix A explaining the planning provisions of Title III of SARA.

<sup>\*</sup> We recognize that natural gas is under a specific statute, but because this is a general planning guide (and because criteria for the list of extremely hazardous substances under Title III of SARA may be expanded to include flammability). local planners may want to consider natural gas.

#### 1. Introduction

#### 1.1 The Need for Hazardous Materials Emergency Planning

Major disasters like that in Bhopal, India, in December 1984, which resulted in 2,000 deaths and over 200,000 injuries. are rare. Reports of hazardous materials spills and releases, however, are increasingly commonplace. Thousands of new chemicals are developed each year. Citizens and officials are concerned about accidents (e.g., highway incidents, warehouse fires, train derailments, industrial incidents) happening in their communities. Recent evidence shows that hazardous materials incidents are considered by many to be the most significant threat facing local jurisdictions. Ninety-three percent of the more than 3,100 localities completing the Federal Emergency Management Agency's (FEMA) Hazard Identification, Capability Assessment, and Multi-Year Development Plan during fiscal year 1985 identified one or more hazard-

ous materials risks (e.g., on highways and railroads, at fixed facilities) as a significant threat to the community. Communities need to prepare themselves to prevent such incidents and to respond to the accidents that do occur.

Because of the risk of hazardous materials incidents and because local governments will be completely on their own in the first stages of almost any hazardous materials incident, communities need to maintain a continuing preparedness capacity. A specific, tangible result of being prepared is an emergency plan. Some communities might have sophisticated and detailed written plans but, if the plans have not recently been tested and revised, these communities might be less prepared than they think for a possible hazardous materials incident.

#### 1.2 Purpose of This Guide

The purpose of this guide is to assist communities in planning for hazardous materials incidents.

"Communities" refers primarily to local jurisdictions. There are other groups of people, however, that can profitably use this guide. Rural areas with limited resources may need to plan at the county or Regional level. State officials seeking to develop a State emergency plan that is closely coordinated with local plans can adapt this guidance to their purposes. Likewise, officials of chemical plants, railroad yards, and shipping and trucking companies can use this guidance to coor-

dinate their own hazardous materials emergency planning with that of the local community.

"Hazardous materials" refers generally to hazardous substances, petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals. "Extremely hazardous substances" is used in Title III of the Superfund Amendments and Reauthorization Act of 1986 to refer to those chemicals that could cause serious health effects following short-term exposure from accidental releases. The U.S. Environmental Protection Agency (EPA) published an initial list of 402 extremely

hazardous substances for which emergency planning is required. Because this list may be revised, planners should contact EPA Regional offices to obtain information. This guidance deals specifically with response to hazardous materials incidents--both at fixed facilities (manufacturing, processing, storage, and disposal) and during transportation (highways, waterways, rail, and air). Plans for responding to radiological incidents and natural emergencies such as hurricanes, floods, and earthquakes are not the focus of this guidance, although most aspects of plan development and appraisal are common to these emergencies. Communities should see NUREG 0654/FEMA-REP-1 and/or FEMA-REP-5 for assistance in radiological planning. (See Appendix C.) Communities should be prepared, however, for the possibility that natural emergencies, radiological incidents, and hazardous materials incidents will cause or reinforce each other.

The objectives of this guide are to:

 Focus community activity on emergency preparedness and response;

- Provide communities with information useful in organizing the planning task;
- Furnish criteria to determine risk and to help communities decide whether they need to plan for hazardous materials incidents;
- Help communities conduct planning that is consistent with their needs and capabilities; and
- Provide a method for continually updating a community's emergency plan.

This guide will not:

- Give a simple "fill-in-theblanks" model plan (because each community needs an emergency plan suited to its own unique circumstances);
- Provide details on response techniques; or
- ☐ Train personnel to respond to incidents.

Community planners will need to consult other resources in addition to this guide. Related programs and materials are discussed in Section 1.5.

#### 1.3 How to Use This Guide

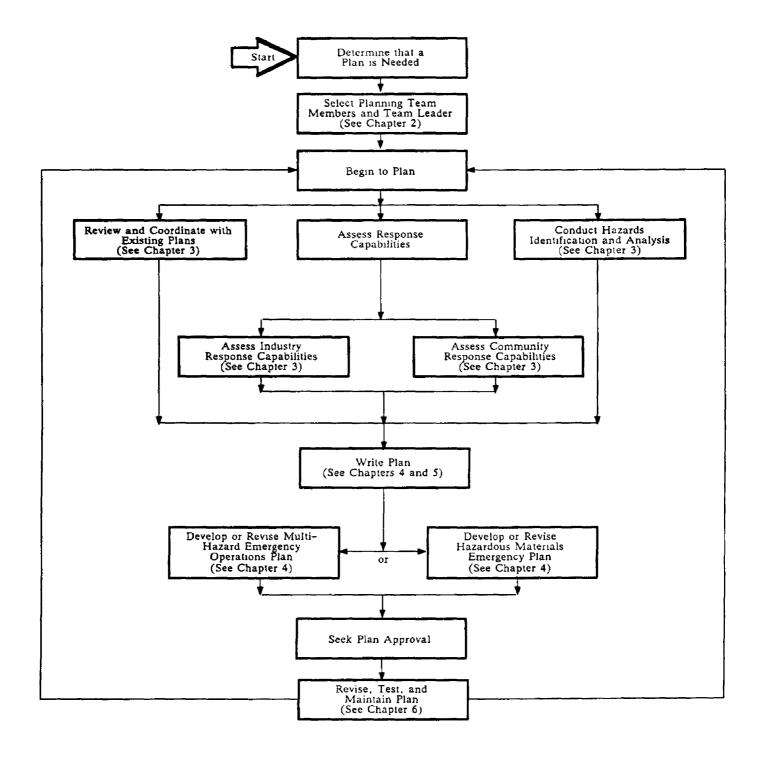
This guide has been designed so it can be used easily by both those communities with little or no planning experience and those communities with extensive planning experience.

All planners should consult the decision tree in Exhibit 1 for assistance in using this guide.

Chapter 2 describes how communities can organize a planning team. Communities that are beginning the emergency planning process for the first time will

need to follow Chapter 2 very closely in order to organize their efforts effectively. Communities with an active planning agency might briefly review Chapter 2, especially to be sure that all of the proper people are included in the planning process, and move on to Chapter 3 for a detailed discussion of tasks for hazardous materials planning. Planners should review existing emergency plans, perform a hazards identification and analysis, assess prevention and response capabilities, and then write or revise an emergency plan.

Exhibit 1
OVERVIEW OF PLANNING PROCESS



Chapter 4 discusses two basic approaches to writing an emergency plan: (a) incorporating hazardous materials planning into a multi-hazard emergency operations plan (EOP) (see Section 1.5.1), and (b) developing or revising a plan dealing only with hazardous materials. Incorporating hazardous materials planning into a multi-hazard approach is preferable. Some communities, however, have neither the capability nor the resources to do this immediately. Communities that choose to develop or revise an EOP should consult FEMA's CPG 1-8 for specific structure requirements for the plan in addition to the discussion in Section 1.5.1. Communities that choose to develop or revise a single-hazard plan for hazardous materials can use the sample outline of an emergency plan in Chapter 4 to organize the various hazardous materials planning elements. (Note: Communities receiving FEMA funds must incorporate hazardous materials planning into a multi-hazard EOP.)

Chapter 5 describes the elements to be considered when planning for potential hazardous materials incidents. All communities (both those preparing an EOP under the multi-hazard approach and those preparing a single-hazard plan) should carefully follow Chapter 5 to ensure that they consider and include the planning elements related to hazardous materials.

Chapter 6 describes how to review and update a plan. Experience shows that many communities mistakenly presume that completing an emergency plan automatically ensures adequate preparedness for emergency response. All communities should follow the recommendations in Chapter 6 to ensure that emergency plans will be helpful during a real incident.

Appendix A is a summary for implementing the "Emergency Planning and Community Right-to-Know Act of 1986." Appendix B is a list of acronyms and abbreviations used in this guidance. Appendix C is a glossary of terms used throughout this guide. (Because this guide necessarily contains many acronyms and technical phrases, local planners should regularly consult Appendices B and C.) Appendix D contains criteria for assessing State and local preparedness. Planners should use this appendix as a checklist to evaluate their hazards analysis, the legal authority for responding, the response organizational structure, communication systems, resources, and the completed emergency plan. Appendix E is a list of references on various topics addressed in this guidance. Appendix F is a listing of addresses of Federal agencies at the national and Regional levels. Planners should contact the appropriate office for assistance in the planning process.

#### 1.4 Requirements for Planning

Planners should understand Federal, State, and local requirements that apply to emergency planning.

#### 1.4.1 Federal Requirements

This section discusses the principal Federal planning requirements found in the National Contingency Plan; Title III of SARA; the Resource Conservation and Recovery Act; and FEMA's requirements for Emergency Operations Plans.

#### ➤ A. National Contingency Plan

The National Contingency Plan (NCP), required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), calls for extensive preparedness and planning. The National Response Team (NRT), comprised of representatives of various Federal government agencies with major environmental, transportation, emergency management, worker safety, and public health responsibilities, is responsible for

coordinating Federal emergency preparedness and planning on a nationwide bases

A key element of Federal support to local responders during hazardous materials transportation and fixed facility incidents is a response by U.S. Coast Guard (USCG) or Environmental Protection Agency (EPA) On-Scene Coordinators (OSCs). The OSC is the Federal official predesignated to coordinate and direct Federal responses and removals under the NCP. These OSCs are assisted by Federal Regional Response Teams (RRTs) that are available to provide advice and support to the OSC and, through the OSC, to local responders.

Federal responses may be triggered by a report to the National Response Center (NRC), operated by the Coast Guard. Provisions of the Federal Water Pollution Control Act (Clean Water Act), CERCLA ("Superfund"), and various other Federal laws require persons responsible for a discharge or release to notify the NRC immediately. The NRC Duty Officer promptly relays each report to the appropriate Coast Guard or EPA OSC, depending on the location of an incident. Based on this initial report and any other information that can be obtained, the OSC makes a preliminary assessment of the need for a Federal response.

This activity may or may not require the OSC or his/her representative to go to the scene of an incident. If an on-scene response is required, the OSC will go to the scene and monitor the response of the responsible party or State or local government. If the responsible party is unknown or not taking appropriate action, or the response is beyond the capability of State and local governments, the OSC may initiate Federal actions. The Coast Guard has OSCs at 48 locations (zones) in 10 districts, and the EPA has OSCs in its 10 Regional offices and in certain EPA field of-(See Appendix F for appropriate addresses.)

Regional Response Teams are composed of representatives from Federal agencies

and a representative from each State within a Federal Region. During a response to a major hazardous materials incident involving transportation or a fixed facility, the OSC may request that the RRT be convened to provide advice or recommendations on specific issues requiring resolution.

An enhanced RRT role in preparedness activities includes assistance for local community planning efforts. Local emergency plans should be coordinated with any Federal Regional contingency plans and OSC contingency plans prepared in compliance with the NCP. Appendix D of this guide contains an adaptation of extensive criteria developed by the NRT Preparedness Committee to assess State and/or local emergency response preparedness programs. These criteria should be used in conjunction with Chapters 3, 4, and 5 of this guide.

► B. Title III of SARA ("Superfund Amendments and Reauthorization Act of 1986")

Significant new hazardous materials emergency planning requirements are contained in Title III of SARA (also known as the "Emergency Planning and Community Right-to-Know Act of 1986"). (See Appendix A for a detailed summary on implementing Title III.)

Title III of SARA requires the establishment of State emergency response commissions, emergency planning districts, and local emergency planning committees. The Governor of each State appoints a State emergency response commission whose responsibilities include: designating emergency planning districts; appointing local emergency planning committees for each district; supervising and coordinating the activities of planning committees; reviewing emergency plans; receiving chemical release notifications; and establishing procedures for receiving and processing requests from the public for information about and/or copies of emergency response plans, material safety data sheets, the list of extremely hazardous substances prepared as part of EPA's original Chemical Emergency Preparedness Program initiative (see Section 1.5.2), inventory forms, and toxic chemical release forms.

Forming emergency planning districts is intended to facilitate the preparation and implementation of emergency plans. Planning districts may be existing political subdivisions or multijurisdictional planning organizations. The local emergency planning committee for each district must include representatives from each of the following groups or organizations:

Elected State and local officials;
 Law enforcement, civil defense. firefighting, health, local environmental, hospital, and transportation personnel;
 Broadcast and print media;
 Community groups; and
 Owners and operators of facilities subject to the requirements of Title III of SARA.

Each emergency planning committee is to establish procedures for receiving and processing requests from the public for information about and/or copies of emergency response plans, material safety data sheets, and chemical inventory forms. The committee must designate an official to serve as coordinator of information.

Facilities are subject to emergency planning and notification requirements if a substance on EPA's list of extremely hazardous substances is present at the facility in an amount in excess of the threshold planning quantity for that substance. (See Federal Register, Vol. 51, No. 221, 41570 et seq.) The owner or operator of each facility subject to these requirements must notify the appropriate State emergency response commission that the facility is subject to the requirements.

Each facility must also notify the appropriate emergency planning committee of a facility representative who will participate in the emergency planning process as a facility emergency coordinator. Upon re-

quest, facility owners and operators are to provide the appropriate emergency planning committee with information necessary for developing and implementing the emergency plan for the planning district.

Title III provisions help to ensure that adequate information is available for the planning committee to know which facilities to cover in the plan. (See Appendix A for a discussion of how the local planning committee can use information generated by Title III.) Section 303 (d) (3) requires facility owners and operators to provide to the local emergency planning committee whatever information is necessary for developing and implementing the plan.

When there is a release of a chemical identified by Title III of SARA, a facility owner or operator, or a transporter of the chemical, must notify the community emergency coordinator for the emergency planning committee for each area likely to be affected by the release, and the State emergency response commission of any State likely to be affected by the release. (This Title III requirement does not replace the legal requirement to notify the National Response Center for releases of CERCLA Section 103 hazardous substances.)

Each emergency planning committee is to prepare an emergency plan by October 1988 and review it annually. The committee also evaluates the need for resources to develop, implement, and exercise the emergency plan; and makes recommendations with respect to additional needed resources and how to provide them. Each emergency plan must include: facilities and transportation routes related to specific chemicals; response procedures of facilities, and local emergency and medical personnel; the names of community and facility emergency coordinators; procedures for notifying officials and the public in the event of a release; methods for detecting a release and identifying areas and populations at risk; a description of emergency equipment and facilities in the community and at specified fixed facilities; evacuation plans; training programs; and

schedules for exercising the emergency plan. (These plan requirements are listed in greater detail in Chapter 5.) The completed plan is to be reviewed by the State emergency response commission and, at the request of the local emergency planning committee, may be reviewed by the Federal Regional Response Team.

(Note: Many local jurisdictions already have emergency plans for various types of hazards. These plans may only require modification to meet emergency plan requirements in Title III of SARA.)

Finally, with regard to planning, Title III of SARA requires the NRT to publish guidance for the preparation and implementation of emergency plans. This Hazardous Materials Emergency Planning Guide is intended to fulfill this requirement. Other Title III provisions supporting emergency planning are discussed in Appendix A.

### ➤ C. Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) established a framework for the proper management and disposal of all wastes. The Hazardous and Solid Waste Amendments of 1984 (HSWA) expanded the scope of the law and placed increased emphasis on waste reduction, corrective action, and treatment of hazardous wastes.

Under Subtitle C of RCRA, EPA identifies hazardous wastes, both generically and by listing specific wastes and industrial process waste streams; develops standards and regulations for proper management of hazardous wastes by the generator and transporter, which include a manifest that accompanies waste shipments; and develops standards for the treatment, storage, and disposal of the wastes. These standards are generally implemented through permits which are issued by EPA or an authorized State. To receive a permit, persons wishing to treat, store, or dispose of hazardous wastes are required to submit permit applications, which must include a characterization of the hazardous wastes to be handled at the facility, demonstration of compliance with standards and regulations that apply to the facility, and a contingency plan. There are required opportunities for public comment on the draft permits, through which local governments and the public may comment on the facility's contingency plan. It is important that local emergency response authorities be familiar with contingency plans of these facili-Coordination with local community ties. emergency response agencies is required by regulation (40 CFR 264.37), and EPA strongly encourages active community coordination of local response capabilities with facility plans.

When a community is preparing an emergency plan that includes underground storage tanks (containing either wastes or products), it should coordinate with EPA's Regional offices, the States, and local governments. Underground storage tanks are regulated under Subtitle C or I of RCRA.

#### ▶ D. FEMA Emergency Operations Plan Requirements

Planning requirements for jurisdictions receiving FEMA funds are set forth in 44 CFR Part 302, effective May 12, 1986. This regulation calls for States and local governments to prepare an emergency operations plan (EOP) which conforms with the requirements for plan content contained in FEMA's CPG 1-3, CPG 1-8, and CPG 1-8A. These State and local government EOPs must identify the available personnel, equipment, facilities, supplies, and other resources in the jurisdiction, and state the method or scheme for coordinated actions to be taken by individuals and government services in the event of natural, man-made (e.g., hazardous materials), and attack-related disasters.

#### ► E. OSHA Regulations

Occupational Safety and Health Administration regulations require employers involved in hazardous waste operations to develop and implement an emergency response plan for employees. The elements of this plan must include: (1) rec-

ognition of emergencies; (2) methods or procedures for alerting employees on site: (3) evacuation procedures and routes to places of refuge or safe distances away from the danger area; (4) means and methods for emergency medical treatment and first aid for employees; (5) the line of authority for employees; (6) on-site decontamination procedures: (7) site control means; and (8) methods for evaluating the plan. Employers whose employees will be responding to hazardous materials emergency incidents from their regular work location or duty station (e.g., a fire department, fire brigade, or emergency medical service) must also

have an emergency response plan. (See 29 CFR Part 1910.120.)

#### 1.4.2 State and Local Requirements

Many States have adopted individual laws and regulations that address local government involvement in hazardous materials. Local authorities should investigate State requirements and programs before they initiate preparedness and planning activities. Emergency plans should include consideration of any State or local community right—to—know laws. When these laws are more demanding than the Federal law, the State and local laws sometimes take precedence over the Federal law.

#### 1.5 Related Programs and Materials

Because emergency planning is a complex process involving a variety of issues and concerns, community planners should consult related public and private sector programs and materials. The following are selected examples of planning programs and materials that may be used in conjunction with this guide.

## 1.5.1 FEMA's Integrated Emergency Management System (CPG 1-8)

FEMA's Guide for Development of State and Local Emergency Operations Plans (CPG 1-8) provides information for emergency management planners and for State and local government officials about FEMA's concept of emergency operations planning under the Integrated Emergency Management System (IEMS). IEMS emphasizes the integration of planning to provide for all hazards discovered in a community's hazards identification process. CPG 1-8 provides extensive guidance in the coordination, development, review, validation, and revision of EOPs (see Section 4.2). (See page F-1 for FEMA's address and telephone number.)

This guide for hazardous materials emergency planning is deliberately meant to complement CPG 1-8. Chapter 4 describes how a community can incorporate

hazardous materials planning into an existing multi-hazard EOP, or how it can develop a multi-hazard EOP while addressing possible hazardous materials incidents. In either case, communities should obtain a copy of CPG 1-8 from FEMA and follow its guidance carefully. All communities, even those with sophisticated multi-hazard EOPs, should consult Chapter 5 of this guide to ensure adequate consideration of hazardous materials issues.

#### 1.5.2 EPA's Chemical Emergency Preparedness Program (CEPP)

In June 1985, EPA announced a comprehensive strategy to deal with planning for the problem of toxics released to the air. One section of this strategy, the Chemical Emergency Preparedness Program (CEPP), was designed to address accidental releases of acutely toxic chemicals. This program has two goals: to increase community awareness of chemical hazards and to enhance State and local emergency planning for dealing with chemical accidents. Many of the CEPP goals and objectives are included in Title III of SARA (see Section 1.4.1). CEPP materials (including technical guidance, criteria for identifying extremely hazardous substances, chemical profiles and list) are designed to complement this guidance and to help communities perform hazards identification and analysis as described in Chapter 3 of this guide. CEPP materials can be obtained by writing EPA. (See page F-1.)

#### 1.5.3 DOT Materials

The U.S. Department of Transportation's (DOT) Community Teamwork is a guide to help local communities develop a cost-effective hazardous materials transportation safety program. It discusses hazards assessment and risk analysis, the development of an emergency plan, enforcement, training, and legal authority for planning. Communities preparing an emergency plan for transportation-related hazards might use Community Teamwork in conjunction with this guide.

Lessons Learned is a report on seven hazardous materials safety planning projects funded by DOT. The projects included local plans for Memphis, Indianapolis, New Orleans, and Niagara County (NY); Regional plans for Puget Sound and the Oakland/San Francisco Bay Area; and a State plan for Massachusetts. The Lessons Learned report synthesizes the actual experiences of these projects during each phase of the planning process. A major conclusion of this study was that local political leadership and support from both the executive and legislative branches are important factors throughout the planning process. Chapter 2 of this guide incorporates portions of the experiences and conclusions from Lessons Learned.

DOT's Emergency Response Guidebook provides guidance for firefighters, police, and other emergency services personnel to help them protect themselves and the public during the initial minutes immediately following a hazardous materials incident. This widely used guidebook is keyed to the identification placards required by DOT regulations to be displayed prominently on vehicles transporting hazardous materials. All first responders should have copies of the Emergency Response Guidebook and know how to use it.

DOT has also published a four-volume guide for small towns and rural areas writing a hazardous materials emergency plan. DOT's objectives were to alert officials of those communities to the threat to life, property, and the environment from the transportation of hazardous materials, and to provide simplified guidance for those with little or no technical expertise. Titles of the volumes are: Volume 1. A Community Model for Handling Hazardous Materials Transportation Emergencies; Volume II, Risk Assessment Users Manual for Small Communities and Rural Areas; Volume III, Risk Assessment/Vulnerability Model Validation; and, Volume IV, Manual for Small Towns and Rural Areas to Develop a Hazardous Materials Emergency Plan. (See Page F-1 for DOT's address and telephone number.)

## 1.5.4 Chemical Manufacturers Association's Community Awareness and Emergency Response Program (CMA/CAER)

The Chemical Manufacturers Association's (CMA) Community Awareness and Emergency Response (CAER) program encourages chemical plant managers to take the initiative in cooperating with local communities to develop integrated emergency plans for responding to hazardous materials incidents. Because chemical industry representatives can be especially knowledgeable during the planning process, and because many chemical plant officials are willing and able to share equipment and personnel during response operations, community planners should seek out local CMA/CAER participants. Even if no such local initiative is in place, community planners can approach chemical plant managers or contact CMA and ask for assistance in the spirit of the CAER program.

Users of this general planning guide might also purchase and use the following three CMA/CAER publications: "Community Awareness and Emergency Response Program Handbook," "Site Emergency Response Planning," and "Community Emergency Response Exercise Program." (See Appendix E for CMA's address.)