Local Emergency Planning Committee

Executive Primer

September 2018

Table of Contents

About this Document iv
Record of Changes v
List of Acronyms vi
Introduction 1
What are LEPCs? 2
What are LEPCs Responsible For? 3
How are LEPCs Structured? 4
How are LEPCs Funded? 7
What are LEPC Roles in Emergency Planning? 8
What are EPCRA Facilities? 9
What are EPCRA Reporting Requirements? 10
How do LEPCs Evaluate Emergency Plans? 14
What are LEPC Roles in Training and Exercises? 14
What are LEPC Roles in Community Incident Response? 15
Conclusion 17
Notes 17

About this Document

This document was developed in 2018 for the Texas Department of Public Safety—Texas Division of Emergency Management (DPS—TDEM) using new content developed by the authors listed below, material from the 2006 edition of the Texas LEPC handbook, and other sources as indicated.

To cite this document, please use the following:

Trefz, B.A., and Bierling, D.H. *Local Emergency Planning Committee Executive Primer*. Produced by Texas A&M Transportation Institute for Texas Department of Public Safety, Division of Emergency Management. 2018.

The principal investigator was Dr. David Bierling, Research Scientist, Texas A&M Transportation Institute and Associate Director for Transportation and Environmental Hazards, Hazard Reduction & Recovery Center, Texas A&M University.

Representatives from the following LEPCs participated in an expert panel that provided input for development of this primer:

- Galveston County LEPC
- Gillespie County LEPC
- Grimes County LEPC
- Jasper—Newton—Sabine Counties LEPC
- Jefferson County LEPC
- Kaufman County LEPC
- Matagorda County LEPC
- Tyler County LEPC
- Wichita County LEPC

TDEM's Director was Chief W. Nim Kidd, TDEM Preparedness State Coordinator was Chuck Phinney, Preparedness Section Administrator was Bryan Becknell, and Hazards Unit Supervisor was Dan Borgeson.

All content in this document is in the public domain unless otherwise noted.
Publication of material was supported by U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration grant funds.

Record of Changes

Number	Date	Description	Initials

List of Acronyms

AAR	After Action Review
CAMEO	Computer−Aided Management of Emergency Operations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOT	Department of Transportation
DPS	Department of Public Safety
DSHS	Department of State Health Services
EMC	Emergency Management Coordinator
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency operations plan
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right−to−Know Act
EPD	Emergency Planning District
FEMA	Federal Emergency Management Agency
HMEP	Hazardous Materials Emergency Preparedness (grant program)
ICS	Incident Command System
IP	Improvement Plan
LEPC	Local Emergency Planning Committee
NIMS	National Incident Management System
NRF	National Response Framework
NRT	National Response Team
PHMSA	Pipeline and Hazardous Materials Safety Administration
RMP	Risk Management Plan
RTK	Right To Know
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety data sheet
SERC	State Emergency Response Commission
SOP	Standard Operating Procedure
TCEQ	Texas Commission on Environmental Quality
TGC	Texas Government Code
THIRA	Threat and hazard identification and risk assessment
TIFMAS	Texas Intrastate Fire Mutual Aid System
TOMA	Texas Open Meetings Act
TRI	Toxics Release Inventory
TTI	Texas A&M Transportation Institute

Introduction

The 2018 *Texas Local Emergency Management Planning Committee (LEPC) Guide* is an updated comprehensive guide for Texas LEPCs. It serves as an in−depth reference for those who want to understand more about policies, programs, and procedures that LEPCs can use to enhance their effectiveness and community resilience, from the small, rural LEPC revitalizing after many years of inactivity to the large, active LEPCs along the Texas Gulf Coast. Topics covered in the guide are listed in the table below.

Texas LEPC Guide Structure and Contents

Module	What It Covers
1	Introduction to EPCRA; guide to the guide
2	How LEPCs relate to the broader national emergency preparedness system
3	The basics behind how LEPCs are structured, how they operate and their legal requirements
4	Major reporting requirements (Tier II, TRI, RMP Plans)
5	Emergency Planning, Preparedness, Threat & Hazard Identification and Risk Analysis for communities and regulated facilities
6	Training, Exercises, After−Action Reviews, and Improvement Planning
7	How incident response can affect LEPC decisions and planning reviews
8	Funding a LEPC
9	Building a More Effective LEPC
10	Non−EPCRA Hazardous Materials, regulatory agencies and how they relate to LEPC functions
Appendices	Federal and state regulation, regulated facilities and hazardous materials, LEPC structure and membership, and other information of interest to LEPCs

This *Executive Primer* distills the guide down to essentials, providing an executive level summary of key topics and issues with general applicability. A panel of Texas LEPC experts helped select the topics for this primer. *It does not replace or serve as a substitute for the guide*, rather, it serves a different purpose as a basic introduction to LEPCs. This primer is intended primarily for the person who is new to LEPCs—maybe they were just elected or appointed to a position and have never heard of a LEPC before. It is also intended for LEPCs that are new to being active—maybe the LEPC has not met for a long time and the community is trying to get it going again.

The good news is, you are probably not starting from scratch. If you are new to an LEPC that has been active, it already has bylaws and processes under which it has been operating, and community members have been participating in it who

probably have some expertise in hazmat safety and are preparedness subject matter experts.

If your LEPC has been inactive, your jurisdiction probably has an emergency operations plan (EOP) that already addresses some of the key responsibilities of LEPCs, even if the EOP needs to be updated. You probably have at least one neighboring jurisdiction that does have an active LEPC that you can reach out to. Plus, you probably have at least some people in your community who are willing to help get your LEPC going again.

Note: Some content in this document, especially in sections covering LEPC responsibilities and structure, is incorporated directly from the 2006 version of the Texas LEPC handbook with little or no modification[1]. For readability, original and new materials are presented in the same font appearance and without quote designation.

What are LEPCs?

Very simply, LEPCs are groups that help protect their communities from hazardous materials (hazmat) incidents, emergencies, and disasters. They do this by leading emergency planning about what to do when something bad happens involving hazmat, and making sure the public has a right to know about hazmat exposure.

By law, every community is supposed to have a LEPC. In Texas, most LEPCs are designated at county levels, although some cover multiple counties, while others cover individual cities.

LEPCs should be made up of representatives from elected offices, agencies, industry, the media, and community groups and the public.

The Emergency Planning and Community Right to Know Act (EPCRA) requires that every community have a LEPC. In 1986, Congress passed EPCRA following the Union Carbide chemical disaster in Bhopal, India.[2], and the near−miss of a similar disaster in Institute, West Virginia. The two primary purposes of EPCRA were to:

- Encourage and support emergency planning for responding to chemical accidents (emergency planning — the EP in EPCRA), and
- Provide local governments and the public with information about possible chemical hazards present in their communities (community right to know — the CRA in EPCRA).

EPCRA created Local Emergency Planning Committees (LEPCs) and State Emergency Response Commissions (SERCs) to coordinate LEPC activity. EPCRA charged LEPCs and SERCs with four primary responsibilities[3]:

1) Prepare emergency plans to protect the public from chemical accidents.
2) Establish warning and evacuation procedures for the public.

3) Collect information used in the preparation of annual reports about the release of toxic chemicals.
4) Provide local governments and the public with information about hazardous chemicals and accidental releases in their communities.

Chemical safety legislation, LEPCs, and the way EPCRA works in Texas changed significantly after the West, Texas Disaster. Some important changes involved legislation and regulations. The *Texas LEPC Guide* discusses these many changes in detail. LEPCs need to know that EPCRA is not the only law dealing with hazmat and related emergency planning, reporting, and response. Hazmat incident reporting and response in Texas can vary depending on what spills, who spilled it, and where it spills. Multiple federal and state laws and regulations specify reporting and coordination requirements to specific agencies, LEPCs, fire departments, or the community or local government. Appendix A and Appendix B of the *Texas LEPC Guide* provide a more detailed explanation and a guide to many of the laws, regulations and other policy documents related to LEPCs, emergency management and hazardous materials.

Other important changes after the West disaster were a renewed focus and attention on LEPCs. Many county judges, city mayors, and emergency managers were contacted by investigative reporters following the West incident about whether their LEPC was active, and whether they could provide a copy of their LEPC meeting schedules and minutes. Those who were already active in fulfilling their responsibilities for chemical hazards planning and local right−to−know fared much better than those who were not in their treatment by the media and the court of public opinion. The information in this primer and the *Texas LEPC Guide* can help LEPCs and lead officials avoid that pain.

What are LEPCs Responsible For?

EPCRA establishes the LEPC as a local forum to discuss hazmat and chemical safety and emergency planning. LEPCs also provide local governments and the public with information about chemical hazards in their communities.

The major legal responsibilities of LEPCs are as follows. The citations are from EPCRA, Public Law 99−499. Each LEPC shall:

- Review local emergency management plans once a year, or more frequently as circumstances change in the community or as any facility may require (Section 303[a]).
- Make available each Safety Data Sheet (SDS), chemical list described in Section 311(a)(2) or Texas Tier II report, inventory form, toxic chemical release form, and follow−up emergency notice to the general public, consistent with Section 322, during normal working hours at a location designated by the LEPC (Section 324[a]).
- Establish procedures for receiving and processing requests from the public for information under Section 324, including Tier II information under Section 312; such procedures shall include the designation of an official to serve as

coordinator for information (Section 301[c]).

- Receive from each subject facility the name of a facility representative who will participate in the emergency planning process as a facility emergency coordinator (Section 303[d]).
- Receive from subject facilities information that has been requested by the LEPC and that is necessary for developing and implementing local chemical emergency plans. (Section 303[d]).
- Be informed by the community emergency coordinator of hazardous chemical releases reported by owners or operators of covered facilities (Section 304 [b][1][a]).
- Be given follow−up emergency notice information as soon as practical after a release, which requires the owner/operator to submit a notice (Section 304[c])
- Receive from the owner or operator of any facility a SDS for each such chemical (upon request of the LEPC or fire department), or a list of such chemicals as described in paragraph (2) (Section 311[a]).
- Upon request by any person, make available a SDS to the person in accordance with Section 324 (Section 311[a]).
- Receive from the owner or operator of each facility an emergency and hazardous chemical inventory form (Section 312[a]).
- Respond to a request for Tier II information under this paragraph no later than 45 days after the date of receipt of the request (Section 312[e]).

How are LEPCs Structured?

No two LEPCs are the same. They vary widely in funding, participation and the role they play in emergency preparedness. Consequently, their organizational structures also vary widely. Module 3 of the complete guide offers a complete examination. The following minimal requirements for LEPC structures adapt to many situations.

Bylaws

If your community has not had a LEPC meeting in a while, the community may need to begin again by establishing bylaws and rules or by reviewing the old ones. Rules or bylaws for the LEPC come from EPCRA, Section 301. Minimally, the bylaws should include provisions that address:

- Public notification of committee activities
- Public meetings to discuss the emergency plan
- Public comment and response to these comments
- Distribution of the emergency plan
- Election of officers

Sample LEPC bylaws are in Appendix C of the complete guide.

Membership

EPCRA requires that LEPC membership shall include representation from the following groups or organizations:

- Elected state and local officials
- Local law enforcement, civil defense/emergency management, firefighting, first aid, health, local environmental, hospital and transportation personnel
- Broadcast and print media
- Community groups
- Owners and operators of regulated facilities

A single member may represent more than one group or come from groups or organizations not listed. Likewise, organizations and groups may have more than one member in an LEPC. The only requirement for members is a willingness to volunteer by participating in the LEPC. In the case of local governmental organizations, local ordinance or agency policy could make participation mandatory from covered officials.

LEPC members do not have to have a hazmat background. Members can attend a hazmat awareness course or take online courses in emergency management to help prepare them for LEPC membership (Module 6 in the complete guide provides additional information).

LEPC membership is up to the local jurisdiction, though it must include representation from the groups defined in EPCRA. Many communities that struggle to maintain an effective LEPC complain of a lack of participation. The more emphasis local leaders and organizations put on LEPCs, the more facilities, groups, and public officials tend to participate. Active and growing LEPCs often have the public support and participation of local leaders and community representatives[4]. Growing or resurrected LEPCs find the participation of elected officials and departmental heads of key local agencies is vital to achieving success. *LEPCs look like grassroots organizations, but their success depends on interest and vocal support from the top down.*

Appointments

LEPCs must appoint (or elect from within the LEPC):

- A chairperson
- An information coordinator

Positions not required by law but still useful include:

- A vice chairperson
- A secretary−treasurer
- Chairpersons of standing committees

Module 3 and Appendix C of the complete guide provide sample position descriptions for all of these and other positions. Bylaws should specify the term of office. Bylaws should also specify if the position is by appointment or elected from within the LEPC and the corresponding process.

The *chairperson* can be any LEPC member. Although LEPCs frequently place their local emergency management coordinator (EMC) in this position, many of the most successful LEPCs do not have emergency management officials in this role since

one role of the LEPC is to advise the EMC.

EPCRA also requires the LEPC to appoint an *information coordinator*. The information coordinator's job is to process requests from the public for information under Section 324, including Tier II information under Section 312.

Involving individuals with expertise in LEPC−related fields as *at−large members* is also very effective. A great place to begin is by examining the functional roles in the Emergency Operations Center (EOC) and EOP and identify the organizations and individuals associated with them. These individuals do not have to be on official LEPC membership rosters.

In Texas, most LEPC jurisdictions correspond with that of an Emergency Planning District (EPD), usually a county or municipality. According to DPS−TDEM and the Texas Commission on Environmental Quality (TCEQ), the county judge, as the supervisor of the county/EPD, must concur with the LEPC membership selection and submit these nominations for final approval to the SERC.[5]

DPS−TDEM maintains LEPC membership data, and the state may provide this information to the public, industry, and federal agencies. LEPCs must keep their membership current and notify DPS−TDEM of all changes. Module 3 and Appendix D of the *Texas LEPC Guide* describe the process for updating LEPC membership lists.[6]

Subcommittees

Subcommittees allow members to specialize and facilitate LEPC efficiency, allowing LEPCs to work on several projects at once. The appointment of a subcommittee chairperson assigns specific project responsibility, while project deadlines set by the whole committee keep everyone on task. The number and type of subcommittees depend on the needs of the LEPC. Subcommittees form and disband as occasions arise, though standing subcommittees are useful for many functions, like membership or emergency plan reviews.

Subcommittee membership can include outside assistance or specially−created working groups. Subcommittees should use the expertise and resources available in both the community and industry. Larger LEPC subcommittee chairpersons may sit on an executive committee with the LEPC chairperson. That committee may meet separately from the whole LEPC.

Reasons for subcommittees include:

- Gathering and reviewing existing community and facility emergency plans.
- Coordinating emergency response capabilities of LEPC member organizations.
- Checking existing response equipment in the community.
- Identifying financial resources.
- Coordinating with other LEPCs and the SERC.
- Conducting a hazard analysis.
- Managing information and providing information to citizens.
- Providing information to facilities.

- Promoting public awareness of EPCRA, community chemical hazards and emergency response expected from the public.

For additional ideas and projects regarding subcommittees, see Module 3 of the complete guide and *Texas Hazardous Materials Preparedness Projects* for LEPCs.

Meetings

While EPCRA does not mandate LEPC meeting frequency, nor LEPC procedures, regularly scheduled meetings are essential. Circumstances frequently change, along with contact information and regular meetings keep everyone up to date. An orderly system like Robert's Rules works well for LEPC meetings and avoids having to spell out such procedures in LEPC bylaws, which can instead reference such rules.[7] Regular meetings offer the opportunity for the LEPC to broaden its role in the community, while a system of operations allows meetings to operate efficiently.

A LEPC meeting must comply with the requirements of the Texas Open Meetings Act (TOMA), and LEPCs should confer with their county or city attorney on the requirements of TOMA. Additional information about public information is available from the Texas Attorney General's Office in the Texas Public Information Act Handbook.[8] LEPCs should post public notice of their meetings on public bulletin boards or by other means at least 72 hours prior to any meeting.

A well−planned agenda is a valuable tool for conducting effective meetings. The agenda should identify specific issues for discussion at the meeting. If time constraints are a factor, assign each agenda item a time limit. Adhere to the time limit assigned for each issue. Send each committee member a copy of the agenda one to two weeks prior to the scheduled meeting.

Other ideas for energizing and improving LEPC meetings are in Module 9 of the *Texas LEPC Guide*, *Hazardous Materials Emergency Preparedness Projects for LEPCs*, and the 2009 EPA publication, Energize Your Local Emergency Planning Committee.[9]

How are LEPCs Funded?

Funding is the most frequently cited obstacles to maintaining an active and effective LEPC.[10] Most LEPCs are self−funded. The majority of LEPCs (almost 60 percent) have no operating budget and even fewer receive any form of direct funding.[11] Despite this, only 5.3 percent of respondents to the EPA's 2008 LEPC survey cited funding as a major factor for the success and effectiveness of their LEPC.[12]

Consequently, funding is beneficial but not a prerequisite for success. Rather, success often produces funding. When a LEPC has dedicated membership that includes both elected officials and government officials from supporting agencies, the effectiveness and outreach of a LEPC increases. The more effective the LEPC becomes, the more likely it is to garner direct and indirect funding and support.

Module 8 of the complete *Texas LEPC Guide* examines several funding models and

provides suggestions related to grant programs and fundraising activities to assist LEPCs in obtaining funds to pursue specific projects and meet preparedness goals.

What are LEPC Roles in Emergency Planning?

The LEPC is well−suited for implementing the whole −community approach of the National Preparedness System and National Response Framework (NRF).[13] The national system provides the general framework for local, state, and federal emergency planning and response structures. The functions outlined in the National Preparedness System and NRF go beyond the narrower focus of chemical safety in the original Emergency Planning and Community Right to Know Act (EPCRA) legislation and focus on a whole −community, all−hazards approach to emergency management and planning.

Studies by the EPA found that a significant number of active LEPCs include homeland security in their emergency planning, in accordance with EPA directives after 9/11, but also use an all−hazards approach to planning, in line with FEMA guidelines. LEPCs still have their regulatory requirements under the original EPCRA legislation but are also representative of the whole −community approach to emergency management. Using LEPCs in this role is an option for communities looking to implement the whole −community, all−hazards approach, especially communities with few EPCRA−regulated facilities.

While communities with a sizeable number of EPCRA regulated facilities may choose to maintain LEPC focus on chemical hazards and safety, whatever their approach, LEPCs serve as a coordinating whole community platform for local responders and emergency management and assist EPCRA facilities with their all−hazards risks and ways they can mitigate those risks. LEPCs should focus their efforts according to the needs of their community, *as long as the LEPC continues to meet their legal requirements under EPCRA and state law.*

The Texas Disaster Act (4 TGC § 418) governs emergency management planning in Texas. In Texas, the chief executive of a municipality and the county judge are responsible for emergency management within their respective jurisdictions. DPS−TDEM develops the planning standards for local and inter−jurisdictional emergency management plans under its authority granted by the Disaster Act and related regulation.

The Disaster Act requires every political subdivision in Texas to prepare local or inter−jurisdictional emergency management plans for all hazards. The sample planning templates and planning guide that DPS−TDEM provides include content that may satisfy EPCRA requirements (Section 303), if planners modify and adapt the templates to local jurisdictions, in accordance with the planning notes DPS−TDEM provides with the sample plans.[14] The DPS−TDEM templates and planning guide form the basis of nearly every local Emergency Operations Plan (EOP) in the state.[15] DPS−TDEM and FEMA both provide extensive resources for communities preparing and reviewing their EOPs.[16]

What are EPCRA Facilities?

Facilities regulated by EPCRA are those with regulated hazardous chemicals in quantities above thresholds established in regulations stored in fixed locations or part of a chemical process (see for 40 CFR 370 for a detailed description).

EPCRA requires that every regulated facility:

- Identify a facility emergency coordinator.
- Report hazardous materials inventories annually to the SERC, LEPC and local fire department (using the TCEQ Tier II reporting system).
- Provide safety data sheets, a list of hazardous chemicals and their amounts to the LEPC.
- Allow local fire departments to conduct an on−site inspection of facilities, and
- Provide annual reports of toxic chemicals released to the U.S. Environmental Protection Agency (EPA) through the Toxic Release Inventory Program.

LEPCs play a pivotal role in evaluating the hazards posed by chemical facilities. Forming a link between industry, government and the community is vital to threat and hazard identification and risk analysis (THIRA), emergency planning reviews, and plan updates. LEPCs serve as a focal point for information about hazmat emergency planning and the health and environmental risks facilities and hazmat transportation corridors pose to the community. Citizens expect the LEPC to reply to questions about chemical hazards because the LEPC is the knowledge repository for such topics in any community.

What are EPCRA Reporting Requirements?

EPCRA specifies two reports:

- Tier II reports (EPCRA § 311 and 312)
- Toxics release inventory reports (EPCRA § 313) (TRI), also known as Form R

Section 112(r) of the Clean Air Act established reporting and coordination requirements known as the Risk Management Program, which requires development of a Risk Management Plan (RMP), reported to EPA.[17]

These three reports (Tier II, TRI, and RMP) relate to each other but have different requirements for chemical facilities and are not the only reports required for some facilities. For example, the Occupational Safety and Health Act and Texas Right−to−Know (RTK) laws require entities to provide information about the chemicals they store and use, not just to employers but to local officials and entities such as the LEPC. Since 2015, certain fertilizer storage and production facilities must also register with the Texas Tier II reporting system, even though they are not subject to EPCRA.

Thus, different facilities have different reporting requirements depending on the regulation. Different reports may also fall under the purview of different agencies and may or may not require notification of the LEPC or local fire departments. Some information is reportable under all three programs. Understanding these differences and knowing how to obtain these reports is important. TCEQ offers a comparison of the reporting differences, with links to further information.[18]

With passage of Texas House Bill 942 in 2015, the Texas Legislature assigned the primary role in EPCRA regulation to TCEQ. Through this, TCEQ has taken on many of the roles previously held by the Texas Department of State Health Services (DSHS).[19] Because TCEQ is a member of the SERC/TEMC, when a facility or LEPC makes a report to TCEQ, that report constitutes a report to the SERC under the provisions of EPCRA.[20]

An examination of the various reports related to EPCRA and other legislation that impacts LEPCs is in Module 4 of the *Texas LEPC Guide*.

Tier II Reports

Tier II reports require EPCRA−regulated facilities to report significant quantities of certain hazardous materials above specified thresholds, maintained at fixed facilities, for emergency planning purposes.[21] Therefore, these reports fall under the emergency planning part of EPCRA. As noted below, the law requires *ongoing* reporting, beyond that of an annual report

Annual Tier II reports from facilities to TCEQ, the LEPC, and local fire department are typically due in March each year. In 2017, Tier II reports were submitted using the Tier2 Submit Software from EPA.[22] Implementation of a new Texas state online reporting system in 2017 was delayed due to Hurricane Harvey, with a planned rollout in 2018 for the 2019 reporting period. LEPCs can contact TCEQ for more

information regarding the new system for March 2019 reports.[23]

The three types of Tier II reports are:

Annual reports:

- Filed each year between January 1 and March 1
- Covers the previous calendar year

Initial reports:

- New hazardous chemicals or a new facility –report within 90 days
- New extremely hazardous substances –report within 60 days
- Ammonium nitrate used in fertilizer –report within 72 hours

Updated reports:

- Significant change related to a previously reported chemical –report within 90 days
- Ammonium nitrate used in fertilizer –report within 72 hours

A fee is required for annual and initial reporting, with a portion of the proceeds going toward an LEPC grant program.[24] The TCEQ Tier II page provides detailed information on Tier II reporting requirements and instructions for submission.[25] While facilities must also submit their Tier II reports to LEPCs and local fire departments, not all of them do. LEPCs requesting all Tier II reports for their jurisdiction can email Tier2Help@tceq.texas.gov. The EPA Tier II Forms and Instructions page provides more information and forms for Tier II reporting requirements from EPA.[26]

Ammonium nitrate reporting is a Texas–only requirement and not part of federal EPCRA requirements. According to the TCEQ Tier II reporting website, ammonium nitrate reporting only covers "ammonium salt of nitric acid that contains more than 33 percent nitrogen, one–half of which is the ammonium form and one half of which is the nitrate form. It does not include urea."[27]

Tier II information can be imported into the Computer–Aided Management of Emergency Operations (CAMEO) software system provided by EPA, free of charge.[28] LEPCs are highly encouraged to consider using CAMEO, as it allows the direct import of Tier II information submitted to TCEQ and contains powerful tools that the LEPC can used to better understand risks to their community. The EPA CAMEO Software Suite page allows download of the latest versions.[29]

For more suggestions and information on common Tier II reporting errors, see the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document.

The TCEQ Tier II program maintains updated contact information for fire departments and LEPCs to assist facilities in submitting reports. LEPCs must notify DPS–TDEM of their membership and contact information. They should also copy Tier2Help@tceq.texas.gov as the two agencies may not have the same information. LEPCs use TDEM Form 151 to report officially revitalized LEPCs and report any changes to membership, a copy of which is in Appendix D of the *Texas LEPC Guide*.[30]

How do LEPCs Evaluate Emergency Plans?

The EPCRA standard for community and facility Emergency Operations Plan (EOP) evaluation is NRT−1a Criteria for Review of Hazardous Materials Emergency Plans (May 1988), which, despite its age, remains an excellent tool for evaluating EOPs and preparedness. LEPCs should also evaluate plans against federal and state guidance.[31] The complete *Texas LEPC Guide* and *Hazardous Materials Emergency Preparedness Projects for LEPCs* both offer additional suggestions on reviewing facility plans and ideas for improving facility planning.

Evaluating and reviewing an EOP need not be an intensive, all−inclusive process. It is possible to evaluate many aspects of the local EOP separately. LEPCs and local jurisdictions may create a rolling schedule of EOP review by section. This breaks up the review process, forms a basis for more regular LEPC meetings and shares the workload, especially when divided among multiple subcommittees, agencies, and/or participating organizations.

Reviews should include information gleaned from exercises, incident and disaster response and other sources such as hazmat commodity flow studies. After−action reviews help capture information from exercises and incident responses. Module 6 of the *Texas LEPC Guide* contains more information.

DPS−TDEM administers the Hazardous Materials Emergency Preparedness (HMEP) grant program under the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (DOT−PHMSA), which provides funds to enhance the implementation of EPCRA.[32] HMEP provides grant funds for a variety of purposes, including training of local first responders and planning and preparedness activities such as conducting an EOP review against the NRT−1a criteria or evaluating hazmat transport risks through a commodity flow study. Modules 6 and 7 of the *Texas LEPC Guide* provide more information on the grant program. See also *Hazardous Materials Emergency Preparedness Projects for LEPC*.

What are LEPC Roles in Training and Exercises?

Training teaches, exercises practice, and plans are the template for that practice.

Training for LEPCs, emergency managers, facility workers and managers, first responders, and the community provides the basic knowledge required to operate in incident and disaster response. Exercises offer an opportunity to test and evaluate the participants' training and their plans and procedures.

The number of training opportunities at all levels is extensive. A comprehensive list of Texas training opportunities offered through TDEM is the PreparingTexas.org website. Module 6 of the *Texas LEPC Guide* covers other training opportunities that may be of interest to LEPC members.

As a venue where representatives of the whole community interface, LEPCs play a

critical role in coordinating training opportunities for others in their community and for LEPC member organizations. The same is true for exercises.

Exercises reveal gaps or offer validation of the effectiveness of a community's training, plans and procedures. LEPCs, in their review function of community and facility plans, learn from exercising those plans which training, plans and procedures work and which do not work and where participants may require additional training (and further exercises). Evaluating exercises is not a pass/fail test for those involved. Exercises allow organizations to discover what is working and what needs improvement or change.

LEPCs are a critical link for exercise participants to share lessons learned with other organizations, communities and groups to assist in improving their own preparedness. Exercises are collaborative learning experiences. They help to practice what is known and learn what is unknown. Exercises are an essential part of any comprehensive preparedness program to test and validate:

- Training
- Emergency Operations Plans (EOPs)
- Standard operating procedures (SOPs) and policies
- Equipment
- Facilities

All elements participating in an exercise should conduct after−action reviews (AARs) as soon as the exercise concludes. Each organization conducts an internal AAR following an exercise, looking to identify what worked and what did not within its organization during the exercise. Organizational leaders then share observations in a larger interagency or community AAR to discuss what happened where their organizations interface.

Based on these AARs, organizations and the community develop Improvement Plans (IP), defining measures and actions to improve performance or modify training, plans, procedures, equipment or facilities in pursuit of achieving the community's preparedness goal.

Following the process of review, evaluation and improvement, communities and organizations must conduct additional exercises, testing the improvements and looking for new areas to sustain or improve. Exercise, review and improvement are continuous and having a regular schedule of improvement, testing and re−evaluation is important. Personnel changes and priorities shift within a community. New equipment and procedures may need additional improvement or present entirely new problems.

What are LEPC Roles in Community Incident Response?

Community incident response occurs every day and most of those incident responses do not reach a level requiring activation of ICS and/or an EOC. Most are single−agency responses: police responding to a report of a criminal act or fire

departments and emergency medical services (EMS) responding to traffic accidents or medical assistance calls. Dispatchers and emergency services deal with these calls every shift and handle them according to agency and department standard operating procedures and policy. The Incident Command System is activated only when an incident grows in scope or complexity, or involves multiple agencies.

Response Process

Contrary to conceptions, community incident response does not begin with a 911 call but with the individual placing the 911 call. A whole− community approach to preparedness and response considers the actions taken by citizens, absent emergency services or prior to their arrival. These might include CPR or first aid, self−evacuation or other actions. Incident response begins at the point of the incident with those in the immediate vicinity. This is true for EPCRA facilities as well−facilities follow the procedures from their Emergency Action Plan or Emergency Response Plan at the point of the incident, prior to the arrival of emergency services.

From there, events can escalate depending on the incident. Some incidents, as noted, are routine and dealt with according to SOPs by a single agency or agencies used to working in cooperation (fire, police and EMS). Some facilities can handle small hazmat incidents using their own resources. When an incident, due to scope or complexity, exceeds the routine, then those agencies activate ICS and request additional support.

Initially, support comes from the same agencies involved in the response, so the request will be for more fire, police and EMS units to respond. When the scope or complexity of the incident exceeds their capabilities or requires resources they do not possess, these agencies make requests for mutual aid and additional support through an EOC, which usually activates in such circumstances (though not always).

In Texas, mayors and county judges are the local officials responsible for emergency management in their jurisdictions. Local EOCs are under their authority, under the direction of local emergency management coordinators, who manage local EOCs. Under the latest versions of the NRF and NIMS, EOCs are a fully integrated component of emergency response.[33]

Mutual Aid

Many jurisdictions have mutual aid agreements with neighboring jurisdictions that allow for sharing response resources and reimbursement for those resources. Some jurisdictions use these agreements so frequently that their use becomes routine.

In Texas, the Texas A&M Forest Service maintains the Texas Intrastate Fire Mutual Aid System (TIFMAS) as part of the Texas Interagency Coordination Center.[34] TIFMAS is a statewide opt−out program, meaning that it does not require a memorandum of understanding (MOU) or mutual aid agreement between jurisdictions to request assistance through the system. Local agencies can also

manage mutual aid agreements through the DPS–TDEM's preparingtexas.org portal.[35]

Conclusion

Texas is home to the largest concentration of oil, gas and chemical industry and the most extensive hazmat transportation network in the U.S. Because of this, Texas LEPCs play a critical role in whole community preparedness, emergency planning and response for chemical incidents and disasters. LEPCs in Texas fulfill the safety and preparedness goals of their communities, state and the nation.

Since the West, Texas disaster, the role of LEPCs and EPCRA in community safety has increased and their importance become more apparent and more visible. Some LEPCs go further than focusing strictly on chemicals and other hazardous materials, and assist their communities in all–hazards and other emergency planning and advising roles. No matter the role a LEPC assumes in its community, by meeting the regulatory requirements of EPCRA and state law, LEPCs embody the whole community approach to emergency management.

Notes

[1] Texas Department of Public Safety - Division of Emergency Management. Local Emergency Planning Committee (LEPC): A Primer for Local Planning for Hazardous Materials. July 2006.

[2] EPCRA is Title III of the Superfund Amendments and Reauthorization Act (SARA). SARA Title III is an alternate way of saying EPCRA but means the same thing.

[3] Module 3 of the LEPC Guide provides a more detailed examination of LEPC responsibilities.

[4] See Module 9 of the complete guide. See also Jill Templeton and Gary Kirk, "Factors Influencing the Activity and Perceived Effectiveness of Virginia Local Emergency Planning Committees (LEPCs)," Presentation, Midwest Political Science Association 2008 Conference; Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf; Robert Heath, Julie Bradshaw, and Jaesub Lee, "Leadership in the Risk Communication Infrastructure," *Journal of Public Relations Research* 14, no. 4 (2002):317-353; David J, Whitney and Michael K. Lindell, "Member Commitment and Participation in Local Emergency Planning Committees," Policy Studies Journal 28, no. 3 (2000):467–484; and Michael K. Lindell and Ronald W. Perry, "Community Innovation in Hazardous Materials Management: Progress in Implementing SARA Title III in the U.S.," *Journal of Hazardous Materials* 88 (2001): 169-194.

[5] There is no requirement in EPCRA or state law requiring LEPC to align with Emergency Planning Districts (EPD), which *are* defined by state law. There are several multijurisdictional LEPCs in Texas that cover multiple EPDs.

[6] While DPS-TDEM is responsible for the official list, TCEQ also maintains a database and list of LEPC and local emergency management contacts related to Tier II reports. LEPCS must report membership changes to DPS-TDEM. LEPCs should report contact information related to Tier II and related membership information to TCEQ to ensure they receive Tier II reports

from facilities in their jurisdiction. Note: Reporting to one does not necessarily mean the other receives the update. LEPCs should coordinate with both organizations, depending on the requirements and circumstances.

[7] Communities with established rules for public meetings in ordinance or bylaws may choose to reference them instead, especially if members have greater familiarity with those.

[8] Office of the Attorney General of Texas, *Public Information Act Handbook 2018*, www.texasattorneygeneral.gov/sites/default/files/2018-06/PIA_handbook_2018_0.pdf.

[9] Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.

[10] In the EPA LEPC survey, last conducted in 2008, funding 37.3 percent of respondents cited funding as the greatest obstacle to LEPC success, making it the number-one cited obstacle. See Environmental Protection Agency*, 2008 Nationwide Survey of Local Emergency Planning Committees*, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

[11] Environmental Protection Agency, *2008 Nationwide Survey of LEPCs,* https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

[12] Environmental Protection Agency, *2008 Nationwide Survey of LEPCs,* https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

[13] "National Preparedness System," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-system; and "National Response Framework, Third Edition," Federal Emergency Management Agency, last modified June 16, 2016, https://www.fema.gov/media-library/assets/documents/117791.

[14] A failure to sufficiently adapt and modify sample plans according to DPS-TDEM guidance is the most frequent problem found during reviews of local EOPs under the Hazardous Materials Emergency Preparedness (HMEP) program in Texas. For LEPCs, the most important Annex of the plan is Annex Q. Of the sample annexes, Annex Q requires some of the most significant modification to meet requirements.

[15] Currently, most plans in the state use the older sample plans provided by DPS-TDEM that organize the plan into a Basic Plan and various Functional and Hazard Specific Annexes. DPS-TDEM is currently reviewing these sample plans and modifying them to align with the Emergency Support Function Annexes and Core Capabilities of the National Preparedness System and National Response Framework. In coming years, many jurisdictions will engage in rewriting their plans according to the new guidelines.

[16] See the DPS-TDEM Emergency Planner's Toolkit at "The Planner's Toolkit," Texas Department of Public Safety-Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/plannerstoolkit.htm; and "Strategic and Operational Planning," Federal Emergency Management Agency, last modified July 26, 2018, https://www.fema.gov/plan.

[17] The RMP rule has undergone extensive revision and change in the last two years, LEPC members can stay abreast of the changes by visiting https://www.epa.gov/rmp.

[18] "Comparison of Tier II, TRI, and 112(r) Requirements ," Texas Commission on Environmental Quality, last modified June 22, 2018, https://www.tceq.texas.gov/assistance/resources/tierIIchart.html.

[19] For a complete examination of Tier II reports and reporting system see Module 4 of the complete guide.

[20] It does not, however, constitute a report to the LEPC or local fire department, though TCEQ can facilitate such reporting.

[21] The Consolidated List of Lists, which lists all chemicals subject to reporting requirements under EPCRA, the Comprehensive Environmental Response, Compensations and Liability Act (CERCLA), and Section 112(r) of the Clean Air Act is available from the EPA at https://www.epa.gov/epcra/consolidated-list-lists.

[22] "Step 3: Tier 2 Reporting Software," Texas Commission on Environmental Quality, last modified March 2, 2018, https://www.tceq.texas.gov/permitting/tier2/reporting-steps/reporting_software.html.

[23] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified May 16, 2018, https://www.tceq.texas.gov/permitting/tier2.

[24] "Texas Local Emergency Planning Committee (LEPC) Grant Program," Texas Commission on Environmental Quality, last modified July 3, 2018, https://www.tceq.texas.gov/response/security/LEPC_Grant. The first year of the new program authorized significant money to the grant program in a onetime, first year special program. After the first year, grant moneys constituted only a percentage of the fees collected and were significantly less. Most of the fees collected go to TCEQ for the costs to administer the Tier II reporting program, with a smaller portion to DSHS for some of its legacy operations related to EPCRA. The 2019 grant round, which opened July 3 and closed August 3, 2018, divided $200,000 among grant recipients. The collection and use of reporting fees vary from state to state and can also vary locally. In a few states, reporting fees directly fund LEPC operations, states divide the fees among the LEPCs for their annual budgets according to certain formulas (e.g. population or industry density).

[25] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified May 16, 2018, https://www.tceq.texas.gov/permitting/tier2.

[26] "Tier II Forms and Instructions," Environmental Protection Agency, last modified February 2, 2018, https://www.epa.gov/epcra/tier-ii-forms-and-instructions.

[27] "Step 1: Types of Tier II Reports and Timelines," Texas Commission on Environmental Quality, last modified May 18, 2018, https://www.tceq.texas.gov/permitting/tier2/reporting-steps/types-of-tier-ii-reports-and-timelines.

[28] "What is the CAMEO software suite?," Environmental Protection Agency, last modified October 17, 2017, https://www.epa.gov/cameo/what-cameo-software-suite.

[29] "What is the CAMEO software suite?," Environmental Protection Agency, last modified October 17, 2017, https://www.epa.gov/cameo/what-cameo-software-suite.

[30] "TDEM Form 151 - Local Emergency Planning Committee Membership Update Form," Texas Department of Public Safety – Division of Emergency Management, last updated September 2013, http://www.dps.texas.gov/internetforms/Forms/TDEM-151.pdf.

[31] National Response Team, *NRT-1A: Criteria for Review of Hazardous Materials Emergency Plans*, (Washington, DC: National Response Team, 1998), https://www.nrt.org/sites/2/files/nrt1a%201998.pdf.

[32] "Hazardous Materials Emergency Preparedness (HMEP) Grant Program," Texas

Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm; and "Hazardous Materials Grants Program," Pipeline and Hazardous Materials Safety Administration, last modified July 14, 2017, http://www.phmsa.dot.gov/hazmat/grants.

[33] The latest version of NIMS dated October 2017, devotes an entire portion to EOCs (section 3.2). See Module 7 of the complete Texas LEPC Guide and "National Incident Management System," Federal Emergency Management Agency, last modified June 11, 2018, https://www.fema.gov/national-incident-management-system.

[34] "Texas Intrastate Fire Mutual Aid System (TIFMAS)," Texas Interagency Coordination Center, last modified 2018, http://ticc.tamu.edu/response/TIFMAS.htm#index.html.

[35] Website, PreparingTexas.org, accessed July 30, 2018, https://www.preparingtexas.org/MAALandingPage.aspx.

Local Emergency Planning Committee Guide

Revitalizing and Improving Texas LEPCs for Local Preparedness

March 2019

About this Document

The Texas A&M Transportation Institute developed this document in 2018 and 2019 for the Texas Department of Public Safety – Texas Division of Emergency Management (TDEM) using new content developed by the authors listed below, material from the 2006 edition of the Texas Local Emergency Planning Committee (LEPC) handbook and other sources as indicated.

To cite this document, please use the following:

Trefz, B.A., Bierling, D.H., and Williams, F.A. *Local Emergency Planning Committee Guide: Revitalizing and Improving Texas LEPCs for Local Preparedness*. Produced by Texas A&M Transportation Institute for Texas Department of Public Safety, Division of Emergency Management. 2019.

The principal investigator was Dr. David Bierling, Research Scientist, Texas A&M Transportation Institute and Associate Director for Transportation and Environmental Hazards, Hazard Reduction and Recovery Center, Texas A&M University.

Representatives from the following LEPCs participated in an expert panel that provided input for this guide:

- Galveston County LEPC
- Gillespie County LEPC
- Grimes County LEPC
- Jasper-Newton-Sabine Counties LEPC
- Jefferson County LEPC
- Kaufman County LEPC
- Matagorda County LEPC
- Tyler County LEPC
- Wichita County LEPC

TDEM's Director was Chief W. Nim Kidd, TDEM Preparedness State Coordinator was Chuck Phinney, Preparedness Section Administrator was Bryan Becknell, and Hazards Unit Supervisor was Dan Borgeson.

All content in this document is in the public domain unless otherwise noted.
Publication of material was supported in part by U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration grant funds, along with matching funds from Texas A&M Transportation Institute.

Record of Changes

Number	Date	Description	Initials

List of Acronyms

AAPFCO	Association of American Plant Food Control Officials
AAR	After-Action Review
AEC	Atomic Energy Commission
AFG	Assistance to Firefighters Grant
AIP	Agreement in Principle
ALERT	Assistance for Local Emergency Response Training
ALOHA	Areal Locations of Hazardous Atmospheres
ARA	Agriculture Retailers Association
ATF	Bureau of Alcohol, Tobacco, Firearms and Explosives (also BATF)
ATSDR	Agency for Toxic Substances and Disease Registry
BIA	Business Impact Analysis
CAMEO	Computer-Aided Management of Emergency Operations
CBRN	Chemical, Biological, Radiological and Nuclear
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFP	CBRN Response Force Package
CERT	Community Emergency Response Team
CFATS	Chemical Facility Anti-Terrorism Standards
COSRP	Comprehensive Oil Spill Response Plan
CFR	Code of Federal Regulations
CNCS	Corporation for National and Community Service
CNG	Compressed Natural Gas
CPG	Comprehensive Preparedness Guides
DHS	Department of Homeland Security
DIR	Department of Information Resources
DoD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DPS	Department of Public Safety
DSHS	Department of State Health Services
DTRA	Defense Threat Reduction Agency
EAP	Emergency Action Plan
EHS	Extremely Hazardous Substance
EMAC	Emergency Management Assistance Compact
EMC	Emergency Management Coordinator
EMI	Emergency Management Institute
EMPG	Emergency Management Performance Grant
EMS	Emergency Medical Services
EO	Executive Order
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPD	Emergency Planning District
ER	Emergency Room

ERG	(North American) Emergency Response Guidebook
ERP	Emergency Response Plan
ESF	Emergency Support Function
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FRP	Facility Response Plan
GIS	Geographic information system
GLO	General Land Office
GPO	Government Printing Office
HAZWOPER	Hazardous Materials Waste Operations and Emergency Response
HB	House Bill
HHFT	High Hazard Flammable Train
HHS	(Department of) Health and Human Services
HMEP	Hazardous Materials Emergency Preparedness (grant program)
HMGP	Hazard Mitigation Grant Program
HMIT	Hazardous Materials Instructor Training
HSEEP	Homeland Security Exercise and Evaluation Program
HSGD	(Texas) Homeland Security Grants Division
HSGP	Homeland Security Grant Program
HSPD	Homeland Security Presidential Directive
IAFC	International Association of Fire Chiefs
IAFF	International Association of Fire Fighters
IAP	Incident Action Plan
ICP	Incident Command Post
ICS	Incident Command System
IP	Improvement Plan
IR	Infrared
LEPC	Local Emergency Planning Committee
LGR	Local Governments Reimbursement (program)
LNG	Liquefied natural gas
LO	Liaison Officer
LPG	Liquefied Petroleum Gas
MASS	Mutual Aid Support System
MOU	Memorandum of Understanding
MRC	Medical Reserve Corps
MSDS	Material Safety Data Sheet
MTSA	Maritime Transportation Security Act
NARP	Nuclear Weapon Accident Response Procedures
NEP	National Exercise Program
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NLE	National Level Exercise
NMAS	National Mutual Aid System
NNSA	National Nuclear Security Administration
NORM	Naturally Occurring Radioactive Material
NPMS	National Pipeline Mapping System
NRC	Nuclear Regulatory Commission
NRF	National Response Framework

NRG	Nuclear Weapon Incident Response Group
NRP	National Response Plan
NRT	National Response Team
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
OTG	Office of the Governor
OTSC	Office of the Texas State Chemist
PA	Public Assistance
PAHPA	Pandemic and All Hazards Preparedness Act
PDM	Pre-Disaster Mitigation (program)
PHEP	Public Health Emergency Preparedness
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIO	Public Information Officer
PL	Public law
PPD	Presidential Policy Directive
PSM	Process Safety Management
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
RRC	Railroad Commission (of Texas)
RTK	Right-To-Know
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SERC	State Emergency Response Commission
SIC	Standard Industrial Classification
SO	Safety Officer
SOP	Standard Operating Procedure
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCFP	Texas Commission on Fire Protection
TDEM	Texas Division of Emergency Management
TEMC	Texas Emergency Management Council
TEP	Training and Exercise Programs
TERC	Tribal Emergency Response Commission
TGC	Texas Government Code
THIRA	Threat and hazard identification and risk assessment
THSC	Texas Health and Safety Code
TIFMAS	Texas Intrastate Fire Mutual Aid System
TOMA	Texas Open Meetings Act
TRANSCAER	Transportation Community Awareness and Emergency Response
TRI	Toxics Release Inventory
TTI	Texas A&M Transportation Institute
TxDOT	Texas Department of Transportation
USC	U.S. Code
USCG	U.S. Coast Guard
VFD	Volunteer Fire Department
VIPS	Volunteers in Police Service

Table of Contents

Contents

About this Document ii
Record of Changes iii
List of Acronyms iv
Using this Guide 1
Module 1. Overview 1
Action Items for Modules 3
Module 1 Action Items 4
What could our LEPC be doing? 4
How can our LEPC do it? 4
Module 2. The National Preparedness System 1
Important Takeaways in Module 2 1
Introduction 1
The National Response Framework and the National Preparedness Goal 2
National Preparedness System 3
National Incident Management System 6
Federal Response Planning Relationship to LEPCs 7
Module 2 Action Items 10
What could our LEPC be doing? 10
How can our LEPC do it? 10
Module 3. LEPCs in Texas 1
Important Takeaways in Module 3 1
Introduction 1
Right-to-Know Requests and Public Information 4
LEPC Structure 5
Bylaws 5
Membership 6
Appointments 9
Subcommittees 10
LEPC Meetings 13
Administration 14

Primary LEPC Responsibilities 15
Additional LEPC Responsibilities 17
Module 3 Action Items 18
What could our LEPC be doing? 18
How can our LEPC do it? 18
Module 4. LEPCs, Regulatory Agencies and Reporting 1
Important Takeaways in Module 4 1
Introduction 1
Regulatory Agencies 2
Understanding Reporting Differences 3
Reports 3
Tier II Reports 3
Toxics Release Inventory Reports 6
Risk Management Plan Rule Reporting 7
Fertilizer Storage and Manufacturer Reports 10
Module 4 Action Items 14
What could our LEPC be doing? 14
How can our LEPC do it? 14
Module 5. Emergency Planning and Preparedness 1
Important Takeaways in Module 5 1
Introduction 1
Threat and Hazard Identification and Risk Analysis 2
Facility and Transportation Emergency Planning 3
Emergency Action Plans 4
Emergency Response Plans and Facility Response Plans 4
Risk Management Plans and the Risk Management Program 5
Community Emergency Planning 7
Federal Guidance 7
State Guidance 8
NASTTPO Guidance 8
Evaluating Your Plan 8
Module 5 Action Items 10
What could our LEPC be doing? 10

How can our LEPC do it? 10
Module 6. Training and Exercises 1
Important Takeaways in Module 6 1
Introduction 1
Training 3
FEMA and EMI Training Opportunities 4
Facility and First Responder Hazmat Training 6
First Responder Competency Standards 10
Hazardous Materials Emergency Preparedness Training Grants 11
Training at Texas A&M Engineering Extension Service 12
Community Training and Education 15
Other Training Opportunities of Interest to LEPCs 18
Exercises 19
Types of Exercises 20
Facility and Other Organizational Exercises 22
The Role of LEPCs in a Community Exercise Program 23
State and Federal Exercise Programs 24
After-Action Reviews and LEPCs 26
Improvement Plans 28
LEPC Role in After-Action Reviews and Improvement Planning 28
Module 6 Action Items 30
What could our LEPC be doing? 30
How can our LEPC do it? 30
Module 7. Response 1
Important Takeaways in Module 7 1
Introduction 1
Incident Command System 2
Command 3
Operations and Planning 6
Logistics 6
Finance and Administration 7
National Incident Management System 7

Facility Incident Response 8
Transportation Incident Response 9
Railway Hazardous Materials Incidents 10
Pipeline Incidents 11
Roadway Incidents 11
Transfer Incidents 12
Community Incident Response 13
Response Process 13
Mutual Aid 14
State Disaster Response 14
Federal Disaster Response 16
Module 7 Action Items 19
What could our LEPC be doing? 19
How can our LEPC do it? 19
Module 8. Funding 1
Important Takeaways in Module 8 1
Introduction 1
Funding Models 2
Texas Funding Sources for LEPCs 3
Texas Local Emergency Planning Committee Grant Program 4
Texas Rural Volunteer Fire Department Assistance Program 4
Texas Intrastate Fire Mutual Aid System Grant Assistance Program 4
Federal Grant and LEPC Project Funding Sources 5
Hazardous Materials Emergency Preparedness Planning Grants 5
Emergency Management Performance Grant Program 6
FEMA Firefighter Grant Programs 7
Pre-disaster Mitigation Program and Post-disaster Hazard Mitigation Grant Program 7
Homeland Security Grant Program 7
Local Funding Sources 8
Private-Sector Funding 8
Other Funding Sources 9
Reimbursement for Hazardous Materials Cleanup 9

Module 8 Action Items 12
What could our LEPC be doing? 12
How can our LEPC do it? 12
Module 9. Building a More Effective LEPC 1
Important Takeaways in Module 9 1
Introduction 1
LEPC Ingredients for Success 1
Measuring Effectiveness 5
Additional Resources and Projects 5
Module 9 Action Items 7
What could our LEPC be doing? 7
How can our LEPC do it? 7
Module 10. Other Hazardous Materials 1
Important Takeaways in Module 10 1
Introduction 1
Oil 2
State Oil Spill Responsibilities 2
Federal Oil Spill Responsibilities 3
The National Oil and Hazardous Substances Pollution Contingency Plan 4
Nuclear Material, Radiation and Radioactive Material 7
State Agencies and Regulation 7
Federal Agencies and Regulation 8
Module 10. Action Items 11
What could our LEPC be doing? 11
How can our LEPC do it? 11
Module 11. Conclusion 1
Module 12. Bibliography 1
After Action Reviews and Improvement Planning 1
Ammonium Nitrate 1
Contacts 2
Federal 2
State 2
Exercises 2

Facility, Private Sector, School, and Non-Profit Emergency Planning 3
Funding and Grant Programs 4
Hazardous Materials Safety 6
Hazardous Materials Transportation 6
Incident Response 7
LEPC Effectiveness 8
LEPC Organization and Authorization 10
Mutual Aid 11
Oil and Gas 11
Planning and Preparedness 12
Public Health 14
Radioactive Material 14
Risk Management Plan (RMP) Rule 15
Tier II Reporting 17
Toxic Release Inventory (TRI) 18
Training 18
Water and Aquifer Protection 21
Volunteers 21
Appendix A. Laws, Regulations, Policy, Guidance and Standards 1
Introduction 1
EPCRA Crosswalk of Statute, Code of Federal Regulations, U.S. Code Citation 4
Understanding the Legal Structure behind Chemical Safety and LEPCs 5
A Brief History of LEPCs and Chemical Safety 7
Hazardous Materials, Waste and Pollution Control 15
Comprehensive Environmental Response, Compensation, and Liability Act 15
Emergency Planning and Community Right-to-Know Act 15
Clean Air Act 17
EPA Risk Management Plan Rule Section 112(r) 17
Hazardous Materials Transportation Act 18
Clean Water Act 20
Executive Order 12856: Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements 20
Occupational Safety and Health Act 21
Executive Order 12196: Occupational Safety and Health Programs for Federal

Employees 22
Toxic Substances Control Act 22
Oil Pollution Act 23
Pollution Prevention Act 24
Surface Mining Control and Reclamation Act 24
National Environmental Policy Act 25
Federal Insecticide, Fungicide, and Rodenticide Act 25
Resource Conservation and Recovery Act 26
Safe Drinking Water Act 26
Executive Order 13650: Improving Chemical Facility Safety and Security 28
Emergency Management and Homeland Security 29
Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 29
National Emergencies Act 30
Homeland Security Act of 2002 (Public Law 107-296) 33
Emergency Management Assistance Compact (Public Law 104-321) 33
Presidential Policy Directive 8, National Preparedness, March 30, 2011 34
Homeland Security Presidential Directive 5 Management of Domestic Incidents 34
Presidential Policy Directive 21 Critical Infrastructure and Resilience (2013) 35
EO 13636: Improving Critical Infrastructure Cybersecurity 35
Ammonium Nitrate Storage Facilities 35
Ammonium Nitrate Security Program (Homeland Security Act) 36
Natural and Petroleum Gas 37
Natural Gas Act 37
Pipelines 39
Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 39
Protecting Our Infrastructure of Pipelines and Enhancing Safety Act 39
Nuclear Activities and Radioactive Material 40
Federal Agencies, Offices, Departments and Commissions 40
State Agencies 41
Legislation, Code and Regulations 43
Atomic Energy Act and Energy Reorganization Act of 1974 43

Nuclear Waste Policy Act 44
Low-Level Radioactive Waste Policy Act 45
Uranium Mill Tailings Radiation Control Act of 1978 45
Public Health and Etiological Threats 47
Public Health Service Act Section 319 47
Pandemic and All Hazards Preparedness Act (Public Law No. 109-417) 48
Pandemic and All-Hazards Preparedness Reauthorization Act (Public Law No. 113-5) 48
Public Readiness and Emergency Preparedness Act 49
HSPD-9 Defense of the U.S. Agriculture and Food 49
Appendix B. Facility Regulations 1
Emergency Planning and Community Right-to-Know Act 1
Related Texas Legislation 1
Occupational Safety and Health Administration Hazard Communication (HazCom) Standard 2
Related Texas Legislation 2
Risk Management Plan Rule 2
Final Amendments to the Risk Management Program Rule 3
Related Texas Regulation 3
Process Safety Management 3
Related Texas Regulation 5
Chemical Facility Anti-Terrorism Standards 5
Executive Order 13650 5
Texas Related Legislation 5
Oil Pollution Act 7
Related Texas Legislation 7
Appendix C. Sample LEPC Bylaws and Rules 1
Article I. Name and Purpose. 2
Section 1. Name. 2
Section 2. Purpose. 2
Article II. Membership. 3
Section 1. Qualification. 3
Section 2. Officers. 3

Section 3. Terms of Membership. 3
Section 4. Vacancies. 4
Section 5. Duties. 4
Section 6. Meetings. 4
Section 7. Quorum. 5
Article III. Officers. 5
Section 1. Enumeration of Officers. 5
Section 2. Nomination and Election of Officers. 5
Section 3. Term of Office. 6
Section 4. Chairperson. 6
Section 5. Vice-Chairperson. 6
Section 6. Secretary-Treasurer. 6
Section 7. Information Coordinator. 7
Article IV. Committees. 7
Section 1. Executive Committee. 7
Section 2. Standing Committees. 8
Section 3. Meetings. 8
Section 4. Chairperson of the Standing Committees. 9
Section 5. Membership of Standing Committees. 9
Section 6. Ad Hoc Committees. 9
Article V. Miscellaneous Provisions. 9
Section 1. Fiscal Year. 10
Section 2. Indebtedness. 10
Section 3. Approval of Bylaws. 10
Section 4. Disqualification. 10
Article VI. Amendments. 12
Section 1. Amendments. 12
Article VII. Rules. 12
Section 1. Adoption of Rules; Publication of Proposals. 12
Section 2. Method of Initiating Proposed Rulemaking. 13
Section 3. Method of Adopting Final Rules. 13

Section 4. Notice of Adoption. 13
Section 5. Emergency Rules. 13
Article VIII. Parliamentary Authority. 13
Section 1. Parliamentary Authority. 13
Attachment: County LEPC Final Rules 14
Final Rules 15
I. Definitions 15
II. Public Notification and General Participation 15
III. LEPC Participation in the Planning Process 15
IV. Public Access to Information 16
V. Trade Secrets 17
Appendix D. LEPC Membership Update Form 1
Appendix E. Google Earth KML Files and Tier2Submit 1
Guidance for KML Files 1
Steps to creating and viewing KML files 1
Appendix F. Common Radioactive Sources 1
Nondestructive Testing Service Vehicles 2
Radioisotope Tracking Pigs 3
Density Gauges 4
Radioactive Well Loggers 6
Radioactive Tracers and Taggers 7

Using this Guide

There is a LOT in this guide. Why? How do you even begin to use it?

This guide updates the *2006 Texas LEPC handbook* and includes changes over the past decade-plus in chemical transportation and facility safety and security, how LEPCs and emergency management organizations operate, the legal frameworks and requirements that could affect them and links to information sources and references, especially on the internet.

This guide is intended for LEPC officers, committees, and at-large members who want or need to dig deeper. Most will not need everything in it – focus on modules for the topics you want to know more about.

We asked a panel of Texas LEPC experts to help set priorities for the topics in this guide. The panel collectively rated each guide topic as Important or Extremely Important. Important topics addressed in the guide cover basics and key specifics about that topic, while Extremely Important topics received in-depth explanation and detail.

The guide is for LEPC officers, committees, and at-large members who want to dig deeper than "just the basics." Most users of this guide will not require everything in it, nor should they feel like they must read it start-to-finish, word-for-word. After reviewing Module 1, *focus on other modules for the topics you want to know more about, and leave the rest for later, if you need it.*

The authors used the panel's most highly-rated and important topics to compile the *Texas LEPC Executive Primer*, which is intended for readers who do need to know the basics about LEPCs. Another companion document, *Hazardous Materials Emergency Preparedness Projects for LEPCs*, outlines 17 projects that LEPCs can use to enhance planning for chemical hazards. These topics can also be used to engage LEPC members, stakeholders and communities.

Finally, this guide includes references to other information sources that we encourage readers to investigate. We drew from these sources and from our experiences through partnerships with:

- Dozens of LEPCs and their members from across Texas
- Other researchers from Texas A&M
- Practitioners from TDEM, TCEQ and other local, state, tribal and federal agencies
- Associations
- The private sector

We hope this guide helps you continue the important work you are doing to help make Texas communities safer and better. Thank you for all that you do.

Dr. David Bierling, Texas A&M Transportation Institute and Texas A&M Hazard Reduction & Recovery Center; and Brad Trefz, Texas A&M Transportation Institute

Module 1. Overview

In 1986, Congress passed the Emergency Planning and Community Right to Know Act (EPCRA) following the Union Carbide chemical disaster in Bhopal, India, and a similar near-miss disaster at Institute, West Virginia.[1] The two primary purposes of EPCRA were to

- encourage and support emergency planning for responding to chemical accidents (emergency planning–the EP in EPCRA), and
- provide local governments and the public with information about possible chemical hazards present in their communities (community right to know–the CRA in EPCRA).

EPCRA created Local Emergency Planning Committees (LEPCs) and State Emergency Response Commissions (SERCs) to coordinate LEPC activity, as well as Tribal Emergency Response Commissions (TERCs) for tribal lands. EPCRA charged LEPCs, SERCs, and TERCs with four primary responsibilities[2]:

1) Prepare emergency plans to protect the public from chemical accidents
2) Establish warning and evacuation procedures for the public
3) Receive information about the presence of and accidental releases of toxic chemicals in communities
4) Provide local governments and the public with information about hazardous chemicals and accidental releases in their communities

Since EPCRA, the passage of other laws such as the Stafford Act along with significant disaster events such as the terrorist attacks of September 11, 2001 , the BP Deepwater Horizon oil spill, and the West, Texas, fertilizer storage explosion have modified the landscape in which emergency planning and preparedness take place. Hazmat incidents remain a significant risk for many local communities. For example, there were more than 1,500 reported hazmat transport incidents across Texas in 2017.[3]

Every community must have an LEPC. LEPCs help protect communities from dangers of hazardous materials incidents during manufacture, use, storage, and transport.

LEPCs can also assist their communities with local all-hazards emergency planning and disaster preparedness.

Community leaders and emergency planning stakeholders need to know that:

- the law requires an LEPC for every community, and
- LEPCs can help the community better prepare for protecting people and the environment from hazmat spills or releases in transportation or from fixed facilities.

Because LEPCs include representation from diverse stakeholders and participants, they can also be a valuable resource for local emergency managers, response directors, and elected officials to facilitate all-hazards emergency planning and preparedness for the whole community.

This guide is for LEPC officers, committees, and at-large members who want to dig deeper than "just the basics." The modules in this guide explain how LEPCs fulfill their responsibilities and where they fit into the overall frameworks that define modern emergency planning, management, and response. Furthermore, these modules offer guidance on how to improve LEPC effectiveness, which is one of the goals of this document.

This guide contains a great deal of information. Most users will probably not need everything in it, nor should they feel they must read it start-to-finish, word-for-word. *After reviewing this Module, consult the other modules for the topics you want to know more about, and leave the other topics for later, if you need them.*

The table below lists the broad topics covered in each module.

1	Introduction to EPCRA; using the guide
2	How LEPCs relate to the broader national emergency preparedness system
3	The basics behind how LEPCs are structured, how they operate, and their legal requirements
4	Major reporting requirements, such asTier II chemical inventory reports, toxic release reporting, and risk management plans
5	Emergency planning, preparedness, threat & hazard identification and risk analysis for communities and regulated facilities
6	Training, exercises, after action reviews and improvement planning
7	How incident response can affect LEPC decisions and planning reviews
8	Funding an LEPC
9	Building a more effective LEPC
10	Non-EPCRA hazardous materials, regulatory agencies and how these materials and their regulation relate to LEPC functions
Appendices	Federal and state regulation, regulated facilities and hazardous materials, LEPC structure and membership, and other information of interest to LEPCs

The first step in understanding how LEPCs relate to the broader national emergency preparedness system, is explained in Module 2. Module 3 explains the basics of how LEPCs are structured, how they operate, and their legal requirements. Module 4 discusses the major reporting requirements, such as Tier II chemical inventory reports, toxic release reporting and risk management plans for LEPCs and their chemical hazards emergency planning stakeholders.

Module 5 discusses emergency planning and preparedness, including local threat/risk analyses of transportation and facility hazards, emergency planning and community emergency plans. Module 6 focuses on training and exercises, including

types of training and exercises that are available and the importance of after-action reviews. Module 7 discusses how incident response can affect LEPC decisions. Although LEPCs are emergency planning organizations and not response agencies, LEPC members must understand the overall response framework that is followed in major chemical emergencies and disasters and review plans according to those frameworks.

Module 8 examines funding, a significant issue for many LEPCs. Module 9 offers suggestions for building a more effective LEPC. Module 10 provides an overview of other hazardous materials not regulated under EPCRA, such as oil and radioactive materials, their associated regulatory agencies and why LEPCs need to understand them. The appendices cover federal and state legislation, regulations related to LEPCs, regulated facilities and hazardous materials, LEPC structure and membership and other information.

Action Items for Modules

Following each module is a list of action items and basic steps to implement those action items. The action items highlight key portions of the module and offer guidance for LEPCs looking to improve their effectiveness. The "How can our LEPC do it?" contains a series of steps, labeled Basic, Intermediate and Advanced.

The action items are offered as suggestions. LEPCs may have other priorities due to their specific circumstances. Before pursuing any action item or a new process, the LEPC should decide on its short-term and long-term goals based on the priorities of their community and the LEPC (See Module 3 Action Items for more information).

Initally, resurrected or small LEPCs may wish to focus on implementing the Basic level action items (Step 1). Alternatively, they may identify similar measures that meet local goals like those in the action items. LEPCs at this level should probably complete Basic level activities or similar goals before moving on to higher-level activities, unless a goal or priority for the LEPC dictates additional actions in the short term to address a significant deficiency or problem.

Larger or more established LEPCs may already meet some or all of the action items, especially at the Basic level. For them, the Intermediate and Advanced steps provide ways to build on what they are already doing, through a three-step process to move their operations to a higher level of effectiveness.

It can be a big challenge for any organization to do everything well, all at once. Most LEPCs can focus effectively only on a limited number of high-level improvement areas at any one time. To make things easier, successful LEPCs use permanent and temporary subcommittees and designated project teams to focus on improvements and action items whenever possible. These groups should meet separately and more often than regular LEPC meetings. The use of smaller groups made up of stakeholders that report to the LEPC committee is one of the most effective means to achieve organizational progress.

The following is an example of an action item related to material in the introduction and is also an example of the material at the end of each subsequent module.

Module 1 Action Items

What could our LEPC be doing?

- Scan the guidebook modules to identify two or three potential top-priority topics and areas for your LEPC to make improvements.

How can our LEPC do it?

- Step 1 (Basic): Set priorities–Review Module 3 of the guide and develop LEPC goals (see Module 3 Action Items).
- Step 2 (Intermediate): Determine courses of action–Compare your goals to the modules in this guide. Which modules, annexes, or suggested projects align most closely with your two or three top priority goals? Are they short-term or long-term goals?
- Step 3 (Advanced): Prepare and implement an improvement plan—having identified two or three priority goals (short- or long-term) and potential action items/modules that support improvements in those areas, develop a detailed improvement plan describing the measures your LEPC can take to achieve those goals using action items, projects, or other means. The plan might include how you will fund those goals (see Module 8 for funding ideas). Be sure to include the responsible parties/individuals (who), what projects/areas they are responsible for (what), dates for completion of specific actions (when), which goals the actions apply to (why) and the steps taken in each area (how). Use subcommittees or project teams to develop and implement each part of your plan.

---

[1] EPCRA is Title III of the Superfund Amendments and Reauthorization Act (SARA). SARA Title III is an alternate way of saying EPCRA but means the same thing.

[2] Module 3 provides a more detailed examination of LEPC responsibilities.

[3] "Incident Statistics," U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, last updated August 27, 2018, https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics.

Module 2. The National Preparedness System

Important Takeaways in Module 2

- By statute, Local Emergency Planning Committees are required to conduct planning for chemical hazards for their communities. By approaching local emergency planning from an all-hazards, whole community perspective, and using the guidance provided by the National Preparedness System and National Response Framework (NRF), LEPCs can play a significant and valuable role in every community—even those with few chemical hazards.
- The National Preparedness Goal combines the efforts of communities, states, and the federal government toward a common purpose.
- The National Preparedness System is the culmination of changes to emergency management since the terrorist attacks of September 11, 2001 (9/11) and consists of a six-step process of preparedness activities a community can use to achieve their part of the National Preparedness Goal.
- The NRF, which is part of the National Preparedness System, replaces the National Response Plan (NRP) and sets a common strategy and doctrine for how communities build, sustain and deliver core response capabilities.
- The National Incident Management System outlines how local, state and federal agencies coordinate disaster response. It consists of five preparedness mission goals that align with the NRF and National Preparedness System: prevention, protection, mitigation, response, and recovery.

Introduction

In 1986, Congress passed the Emergency Planning and Community Right to Know Act (EPCRA). The act required Local Emergency Planning Committees (LEPCs) to conduct emergency planning for chemical hazards at local levels for every jurisdiction and that they function as the conduit for enabling right-to-know about the presence of those hazards in the community. Hazmat emergencies and disasters at facilities and in transport are also among the range of hazards covered under all-hazards emergency management. Because of this range of hazards, it is important that LEPC members have a basic understanding of the modern emergency management framework, which is the focus of this module.

The way emergency management operates nationwide underwent significant change since EPCRA passed in 1986, especially over the past two decades. The professionalization of emergency management, the creation of the Department of Homeland Security (DHS) and its counterparts at state and local levels, and a renewed focus on improvement at the federal level following 9/11 and Hurricane Katrina fundamentally altered how emergency management works at all levels of government.

The most recent changes to emergency management, encompassed in the National Preparedness System, adopt a *whole community* approach to emergency management, preparedness and planning. These changes are focused on a common goal – the National Preparedness Goal.

> *The National Preparedness Goal is to have a secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to and recover from the threats and hazards that pose the greatest risk.*

In many ways this represents a full-circle for preparedness and planning, as the LEPC, created by EPCRA, *is* a whole community approach to emergency preparedness (covered further in Module 3), although originally focused specifically on chemical hazards. Subsequent, state and federal laws created a sort of "dual-track" emergency planning responsibility between emergency management and LEPCs when it came to chemical incident, emergency and disaster preparedness.

The trend since 2001 moves toward greater convergence. Following 9/11 and directives from EPA, many LEPCs across the nation incorporated an all-hazards approach into local emergency planning, not just planning for chemical emergencies. Likewise, emergency management increasingly focused on a whole community approach to emergency preparedness, with emphasis on community resiliency. Understanding the ways that LEPCs and emergency management communities in Texas can function together is critical to improving community preparedness and resilience, and for increasing LEPC effectiveness.

The National Response Framework and the National Preparedness Goal

Following 9/11, President George W. Bush issued presidential directives and executive orders, and Congress passed legislation creating new structures for the implementation of disaster and emergency planning and response, including the Department of Homeland Security (DHS) and the Transportation Security Agency (TSA). Homeland Security Presidential Directive 5, Management of Domestic Incidents, directed the development of a new National Response Plan (NRP).[1]

In 2008, the Federal Emergency Management Agency (FEMA) developed the NRF, which replaced the NRP.[2] The creation of the NRF drew from input by state and local emergency management organizations, and experiences from real-world disaster responses, especially Hurricane Katrina. The NRF was a significant improvement over the NRP and more closely aligned with the way states and local jurisdictions responded to disasters.

In 2011, Presidential Policy Directive 8 (PPD-8) National Preparedness created the National Preparedness Goal and National Preparedness System, adopted the whole community approach to emergency preparedness, and required an annual National

Preparedness Report. This effort consolidated and streamlined previous presidential directives and the DHS/FEMA preparedness system into a cohesive structure from the individual citizen up to the National Command Authority, all focused on the National Preparedness Goal.[3] The National Preparedness Goal is "A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to and recover from the threats and hazards that pose the greatest risk."

Figure 1 - Presidential Policy Directive 8 (2011)[4]

In 2016, FEMA again revised the NRF, based on feedbackfrom agencies across the U.S. and more recent disaster responses. The new NRF is part of the broader National Preparedness System focused on the whole community toward achieving the National Preparedness Goal.

National Preparedness System

According to FEMA, the National Preparedness System consists of the following six steps[5]:

1) **Identify and assess risk**. This step involves collecting historical and recent data on existing, potential and perceived threats and hazards. The results of these risk assessments form the basis for the remaining steps.
2) **Estimate capability requirements.** Next, planners determine the specific capabilities and activities to best address risks identified in the previous step. Some capabilities may already exist, and some may need to be built or improved. FEMA provides a list of core capabilities related to the five mission areas of preparedness: protection, prevention, mitigation, response and recovery.
3) **Build and sustain capabilities.** This step involves figuring out the best way to use limited resources to build capabilities. Planners use the risk assessment to prioritize resources to address the highest-probability or consequence threats.
4) **Plan to deliver capabilities.** Because preparedness efforts involve and affect the whole community, it is important to coordinate community plans with other organizations. This includes all parts of the whole community: individuals,

businesses, nonprofits, community and faith-based groups, and all levels of government.

5) **Validate capabilities.** Planners must conduct activities to determine if community efforts are working as intended. Participating in exercises, simulations or other activities helps identify gaps in community plans and capabilities, and measures progress toward meeting community preparedness goals.
6) **Review and update.** It is important to regularly review and update all capabilities, resources and plans. Risks and resources evolve–and so should community preparedness efforts.

This National Preparedness System outlines an organized process for the whole community to move forward with its preparedness efforts to achieve the National the five preparedness mission areas–prevention, protection, mitigation, response and recovery—toward the goal of a secure and resilient nation.[6]

Figure 2 - The National Preparedness System

The NRF that replaced the NRP is part of the National Preparedness System. The NRF sets the strategy and doctrine for how the whole community builds, sustains

and delivers response core capabilities along with the other mission areas in the National Preparedness Goal. The current NRF reflects experiences and lessons learned from real-world incidents along with the implementation of the National Preparedness System.[7]

National Incident Management System

In 2004, the DHS implemented the National Incident Management System (NIMS). Like the NRP/NRF, it underwent subsequent revisions in 2008 and again in 2016–2017.

In 2005, compliance with NIMS became a condition for receiving federal preparedness assistance for state, local and tribal entities. NIMS incorporates and standardizes the Incident Command System (ICS) widely used by state and local responders and defines Emergency Operations Center (EOC) structures and Multiagency Coordination Groups. NIMS standardizes the operational systems at all levels of response, offering greater interoperability and a common framework for operations. The federal government and its legislation intended for NIMS to scale to all levels of incident response, from a local traffic incident to a major disaster or national emergency.

The current version of NIMS (dated October 17, 2017) aligns with the new NRF and includes all levels of government. Specifically, NIMS:

- Applies to a full spectrum of potential incidents, hazards and impacts, regardless of size, location or complexity
- Improves coordination and cooperation between public and private entities in a variety of incident management activities
- Provides a common standard for overall incident management[8]

According to FEMA, NIMS offers a consistent nationwide approach that enables government at all levels (federal, tribal, state and local), the private sector and non-governmental organizations to work together to prepare for, prevent, respond to, recover from, and mitigate incidents, regardless of the cause, size, location or complexity.

The National Preparedness System and Response Framework are the "what," and the National Incident Management System is the "how" of emergency and disaster response and coordination.

If the National Preparedness System and Response Framework are the "what," NIMS is the "how" of emergency and disaster response and coordination. NIMS consists of five components, forming a comprehensive incident management system that aligns with the National Preparedness System and NRF. The five components are:

- Preparedness
- Communications and Information Management
- Resource Management
- Command and Management
- Ongoing Management and Maintenance

Federal Response Planning Relationship to LEPCs

The LEPC makes an ideal venue for the whole community approach of the National Preparedness System and NRF. Some of the functions outlined in the National Preparedness System and NRF can go beyond the narrower focus of chemical safety originally envisioned for LEPCs in EPCRA legislation. These adaptable roles are entirely compatible with the original mandate of a community-based approach to emergency management. The U.S. Environmental Protection Agency (EPA) recognized this in its 2008 survey of LEPCs. The EPA found that a considerable number of active LEPCs not only included homeland security in accordance with EPA directives in their emergency planning after 9/11, but also moved to an all-hazards approach to planning, keeping in line with other guidelines. [9]

The expanding role of LEPCs happened due to legislative and regulatory changes adopted after the West, Texas disaster. These changes suggest a merging of the ideas of LEPCs as envisioned by EPCRA and the emergency and disaster management system created by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). These two systems moved apart in 1988, but recent legislative, regulatory and policy changes point toward similar visions and goals that echo those of the original EPCRA mandate.

LEPCs still have regulatory requirements under the original EPCRA legislation. However, utilizing LEPCs beyond the narrower focus of the original legislation allows communities to implement the whole community approach to emergency and disaster preparedness without duplicating effort.

All states and many local communities adopted an all-hazards approach to community emergency and disaster planning after 1988 and the Stafford Act. While many LEPCs continue to focus on the hazards presented by chemical transportation and facilities (primarily those covered in Annex Q of current Texas emergency operations plan structures), nothing prevents an LEPC from being a whole community venue for broader all-hazards planning and preparedness. The two areas overlap in many significant ways.

The six steps of the National Preparedness System are:

1) Identify and assess risk
2) Estimate capability requirements
3) Build and sustain capabilities
4) Plan to deliver capabilities
5) Validate capabilities
6) Review and update

To implement the whole-community approach, some communities created new advisory committees, known as Emergency Management Advisory Councils, or other structures, resulting in an unnecessary duplication of effort. Using the LEPC as the whole community interface for emergency management is a particularly good fit for smaller or sparsely populated rural communities with few EPCRA-regulated facilities or with limited resources and/or population. LEPCs in expanded roles may meet the requireemsnts of a whole community approach to emergency management and the requirements of EPCRA. LEPCs should focus their efforts according to the needs of their community. *If the LEPC continues to meet*

their legal requirements under EPCRA and state law, either in and expanded whole community role or one narrowly-focused on chemical hazards, it meets regulatory requirements.

Even if a community has no EPCRA facilities, EPCRA-regulated materials likely move through that community by road, rail, pipeline, or waterway. Many communities in Texas also have oil or gas related exploration and extraction activity that falls within the interest of the LEPC even if EPCRA does not regulate the activity.

Larger communities, or those with major hazmat transport corridors or a sizeable number of EPCRA-regulated facilities, may wish to keep their LEPCs' focus on chemical hazards and safety. That does not mean they should ignore an all-hazards, whole community approach. Rather, those LEPCs can apply the whole community approach to chemical hazards posed by transportation and regulated facilities. For example, instead of only focusing on risks to the community from facility or transport hazmat accidents, LEPCs might work with facilities and transportation carriers on coordinating plans for hurricanes, inland flooding and power failures. LEPCs may also serve as a coordinating whole community platform for local and emergency management responders regarding all-hazards risks and ways that facilities and carriers can mitigate those risks.

An all-hazards approach includes the chemical hazards covered by EPCRA. EPA has already given similar guidance for incorporating anti-terrorism/homeland security planning into LEPCs after 9/11. EPA's LEPC surveys also suggest that an all-hazards approach is increasingly becoming the focus for most active LEPCs. In addition, many of the issues associated with planning for chemical hazards relate to other hazards. For example:

- The warning requirements under EPCRA and the Risk Management Plan (RMP) Rule are applicable to a variety of hazards including weather.
- Shelter-in-place and evacuation planning may work for hazardous materials releases and other hazards such as hurricanes and inland flooding.

LEPCs can function as true local emergency planning committees from an all-hazards, whole community perspective by using the guidance provided by the National Preparedness System and the NRF and can play a significant and valuable role in every community–even those with few chemical hazards. State and federal legal and regulatory trends since the West, Texas disaster increase the role and value of LEPCs in emergency planning and preparedness, expanding the role of the Tier II reporting system beyond that originally established under EPCRA. For example, the state of Texas recently expanded the Tier II system to include fertilizer facilities such as those involved in the West disaster. At the federal level, EPA and Occupational Safety and Health Administration (OSHA) regulatory changes and guidance, especially those associated with RMP amendments, suggest that LEPCs and facilities become more involved in community emergency planning and coordination.

LEPCs that adopt innovative approaches to their changing roles position themselves for the future. For emergency managers trying to implement a whole community

approach, LEPCs offer a solution that meets both the EPCRA requirements and avoids duplication in their whole community efforts. The all-hazards, whole community approach is especially well-suited to jurisdictions with limited chemical activity and in areas with previously inactive or low-activity LEPCs. Jurisdictions with established LEPCs and major transportation routes or high concentrations of chemical industry already incorporate aspects of the all-hazards approach into their operations or focuse on issues unique to their community.

An LEPC's primary purpose is that defined for it by law under the EPCRA statute, regardless of the approach and functions it chooses to implement. That is the focus of this guide. Readers should keep the ideas of the NRF and the all-hazards, whole community approach in mind as they proceed, looking for ways to align their LEPC with the National Preparedness System, working toward the National Preparedness Goal.

Module 2 Action Items

What could our LEPC be doing?

- Make sure that plans incorporate the latest FEMA guidance on the NRF, National Preparedness System and NIMS.
- Incorporate all-hazards planning into transportation, facility, or community plans.
- Identify and implement ways the LEPC can serve as a part of a whole community emergency management program.

How can our LEPC do it?

FEMA Guidance

- Step 1 (Basic): At your next LEPC meeting, 15 minutes to discussing and explaining the changes to NIMS and provide information to members on how to complete training and obtain more information.
- Step 2 (Intermediate): Encourage hazardous materials transportation carriers, facilities and LEPC members to complete the latest FEMA Independent Study courses on NIMS and provide them with registration information.
- Step 3 (Advanced): Have the LEPC sponsor a classroom NIMS training course via preparingtexas.org for the community and invite hazmat transportion carriers, facilities, and community emergency response organizations to participate.

All-Hazards Planning

- Step 1 (Basic): Brainstorm ways that the LEPC can assist the community, hazmat transportation carriers, and facilities in all-hazards planning and plan reviews.
- Step 2 (Intermediate): Sponsor a training course/meeting with hazmat transportation carriers and facilities during which community planners discuss ways to adopt an all-hazards approach to their emergency planning.
- Step 3 (Advanced): Create an LEPC business emergency planning mentorship program for hazmat transportation carriers, facilities, and LEPC members.

Whole Community Emergency Management

- Step 1 (Basic): Hold an LEPC "principals" meeting with the local emergency management agency to discuss ways in which the LEPC can serve as a whole community forum for the local emergency management organization.
- Step 2 (Intermediate): Hold an LEPC meeting to discuss ways to incorporate other community groups like citizens' advisory councils and representatives from these organizations into the LEPC membership. Discuss the results of the principals' meeting with local emergency management.
- Step 3 (Advanced): Develop and conduct, in concert with local facilities and hazmat transportation carriers, a chemical emergency "shelter in place/evacuation" training and information program for local Citizen's

Emergency Response Teams (CERT), Neighborhood Watches, and similar volunteer organizations (this effort may build on existing efforts in the community).

---

[1] Federal Emergency Management Agency, *Comprehensive Planning Guide (CPG) 101 – Developing and Maintaining Emergency Operations Plans*, last modified November 1, 2010, https://www.fema.gov/media-library/assets/documents/25975 .

[2] Department of Homeland Security, Federal Emergency Management Agency, *National Response Framework*, Third Edition (Washington, DC: Government Printing Office, 2016), https://www.fema.gov/media-library/assets/documents/117791.

[3] "National Preparedness Goal," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-goal.

[4] Image source: Federal Emergency Management Agency, "Course Summary," *Independent Study 0235.c – Emergency Planning*, accessed September 18, 2018, https://emilms.fema.gov/IS0235c/EPsummary.htm.

[5] "National Preparedness System," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-system.

[6] "National Preparedness System," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-system.

[7] Department of Homeland Security, Federal Emergency Management Agency, "Introduction," in *National Response Framework*, Third Edition (Washington, DC: Government Printing Office, 2016), https://www.fema.gov/media-library/assets/documents/117791; See also "National Preparedness System," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-system.

[8] This section and the following section adapted from "National Incident Management System," Federal Emergency Management Agency, last modified June 11, 2018, https://www.fema.gov/national-incident-management-system.

[9] Environmental Protection Agency, 2008 Nationwide Survey of Local Emergency Planning Committees (LEPCs) Final Report, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

Module 3. LEPCs in Texas

Important Takeaways in Module 3

- The primary role of the Local Emergency Planning Committee (LEPC) is to communicate and work in conjunction with the government, community, hazmat transportion carriers and industries on enhancing community preparedness for chemical hazards.
- In Texas, LEPCs aid their jurisdiction in creating and revising the community Emergency Operations Plan (EOP) and coordinate, advise and assist facilities in their emergency planning.
- LEPCs must create procedures for receiving and processing requests from the public for information about chemical hazards. They have 45 days from the receipt of a request to provide information, including requests for Tier II information.
- While membership, bylaws, and appointments can all vary depending on an LEPC's requirements, Emergency Planning and Community Right-to-Know Act (EPCRA) defines the leadership roles and membership groups that are required for LEPCs.

Note: Some content in this module, especially in sections discussing LEPC structure and responsibilities, is from the 2006 version of the Texas LEPC handbook with little or no modification[1]. For readability, original and new materials are presented in the same font appearance and without quotation designation.

Introduction

LEPCs are local organizations where the government, the community and industry partners such as transportation carriers and fixed facilities come together to enhance community planning and preparedness for and enable the community's right to know about the presence of chemical hazards. LEPCs function as an information exchange channel for the private sector, the local community, and the state and federal agencies responsible for regulating hazardous materials. LEPCs can speak with one voice for a community on issues related to the Emergency Planning and Community Right to Know Act (EPCRA) and hazardous materials. LEPCs also provide a model and potential environment for a whole community, all-hazards approach to emergency management, preparedness and planning.

Under EPCRA, LEPCs operate at local levels, usually counties and cities in Texas. State Emergency Response Commissions (SERCs) are their counterparts at state levels. According to Executive Order GA-05 from the Texas Governor's Office[2], the SERC for Texas consists of 12 state agencies. These agencies are members of the larger Texas Emergency Management Council which convenes in the state Emergency Operations Center (EOC) when activated by the governor and the Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM) during a disaster or an emergency.

Texas State Emergency Response Commission (SERC)

Texas A&M Agrilife Extension Service

Texas A&M Extension Service

Texas A&M Forest Service

Texas Animal Health Commission

Texas Commission on Environmental Quality

Texas Department of Agriculture

Texas Department of Public Safety

Texas Department of State Health Services

Texas Department of Transportation

Texas Division of Emergency Management

Texas Military Department

Texas Parks and Wildlife Department

Since the passage of House Bill 942 in 2015 by the Texas Legislature, the Texas Commission on Environmental Quality (TCEQ) assumed a greater role in EPCRA regulation at the state level, taking over responsibility for reporting under the Tier II systema role previously held by the Texas Department of State Health Services (DSHS).[3] Because TCEQ is a member of the SERC/TEMC, when a facility or LEPC makes a report to TCEQ (discussed further in Module 4), that report constitutes a report to the SERC under the provisions of EPCRA.

The Texas Disaster Act (4 Texas Government Code [TGC] § 418) governs emergency management planning in Texas.[4] In Texas, the mayor of a municipality and the county judge are the emergency management directors within their respective jurisdictions. DPS-TDEM develops the planning standards for local and inter-jurisdictional emergency plans used statewide by the authority in TGC (4 TGC §418). State law requires every political subdivision in Texas to prepare local or inter-jurisdictional emergency plans for all hazards. The sample planning templates and planning guide that DPS-TDEM provides form the basis of nearly every local Emergency Operations Plan (EOP) in the state. These templates include content that may satisfy EPCRA requirements (under Section 303), if local jurisdictions sufficiently modify and adapt the templates according to the planning notes DPS-

TDEM provides with its sample plans. Specifically, meeting the requirements of EPCRA requires a local EOP to include:

- The Basic Plan
- Annex A: Warning
- Annex C: Shelter and Mass Care
- Annex E: Evacuation
- Annex I: Public Information
- Annex M: Resource Management
- Annex Q: Hazmat Response

Every jurisdiction in Texas should already have a plan that includes these and other annexes that DPS-TDEM requires or recommends. These days, LEPCs in Texas do not write EOPs, as EPCRA originally envisioned, but they assist their jurisdictions with reviewing and improving their existing community plans, especially as they relate to hazardous materials in the community. In most jurisdictions, many LEPC members, as well as their state counterparts in the SERC/TEMC, also fulfill emergency management roles in the local EOC or are members of organizations that respond to hazmat incidents.

Communities looking to reinstate an inactive LEPC may find their EOC is an excellent place to start looking for members. Organizational representatives in an EOC fulfill different essential functions. For many organizations, their unique functions and roles correspond to an annex of the jurisdictional EOP. Additionally, the representatives in most EOCs correspond to many of the types of LEPC members that are required by EPCRA, with the addition of industry, media, and community group representatives. Just as the SERC/TEMC serves dual roles, an EOC and its representatives can serve in a similar function for the community LEPC if it meets the other membership requirements under EPCRA.

Many of the required members for an LEPC who are not currently present in many EOCs might make useful additions to those EOCs. For example, having community representatives or liaisons from hazmat transportation carriers and industrial facilities, community groups, or the LEPCwithin an EOC can prove valuable in a major incident or disaster.

The following are examples of how LEPCs can coordinate events and activities with other existing local emergency planning, management, and response actions:

- LEPC meetings can coincide with EOC events such as training, exercises or after-action reviews.
- In jurisdictions where political representation is engaged in the process, LEPC meetings can follow other meetings or events where that representation already gathers.

A little creativity and opportunity seeking can help make LEPC meetings happen in places where they have not taken place in some time.

As part of emergency planning efforts, before initial planning and during planning reviews at periodic intervals, local emergency management planners and

communities should conduct a threat and hazard identification and risk assessment (THIRA).[5] Part of this process includes addressing hazardous materials and critical infrastructure. This analysis helps with the planning for hazmat incident response contained within the local emergency management plan and annexes. Industry and transportation representatives need to be a part of the THIRA to assist in the identification of risks. Incorporating representatives into the emergency management planning process ensures that facility and transportation emergency plans are compatible with local emergency plans, a requirement of many different hazardous materials regulations.

LEPCs can play a pivotal role in evaluating the hazards in a community. LEPCs form a link between industry, government and the community. That link is vital to threat and risk analysis and emergency planning reviews and updates for hazardous materials. LEPCs and facilities need to be aware of what is required of them under the law and expected of them in emergency plans.

EPCRA requires that every regulated facility:

- Identify a facility emergency coordinator
- Report hazardous materials inventories annually to the SERC, LEPC and local fire department (using the TCEQ Tier II reporting system and through direct coordination)
- Provide safety data sheets, a list of hazardous chemicals and their amounts to the LEPC
- Allow local fire departments to conduct on-site inspection of facilities
- Provide information needed for emergency planning to LEPCs upon request
- Provide annual reports to the U.S. Environmental Protection Agency (EPA) about toxic chemicals that were released, by way of the Toxic Release Inventory Program

In addition to its formal duties, the LEPC serves as a focal point in the community for information and discussions about hazardous substance emergency planning and health and environmental risks.[6] Citizens expect the LEPC to reply to questions about chemical hazards and risk management actions because the LEPC is the designated knowledge repository about hazardous materials in a community.

Right-to-Know Requests and Public Information

EPCRA is more than 30 years old, and it has both emergency planning and community right-to-know requirements. The public uses the right-to-know aspects of the law much less than was originally anticipated. Security concerns after the attacks of September 11, 2001 and the continuing threat of terrorism further complicate right-to-know alignment.. LEPCs must still fulfill the role of enabling community right-to-know about chemical hazards, but the actual amount of effort involved for the majority of LEPCs is often minimal because the number of requests

is typically small.[7] Many LEPCs seldom receive a request for information under the right-to-know provisions.

Still, LEPCs must have procedures for receiving and processing requests from the public for information under EPCRA right-to-know provisions (Section 324). Under EPCRA regulations, LEPCs have 45 days from the receipt of a request to provide information, including requests for Tier II information under Section 312 of the law.

The security issues related to chemical hazard information sharing with the public are controversial topics. The EPA considers the statute and current guidance clear as to the requirements. However, the requirements do not specify the administrative procedures for making such requirests. As a result, several jurisdictions and states have also implemented procedures that attempted to balance security concerns against the right to know provisions of the law after September 11, 2001. Such measures included removing Tier II information from the internet and instituting requirements that individuals requesting information under the provisions of the law make their requests in person.[8] No matter the procedures implemented by an LEPC or community related to right to know, they must comply with the current statutes at the federal and state level.

The Texas Attorney General's Office issued a ruling in February 2016 related to Tier II reports and the Texas Public Information Act (5 TGC § 552) following a request for clarification from the TCEQ.[9] This ruling allowed the TCEQ to maintain the confidentiality of some information related to the Tier II reporting system, without affecting other right-to-know legislation and regulations, including requests directly to a facility. The document issued by the Texas Attorney General's Office provides more information.[10] The TCEQ Laws and Regulations: Tier II Chemical Reporting page has other recent information related to right-to-know.[11]

LEPC Structure

No two LEPCs are the same. LEPCs varying widely in funding, participation and roles. Consequently, their organizational structures can also vary widely. The following minimal requirements adapt to many LEPC structures.

Bylaws

If your community has not had an LEPC meeting in a while, the community may need to begin again by establishing bylaws and rules or by reviewing the old ones.[12] The requirement for LEPC rules or bylaws comes from EPCRA, Section 301. Minimally, they should include provisions that address the following:

- Public notification of committee activities
- Public meetings to discuss the emergency plan
- Public comments and responses to these comments
- Distribution of the emergency plan
- Election of officers

Bylaws are important because they set the framework under which the LEPC conducts its official business. A template of LEPC bylaws is included in Appendix C

from the *2006 Texas LEPC handbook*, and annotated with additional considerations that might be applicable, depending on an LEPC's situation. Because each LEPC has its own unique characteristics, each LEPC should make sure their bylaws are not simply a copy-paste of a template, but rather a carefully examined and executed document that meets the needs of the LEPC and the community. Consult legal counsel regarding bylaw and rule preparation and consider using a good internet search tool to identify and obtain bylaws of other LEPCs, and adapt them to what works best for your community.[13]

Membership

EPCRA requires that LEPC membership shall include representatives from the following groups or organizations:

- Elected state and local officials
- Local law enforcement, civil defense/emergency management, firefighters, first aid, health, local environmental, hospital and transportation personnel
- Broadcast and print media
- Community groups
- Owners and operators of regulated facilities

Figure 3 (below) displays a diagram of LEPC minimum membership requirements as specified by EPCRA. A single member could represent more than one of these groups or come from groups or organizations not listed. Likewise, a group may have more than one member in an LEPC. The primary requirement for members is a willingness to volunteer by participating in the LEPC. Local ordinance or agency policy can make local governmental organization participation mandatory for some officials. An essential ingredient for active participation in an LEPC, especially for local agencies and industry, begins with support for the LEPC from elected officials, which makes their membership one of the critical keys to LEPC success.[14]

Many communities also find that retired public officials and long-serving local business leaders or industry executives and managers make great LEPC officers, members, and volunteers. Even the most active members do not need to have a background in hazardous materials management. These members can attend a hazardous materials awareness course or take online courses in emergency management to help prepare them for LEPC membership (Module 6 provides additional information).

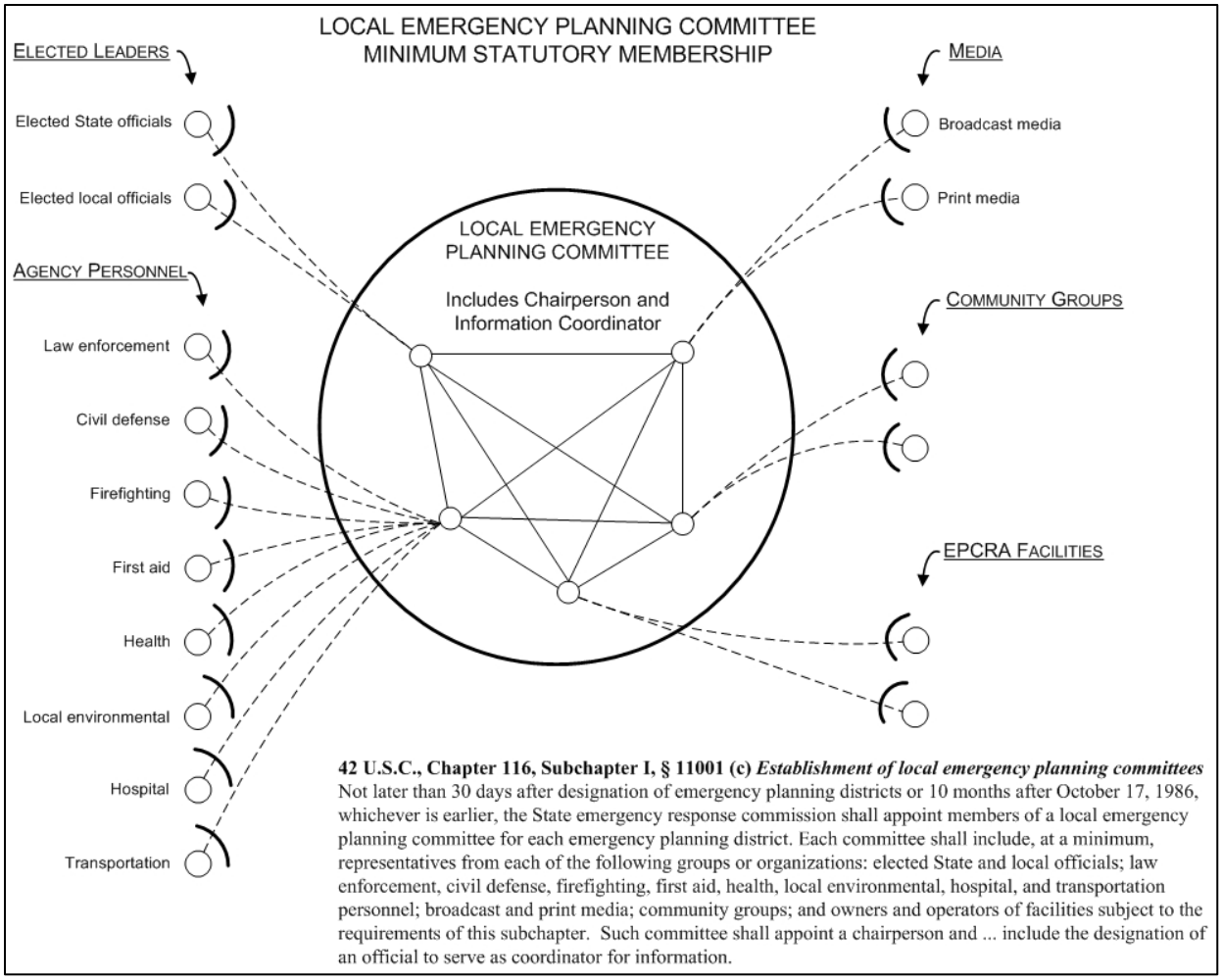


Figure 3 Local Emergency Planning Committee minimum statutory membership[15]

Engaging the community can enhance membership of your LEPC. Project 2.3 in the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document discusses ways that LEPCs may enhance their engagement through outreach to community groups, including groups that may not be traditional partners of governmental agencies and industry. For example, participation of environmental groups in an LEPC often improves LEPC effectiveness and community support, alleviating some environmental groups' concerns about industry through increased contact, knowledge and participation in chemical safety activities. Likewise, industry benefits from environmental group participation through improved relations and communications. Collaborative participation can improve industry compliance and separate "bad actors" in industry from those who are good neighbors and participate in the LEPC and its processes. Knowledge of the other, in both cases, usually improves relations. [16]

Despite the requirements of EPCRA, many LEPCs struggle with getting media representation on their committees. Media is an important partner that can help get the word out when something terrible happens and lives are at risk. Media representatives also provide expertise on communications and warning messaging.

Media can also help enhance publicity about the good work the LEPC is doing. Some LEPCs or their stakeholder groups might have concerns about including media on the committee, when the topics covered by the committee include those that could result in negative publicity or security risks to the public if disclosed through a news story. Working with trusted local media partners can help address those concerns or develop trust if those relationships do not currently exist. Media membership on an LEPC is a requirement under EPCRA, not an option, and when LEPCs develop positive relationships with local media the benefits often outweigh any perceived risks.

Law enforcement may have suggestions about who in the media the LEPC can engage with for representation. Many local law enforcement agencies already communicate with their local media about aspects of on-going cases that should not be, and are not published, but help provide media representatives with the background they need to get the story right. Responsible journalists do not want to make things easier for the "bad guys."

Meeting with senior media leadership such as a general manager or veteran editor or publisher in local print, radio, or TV outlets can also help build trust and participation. Media leaders are often long-time residents of communities who have an interest in and a good understanding of issues related to safety and security of their communities. Media executives do not want to unnecessarily upset community members and have different perspectives than a more junior person who may lack such experience.

Senior leaders can also set boundaries and are accountable for who from their organization might participate in an LEPC, how they would participate and what is publicly reported. It also helps to have an up-front conversation about purpose and ground rules, which may include a letter of understanding between the LEPC and participating media outlets about roles and expectations, including confidentiality.[17] LEPCs may also wish to address these aspects in their committee rules or bylaws. Remember, LEPC meetings fall under open-government statutes, so the public has a right to know about LEPC business, and the media is how that often happens. It is better to have the media work with the LEPC than against it.

LEPC membership is dependent upon the local jurisdiction, though it must include representation from the groups defined in EPCRA. As noted previously, many different community members can contribute to LEPCs. Communities that struggle to maintain an effective LEPC complain of a lack of participation in their LEPCs, often blaming industry. While successful LEPCs note the usefulness of creative outreach to EPCRA-regulated industry, other industry such as transportation carriers, non-EPCRA fixed facilities and non-traditional groups, they primarily cite the support of local elected officials and agency/departmental leadership as the key to growing and maintaining an LEPC.[18] Research studies of LEPC success also note the importance of community leaders, especially elected officials, to LEPC success.[19] The more emphasis local leaders and organizations put on LEPCs, the more facilities, hazmat transportation carriers, community groups, and public officials tend to participate. Without local leadership, LEPCs often struggle, while

active and growing LEPCs often have strong public support and the visible and active participation of local leaders and community representatives.

Appointments

LEPCs must appoint (or elect from within the LEPC):

- A chairperson
- An information coordinator

Positions not required by law which are still useful include:

- A vice chairperson
- A secretary-treasurer
- Chairpersons of standing committees

Appendix C provides sample position descriptions for these optional positions.

The term of office may vary in length according to the needs of each LEPC. Bylaws should specify:

- The term of office
- The election process
- Whether the position is by appointment or elected from within the LEPC

The *chairperson* can be any LEPC member. Although LEPCs frequently list their local emergency management coordinator (EMC) in this position, many successful LEPCs do not have emergency management officials in this role since a critical function of the LEPC is to advise the EMC. Some LEPCs choose political leaders as their chair; others select persons from emergency management, environmental groups, industry or civic organizations.

Some principal factors to consider in choosing a chairperson are the person's willingness, availability, credibility, management skills, commitment to the program, and respect from and for other LEPC members and the community. Growing or resurrected LEPCs often find that the participation of elected officials and departmental heads of key local agencies is vital to achieving success. *LEPCs look like grassroots organizations, but their success also depends on interest and vocal support from local leaders.*

EPCRA also requires the LEPC to appoint an *information coordinator*. The information coordinator's job is to process requests from the public for information as specified under Section 324 and Tier II information under Section 312 (see section on LEPC responsibilities below). The information coordinator can also assist other committee members by providing information necessary to complete planning reviews or evaluate Tier II reporting. While this position may sound onerous, it is often not. Studies show the number of public requests in most jurisdictions is either small or nonexistent. TCEQ may also be able to assist in supporting such requests.

Involving individuals with expertise in areas of LEPC concern as *at-large members* is also highly effective. Again, a place to begin is by examining the functional roles in the EOC and as designated in the EOP, and identifying the organizations and

individuals associated with them. At-large members can expand the LEPC knowledge base significantly. These individuals do not have to be on official LEPC membership rosters, but may be if the bylaws permit them to, especially if they live outside the area.

In Texas, most LEPC jurisdictions correspond with those of an Emergency Planning District (EPD), usually a county or municipality. State law defines EPDs. Therefore, for most LEPCs, the county judge, as the supervisor of the county/EPD, must concur with the LEPC membership selection and submit these nominations for final approval to the SERC. EPCRA does not require that each LEPC align to a single EPD and there are several multijurisdictional LEPCs in Texas.

DPS-TDEM, the executive agent for the SERC, maintains records of the official LEPC membership lists. The state may provide this information to the public, industry, federal agencies or other states. LEPCs must keep their membership current and must notify DPS-TDEM of all membership changes. Appendix D provides information about updating LEPC membership.[20]

Subcommittees

Dividing efforts among subcommittees eases planning, workflow and data management. Subcommittees allow members to specialize and help LEPC business move forward more quickly because the LEPC can work on several projects at one time. The appointment of a subcommittee chairperson can help work progress efficiently, as does the implementation of deadlines.

The number and type of subcommittees that an LEPC creates depends solely on the needs of the LEPC and its members. Subcommittees form and disband as occasions arise, though some communities may find standing subcommittees useful for some functions. Subcommittees should use the expertise and resources of both community and industry. Subcommittees can include specially formed working groups or members from outside of the organization. Larger LEPC subcommittee chairpersons may sit on an executive committee with the LEPC chairperson. The executive committee may meet separately from the LEPC for certain organizational business and/or to facilitate LEPC operations.

Reasons for forming subcommittees include:

- Gathering and reviewing existing community and facility emergency plans annually
- Coordinating emergency response capabilities and resources of LEPC member organizations
- Checking operational status of existing response equipment in the community
- Identifying and tracking financial resources
- Coordinating with other LEPCs and the SERC
- Conducting a transportation or fixed facility hazard analysis
- Managing information and providing information for citizens
- Providing information to facilities
- Promoting public awareness of EPCRA, community chemical hazards and

emergency response actions that planners expect the public to perform independently (shelter in place, evacuation routes, first aid, etc.)

Suggested subcommittees for the LEPC to consider are (LEPCs may combine or reassign the listed subcommittees and their responsibilities) are:

An *Executive Subcommittee* whose responsibilities may include:

- Being familiar with local, state and federal laws that impact the hazmat emergency planning process
- Developing long-term goals for the LEPC
- Attending to LEPC member needs
- Reviewing terms of current LEPC members and soliciting volunteers to fill vacancies
- Developing LEPC timetables for other subcommittees

A *Planning Subcommittee* whose responsibilities may include:

- Developing and assisting with the revision of the hazardous material response portion of the EOP (Annex Q in most EOPs)
- Establishing a methodology for vulnerability zone determination
- Reviewing the site-specific Hazmat Response Plans submitted by each facility with reportable quantities of Extremely Hazardous Substances (EHS)
- Reviewing the LEPC annual plan against goals and objectives

A *Public Information Subcommittee* whose responsibilities may include:

- Writing and publishing public notices
- Establishing information storage and retrieval systems
- Performing citizen/neighborhood outreach to inform them of current plans and other available information

A *Training and Exercise Subcommittee* whose responsibilities may include:

- Conducting a training needs assessment
- Requesting grant funding to provide for training needs
- Coordinating training programs
- Establishing an exercise schedule
- Developing locally-relevant exercise scenarios for transportation and fixed facility incidents

Once the LEPC completes its assessment and forms basic subcommittees, it may create additional subcommittees to respond to expanding needs or ideas generated from the LEPC membership. Following are some examples for additional subcommittees.

A *Resource Development Subcommittee* whose responsibilities may include:

- Researching community resources for emergency response (e.g., types of equipment, facilities and available expertise)
- Maintaining a current LEPC resource inventory
- Identifying alternative resources upon which the community may draw in times of emergency or disaster

- Identifying other volunteer(s) or in-kind assistance (e.g., private sources, such as local businesses/industry, non-profit agencies, etc.) to use for different responses

An *Emergency Response Subcommittee* whose responsibilities may include:

- Developing emergency response procedures in conjunction with local government personnel used for hazmat responses
- Educating LEPC members and stakeholders about the local Incident Command System procedures to reinforce and coordinate local government emergency response
- Evaluating local National Incident Management System compliance
- Evaluating communications interoperability

A *Finance Subcommittee* whose responsibilities may include:

- Managing the LEPC budget
- Examining sources of LEPC funds and recommending uses
- Working with other subcommittees to apply for planning and training grants

A *Business/Industry Outreach Subcommittee* whose responsibilities may include:

- Developing initiatives that encourage participation by commercial businesses, hazmat transportation carriers, and industrial facilities that operate in the community
- Reviewing Chemical Safety Board reports and videos, identifying incident root causes applicable to facilities operating in the community and the risk of similar hazmat incidents in the community, developing preparedness activities to mitigate such risks, and presenting such findings to the full LEPC at meetings.
- Establishing trade secret protection procedures, in conjunction with the Executive and Public Information Subcommittees

A *Transportation Subcommittee* whose responsibilities may include:

- Coordinating with and conducting outreach to hazardous materials carriers including pipelines, railroads, and roadway transporters
- Conducting, reviewing, and developing actionable recommendations from hazmat commodity flow studies or other projects from the HMEP grant program
- Advising and assisting planners and conducting LEPC planning reviews in transportation-related issues
- Reviewing National Transportation Safety Board reports and videos, identifying incident root causes applicable to carriers operating in the community and the risk of similar hazmat incidents in the community, developing preparedness activities to mitigate such risks, and presenting such findings to the full LEPC at meetings.
- Preparing a contact list of hazmat carriers' associated response contractors other organizations that may respond in the event of a transportation incident
- Evaluating mutual aid agreements, contracts, and plans for capability gaps in hazmat response and cleanup
- Working with community legal counsel to determine the community's course of

action when the responsible party for a spill refuses to meet their obligations under the law

For additional ideas and projects regarding subcommittees, see Emergency Planning and Response Support Project 5 in the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document.

LEPC Meetings

EPCRA does not mandate how frequently an LEPC should meet, nor how it should operate when it meets. However, to keep the LEPC functioning effectively, regularly scheduled meetings that address diverse issues and work toward progress on key concerns are essential. Circumstances can often change, along with key phone numbers and contacts and regular meetings keep everyone up to date.

An orderly system for conducting meetings, including meeting agendas and a system of order like Robert's Rules, is suited to most organizations like an LEPC. Referencing an existing system also avoids having to spell out procedures in LEPC bylaws. Regular meetings offer the opportunity for the LEPC to broaden its role in the community, while a system of operation allows those meetings to operate efficiently.

An LEPC meeting must comply with the requirements of the Texas Open Meetings Act (TOMA) and LEPCs should confer with their county or city attorney on the requirements of TOMA, as appropriate. Additional information about public information is available from the Texas Attorney General's Office in its Public Information Act Handbook.[21]

Meetings should follow an organized format. Therefore, a well-planned agenda is a valuable tool for conducting effective meetings. The agenda should identify specific issues for discussion at the meeting. If time constraints are a factor, assign each agenda item a time limit.

Send each committee member, if possible, a copy of the agenda one to two weeks before the scheduled meeting. Additionally, send any information pertinent to the upcoming meeting along with the agenda. This allows members to prepare themselves for the meeting in advance, resulting in more productive meetings.

All meetings of the LEPC or any subcommittee should be open to the public, except under necessary circumstances and where TOMA permits otherwise. LEPCs should post public notice of these meetings on public bulletin boards or by other means at least 72 hours prior to the meeting.

In emergencies declared by the chairperson and confirmed by a majority of the LEPC in attendance at an emergency meeting, waivers to the 72-hour notice must accord with TOMA Section 3A(h). The chairperson shall afford a reasonable period at the beginning of each regular meeting to accept oral public comments on any aspect of the LEPC's function. It is crucial that LEPCs maintain membership rosters that are accurate and include only *official* members. In addition to reviewing membership rosters regularly, LEPCs should also examine or include in their bylaws

rules regarding organizational procedures and concerning voting and non-voting members (active or inactive) of the LEPC.

While LEPCs should strive to establish a regular meeting schedule, LEPCs can also benefit from moving meetings to different locations and times. Changing venues and meeting days/times can increase the number of individuals available to attend an LEPC meeting. The goal is not 100 percent attendance but 100 percent participation from organizations required under EPCRA to participate in an LEPC.

Some local industries host LEPC meetings at their facilities and follow the meeting with a tour of site operations. Such off-site meetings are an opportunity to familiarize LEPC committee members with businesses and industry in the community. Other venues that offer familiarization opportunities include hospitals, schools, and fire, police, and emergency management facilities.

Additional ideas for energizing and improving LEPC meetings are in Module 9, the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document, and the 2009 EPA publication, Energize Your Local Emergency Planning Committee.[22]

Administration

One of the most vexing challenges some LEPCs face is administering a program with little or no budget and no fixed facility from which to work, causing many jurisdictions to find creative ways to fund and operate their LEPC. More discussion about LEPC funding is in Module 8. Federal and state laws also require LEPCs to respond to public inquiries about hazardous chemicals in their communities within a reasonable amount of time–no longer than 45 days. LEPCs have a legal obligation to provide information, no matter the amount of funding. LEPCs can most effectively meet these requirements through efficient record keeping and using suitable workspaces provided by government or industry members of the committee.

Workspace

Co-locating the LEPC with the jurisdiction's emergency management agency, local fire department or police department can be beneficial to each organization. LEPCs may find an EOC the best place to keep their records because some of the information could be useful in an emergency. Some of the required records are often present there anyway and such an arrangement avoids duplication.

Maintenance and Storage of Records

According to the EPA Region 6 LEPC Handbook and the state of Texas, LEPCs should keep the following records, at a minimum:

- A copy of local emergency management plans and pertinent annexes
- Safety Data Sheets (SDSs, formerly Material Safety Data Sheets) or information on where to obtain them
- Initial and follow-up hazardous chemical spill release reports
- Records and minutes of LEPC and committee meetings
- LEPC bylaws

- The LEPC membership list
- Texas Tier II reports for covered facilities

It is a good practice to occasionally review your records storage practices to make sure your LEPC's hard copy records will not suffer damage from water, fire, and natural hazards like flooding, and that electronic records are backed up in secure alternate and independent network or drive space.

EPCRA and federal law do not specify retention rules for LEPC records, but EPA notes such records may be subject to state or local retention rules. Therefore, EPA recommends discussing record retention with city or county attorneys prior to determining your specific LEPC's retention rules. EPA Region 6 offers guidance in the following table for record retention in cases where state or local rules are otherwise not applicable.[23]

For additional information about information requests and records maintenance, LEPCs should consult the relevant sources listed in Appendix A and the Texas Public Information Act, Title 5, TGC, Subtitle A–Open Government, Chapter 552 Public Information.[24]

Record	1 Year	2 Year	5 Year	Until Superseded	Until No Longer Useful
Local emergency plans and pertinent annexes				X	
SDS or information on how to obtain them				X	
Initial and follow-up hazardous chemical spill release reports			X		
LEPC bylaws				X	
Minutes of LEPC and subcommittee meetings					X
Tier II reports for covered facilities		X			
LEPC membership lists	X				

Primary LEPC Responsibilities

As previously mentioned, EPCRA establishes the LEPC as a forum at the local level for discussions related to hazmat emergency planning. LEPCs also provide local

governments and the public with information about possible chemical hazards in their communities.

According to EPCRA, Public Law 99-499, the major legal responsibilities affecting LEPCs in Texas are as follows. Under the law, each LEPC shall:

- Review local emergency management plans once a year, or more frequently as circumstances change in the community or as any facility may require (Section 303[a]).
- Establish procedures for receiving and processing requests from the public for information under Section 324, including Tier II information under Section 312; such procedures shall include the designation of an official to serve as coordinator for information (Section 301[c]).
- Receive from each subject facility the name of a facility representative who will participate in the emergency planning process as a facility emergency coordinator (Section 303[d]).
- Receive from subject facilities information that has been requested by the LEPC and that is necessary for developing and implementing local chemical emergency plans. (Section 303[d]). (A best practice for dealing with facilities is that LEPCs should be able to clearly describe to facilities why the information is important for the community.[25])
- Be informed by the community emergency coordinator of hazardous chemical releases reported by owners or operators of covered facilities (Section 304 [b][1][a]).
- Be given follow-up emergency notice information as soon as practical after a release, which requires the owner/operator to submit a notice (Section 304[c]).
- Receive from the owner or operator of any facility an SDS for each such chemical (upon request of the LEPC or fire department), or a list of such chemicals as described in paragraph (2) (Section 311[a]).
- Upon request by any person, make available an SDS to the person in accordance with Section 324 (Section 311[a]).
- Receive from the owner or operator of each facility an emergency and hazardous chemical inventory form (Section 312[a]).
- Respond to a request for Tier II information under this paragraph no later than 45 days after the date of receipt of the request (Section 312[e]).
- Make available each SDS, chemical list described in Section 311(a)(2) or Texas Tier II report, inventory form, toxic chemical release form, and follow-up emergency notice to the public, consistent with Section 322, during normal working hours at a location designated by the LEPC (Section 324[a]).

Also, an LEPC may commence a civil action against an owner or operator of a facility for failure to provide information under Section 303(d) or for failure to submit Tier II information under Section 312(e)(1) (Section 326[a][2][B]).

Additional LEPC Responsibilities

Under EPCRA Section 303[d], regulated facilities must promptly provide information to LEPCs, upon request, that is necessary for developing and implementing local chemical emergency plans.

According to EPCRA and the state of Texas, the LEPC shall also:

- Appoint a chairperson and an information coordinator and establish rules by which the committee shall function (EPCRA, Section 301[c]). Rules shall include provisions for public notification of committee activities, public meetings to discuss the emergency plan, public comments, and response to such comments by the committee.
- Notify the SERC of nominations for changes in the makeup of the committee. The county judge must submit nominations in written form. Notify the SERC of address changes for LEPC chairpersons.
- Evaluate the need for resources necessary to develop, implement and exercise the jurisdiction's emergency management plan. Recommendations shall be made with respect to additional resources that may be required and the means for providing such additional resources (Section 303 [a]).26
- Annually publish a notice in local newspapers that the emergency management response plan, SDSs, and inventory forms have been submitted (Section 324[b]).

Module 3 Action Items

What could our LEPC be doing?

- Update your public information and Right-to-Know procedures
- Review your LEPC structure and bylaws
- Create LEPC goals based on your community responsibilities

How can our LEPC do it?

Public Information

- Step 1 (Basic): Request the county/city attorney review the latest Texas Open Meetings Act (TOMA) guidance, Office of the Texas Attorney General guidance on public information, and the guidance to TCEQ from the Texas Attorney General regarding the disclosure of facility information under EPCRA.
- Step 2 (Intermediate): Hold an LEPC meeting with the county/city attorney where they review their findings and the LEPC Right-to-Know disclosure procedures and content.
- Step 3 (Advanced): Hold an LEPC meeting to review the LEPC bylaws and procedures for consistency with the latest disclosure procedures and legal guidance provided by attorneys. Propose and vote on updates or amendments to the bylaws to maintain compliance, if necessary.

LEPC Structure and Bylaws

- Step 1 (Basic): Establish a subcommittee of the LEPC to review and recommend updates/changes to the existing LEPC structure, bylaws, and meeting schedules.
- Step 2 (Intermediate): Hold an LEPC meeting to solicit feedback from member organizations, the public, and local emergency management on proposed changes to LEPC structure and bylaws proposed by the subcommittee.
- Step 3 (Advanced): Hold a meeting to update/amend the LEPC Structure and bylaws in accordance with existing bylaws. Resurrected LEPCs must locate previous charter/bylaws and review/amend them, or if possible, hold a vote to rescind and replace them, under the guidance of legal counsel.

LEPC Goals

- Step 1 (Basic): Dedicate a portion of an LEPC meeting to review your LEPC responsibilities under EPCRA, state law and local requirements and evaluate which responsibilities are most important for your community.
- Step 2 (Intermediate): Decide on long-term goals for your LEPC to improve performance for your LEPC's most important responsibilities and appoint subcommittees and/or individuals to develop action plans and specific projects to achieve your goals (decide on the destination).
- Step 3 (Advanced): Have the subcommittee/individuals report to a general LEPC meeting, discuss their plans and projects, and use those discussions to develop short-term goals and specific plans to achieve the long-term goals previously established (create a roadmap to reach your destination).

[1] Texas Department of Public Safety - Division of Emergency Management. Local Emergency Planning Committee (LEPC): A Primer for Local Planning for Hazardous Materials. July 2006.
[2] https://lrl.texas.gov/scanned/govdocs/Greg%20Abbott/2018/GA-05.pdf.
[3] For a complete examination of Tier II reports and reporting system see Module 4.
[4] 4 TGC 418, https://statutes.capitol.texas.gov/Docs/GV/htm/GV.418.htm.
[5] "Threat and Hazard Identification and Risk Assessment (THIRA)," Federal Emergency Management Agency, last modified May 31, 2018, https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment.
[6] "Region 6 LEPCs," Environmental Protection Agency, last modified 2019, https://response.epa.gov/site/site_profile.aspx?site_id=11074.
[7] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[8] A number of sources discuss these issues and others related to information sharing including: Katherine Chekouras, "Balancing National Security with a Community's Right-to-Know: Maintaining Public Access to Environmental Information Through EPCRA's Non-Preemption Clause," *Boston College Environmental Affairs Law Review* 34:107 (2007), http://lawdigitalcommons.bc.edu/ealr/vol34//iss1/4; Glenn Hess, "Balancing Security and Right To Know," *Chemical and Engineering News* 90(19): 22-24, March 2013; and Susan Youngblood, "Balancing the Rhetorical Tension Between Right to Know and Security in Risk Communication: Ambiguity and Avoidance." *Journal of Business and Technical Communication* 26. no. 1 (2011): 35-64. DOI:10.1177/2F1050651911421123.
[9] Letter, Ken Paxton, Attorney General of Texas to Mr. David Timberger, Director-General Law Division of the Texas Commission on Environmental Quality, February 11, 2016, https://www2.texasattorneygeneral.gov/opinions/openrecords/51paxton/orl/2016/pdf/or201603419.pdf; and 5 TGC 552, https://statutes.capitol.texas.gov/Docs/GV/htm/GV.552.htm.
[10] Ruling of the Attorney General of Texas in Letter to Mr. David Timberger, Director-General Law Division of the Texas Commission on Environmental Quality, OR2016-03419, February 11, 2016, https://texasattorneygeneral.gov/opinions/openrecords/51paxton/orl/2016/pdf/or201603419.pdf.
[11] "Laws and Regulations: Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified January 3, 2018, https://www.tceq.texas.gov/permitting/tier2/laws-and-regulations.html.
[12] Consult legal counsel before creating new bylaws or rules if an LEPC previously existed in your jurisdiction.
[13] For example, in making comments on the template bylaws in Appendix C, bylaws from several Texas LEPCs were reviewed, including from (alphabetically): Brazos County LEPC (http://www.bcdem.org/sites/default/files/LEPC-ByLaws_0.pdf); Dallas County LEPC (https://www.dallascounty.org/Assets/uploads/docs/lepc/June_2014_LEPC_Bylaws.pdf); Deer Park LEPC (http://www.deerparklepc.org/DocumentCenter/View/6018/By-LawsAmend062414); La Porte, Morgan's Point, and Shoreacres LEPC (https://www.ci.la-porte.tx.us/DocumentCenter/View/566/LEPC-Bylaws-PDF); Potter & Randall County LEPC (http://potterrandall-lepc.com/wp-content/uploads/2018/06/LEPC-By-Laws-2017-Revision.pdf); and Southeast Regional LEPC (http://www.ci.pasadena.tx.us/users/0033/docs/SER%20LEPC%20Bylaws%20-%20adopted%2011-5-2012.pdf); as well as sample bylaws contained in the EPA's *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf).
[14] For more on this, see below and Module 9.

[15] David H. Bierling, "Participants and Information Outcomes in Planning Organizations," Doctoral dissertation, Texas A&M University, 2012.
[16] David H. Bierling, Bradley A. Trefz, and George O. Rogers, "Project 2.3. Engage the Community," in *Hazardous Materials Emergency Preparedness Projects for LEPCs*. Produced by Texas A&M Transportation Institute for Texas Department of Public Safety, Division of Emergency Management. 2018.
[17] Suggestions for enhancing media engagement provided by Steve Kuhlman, Communications Specialist with Texas A&M Engineering and former reporter for The Eagle (Bryan/College Station, Texas) and by Steve Reilly, former reporter, executive editor, and vice president at the Omaha World Herald (Omaha, Nebraska), September 26, 2018.
[18] See also Module 9.
[19] See Module 9. See also Jill Templeton and Gary Kirk, "Factors Influencing the Activity and Perceived Effectiveness of Virginia Local Emergency Planning Committees (LEPCs)," Presentation, Midwest Political Science Association 2008 Conference; Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf; Robert Heath, Julie Bradshaw, and Jaesub Lee, "Leadership in the Risk Communication Infrastructure," *Journal of Public Relations Research*, 14, No. 4 (2002): 317–353; David J. Whitney and Michael K. Lindell, "Member Commitment and Participation in Local Emergency Planning Committees," Policy Studies Journal, 28, No. 3 (2000): 467–484; and Michael K. Lindell and Ronald W. Perry, "Community Innovation in Hazardous Materials Management: Progress in Implementing SARA Title III in the U.S.," *Journal of Hazardous Materials*, 88 (2001): 169-194.
[20] While DPS-TDEM is responsible for the official list, TCEQ also maintains a database and list of LEPC and local emergency management contacts related to Tier II reports. LEPCs must report membership changes to DPS-TDEM. LEPCs should report contact information related to Tier II and related membership information to TCEQ to ensure they receive Tier II reports from facilities in their jurisdiction. Note: Reporting to one agency does not necessarily mean the other receives the update. LEPCs should coordinate with both TDEM and TCEQ, depending on the requirements and circumstances.
[21] Office of the Attorney General of Texas, *Public Information Act Handbook 2018*, www.texasattorneygeneral.gov/sites/default/files/2018-06/PIA_handbook_2018_0.pdf.
[22] Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.
[23] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), 13-14, http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[24] 5 TGC, Subtitle A. See also Office of the Attorney General of Texas, *Public Information Act Handbook 2018*, www.texasattorneygeneral.gov/sites/default/files/2018-06/PIA_handbook_2018_0.pdf; and Ruling of the Attorney General of Texas in Letter to Mr. David Timberger, Director-General Law Division of the Texas Commission on Environmental Quality, OR2016-03419, February 11, 2016, https://www2.texasattorneygeneral.gov/opinions/openrecords/51paxton/orl/2016/pdf/or201603419.pdf.
[25] National Association of SARA Title III Program Officials LEPC Guidance Documents, White Paper: The Practical Evaluation of Local Emergency Planning and Preparedness, on page 66 of Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[26] The Texas Disaster Act preceded EPCRA and requires every political subdivision in the

state to prepare and keep current a local or inter-jurisdictional emergency management plan. The Executive Order of the Governor Relating to Emergency Management further appoints the mayor of each municipal corporation and the county judge of each county in the state as the emergency management director for such political subdivisions. Emergency management plans prepared by local government and approved by mayors or judges are the only ones recognized by the state. LEPCs should play a key role in the development of certain portions of emergency management plans and periodic plan review.

Module 4. LEPCs, Regulatory Agencies and Reporting

Important Takeaways in Module 4

- LEPCs' primary state agency contacts in Texas are the Department of Public Safety-Texas Division of Emergency Management (DPS-TDEM) and the Texas Commission on Environmental Quality (TCEQ).
- EPCRA-regulated facilities must report Tier II information to LEPCs, local fire departments and TCEQ.
- Tier II reports provide information related to specific hazardous materials stored above the threshold defined by regulation.
- Toxic Release Inventory Reports (TRI), require EPCRA-regulated facilities to report discharges of TRI-listed chemicals above certain thresholds; TCEQ requires additional information on these reports for other chemicals not listed in the TRI program.
- The Clean Air Act amendments of 1990 require certain facilities under the act to submit a Risk Management Plan (RMP) to EPA and conduct coordination with their local fire departments and LEPC.
- Fertilizer Storage and Manufacture facilities have new legal requirements in Texas, including reports, licenses, safety, and inspection requirements. Under state law, certain fertilizer storage and manufacturing facilities must submit reports under the Tier II reporting system to TCEQ and their local LEPC.

Introduction

The Emergency Planning and Community Right to Know Act (EPCRA) is not the only law affecting chemical facilities, hazmat and Local Emergency Planning Committees (LEPCs). Hazmat incident reporting and response in Texas can vary depending on what spills, who spilled it, and where it spills. Likewise, multiple federal and state laws and regulations specify reporting and coordination requirements to specific agencies, LEPCs, fire departments, or the community or local government.

LEPCs typically deal with two state agencies for emergency planning and response to hazmat incidents:

- DPS-TDEM
- TCEQ

Many EPCRA-regulated facilities deal primarily with three agencies as it relates to chemical hazards:

- TCEQ
- U.S. Environmental Protection Agency (EPA)
- Occupational Safety and Health Administration (OSHA)

In Texas, certain hazardous materials, like crude oil or natural gas, fall under different regulations, reporting requirements and federal or state agencies. These may include:

- Pipeline and Hazardous Materials Safety Administration (PHMSA)
- Texas Railroad Commission (RRC)
- Texas Department of State Health Services (DSHS)
- Texas General Land Office (GLO)

A few facilities, especially certain fertilizer storage and production facilities and certain chemical facilities falling under additional safety and anti-terrorism regulations, also have reporting and regulatory requirements from the following:

- Office of the Texas State Chemist (OTSC)
- Texas State Fire Marshall
- Department of Homeland Security (DHS)
- Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF)

Regulatory Agencies

When a legislature (state or federal) passes a law, that law often authorizes some executive branch of government to regulate some aspect of society, commerce or trade. The law defines the scope and nature of the agency's regulation. This becomes part of the set of national or state laws, either the U.S. Code (USC) and/or one of several different Texas codes, such as the Texas Government Code (TGC) or Texas Water Code (TWC).

These regulatory agencies, created by the law, can then issue rules (also called regulations) under the authority granted them by the law. These rules appear in the U.S. Code of Federal Regulations (CFR) or the Texas Administrative Code (TAC). As agencies implement these regulations, those regulated by the law may require clarification to implement the regulation. The regulating agency then issues interpretations and guidance on these laws and regulations, also published in the *Federal Register* or *Texas Register*, and on the agency's website.

Appendix A and Appendix B provide a more detailed explanation and a guide to many of the laws, regulations and other policy documents related to LEPCs, emergency management and hazardous materials.

Understanding Reporting Differences

EPCRA specifies two reports that businesses that store and/or manufacture, process or use certain chemicals must complete:

- Tier II reports (EPCRA § 311 and 312)
- Toxics release inventory reports (EPCRA § 313) (TRI), also known as Form R

Section 112(r) of the Clean Air Act established reporting and coordination requirements known as the Risk Management Program, which required the development of a Risk Management Plan (RMP), reported to EPA.

These reports are often related but have different requirements for chemical facilities and are not the only reports required for some facilities. For example, OSHA and Texas Right-to-Know (RTK) laws require entities to provide information about the chemicals they store and use, not just to employers but to local officials and entities like the LEPC. Since 2015, certain fertilizer storage and production facilities must also register with the Texas Tier II reporting system, even though they are not subject to EPCRA reporting requirements. Those facilities with ammonium nitrate used in fertilizer must report to TCEQ using the Tier II reporting system.

Not all facilities have the same reporting requirements. Different reports may fall under the purview of different agencies and may or may not require notification of the LEPC or local fire departments. Some chemicals in certain quantities may require reporting under all three programs (Tier II, TRI, and RMP). Understanding these differences, and how LEPCs can obtain information about these reports, is important to the effectiveness of an LEPC and emergency management planning in a community. TCEQ offers a comparison of the reporting differences, with links to further information.[1]

An examination of the various reports related to EPCRA and other legislation that impacts an LEPC follows. Other regulations specify reporting to various federal and state agencies by facilities storing, using and disposing of certain hazardous materials. This section examines only the most common ones encountered by LEPCs and their members. Appendix A and Appendix B provide additional information about laws, regulations and rules related to hazardous materials.

Reports

Tier II Reports

Tier II reports require that EPCRA-regulated fixed facilities report significant quantities of certain hazardous materials above specified thresholds for emergency planning purposes. Therefore, these reports fall under the emergency planning part of EPCRA. Tier II reports (and the TRI, RMP, and fertilizer facility reports as discussed in following sections) are valuable to local emergency planners because they can be used not only to identify locations of fixed facility hazards, but also to identify major transportation routes likely to be used by carriers to move hazardous materials to and from facilities.

Annual Tier II reports from facilities to TCEQ, local fire departments, and the LEPC are typically due in March each year. Before 2019, Texas Tier II reports were submitted using the Tier2 Submit Software from EPA.[2] TCEQ delayed implementation of a new Texas state online reporting system in 2017 due to Hurricane Harvey until the 2018/2019 reporting period.[3]

Current and future reports in Texas will utilize the new system, known as the State of Texas Environmental Electronic Reporting System (STEERS) in place of the Tier2 Submit Software.[4] As of 2019, TCEQ no longer accepts Tier2 Submit software or paper copy submissions. To assist in implementing the new program, TCEQ published an extensive Tier II Reporting Application User Guide for Tier II Account Reporters and the Common Tier 2 Reporting Issues document. TCEQ also conducted Tier II Training on the new system around the state. For more information regarding future training opportunities on STEERS, visit the TCEQ Tier II Training page. LEPCs may also desire to hold training in the new system for their facilities in the next year. LEPCs can contact TCEQ for more information regarding the new system at Tier2Help@tceq.texas.gov.[5]

Tier II Report Types

Annual reports:

- Filed each year between Jan. 1 and March 1
- Cover the previous calendar year

Initial reports:

- New hazardous chemicals or a new facility–report within 90 days
- New extremely hazardous substances–report within 60 days
- Ammonium nitrate used in fertilizer–report within 72 hours

Updated reports:

- Significant change related to a previously reported chemical–report within 90 days
- Ammonium nitrate used in fertilizer–report within 72 hours

TCEQ and state law require payment of a fee with annual and initial reporting, with a portion of the proceeds going toward an LEPC grant program.[6] Updated reports are free to the reporter. The TCEQ Tier II page provides detailed information on Tier II reporting requirements and instructions for submission.[7] Facilities requesting their own Tier II reports and LEPCs and fire departments requesting Tier II reports for their jurisdiction should email Tier2Help@tceq.texas.gov. The Tier II Forms and Instructions page on the EPA website provides more information and forms for Tier II reporting requirements from EPA.[8]

Ammonium nitrate reporting is a Texas-only requirement and not part of EPCRA. According to the TCEQ Tier II reporting website, ammonium nitrate reporting only applies to "ammonium salt of nitric acid that contains more than 33 percent nitrogen, one-half of which is the ammonium form and one half of which is the nitrate form. It does not include urea."[9]

The Computer-Aided Management of Emergency Operations (CAMEO) software system that EPA provides free of charge allows the import of Tier II information obtained from TCEQ and facilities in electronic format.[10] LEPC surveys show widespread implementation of this software package, and EPA encourages LEPCs and emergency managers to use it. Many jurisdictions use CAMEO*fm*, part of the suite of programs offered by the EPA, along with the companion programs, ALOHA and MARPLOT.

CAMEOfm users can import Tier II information contained in .xml files exported from the TCEQ State of Texas Environmental Electronic Reporting System (STEERS) or obtained from TCEQ. ALOHA allows users to do basic modeling of chemical releases given physical and environmental characteristic of the release and conditions under which it takes place and interfaces directly with CAMEOfm.

MARPLOT is an easy-to-use geographic information system (GIS) that can be used to map model outputs from ALOHA, as well as other spatial data used in most other GIS software. For example, MARPLOT can be used to show locations of Tier II and TRI facilities (discussed below), model potential impacts on surrounding populations and the environment, estimate the number of persons potentially affected and identify transportation routes that could be compromised.

The CAMEO chemicals database is the fourth component of the system and is in widespread use throughout the first responder and emergency management community. The database is available in both online and offline versions for a variety of platforms. The EPA CAMEO Software Suite page allows download of the latest versions of this software.[11] Some jurisdictions use more advanced GIS software, which is also capable of importing ALOHA outputs and other data sets like those in CAMEOfm. For most jurisdictions, the expense and training required for such systems is beyond their capability. Jurisdictions that wish to upgrade these capabilities often find their planning and zoning departments a major asset in the implementation of such systems in EOCs and other aspects of emergency planning.

The CAMEO chemicals database is the fourth component of the system and is in widespread use throughout the first responder and emergency management community. The database is available in both online and offline versions for a variety of platforms. The EPA CAMEO Software Suite page allows download of the latest versions of this software.[12]

The CAMEO chemicals database provides critical response information for thousands of chemical substances. The CAMEO database links to chemical information reported in Tier II reports via the CAMEOfm system, allowing for easy lookup by planners and responders.

It is important to note that the linkages between CAMEO*fm* and the chemicals database depend on the information reported by facilities in their Tier II reports. Accurate linkages enable LEPCs to assess and evaluate risks associated with facilities and chemical hazards and potential community impacts. Errors or missing information prevent the system from functioning properly, slowing response and complicate planning. That is one reason why submitters must include accurate

chemical names and CAS numbers in their reports. For more suggestions and information on common Tier II reporting errors see Emergency Planning and Response Support Project 3 in the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document.

The TCEQ Tier II program attempts to maintain updated contact information for fire departments and LEPCs to assist them and facilities in sharing information. LEPCs, in addition to notification to DPS-TDEM of their membership and contact information, should also copy Tier2Help@tceq.texas.gov. LEPCs use TDEM Form 151 to officially update membership lists and report any leadership changes.A copy of this form is in Appendix D.[13]

Water System Access to Tier II Information and Emergency Planning

Most community water systems report Tier II information. Now there is new legislation passed in 2018 affecting water system emergency planning and their management of risk and resilience to incidents and disaster that also grants them access to facility Tier II reports. The changes to the law modified Section 1433 of the Safe Drinking Water Act (42 USC 300i-2) and Section 312(e) of EPCRA (42 USC 11002(e)).[14] The law requires each community water system serving a population of 3,300 persons or more to assess the risks and resilience of their system across a range of criteria, to be completed according to a schedule in the law between 2020 and 2021.

Of interest to LEPCs, the law requires community water systems to prepare or revise an emergency response plan incorporating the findings of their assessment and coordinate their plan with their LEPC. The law contains specific requirements these emergency plans must address. The law also modifies Section 312(e) of EPCRA at 42 USC 11022(e), granting community water systems access to Tier II reports and requiring the SERC or LEPCs to provide water systems with Tier II information, on request, to assist the water system in its emergency planning.

For more information regarding these changes, see America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans on the Environmental Protection Agency (EPA) website and the relevant sections of the U.S. Code.[15]

Toxics Release Inventory Reports

The TRI reporting program falls under the community right-to-know part of EPCRA.[16] It requires EPCRA-regulated facilities to report air emissions, waste disposal and wastewater discharges of TRI-listed chemicals above certain thresholds.

Facilities submit TRI reports to EPA on July 1 of every year for the previous calendar year. EPA requires facilities to use the TRI-MEweb system to submit TRI reports, except for certain trade-secret information, which facilities file on paper.[17] TCEQ receives TRI reports electronically from EPA, so facilities do not need to submit their TRI reports directly to TCEQ. However, TCEQ does charge a reporting fee for each TRI report submitted, up to a maximum of $250 per facility. TCEQ

sends invoices and instructions for payment directly to facilities that submit TRI reports after they file.

TRI information is available online via the EPA TRI Program page and is searchable via a variety of methods and for different jurisdictions.[18]

TCEQ requires additional release, emission, disposal and discharge reports for a variety of materials not covered by the TRI program or here. The TCEQ Reporting page provides additional information on these programs.[19]

Risk Management Plan Rule Reporting

The RMP rule is not part of EPCRA.[20] Rather, the RMP rule falls under Section 112(r) of the 1990 Clean Air Act amendments. The RMP rule requires facilities regulated under the act to submit RMPs that include a hazard assessment, prevention program and emergency response program to the EPA.

The RMP rule is not part of EPCRA, but it is closely related. While most EPCRA-regulated facilities are not subject to the RMP rule, most RMP-rule facilities are subject to EPCRA. Tier II submission data available to LEPCs in the CAMEOfm program note whether a facility submitting a report is subject to EPCRA and/or the RMP rule.

Section 112(r) of the Clean Air Act amendments also relates to the OSHA Process Safety Management of Highly Hazardous Chemicals standard contained in 29 CFR 1910.119 and the OSHA Process Safety Management Program.[21] Process safety management is a key part of operations at a number of EPCRA- and RMP-rule-regulated facilities. The OSHA Process Safety Management website provides more information and documents specific to certain facilities and industries.[22]

According to the EPA Guidance for facilities on Risk Management Programs (RMP), some facilities may house a "tank, drum, container, pipe, or other 'process' of the extremely hazardous toxic and flammable substances listed in 40 CFR 68.130 in an amount above the 'threshold quantity' specified for that substance." These facilities must develop and implement a risk management program and maintain documentation of that program and the facility where the substances are located. The risk management program includes:[23]

- Analysis of the potential off-site consequences of a worst-case accidental release
- A five-year accident history
- A release prevention program
- Emergency planning

The emergency planning portion of the risk management program is subject to the RMP rule, and facilities must submit plans to EPA.[24] Initial reports by regulated facilities were first required in June 1999, with an update required every five years thereafter. For facilities covered under the initial reporting period, their last report was in 2014, and their next is due in 2019. For all other facilities, the reporting requirement begins whenever the peak storage quantity of a chemical listed in 40 CFR 68.130 exceeds the threshold quantity. *Note: Many emergency planning*

requirements changed with the implementation of the RMP Amendments Rule of January 13, 2017, in force as of September 21, 2018 (see explanation below).

The contents and elements of the RMP submitted to the EPA are covered in Chapter 9: Risk Management Plan" (Part 68, Subpart G) of EPA's General RMP Guidance.[25] EPA published a compliance information document on September 24, 2018 that outlines some information related to compliance with current RMP regulations.[26]

Facilities must update their RMP submission any time the following changes specified in 40 CFR 68.190(b) occur[27]:

- If a change alters the program level that applies to any covered process, the facility must resubmit the RMP within six months of that change.
- If a change requires a revised off-site consequence analysis, the facility must resubmit the RMP within six months of that change.
- If a change requires a revised process hazard analysis or hazard review, the facility must resubmit the RMP within six months of that change.
- If a new regulated substance is present above the threshold quantity in an already covered process, the facility must resubmit the RMP on the date on which the new substance is present.
- If a regulated substance is present above the threshold quantity in a new process, the facility must resubmit the RMP on the date on which the substance is present above the threshold quantity.
- If the EPA begins regulating a new substance, the facility must resubmit the RMP within three years of the date the substance was first regulated.

Resubmissions under these conditions reset the anniversary date for the next RMP submission. Whenever conditions at a facility change so that it is no longer subject to the RMP regulations, the facility can de-register with the EPA. Should the facility become subject to RMP regulation again, the facility must resubmit an RMP to the program.[28]

Facilities submit their RMPs using the RMP*eSubmit software.[29] Additionally, facilities must provide an off-site risk analysis as part of their submission. Facilities prepare this analysis using the RMP*Comp program.[30]

The RMP rule and its most recent amendments require some facilities to conduct compliance audits every three years. The amended RMP rule (discussed below) added a requirement that independent third parties conduct an audit in certain circumstances. See the RMP Final Amendments guidance on third party audits on the EPA website for more information regarding audits and recent changes.[31]

Following the change in U.S. Presidential administrations in January 2017, amendments to the RMP rule underwent significant revision and litigation, resulting in confusion about the requirements for industries regulated under the rule. First, the EPA delayed implementation of the Obama administration's January 2017 amendments in June 2017, moving the date to February 2019.

On August 17, 2018, the U.S. Court of Appeals for the D.C. Circuit Court vacated the EPA administrator's June 2017 delay. Then, on September 21, 2018, the Court of

Appeals made the January 2017 RMP Amendments effective. EPA published a rule incorporating the original January 2017 amendments into the Code of Federal Regulations (40 CFR Part 68) on December 3, 2018. See the EPA's RMP Delay Rule Vacatur page and the Final Amendments to the Risk Management Program (RMP) Rule page for more information.[32]

Facilities subject to the RMP rule, under current law, must comply with the current RMP rule of January 13, 2017, as of December 3, 2018.[33]

As of the publication of this document, the final rule published in the Federal Register on December 3, 2018, is in effect, which makes the original amendments of January 2017 the current regulation under the law. On May 30, 2018, the EPA proposed changes to the current rule that would remove many of the new law's requirements (see the Proposed Risk Management Program (RMP) Reconsideration Rule page). The Appeals Court ruling did not affect this "amendment to the amendment" process, which is ongoing, though unlikely to conclude prior to the 2020 election, the results of which will likely determine RMP rule changes in the future. LEPCs and facilities should remain abreast of changes in coming years due to regulatory uncertainty surrounding the RMP amendments.

The December 3, 2018 announcement in the Federal Register reimplements the rule published on January 13, 2017.[34] It is important to note: *several compliance dates in the original January 2017 rule passed before the court ruling and are now enforceable.*[35] It is unknown what enforcement actions the EPA may take for compliance dates now passed, though they did publish a compliance information document following the September court ruling.[36] *However, the current rule allows for citizen civil suits to enforce the rule as it currently stands,* under the authority of 42 USC 7412 (r)(7)(E).[37]

Because the December 3, 2018, Federal Register implements the rule according to the court order, the rule implemented is that published on January 13, 2017, in Federal Register, Volume 82, Number 9.[38] Facilities and LEPCs should consult that publication and any related information published by EPA implementing that rule. Information on the rule on the EPA website is not necessarily up to date, and several of its informational pages, including some of the information linked above and cited in the endnotes to this section, did not reflect the current rule as of the publication of this document.

Of particular importance for LEPCs, the January 13, 2017 rule includes the following language:[39]

The emergency response plan…shall be coordinated with the community emergency response plan developed under 42 U.S.C. 11003. Upon request of the LEPC or emergency response officials, the owner or operator shall promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.[40]

There are also new exercise requirements in the amended rule at 40 CFR 68.96 that affect LEPCs, local emergency management, and response organizations. The biggest change for LEPCs are added requirements for local coordination at 40 CFR 68.93. These significant changes, which fall under LEPC purview, follow verbatim:

> **40 CFR 68.93 Emergency response coordination activities.**
> The owner or operator of a stationary source shall coordinate response needs with local emergency planning and response organizations to determine how the stationary source is addressed in the community emergency response plan and to ensure that local response organizations are aware of the regulated substances at the stationary source, their quantities, the risks presented by covered processes, and the resources and capabilities at the stationary source to respond to an accidental release of a regulated substance.
>
> (a) Coordination shall occur at least annually, and more frequently if necessary, to address changes: At the stationary source; in the stationary source's emergency response and/or emergency action plan; and/or in the community emergency response plan.
>
> (b) Coordination shall include providing to the local emergency planning and response organizations: The stationary source's emergency response plan if one exists; emergency action plan; updated emergency contact information; and any other information that local emergency planning and response organizations identify as relevant to local emergency response planning. For responding stationary sources, coordination shall also include consulting with local emergency response officials to establish appropriate schedules and plans for field and tabletop exercises required under § 68.96(b). The owner or operator shall request an opportunity to meet with the local emergency planning committee (or equivalent) and/or local fire department as appropriate to review and discuss these materials.
>
> (c) The owner or operator shall document coordination with local authorities, including: The names of individuals involved and their contact information (phone number, email address, and organizational affiliations); dates of coordination activities; and nature of coordination activities.

Fertilizer Storage and Manufacturer Reports

Regulations for ammonium nitrate facilities in Texas changed following the West, Texas disaster. The Office of the State Chemist (OTSC) regulates the sale of ammonium nitrate and ammonium nitrate material, and issues ammonium nitrate permits to facilities it regulates.[41] The OTSC Feed and Fertilizer Control Service is responsible for inspecting firms that produce, store, transfer, offer for sale or sell ammonium nitrate or ammonium nitrate materials in Texas.

Additionally, the Texas State Fire Marshal's Office inspected ammonium nitrate facilities in the wake of the West disaster and issued guidance about the best practices for ammonium nitrate storage, in accordance with the National Fire Protection Association (NFPA) Standard 400, Hazardous Materials Code, and NFPA 704, Warning Placard Requirements.[42]

In 2015, the Texas Legislature amended the Texas Agriculture Code, Chapter 63 Texas Commercial Fertilizer Act, intended to increase safety following the 2013

West Disaster.[43] These amendments changed many of the reporting, licensing, safety and inspection requirements for ammonium nitrate facilities. Texas House Bill 942, as enrolled, included the following changes to the act, among others[44]:

- Allow the fire marshal access to enter ammonium nitrate storage facilities and conduct inspections, upon request and at a reasonable time
- Allow the local fire department access to the facility to perform pre-fire planning assessments
- Define hazardous conditions under which the fire marshal shall notify the owner or operator of the facility to correct the condition(s)
- Require ammonium nitrate facilities to comply with Chapter 505 or 507 of the Texas Health and Safety Code, as applicable, the U.S. Department of Homeland Security registration requirements and NFPA Standard 704 Warning Placards
- Store material according to the provisions of the Texas Agriculture Code 63.158.

Texas House Bill 942 also amended the Texas Health and Safety Code (THSC), Section 505, Manufacturing Facility Community Right to Know Act. These amendments changed many of the responsibilities for the right-to-know parts of EPCRA-related regulatory activities under the code, from the Texas Department of State Health Services to TCEQ.[45] As part of these amendments, the Texas Legislature added Section 505.0061 to the THSC, requiring ammonium nitrate storage facilities to file a Tier II report with TCEQ when any of the following occur:

- Within 72 hours of beginning operations
- Whenever the facility crosses the reportable threshold quantity for previously unreported ammonium nitrate
- When the facility has a change in the chemical weight range, as listed in 40 CFR Part 370, of previously reported ammonium nitrate

Within 72 hours after receiving a Tier II report from an ammonium nitrate facility, TCEQ must provide a copy of the report to the state fire marshal and DPS-TDEM. The state fire marshal must furnish a copy of the report to the chief of the fire department with jurisdiction over the facility. DPS-TDEM must provide a copy of the report to the appropriate LEPC.

LEPCs may contact the DPS-TDEM Technological Hazards Unit with questions about ammonium nitrate Tier II reports in their jurisdictions.[46]

Department of Defense and Federal EPCRA Compliance

Texas is home to numerous Department of Defense (DoD) installations. Communities hosting these installations face several unique challenges related to hazardous materials and emergency management planning and coordination. The military and federal agencies have different compliance requirements with laws and regulations related to hazardous materials, exemptions for certain activities, and different enforcement mechanisms. LEPCs with DoD installations in their jurisdiction can address some of the challenges associated with DoD installation compliance and coordination by increasing their awareness of the policies that govern them.

On September 21, 2006, the Department of Defense issued policy that required DoD

organizations to comply with elements of EPCRA within the United States and its territories in response to requirements of Executive Order 13148, Greening the Government Through Leadership in Environmental Management, signed April 22, 2000. Under the 2006 policy, still in effect, DoD facilities must file TRI reports and Tier II reports and otherwise comply with EPCRA and other environmental regulations.

DoD facilities are not required to comply with state or local reporting requirements beyond those specified in the policy, cannot pay fees to state or local agencies for reporting, and while EPA has authority to inspect DoD facilities for compliance, the EPA cannot penalize DoD facilities for non-compliance, only issue Notices of Noncompliance or Violation.

The DoD Environment, Safety, and Occupational Health Network and Information Exchange website has links to current DoD policy regarding EPCRA and other environmental and safety compliance regulations.[47] The 2006 policy is also on the site.[48]

Many DoD installations participate in active LEPCs, but where they do not do so already, LEPCs should encourage representatives from DoD installations in their jurisdiction to participate in the local LEPC. LEPCs with DoD facilities may also wish to review the 2006 DoD compliance policy at a meeting or request a representative from their local DoD facility to present the policy at an LEPC meeting.

The same Executive Orders that affect DoD also affect other federal installations and agencies. For more information regarding federal facility compliance with EPCRA see the EPA EPRCA and Federal Facilities website.[49]

Railroad Reports

Railroads are required to report information to the State of Texas that TDEM distributes to local jurisdictions. This includes information about trains moving Bakken crude oil above threshold quantities, and information about hazmat transportation more generally.

Bakken Crude-By-Rail Emergency Order

In 2014, USDOT issued an Emergency Order[50] that required rail carriers moving 1 million or more gallons (approximately 30 loaded tank cars) of crude oil from the Bakken shale formation in a single train provide the SERC with a notification about which counties the train would be passing through.

Since then, the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a final rule as part of the Fixing America's Surface Transportation Act of 2015 (FAST Act) changes to the HMEP program. The new rule, originally proposed in 2016, requires railroads transporting high-hazard flammable above a certain threshold to develop comprehensive oil-spill response plans (COSRPs) and share information regarding the transportation of these high-hazard flammables with State and Tribal Emergency Response Commissions (SERCs/TERCs). Further information about the rule and how it affects local emergency plans is covered in Module 10.

Hazmat Classification Reports

Under Texas Transportation Code, railroads that transport hazardous materials in or through Texas are required to report the following information annually to the Texas Department of Transportation (TXDOT):

- A map depicting the location of each railroad main line and branch line that the company owns, leases, or operates in the state;
- A map delineating the geographical limits of the company operating divisions or districts and identifying the principal operating officer for the company in each operating division or district;
- A primary and secondary telephone number for the company dispatcher responsible for train operations in each operating division or district;
- A list of each type of hazardous material by hazard class and the quantity of the material transported over each railroad line owned, leased, or operated by the company during the preceding year; and
- The name and address of the company employee in charge of training persons to handle an incident related to hazardous materials.[51]

After receiving the information from the railroads, TXDOT is required to compile it "for distribution to local emergency management agencies located in jurisdictions containing reported railroad operations," and provide the compiled information to TDEM. TDEM is required to distribute the information compiled by TXDOT "to the appropriate officials for inclusion in local emergency plans" at least once each year.[52]

Module 4 Action Items

What could our LEPC be doing?

- Obtain and review your local Tier II reports
- Obtain and review your local TRI release information
- Discuss RMP with locally regulated facilities and EPA
- Identify and integrate ammonium nitrate facilities into your LEPC, as applicable

How can our LEPC do it?

Tier II Reports

- Step 1 (Basic): Contact TCEQ to obtain the latest year's Tier II reports for your jurisdiction and import the data TCEQ provides into CAMEO database.
- Step 2 (Intermediate): Dedicate a part of each LEPC meeting to review one or two Tier II reports from your community's facilities. For example, at a meeting, a facility representative might brief the LEPC on their Tier II report and take questions, with a different facility briefing at each meeting (NOTE: Tier II reviews go well with site visits). Ask the representative which carriers they use to transport hazmat and how their safety records are vetted and monitored.
- Step 3 (Advanced): Establish a permanent subcommittee of your LEPC to review Tier II data, identify issues, work with facilities to improve their reporting, and propose LEPC projects, plans, and training to improve Tier II reporting. For example, make lists of facilities that have submitted Tier II reports to TCEQ, those that submitted reports to the LEPC, and those that submitted reports to local fire departments. Compare the lists and make sure facilities are aware that they should submit reports to all of these entities. These reporting results can provide an opportunity to discuss other chemical hazards emergency planning topics with the facility.

Toxic Release Inventory Data

- Step 1 (Basic): Create a TRI subcommittee or designate individuals or an existing subcommittee with TRI responsibility. Assign them to read the EPA Publication Factors to Consider When Using Toxics Release Inventory Data and conduct a briefing at an LEPC meeting to familiarize LEPC members with the data and tools available related to TRI data.
- Step 2 (Intermediate): Have the subcommittee or designated individuals obtain the latest TRI data for your area from the EPA TRI data website. Evaluate your TRI data using EPA provided tools like the Risk Screening Environmental Indicators (RSEI) model, paying particular attention to facilities and substances of concern that may require additional investigation, action, or enforcement activities; have the subcommittee make recommendations to the full LEPC.
- Step 3 (Advanced): Have the subcommittee provide regular reports and updates to the LEPC on their TRI evaluation activities. Do not try to evaluate TRI data all at one time. Have your subcommittee develop a year-long review process that looks at multiple factors/facilities in depth and relates TRI data to Tier II reports.

Minimally, the subcommittee should report to the full LEPC on an annual basis following the release of the latest TRI data by EPA.

Risk Management Program Facilities

- Step 1 (Basic): Using Tier 2 data/reports, identify which facilities in your LEPC are RMP-regulated.
- Step 2 (Intermediate): Request that RMP-regulated facilities provide copies of their response plans to the LEPC for review and coordination with local plans. If facilities refuse, ask them to attend a coordinating meeting with local emergency management and the LEPC to crosswalk and coordinate their plans with local plans. If this does not work, discuss the availability of RMP information and LEPC's access to that information with the EPA Region 6 office. Remember: the current RMP regulation requires RMP facilities to coordinate their plans with LEPCs and local fire departments and legal means now exist to enforce compliance.
- Step 3 (Advanced): Create a RMP subcommittee to assess RMP facilities, conduct planning evaluations of RMP facilities and function as a focal point for coordination under the RMP Rule.

Ammonium Nitrate Facilities

- Step 1 (Basic): Using Tier2 data/reports, identify any ammonium nitrate/fertilizer production and storage facilities in your LEPC area.
- Step 2 (Intermediate): Call, send mailings and personally contact any ammonium nitrate facilities in your jurisdiction and encourage them to join the LEPC and attend meetings.
- Step 3 (Advanced): Hold a meeting with the LEPC and local emergency management with local fertilizer facilities to discuss and coordinate emergency response plans; alternately, hold a "site visit" meeting at a fertilizer facility to conduct coordination.
-

[1] "Comparison of Tier II, TRI, and 112(r) Requirements," Texas Commission on Environmental Quality, last modified June 22, 2018, https://www.tceq.texas.gov/assistance/resources/tierIIchart.html.
[2] "Step 3: Tier 2 Reporting Software," Texas Commission on Environmental Quality, last modified March 2, 2018, https://www.tceq.texas.gov/permitting/tier2/reporting-steps/reporting_software.html.
[3] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, accessed September 24, 2018, https://www.tceq.texas.gov/permitting/tier2.
[4] "Step 2: Setting Up STEERS," Texas Commission on Environmental Quality, last modified February 15, 2019, https://www.tceq.texas.gov/permitting/tier2/reporting-steps/setting-up-steers.
[5] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified February 21, 2019, https://www.tceq.texas.gov/permitting/tier2.
[6] "Texas Local Emergency Planning Committee (LEPC) Grant Program," Texas Commission on Environmental Quality, last modified July 3, 2018, https://www.tceq.texas.gov/response/security/LEPC_Grant. The first year of the new program authorized significant money to the grant program in a onetime, first year special program. After the first year, grant moneys constituted only a percentage of the fees collected and are significantly less. Most of the fees collected go to TCEQ for the costs to administer the Tier II reporting program, with a smaller portion to DSHS for some of its legacy operations related to EPCRA. The 2019 grant round, which opened July 3 and closed August 3, 2018, divided $200,000 among grant recipients. The collection and use of reporting fees vary from state to state and can also vary locally. In a few states, reporting fees directly fund LEPC operations, states divide the fees among the LEPCs for their annual budgets according to certain formulas (e.g. population or industry density).
[7] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified May 16, 2018, https://www.tceq.texas.gov/permitting/tier2.
[8] "Tier II Forms and Instructions," Environmental Protection Agency, last modified February 2, 2018, accessed July 30, 2018, https://www.epa.gov/epcra/tier-ii-forms-and-instructions.
[9] "Step 1: Types of Tier II Reports and Timelines," Texas Commission on Environmental Quality, last modified May 18, 2018, https://www.tceq.texas.gov/permitting/tier2/reporting-steps/types-of-tier-ii-reports-and-timelines.
[10] "What is the CAMEO software suite?" Environmental Protection Agency, last modified October 17, 2017, https://www.epa.gov/cameo/what-cameo-software-suite.
[11] "What is the CAMEO software suite?" Environmental Protection Agency, last modified October 17, 2017, https://www.epa.gov/cameo/what-cameo-software-suite.
[12] "What is the CAMEO software suite?" Environmental Protection Agency, last modified October 17, 2017, https://www.epa.gov/cameo/what-cameo-software-suite.
[13] "TDEM Form 151 - Local Emergency Planning Committee Membership Update Form," Texas Department of Public Safety – Division of Emergency Management, last updated September 2013, http://www.dps.texas.gov/internetforms/Forms/TDEM-151.pdf.
[14] 42 USC 300i-2, http://uscode.house.gov/view.xhtml?req=(title:42%20section:300i-2%20edition:prelim); and "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans.
[15] "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans
[16] "Toxics Release Inventory (TRI) Program," Environmental Protection Agency, last

modified July 9, 2018, https://www.epa.gov/toxics-release-inventory-tri-program.
[17] "Electronic Submission of TRI Reporting Forms," Environmental Protection Agency, last modified July 18, 2018, https://www.epa.gov/toxics-release-inventory-tri-program/electronic-submission-tri-reporting-forms.
[18] "Toxics Release Inventory (TRI) Program," Environmental Protection Agency, last modified July 9, 2018, https://www.epa.gov/toxics-release-inventory-tri-program.
[19] "Reporting: How to Report data to the TCEQ and how to file a complaint," Texas Commission on Environmental Quality, last modified March 16, 2018, https://www.tceq.texas.gov/permitting/reporting.html.
[20] "Risk Management Plan (RMP) Rule," Environmental Protection Agency, last modified July 20, 2018, https://www.epa.gov/rmp.
[21] 29 CFR § 1910.119 and "Process Safety Management," Occupational Safety and Health Administration, accessed July 30, 2018, https://www.osha.gov/SLTC/processsafetymanagement/.
[22] "Process Safety Management," Occupational Safety and Health Administration, accessed July 30, 2018, https://www.osha.gov/SLTC/processsafetymanagement/.
[23] Environmental Protection Agency, "Introduction," in *General RMP Guidance*, April 2015, https://www.epa.gov/sites/production/files/2015-04/documents/intro_final_general_guidance.pdf.
[24] Environmental Protection Agency, "General Risk Management Program Guidance," April 4, 2018, https://www.epa.gov/rmp/guidance-facilities-risk-management-programs-rmp#general.
[25] Environmental Protection Agency, "Chapter 9: Risk Management Plan," in *General RMP Guidance*, April 2015, https://www.epa.gov/rmp/general-rmp-guidance-chapter-9-risk-management-plan; and Environmental Protection Agency, "General Risk Management Program Guidance," April 4, 2018, https://www.epa.gov/rmp/guidance-facilities-risk-management-programs-rmp#general.
[26] "RMP Amendments Compliance Information," Environmental Protection Agency, last modified September 24, 2018, https://www.cms.gov/medicare/provider-enrollment-and-certification/surveycertemergprep/emergency-prep-rule.html.
[27] The following conditions are drawn from 40 CFR § 68.190(b) and EPA, "Resubmitting, Correcting, De-Registering or Withdrawing a Risk Management Plan," *EPA Risk Management Plan Rule*, last modified April 4, 2018, https://www.epa.gov/rmp/resubmitting-correcting-de-registering-or-withdrawing-risk-management-plan.
[28] 40 CFR § 68.190(b) and EPA, "Resubmitting, Correcting, De-Registering or Withdrawing a Risk Management Plan," *EPA Risk Management Plan Rule*, last modified April 4, 2018, https://www.epa.gov/rmp/resubmitting-correcting-de-registering-or-withdrawing-risk-management-plan.
[29] "RMP*eSubmit," Environmental Protection Agency, last modified February 12, 2018, accessed July 30, 2018, https://www.epa.gov/rmp/rmpesubmit.
[30] "RMP*Comp," Environmental Protection Agency, last modified April 4, 2018, https://www.epa.gov/rmp/rmpcomp.
[31] "What are the third-party audit requirements?," Environmental Protection Agency, accessed March 6, 2019, https://emergencymanagement.zendesk.com/hc/en-us/articles/115000676368-What-are-the-third-party-audit-requirements-.
[32] "Final Amendments to the Risk Management Program (RMP) Rule," Environmental Protection Agency, last modified May 17, 2018, https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule; and "Risk Management Plan (RMP) Delay Rule Vacatur," Environmental Protection Agency, last modified December 3, 2018, https://www.epa.gov/rmp/risk-management-plan-rmp-delay-rule-vacatur.
[33] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf; and Federal Register, Vol. 83, No. 232, December 3, 2018, Rules

and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf.
[34] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf; and Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf.
[35] Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf.
[36] The EPA is seeking to change the amendments again and the current EPA administration, with support from industry, opposes the 2017 changes. As of publication of this document the EPA had no statement on what enforcement action it might take for failure to meet the now passed requirements, though it did publish a compliance information document that reiterates their intent to repeal many provisions of the rule. See the reference in the next endnote for more information and "RMP Amendments Compliance Information," Environmental Protection Agency, last modified September 24, 2018, https://www.cms.gov/medicare/provider-enrollment-and-certification/surveycertemergprep/emergency-prep-rule.html.
[37] See Stacey H. Mitchell, Michael Quigley, and Bryan Williamson, "United States: Stay or Go: D.C. Circuit halts EPA's Stay of Obama-era Risk Management Plan Amendments," last modified September 13, 2018, http://www.mondaq.com/unitedstates/x/736080/Environmental+Law/Stay+or+Go+DC+Circuit+Halts+EPAs+Stay+of+Obamaera+Risk+Management+Plan+Amendments; and "Risk Management Plan (RMP) Delay Rule Vacatur," Environmental Protection Agency, last modified December 3, 2018, https://www.epa.gov/rmp/risk-management-plan-rmp-delay-rule-vacatur.
[38] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[39] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[40] 40 CFR 68.95 (a)(1)(i)(4)(c).
[41] Homepage, Office of the Texas State Chemist, accessed July 30, 2018, http://otscweb.tamu.edu. As of July 2018, some parts of OTSC website were out of date. The information related to ammonium nitrate regulation on the OTSC website is out of date or may be no longer accurate. Those looking for the most up-to-date regulations should consult the Texas Agriculture Code, Chapter 63 and/or verify the date of information before using information from the OTSC website.
[42] See "Ammonium Nitrate in Texas," Texas Department of Insurance, last modified August 31, 2016, http://www.tdi.texas.gov/fire/fman.html#skipcon; "Ammonium Nitrate in Texas," State Fire Marshal, Texas Department of Insurance, last modified August 31, 2016, https://www.tdi.texas.gov/fire/fman.html; "References Related to Best Practices – Storage of Ammonium Nitrate," State Fire Marshal, Texas Department of Insurance, last modified 2013, https://www.tdi.texas.gov/fire/documents/fmnitratepractice.pdf; "NFPA 400: Hazardous Materials Code," National Fire Protection Association, last modified 2016, http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=400; and "NFPA 704 Warning Placard Requirements," State Fire Marshal, Texas Department of Insurance, last updated June 25, 2007, accessed July 30, 2018, https://www.tdi.texas.gov/fire/documents/fmannfpa704.pdf. NOTE: Information on the State Fire Marshal page, like that of the Office of the State Chemist page, may not be current. Check the date of any information on the website and verify with more up to date

information elsewhere. Also note, the NFPA withdrew NFPA 490 Code for the Storage of Ammonium Nitrate in 2009, and it is now part of NFPA 400.
[43] 5 TAG § 63.158.
[44].H.B. 942, 84th Session, 2015, Texas. House Bill 942 also amended 6 THSC Chapter 505.
[45] H.B. 942, 84th Session, 2015, Texas and 6 THSC Chapter 505.
[46] "Technological Hazards Unit," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/techHazUnit.htm.
[47] "Emergency Planning and Community Right-to-Know Act/Toxics Release Inventory Home," Department of Defense Environment, Safety and Occupational Health Network and Information Exchange, accessed March 6, 2019, https://denix.osd.mil/epcratri/home/.
[48] Memorandum, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, Subject: Consolidated Emergency Planning and Community Right-to-Know Act (EPCRA) Policy for DoD Installations, Munitions Activities, and Ranges, September 21, 2006, accessed March 6, 2019, https://denix.osd.mil/epcratri/policy/unassigned/consolidated-emergency-planning-and-community-right-to-know-act-epcra-policy-for-dod-installations-munitions-activities-and-operational-ranges/.
[49] "Emergency Planning and Community Right-to-Know Act (EPCRA) and Federal Facilities," Environmental Protection Agency, last modified January 30, 2018, https://www.epa.gov/enforcement/emergency-planning-and-community-right-know-act-epcra-and-federal-facilities.
[50] Anthony R. Foxx, *Emergency Order, United States Department of Transportation, Petroleum Crude Oil Railroad Carriers, Docket No. DOT-OST-2014-0067*, last modified May 7, 2014, https://www.transportation.gov/briefing-room/emergency-order.
[51] 5 TTC § 193.002(c).
[52] 5 TTC § 193.002(f) and (g).

Module 5. Emergency Planning and Preparedness

Important Takeaways in Module 5

- LEPCs can perform a Threat and Hazard Identification and Risk Analysis (THIRA) to determine community risk from hazardous materials (hazmat) and help determine capability requirements within the jurisdiction.
- LEPCs should examine hazardous materials being transported and at facilities.
- Facilities covered under the Emergency Planning and Community Right to Know Act (EPCRA), the Risk Management Plans (RMP) Rule, or other regulations must prepare emergency plans. Depending on the regulatory requirements, these plans may be Emergency Action Plans (EAPs), Emergency Response Plans (ERPs), rail or pipeline emergency plans, or Facility Response Plans (FRPs).
- LEPCs should review and evaluate their local emergency operations plans and facility plans on a regular basis, preferably annually or biannually, and after full-scale training exercises or real-world response events.
- LEPCs and communities can improve planning reviews by breaking down their review into stages and by annex, so that some part of the plan is under continuous review over an annual or biannual schedule.

Introduction

I tell this story to illustrate the truth of the statement I heard long ago in the Army: Plans are worthless, but planning is everything. There is a very great distinction because when you are planning for an emergency, you must start with this one thing: the very definition of "emergency" is that it is unexpected; therefore, it is not going to happen the way you are planning.
–President Dwight D. Eisenhower

President Eisenhower knew a thing or two about planning. Even the best Emergency Operations Plans (EOPs), which define the legal responsibilities and framework for local emergency and disaster response, are worthless if those charged with executing them do not know the plans. In addition, Murphy's Law applies–things seldom, if ever, go to plan.

That does *not* mean that planning is worthless. As President Eisenhower suggested, it is *everything*. The process of planning forces leaders and organizations to confront potential scenarios, evaluate how agencies might respond to these scenarios, and evaluate the resources and personnel available to respond. That planning process *is* preparedness. Going through the planning process and involving as many of those charged with executing the plan as possible means that everyone

owns the plan, everyone knows the plan, and when things change, and the plan must change, the individuals responsible for those changes already have thought through those potential changes in the planning process. When everyone involved in response engages in the planning process, they increase their readiness to respond when the plan must change..

Planning is the process by which jurisdictions prepare to respond to a disaster or emergency, plans are the documents that the process creates and exercises are the way jurisdictions test and refine plans and preparations. The process is continuously changing. Planning is an ongoing process, just as exercises and real-world responses test our plans and force us to reevaluate them.

In some jurisdictions in the U.S., LEPCs write emergency plans, which was the idea behind the emergency planning part of EPCRA. However, subsequent laws and regulations have moved some of that responsibility to other parties.

In Texas, emergency planning is usually the function of an emergency management agency or an emergency management official operating under the authority of a county judge or mayor. For many jurisdictions, that means a full- or part-time professional emergency manager. However, in many rural or unincorporated areas, the role may be an added responsibility for an official like a fire marshal, fire chief or sheriff.

Because the system in Texas puts the local responsibility for emergency and disaster response coordination on county judges (and mayors of municipalities), LEPCs, in most jurisdictions, play an advisory and review role in emergency planning, along with other organizations such as Citizens Advisory Committees and other organizations.

For many of the most successful LEPCs in Texas, the whole community nature of the LEPC is its main advantage. Emergency management agencies often draw from police and fire services and representatives from local government. While such perspectives are vital in proper planning, many aspects of emergency planning and preparedness benefit from wide community involvement.

No matter how your local jurisdiction decides to integrate your LEPC into the emergency planning process, the process is the same–and a continuous one. It begins with a THIRA.

Threat and Hazard Identification and Risk Analysis

The Federal Emergency Management Agency (FEMA) defines a THIRA as "a four-step, common risk assessment process that helps the whole community, which includes individuals, businesses, faith-based organizations, nonprofit groups, schools and academia and all levels of government, to understand its risks and estimate capability requirements."[1] The goal of a THIRA is to answer the following questions for a specific community:

- What do we need to prepare for?
- What shareable resources should be prepared?

- What actions can be used to avoid, divert, lessen or eliminate a threat or hazard?

Communities engaged in a THIRA map out risks and threats to core capabilities. Thirty-two core capabilities are part of the National Preparedness Goal and the National Planning Frameworks.[2] These capabilities are grouped into five mission areas: Prevention, Protection, Mitigation, Response, and Recovery.

By mapping threats and hazards to capabilities, communities can use the information gained in their Emergency Operations Plans, mutual aid agreements and hazard mitigation planning.[3]

FEMA's *Comprehensive Preparedness Guide (CPG) 201* guides communities through the process of a THIRA. The Texas Department of Public Safety–Division of Emergency Management's (DPS-TDEM's) *Emergency Management Planner's Guide* provides state-level guidance on the process. The National Response Team provides the *Hazardous Materials Emergency Planning Guide* and *Technical Guidance for Hazardous Analysis* for EPCRA-related guidance.

A THIRA can help communities answer important questions:

- *What hazards do we need to prepare for?*
- *What shareable resources do we need?*
- *What can we do to avoid, divert, lessen, or eliminate a threat or hazard?*

Additionally, communities can use a variety of tools to identify and quantify their threats and risks when conducting a THIRA, many of which relate directly to EPCRA, such as:

- Law enforcement and fire department records of transportation and fixed facility incidents
- Hazmat commodity flow studies (financial assistance is available through the Hazardous Materials Emergency Preparedness (HMEP) Grant Program)[4]
- TIER II reports[5]
- Material Safety Data Sheets provided by EPCRA-regulated facilities
- Toxics Release Inventory Reports
- Computer-Aided Management of Emergency Operations (CAMEO) (with Areal Locations of Hazardous Atmospheres (ALOHA) and the Mapping Application for Response, Planning and Local Operational Tasks (MARPLOT))[6]
- Risk Management Program plans and reports[7]

Facility and Transportation Emergency Planning

EPCRA-regulated facilities that maintain extremely hazardous substances (EHSs) on-site in quantities greater than corresponding threshold planning quantities must participate in the community planning process under the act.[8] Facilities regulated under the Clean Air Act 112(r), Rule 112 of the Risk Management Program, must also prepare a Facility Response Plan (FRP).[9] An FRP should not be confused with

an Emergency Action Plan (EAP), which is used by facilities under the Occupational Safety and Health Act (OSHA).

EAPs, along with FRPs and Risk Management Plans (RMPs), form the basic building blocks for hazmat emergency planning in a community. EAPs designate what a responsible party will do in the event of an incident. Companies transporting hazardous materials via pipelines, railroads or roadways must also develop safety and security plans in accordance with the Hazardous Materials Regulations contained in 49 Code of Federal Regulations (CFR) 100 to 185.[10]

No two EPCRA- or RMP-regulated facilities are the same. Facilities that possess hazardous or dangerous goods or substances that may pose a threat to the public or responders in the event of an incident might fall under different state and federal regulations. The regulatory and planning requirements for every facility are different and there is no single guide to facility emergency planning. It is possible that facilities do not have to create multiple emergency plans, for example, a single plan could cover their various regulatory requirements.[11] This section addresses some of the basics related to facility emergency planning.

Emergency Action Plans

OSHA and 29 CFR 1910.38 require EAPs for all organizations exempt from the hazmat requirements of 29 32CFR 1910.120(q).[12] Any organization with 10 or more employees must produce a written plan. Smaller organizations must have an EAP and communicate its requirements to their employees even if they do not have to write it down. EAPs are defensive plans and must include, at a minimum[13]:

- Procedures for reporting a fire or other emergency (to include a hazardous material-related emergency) (29 CFR 1910.38[c][1])
- Procedures for emergency evacuation, including the type of evacuation and exit route assignments (29 CFR 1910.39[c][2])
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after evacuation
- Procedures to be followed by employees performing rescue or medical duties
- The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan

Additionally, employers must have and maintain an employee alarm system that complies with the requirements of 29 CFR 1910.165, as well as train employees on using the alarm and reviewing alarm use with each employee under the conditions set by 29 CFR 1910.38(f).

At the most basic level, EAPs protect employees and rely on local emergency response capabilities (fire and police departments) and/or contractors for their response to any emergency.

Emergency Response Plans and Facility Response Plans

ERPs and FRPs are more robust than EAPs and describe offensive response processes and procedures.[14] The two are similar but not identical and regulations and facilities requiring such plans fall under different regulation and legislation, including:

- OSHA regulation 29 CFR 1910.120(q)
- The Oil Pollution Prevention regulations, 40 CFR 112
- Elements of the Clean Air Act, Section 112[15]

Facilities should coordinate ERPs and FRPs with external resources and plans (e.g., the Community Emergency Operations Plan). Facilities should write their plans consistent with the National Incident Management System (NIMS) and Incident Command Systems (ICS).

ERPs/FRPs are site-specific, designed to meet planning objectives (i.e., risk mitigation or reduction) and serve a specific purpose such as fire prevention/control or containment/mitigation of hazardous materials releases or spills. For hazardous materials, ERPs and FRPs must comply with OSHA regulations 29 CFR 1910.120.

According to EPA guidance, FRPs should contain the following, at a minimum[16]:

- An Emergency Response Action Plan (an easily-accessible stand-alone section of the overall plan) including the identity of a qualified individual with the authority to implement removal actions
- Facility name, type, location, owner and operator information
- Emergency notification, equipment, personnel, evidence that equipment and personnel are available (by contract or other approved means), and evacuation information
- Identification and evaluation of potential discharge hazards and previous discharges
- Identification of small, medium, and worst-case discharge scenarios and response actions
- Description of discharge detection procedures and equipment
- Detailed implementation plans for containment and disposal
- Facility and response self-inspection
- Training, exercises and drills
- Meeting logs
- Diagrams of the facility and surrounding layout, topography, evacuation paths and drainage flow paths
- Security measures, including fences, lighting alarms, guards, emergency cutoff valves and locks
- A response plan cover sheet (contains basic information concerning the facility)

There is no set format for an ERP. A sample FRP under the Oil Pollution Prevention regulations is included in Appendix F of the regulations at 40 CFR 112 Subpart D, Appendix F.

Risk Management Plans and the Risk Management Program

RMPs are a specific requirement under Section 112(r) of the Clean Air Act amendments. The rule requires facilities that use EHSs to develop these plans and submit them to EPA every five years with revisions, among other requirements.

Following the West, Texas disaster, amendments to the rule proposed by EPA changed many of the requirements under the RMP rule. The RMP Final Amendments rule appeared in the Federal Register on January 13, 2017, due to take effect in June 2017. The incoming EPA administration deferred implementation off the rule until February 19, 2019 prior to it taking effect in June.

An appeals court ruling*, Air Alliance Houston, Et Al. v. Environmental Protection Agency* ordered the delay rule vacated, and in September the court ordered EPA to implement the rule of January 13, 2017.[17] EPA in the Federal Register on December 3, 2018 complied with the order, implanting the rule as originally intended, while continuing a longer term effort to re-amend the rule and remove many of the provisions it put in place. [18]

The EPA Final Amendments to the Risk Management Program (RMP) Rule page on the EPA website provides updated information related to the rule. See the Risk Management Plan (RMP) Delay Rule Vacatur page, for additional guidance.

Due to regulatory uncertainty surrounding RMP rule changes LEPCs should remain up-to-date on the latest developments for the foreseeable future. Until EPA provides further guidance, the requirements under the RMP rule are those provided in the original January 2017 amendment documents and the appeals court ruling. The January 2017 rule is enforceable, both by EPA and citizen civil suits. Therefore, facilities should comply with the rule of January 13, 2017, as published and in accordance with any guidance EPA may provide in the future regarding that rule.

Facilities with EHSs above a threshold quantity in a process are required to implement a risk management program and submit their RMP to EPA every five years.[19] The list of regulated substances under Section 112(r) and the General Duty Clause determine the responsibilities of facilities under the act.[20] Additional information and EPA guidance on risk management programs, as well as related EPCRA and oil discharge regulations, are available on EPA's Emergency Management website and the Risk Management Plan (RMP) Rule page.[21] *Note that some requirements changed with the implementation of the January 13, 2017 rule and certain provisions of that rule are either already in effect or will come into effect at a later date according to the tables published in the Federal Register on January 13, 2017.*[22]

Facilities submit RMPs to EPA using RMP*eSubmit and, as part of their planning process, must perform an off-site consequence analysis using RMP*Comp.[23] Under the old rule, EPA controls access to RMP information but makes it available to the public in Federal Reading Rooms or via Freedom of Information Act (FOIA) requests. The new rule requires RMP regulated facilities to share some RMP information with local emergency management, response organizations, and the public under the provisions outlined in 40 CFR Part 68.93, 95, and 210.[24] See also

the discussion in Module 4.

Additionally, members of the public can use the Vulnerable Zone Indicator System on the EPA website to determine whether they live in a vulnerable area defined by the off-site consequence analysis of a submitted RMP.[25]

One of the ways the delayed final rule (now in place) intended to increase LEPC access to RMP information was by requiring annual coordination between RMP facilities and LEPCs or local emergency response officials.[26] According to accident investigations and information that states and local communities provided to EPA during the development of the original version of the final rule amendment, some RMP facilities were not "adequately engaged in meaningful coordination with LEPCs and local emergency responders, leaving the local planners and responders unaware of, or unprepared for, the chemical risks associated with the facility."[27] For more on these requirements see Module 4, Reports, Risk Management Plan Rule Reporting.

While LEPCs may not have had ready access to RMP information in the past, they should be aware of RMP-regulated facilities in their jurisdiction and the new rule gives both them and the public access to necessary RMP information under 40 CFR Part 68. The new rule also requires coordination between RMP facilities and local community emergency management organizations, including LEPCs (see Module 4).[28] Tier II data submitted to the Texas Commission on Environmental Quality and available to LEPCs show whether a facility falls under the Risk Management Program regulations. LEPCs can also discuss RMPs with their local facilities and their EPA Regional Office, which in Texas is in Dallas and EPA Region 6. Their phone number is (800) 887-6063.[29]

Community Emergency Planning

The Texas Disaster Act (4 Texas Government Code [TGC] § 418) governs emergency management and planning in Texas. In Texas, the mayor of a municipality and the county judge are the emergency management directors within their jurisdictions. DPS-TDEM develops the planning standards for local and inter-jurisdictional emergency management plans used statewide under its authority granted by the TGC.

Under the state law, every political subdivision in Texas must prepare local or inter-jurisdictional emergency management plans for all hazards. The sample planning templates and planning guide that DPS-TDEM provides include content that may satisfy EPCRA requirements (Section 303). Planners can sufficiently modify and adapt the templates to local jurisdictions, in accordance with the planning notes DPS-TDEM provides with the sample plans. The DPS-TDEM templates and planning guide form the basis of most local Emergency Operations Plans (EOPs) in the state. DPS-TDEM and FEMA both provide extensive resources for communities preparing and reviewing their EOPs.[30]

Federal Guidance

LEPCs should review their local community plans regularly, especially after exercises and real-world responses and incidents. Plans can be prepared using a variety of criteria and guidance. The EPA/EPCRA guidance for emergency planning

is in the National Response Team (NRT) *NRT-1 Hazardous Materials Emergency Planning Guide* (2001 edition).

FEMA also provides extensive tools for preparing EOPs, including the Comprehensive Preparedness Guide (CPG 101) and the Plan Analysis Tool.[31] FEMA also provides the following:

- Considerations for Fusion Center and Emergency Operations Center Coordination (CPG 502)[32]
- Guide for Developing High Quality Emergency Operations Plans for Houses of Worship[33]
- Guide for Developing High Quality Emergency Operations Plans for Institutions of Higher Education[34]
- *Guide for Developing High Quality School Emergency Operations Plans*[35]
- Pre-disaster Recovery Planning Guide for Local Governments[36]

State Guidance

DPS-TDEM provides a useful CPG 101 content requirements crosswalk with the Texas Sample Emergency Operations Plan as part of its Planner's Toolkit. The toolkit includes the Emergency Management Planner's Guide, Documentation Standards (for incident response and emergency management) and the Legislation Navigation Guide.[37] Additionally, the DPS-TDEM Plans Units, Technological Hazards Unit and Field Response Unit, which includes the regional and district coordinators for the state, can provide other resources, assistance, and information about grants to assist LEPCs and local communities in preparing, improving, and evaluating their EOPs.[38]

NASTTPO Guidance

The National Association of SARA Title II Program Officials (NASTTPO), a professional organization of SERC, TERC, and LEPC members and associated regulatory officials, have prepared a white paper, "The Practical Evaluation of Local Emergency Planning and Preparedness." This document offers valuable, practical advice for LEPCs related to planning, in the form of recommendations for LEPC planning and operations activities, and eight "Golden Rules" for LEPCs.[39] The white paper and other NASTTPO documents have been incorporated into the EPA Region 6 LEPC Handbook.

NASTTPO usually holds its mid-year conference in Houston during the autumn months, in conjunction with Hotzone, the FEMA Region 6 hazardous materials responder training conference. Both meetings offer an opportunity for Texas LEPCs to interact with regional and national national leaders in hazmat planning and response, and receive free training on a variety of hazardous materials response programs and EPCRA related topics.

FEMA Guidance on Coordination of Emergency Response Plans

The Disaster Recovery Reform Act of 2018, signed into law on October 5, 2018,

required the Federal Emergency Management Agency (FEMA), within 180 days, to develop guidance and training on an annual basis for State, local, and tribal governments, first responders, and facilities that store hazardous materials on coordination of emergency response plans in the event of a major disaster or emergency, including severe weather events.[40] According to the law, training must include:

- A list of equipment required for hazardous materials releases
- Health risks associated with hazardous materials to improve treatment responses
- Best practices for mitigating further danger to communities from hazardous substances.

At the time of publication of this document, the new training program remained in development. As this training program addresses a primary responsibility of LEPCs, the coordination of local hazardous materials emergency response plans, LEPCs should plan to complete the training once FEMA announces it. For more information see the FEMA Disaster Recovery Reform Act of 2018 webpage and Section 1236 of H.R. 302 as enrolled.[41]

Evaluating Your Plan

The EPCRA standard for EOP evaluation is the *NRT-1a Criteria for Review of Hazardous Materials Emergency Plans* (May 1988), whichremains an excellent tool for evaluating EOPs. LEPCs should also evaluate plans against the federal and state guidance noted previously.[42]

Evaluating and reviewing an EOP need not be an intensive, all-inclusive process. It is possible to evaluate many aspects of the EOP separately, using a rolling schedule of review by section. Using a schedule breaks up the review process, and can form a basis for more regular LEPC meetings or subcommittee meetings. Rolling schedules also share the workload, especially when review plan divides the responsibility for review among multiple subcommittees, agencies, and/or participating organizations.

Reviews should include information gleaned from exercises, actual incident and disaster response, and other sources such as hazmat commodity flow studies. After-action reviews help capture information from exercises and incident responses that provide the basis for review and revision as part of the emergency planning process. See Module 6 for more information.

DPS-TDEM administers the Hazardous Materials Emergency Preparedness Grant Program under the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration, which provides funds to enhance the implementation of EPCRA.[43] Grant funds can be used for a variety of purposes, including funding an EOP review with transport considerations, that evaluates a local EOP against the NRT-1a criteria, or hazardous materials commodity flow studies that help communities determine what hazardous materials are transiting their community, where, and when. Module 7 of this guide provides more

information on the grant program. See also the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document. The best pre-incident test of any plan is exercising it against scenarios identified in the local THIRA. Such exercises and the training that go with them are the subject of the next module in this Guide.

Module 5 Action Items

What could our LEPC be doing?

- Conduct, coordinate or review your community or LEPC THIRA
- Conduct a review of your community's emergency operations plan
- Coordinate local emergency plans with facility emergency plans

How can our LEPC do it?

Threat and Hazard Identification and Risk Assessment

- Obtain the last THIRA conducted by your LEPC or community emergency planning organization
- If the THIRA is more than two (2) years old or no THIRA is available, conduct or coordinate a new THIRA for your community
- If your community emergency management has a THIRA process in place, request the LEPC participate in that process if it does not already

Review Community Emergency Operations Plans

- Step 1 (Basic): Establish a system within your LEPC or a subcommittee to conduct hazmat related annual reviews of local EOPs with local emergency management (including at a minimum the Basic Plan, Warning Annex, and Hazardous Materials Annex). Develop a way for the LEPC to participate in the local review and revision process of the local EOP and assist in EOP preparation, if possible.
- Step 2 (Intermediate): Use the National Response Team's NRT-1a Criteria for Review of Hazardous Materials Emergency Plans as a starting point to review your jurisdiction's EOP. Grant funds for EOP reviews that cover hazmat transportation may be available through the Hazardous Materials Emergency Preparedness (HMEP) grant program administered by TDEM. Remember that many of the same emergency planning and operational planning factors will apply to hazmat incidents that occur in transport and at fixed sites.
- Step 3 (Advanced): In coordination with local emergency management, develop a community schedule for complete EOP review and identify the responsible party for each part and annex of the local EOP. Use this schedule and process to drive improvement plans for local planning

Coordinate Facility and Local Emergency Operations Plans

- Step 1 (Basic): Request copies of emergency response and EAPs (with site diagrams if not provided in Tier II reports) from EPCRA regulated facilities in

your LEPC.[44]

- Step 2 (Intermediate): Create a review schedule/process for the LEPC, use it to ease facility and local EOP coordination and review. Establish a subcommittee of the LEPC to conduct periodic reviews of facility plans and provide feedback to facilities and local emergency management. This subcommittee (which may also assume RMP responsibilities, see Module 4) can serve as a focal point for LEPC/facility coordination under EPCRA and the RMP Rule
- Step 3 (Advanced): Create an LEPC business emergency planning mentorship program for facilities and LEPC members.

[1] "Threat and Hazard Identification and Risk Assessment," Federal Emergency Management Agency, last modified May 31, 2018, https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment; and "Whole Community," Federal Emergency Management Agency, last updated May 2, 2018, https://www.fema.gov/national-preparedness/whole-community.

[2] "Core Capabilities," Federal Emergency Management Agency, last updated February 7, 2018, https://www.fema.gov/core-capabilities,; "National Preparedness Goal," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/national-preparedness-goal; and "National Planning Frameworks," Federal Emergency Management Agency, last modified June 19, 2018, https://www.fema.gov/national-planning-frameworks.

[3] "Threat and Hazard Identification and Risk Assessment," Federal Emergency Management Agency, last modified May 31, 2018, https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment.

[4] "Grants & Resources," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/GrantsResources/.

[5] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, last modified May 16, 2018, https://www.tceq.texas.gov/permitting/tier2.

[6] "CAMEO (Computer-Aided Management of Emergency Operations)," Environmental Protection Agency, last modified July 11, 2018, https://www.epa.gov/cameo.

[7] "Risk Management Plan (RMP) Rule Overview," Environmental Protection Agency, last modified April 4, 2018, https://www.epa.gov/rmp/risk-management-plan-rmp-rule-overview.

[8] 42 USC § 11003. See also "Final Rule: Extremely Hazardous Substance List and Threshold Planning Quantities; Emergency Planning and Release Notification Requirements (52 FR 13378)," Environmental Protection Agency, last modified April 4, 2018, https://www.epa.gov/epcra/final-rule-extremely-hazardous-substance-list-and-threshold-planning-quantities-emergency; and 40 CFR Appendix A to Part 355, The List of Extremely Hazardous Substances and Their Threshold Planning Quantities.

[9] "Risk Management Program," Emergency Management - Environmental Protection Agency, accessed July 30, 2018, https://emergencymanagement.zendesk.com/hc/en-us/categories/201455608-Risk-Management-Program; and "Facility Response Plan (Part 112)," Emergency Management – Environmental Protection Agency, accessed July 30, 2018, https://emergencymanagement.zendesk.com/hc/en-us/sections/202347797-Facility-Response-Plan-Part-112-.

[10] "How to Use the Hazardous Materials Regulations CFR 49 Parts 100 To 185," Pipeline and Hazardous Materials Safety Administration, accessed July 30, 2018, https://hazmatonline.phmsa.dot.gov/services/publication_documents/howtouse0507.pdf.

[11] Environmental Protection Agency, Office of Solid Waste and Emergency Response, *Integrated Contingency Plan ("One Plan") Guidance*, April 1998. Note that if there is an error in a consolidated planning document, it can potentially affect compliance with multiple regulatory programs that the planning provision might be applicable to. Therefore, consolidated plans should be checked very carefully, or several plans maintained that do not attempt to bridge all applicable regulatory programs (Note that the responsibility for plan maintenance remains and is distributed from a single document to multiple documents).

[12] 29 CFR § 1910.38, Subpart E and 29 CFR § 1910.120(q).

[13] EAPs are for "non-responding facilities." Their focus is defensive in that they protect life through warning and evacuation.

[14] ERPs and FRPs are for "responding facilities" they go beyond the defensive actions to protect life and assume offensive actions to respond to, reduce, and eliminate the hazard.

[15] 29 CFR § 1910.120(q); 40 CFR § 112; and "Summary of the Clean Air Act," Environmental Protection Agency, last modified August 27, 2017,

https://www.epa.gov/laws-regulations/summary-clean-air-act.
[16] "Elements to include in Facility Response Plan," Environmental Protection Agency, accessed July 30, 2018, https://emergencymanagement.zendesk.com/hc/en-us/articles/211415578-Elements-to-include-in-Facility-Response-Plan.
[17] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf; Air Alliance Houston, Et. Al v. Environmental Protection Agency, (United States Court of Appeals for the District of Columbia Circuit, August 17 2018), https://www.cadc.uscourts.gov/internet/opinions.nsf/D635BFF007DFAA56852582EC00509B00/$file/17-1155-1746106.pdf.
[18] Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf; Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[19] Environmental Protection Agency, "Chapter 1:General Applicability," in *General Guidance on Risk Management Programs for Chemical Accident Prevention (40 CFR Part 68)*, last modified April 2004, https://www.epa.gov/sites/production/files/2013-10/documents/chap-01-final.pdf.
[20] "List of Regulated Substances under the Risk Management Plan (RMP) Program," Environmental Protection Agency, last modified August 31, 2017, https://www.epa.gov/rmp/list-regulated-substances-under-risk-management-plan-rmp-program; Environmental Protection Agency, *ECDIC-2000-011 Guidance for Implementation of the General Duty Clause Clean Air Act Section 112(r)(1)* (Washington, DC: Chemical Emergency and Preparedness Office, 2000), accessed July 30, 2018, https://www.epa.gov/sites/production/files/documents/gendutyclause-rpt.pdf and "Risk Management Plan (RMP) Rule," Environmental Protection Agency, last modified July 20, 2018, https://www.epa.gov/rmp.
[21] Risk Management Program," Emergency Management - Environmental Protection Agency, accessed July 30, 2018, https://emergencymanagement.zendesk.com/hc/en-us/categories/201455608-Risk-Management-Program.
[22] Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf; Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, subpart E, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[23] RMP*eSubmit," Environmental Protection Agency, last modified February 12, 2018, https://www.epa.gov/rmp/rmpesubmit; and "Risk Management Plan (RMP) Rule," Environmental Protection Agency, last modified July 20, 2018, https://www.epa.gov/rmp.
[24] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[25] "Vulnerable Zone Indicator System," Environmental Protection Agency, last modified November 27, 2017, https://www.epa.gov/rmp/forms/vulnerable-zone-indicator-system.
[26] Industry groups and several states, including Texas, opposed this change. The latest version of the rule, proposed in the summer of 2018, removed this requirement; however, the original proposed rule implemented according to Air Alliance v. EPA (see above) had this requirement and is therefore effective August 17, 2018.
[27] "EPA Activities Under EO 13650: Risk Management Program (RMP) Final Rule Questions and Answers," Environmental Protection Agency, accessed May 8, 2018, https://www.epa.gov/sites/production/files/2016-

12/documents/rmp_final_rule_qs_and_as_12-21-16_final_formatted_342.pdf. Post-accident investigations and the EO 13650 Working Group also identified this as a major contributing factor to the West, Texas Disaster.

[28] See Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.

[29] "EPA Region 6 (South Central)," Environmental Protection Agency, last modified July 19, 2018, https://www.epa.gov/aboutepa/epa-region-6-south-central.

[30] See the DPS-TDEM Emergency Planner's Toolkit at "The Planner's Toolkit," Texas Department of Public Safety-Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/plannerstoolkit.htm and FEMA's planning pages at ; and "Strategic and Operational Planning," Federal Emergency Management Agency, last modified July 26, 2018, https://www.fema.gov/plan.

[31] Federal Emergency Management Agency, *Comprehensive Preparedness Guide (CPG) 101 Version 2.0*, November 2010, https://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf and "CPG 101 version 2.0, Process and Analysis Support Tool," Federal Emergency Management Agency, March 2011, https://www.fema.gov/pdf/about/divisions/npd/CPG_101_v2_past.pdf.

[32] *Considerations for Fusion Center and Emergency Operations Center Coordination*, May 2010, https://www.fema.gov/pdf/about/divisions/npd/cpg_502_eoc-fusion_final_7_20_2010.pdf.

[33] "Developing High Quality Emergency Operation Plans for Houses of Worship," Federal Emergency Management Agency, last modified May 1, 2014, https://www.fema.gov/media-library/assets/documents/33007.

[34] "Guide for Developing High-Quality Emergency Operations Plans for Institutions of Higher Education," Federal Emergency Management Agency, last modified July 14, 2014, https://www.fema.gov/media-library/assets/documents/33597.

[35] "Developing High-Quality School Emergency Operations Plan," Federal Emergency Management Agency, last modified July 11, 2013, https://www.fema.gov/media-library/assets/documents/33599.

[36] "Pre-Disaster Recovery Planning Guide for Local Governments Final," Federal Emergency Management Agency, last modified February 14, 2018, https://www.fema.gov/media-library/assets/documents/129203.

[37] Texas Department of Public Safety – Division of Emergency Management, *Emergency Management Planner's Guide: CPG 101 Content Requirements*, May 2014, https://www.dps.texas.gov/dem/Preparedness/plannerGuideCPG101.docx; "The Planner's Toolkit," Texas Department of Public Safety-Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/plannerstoolkit.htm; Texas Department of Public Safety – Division of Emergency Management, *Emergency Management Planner's Guide: The Planner's Toolkit*, May 2014, https://www.dps.texas.gov/dem/Preparedness/emerMgmtPlanGuide.docx; Texas Department of Public Safety – Division of Emergency Management, *Emergency Management Planner's Guide: Documentation Standards*, February 2015, https://www.dps.texas.gov/dem/Preparedness/docStandards.pdf; and Texas Department of Public Safety – Division of Emergency Management, *Emergency Management Planner's Guide: Legislation Navigation Guide*, March 2014, https://www.dps.texas.gov/dem/Preparedness/legNavGuide.pdf. Note: The *Legislation Navigation Guide* is out of date and does not reflect 2015 amendments to Texas law or those implemented regulatory changes at the federal level as a result of Executive Order 13650. A more up-to-date legislative guide is in Appendix A. Regulations and rules underwent many changes in 2017-2018 and may continue to do so. Consult the latest information at the weblinks provided in the Appendix and check the date of any information. LEPCs and local emergency planning districts should consult legal counsel regarding any

changes that are unclear, especially those related to the RMP Rule amendments.

[38] "Plans Units," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/plansUnit.htm; "Technological Hazards Unit," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/techHazUnit.htm; "Field Response Section," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/FieldResponse/; "Texas State Coordinators," Texas Department of Public Safety – Division of Emergency Management, July 2018, https://www.dps.texas.gov/dem/FieldResponse/RegStateCoordMap.pdf; "Texas District Coordinators and Areas," Texas Department of Public Safety – Division of Emergency Management, July 2018, https://www.dps.texas.gov/dem/FieldResponse/DistCoordMap.pdf; and "Hazardous Materials Emergency Preparedness (HMEP) Grant Program," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm.

[39] "White Paper: The Practical Evaluation of Local Emergency Planning and Preparedness," National Association of SARA Title III Program Officials, last modified July 25, 2007, https://www.nasttpo.com/pdfs/LEPC-White-Paper.pdf; See also "Guidance Documents," National Association of SARA Title III Program Officials, last modified 2014, https://www.nasttpo.com/guidance-docs.html.

[40] H.R. 302 Section 1236.

[41] "Disaster Recovery Reform Act of 2018," Federal Emergency Management Agency, last modified February 22, 2019, https://www.fema.gov/disaster-recovery-reform-act-2018; and H.R. 302 – FAA Reauthorization Act of 2018, Congress.gov, last modified October 5, 2018, https://www.congress.gov/bill/115th-congress/house-bill/302/text?q=%7B%22search%22%3A%5B%22HR+302%22%5D%7D&r=1.

[42] National Response Team, *NRT-1A: Criteria for Review of Hazardous Materials Emergency Plans*, (Washington, DC: National Response Team, 1998), https://www.nrt.org/sites/2/files/nrt1a%201998.pdf.

[43] "Hazardous Materials Emergency Preparedness (HMEP) Grant Program," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm; and "Hazardous Materials Grants Program," Pipeline and Hazardous Materials Safety Administration, last modified July 14, 2017, http://www.phmsa.dot.gov/hazmat/grants.

[44] EPCRA Sec. 303(d)(3), located at 42 USC 11003(d)(3), states that upon request by LEPCs, facilities must promptly provide information necessary for developing and implementing emergency plans.

Module 6. Training and Exercises

Important Takeaways in Module 6

- LEPCs are venues for training and exercise coordination among community partners.
- There are many training and exercise opportunities available that benefit LEPCs and their members.
- Due to recent changes, communities and LEPCs should complete the most recent Incident Command System (ICS) and the National Incident Management System (NIMS) courses and incorporate changes into planning and operations.
- Some hazmat response training is available free of charge to local responders through the Hazardous Materials Emergency Preparedness (HMEP) training grants program.
- Different types of exercises create opportunities to discover planning and preparedness strengths and weaknesses, and they help participants learn and improve their part of the plan.

Introduction

- *Training teaches.*
- *Exercises practice training.*
- *Plans are the template for that practice.*

These simple ideas define the difference between training, exercises, and planning and the way they link together. They apply to all emergency preparedness activities for communities, including planning for hazmat incidents in transportation or at fixed facilities. Training for LEPCs, emergency managers, facility workers and managers, first responders, and the community provides the basic knowledge that individuals and groups involved in incident and disaster response put into action when called to do so. Exercises offer an opportunity to evaluate the participants' training and their plans and procedures. Plans provide the outlines or template for a response, evaluated in exercises.

The number of opportunities for training at all levels of emergency management and response are too many to list in a single document. Many are at no or low cost to participants and local jurisdictions. The most comprehensive list, useful for LEPC members and all others involved in Texas emergency management and response are on the PreparingTexas.org website.

While the opportunities for training can seem overwhelming, there are no training requirements for LEPC members to serve on an LEPC, only recommendations. As whole community interfaces, LEPCs can play a critical role in sharing and coordinating training opportunities among LEPC member organizations as well as

with different stakeholders in their community. The same LEPC coordination role works for exercises also.

Exercises reveal gaps or offer validation of the effectiveness of a community's training, plans and procedures. LEPCs, in their review function of community and facility plans, learn from exercising those plans what does and does not work, where participants may require additional training (and further exercises), and where plans and procedures require adjustment. Evaluating exercises is not a pass/fail test for those involved. Rather, evaluations serve as a tool to discover an organization's preparedness level and the actions and remedies that are necessary to improve preparedness.

Exercises allow organizations to discover what is already working, as well as what needs improvement. LEPCs provide a critical link for exercise participants to share lessons learned from exercises (and real-world responses) with other organizations, communities and groups to assist in improving their own preparedness.

Exercises are collaborative learning experiences. They help us practice what we know and learn what we do not know. As such, they are an essential part of any comprehensive preparedness program. Threat and hazard identification and risk analysis guide the creation of plans and preparedness goals. Exercises test those plans and those exercises reveal the adequacy of the plans and the degree to which a community is achieving its preparedness goals.

Exercises test and validate:

- Training
- Plans (Emergency Operations Plans [EOPs])
- Procedures (standard operating procedures [SOPs])
- Equipment
- Facilities

All elements participating in an exercise should conduct after-action reviews (AARs) as soon as the exercise concludes and while the experience is fresh in everyone's mind. AARs can and should be both internal to an organization and external with other organizations. Each element, agency or organization conducts an internal AAR following an exercise, looking to identify what worked and what did not within its organization during the exercise. . Organizations then conduct AARs with representatives from each sub-unit or element to determine what worked and did not work in the way the organization came together during the exercise. Finally, organization representatives hold an AAR to discuss what worked and what did not at the whole community level where the organizations interface.

By adopting both an internal and external approach to AARs, each level builds on the next. For example, following a full-scale or functional exercise, a fire company could conduct a quick AAR among its members at the scene of an exercise, including a walkthrough. Representatives could take some of the lessons learned from that AAR to a fire department AAR, which includes representatives and leadership from multiple fire companies (or the whole department). Along the way,

the fire department might discover that some elements of its SOPs require modification or that certain personnel or teams require additional training.

External AARs are those conducted with other elements, agencies and organizations, looking for what did and did not work in the ways those organizations interfaced during the exercise. For example, during an exercise, the fire and police departments may have difficulty communicating between their units in the field, requiring relay through dispatch and resulting in miscommunication.

Information like the example of communication issues will typically show up in internal AARs conducted by fire companies and police squads at the lowest level where the issue presents itself. The issue then passes up through departmental AARs and reviews since it is a higher-level issue and not one the observers of the problem are able to address.

Leaders of the police and fire departments then present the communications issue at a community-level AAR, allowing elected leaders and departmental officers to come up an improvement plan that can address the problem. Continuing the example, the community, via the LEPC, might acquire technology that allows direct communication between the agencies in an emergency through a grant program. According to their improvement plan, elected leaders then instruct department leaders to coordinate rewriting departmental procedures to implement the use of the new technology, evaluating those procedures and the technology in the next exercise, beginning the process again and leading to refinements.

By referencing AARs, organizations and the community develop Improvement Plans (IPs), defining measures and actions to improve performance or modify training, plans, procedures, equipment or facilities in pursuit of achieving the community's preparedness goal. IPs can also be both internal and external. Using the previous example, IPs for the fire department might include testing and evaluating new SOPs to address identified deficiencies, while the community (external) AAR looks to acquire communications technology allowing interoperability between police and fire departments when needed.

After the processes of review, evaluation and improvement, communities and organizations must conduct additional exercises, testing the improvements and looking for new areas to sustain or improve. Exercises, review and improvement are continuous. Having a regular schedule of improvement, testing and re-evaluation is essential for success. Personnel changes and priorities shift within a community. New equipment and procedures may need additional improvement or present entirely new problems. Exercises and AARs are just another step in a continuous process of improvement.

Before plans and exercises, individuals and organizations must possess basic competencies that allow them to participate in exercises. Individuals and organizations obtain such competency through training.

Training

LEPCs are not training organizations, though many LEPCs sponsor and/or promote training opportunities in their communities. In Texas, the Texas Emergency Management Preparedness website, preparingtexas.org—managed by the Training Unit of the Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM)–includes classes on emergency management training, including that for LEPC members.[1]

Additionally, the Federal Emergency Management Agency (FEMA) Emergency Management Institute (EMI) offers a variety of training (some of which is also available through preparingtexas.org). One form of training EMI offers is an independent study online program that fulfills many of the ICS and NIMS training requirements for most aspects of emergency management. The FEMA EMI Independent Study page provides more information and enrollment in training.[2]

This section offers a basic overview of training opportunities for LEPCs and their members. The referenced sources provide additional information, and *Hazardous Materials Emergency Preparedness Projects for LEPCs* lists several training-related projects that communities and LEPCs may undertake.

FEMA and EMI Training Opportunities

FEMA and EMI offer a variety of courses of interest to LEPC members and their constituent organizations. The FEMA EMI Independent Study page and preparingtexas.org provide a complete list. This section discusses some of those courses, and Planning for Emergency Response–Training Project 2 in the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document provides additional information.

LEPCs may set training requirements as part of their bylaws. Requirements may vary according to position. For example, while all LEPC members should possess a basic understanding of ICS/NIMS and hazardous materials, members of training/exercise or planning subcommittees might require training related to their committee assignments. Appendix C provides sample LEPC bylaws.

ICS/NIMS-Related Courses

FEMA, DPS-TDEM and the Environmental Protection Agency (EPA) encourage LEPC members to complete basic ICS and NIMS training through the FEMA EMI Independent Study Program or classroom study. During the implementation of NIMS, FEMA issued the following guidance:

> *State and local personnel with a direct role in emergency response or incident management must complete training in ICS 100, ICS 200, IS 700 and IS 800. Many members of the LEPC who have jobs that deal with incident management or response will be required to take these courses. LEPC members who do not perform specific response or incident management functions are not required to take these courses. However, the NIMS Integration Center encourages ALL LEPC members to familiarize themselves with NIMS.*[3]

The Department of Homeland Security (DHS) and FEMA do not exercise authority over LEPCs. The State Emergency Response Commission (SERC) administers LEPCs according to EPA guidance under the authority provided by the Emergency Planning and Community Right-to-Know Act (EPCRA). However, all emergency management plans *must* be NIMS compliant and NIMS is a FEMA/DHS policy/program. Because LEPCs must play a role in emergency management planning and review according to EPCRA, LEPC members must be familiar with ICS and NIMS.

Minimum recommendations require that LEPC members complete basic ICS and NIMS training, especially those courses related to their specific function (e.g., ICS 100.HCb for health care/hospitals). These courses are available online and in classroom settings through preparingtexas.org.

NIMS also undergoes periodic revisions. The most recent changes were in October 2017, with prior revisions in 2004 and 2008. FEMA also revised the ICS courses in June 2018. The latest NIMS guidance is available on the FEMA NIMS website.[4] LEPC members should complete updated training courses following any major revision or familiarize themselves with any changes. There may be a time lag between implementation of new ICS/NIMS guidance and modification of training courses.

The following is a list of current ICS/NIMS-related courses available through the preparingtexas.org and the FEMA EMI Independent Study Programs:

- IS-100.C (ICS 100): Introduction to Incident Command System[5]
- IS-200.b (ICS 200): ICS for Single Resources and Initial Action Incidents[6]
- IS-700.a: National Incident Management System (NIMS), An Introduction[7]
- IS-702.a: National Incident Management System (NIMS) Public Information Systems[8]
- IS-800.b: National Response Framework, An Introduction[9]
- ICS-300: Intermediate ICS for Expanding Incidents[10]
- ICS-400: Advanced ICS, Command and General Staff for Complex Incidents[11]
- ICS-402: ICS Overview for Executives and Senior Officials[12]

LEPC members who are not directly involved in response or incident management functions should take basic training in NIMS and ICS: ICS-100.C or ICS-402, IS-700 and optionally IS-800. Any LEPC members who are likely to assume a supervisory role in the event of an incident should also complete ICS-200. Members who have completed NIMS or ICS training may need periodic refreshers because the course material changes as the underlying FEMA guidance undergoes revision, the most recent in October 2017 (for NIMS) and June 2018 (for ICS).

Hazmat Courses

Additionally, all LEPC members who do not possess training or experience in hazardous materials are highly encouraged to complete IS-5.A: Introduction to Hazardous Materials, available via the FEMA Independent Study Program.[13] Medical personnel can, as an alternative, complete IS-346: An Orientation to Hazardous Materials for Medical Personnel.[14]

Exercise Development Courses

LEPC members participating in exercises or their development and review should consider completing IS-120.C: An Introduction to Exercises and IS-139.A: Exercise Design and Development.[15] Those serving as exercise evaluators are encouraged to complete IS-130.A: How to Be an Exercise Evaluator.[16]

Planning-Related Courses

Given the complex nature of emergency planning, LEPC members, especially those on planning committees or responsible for plan review, may wish to complete courses related to planning. Most LEPC members would benefit from completing IS-235C: Emergency Planning, IS-318: Mitigation Planning for Local and Tribal Communities and IS-328: Plan Review for Local Mitigation Plans.[17]

Other planning-related courses of interest to specific members of the LEPC, depending on their role and organization, include:

IS-11.A: Animals in Disasters: Community Planning[18]
IS-15.B: Special Events Contingency Planning for Public Safety Agencies[19]
IS-212.B: Introduction to Unified Hazard Mitigation Assistance[20]
IS-26: Guide to Points of Distribution[21]
IS-271.A: Anticipating Hazardous Weather and Community Risk[22]
IS-36: Multi-hazard Planning for Childcare[23]
IS-362.A: Multi-hazard Emergency Planning for Schools[24]
IS-366.A: Planning for the Needs of Children in Disasters[25]
IS-453: Introduction to Homeland Security Planning[26]
IS-546.A: Continuity of Operations Awareness Course[27]
IS-554: Emergency Planning for Public Works[28]
IS-660: Introduction to Public-Private Partnerships[29]
IS-662: Improving Preparedness and Resilience through Public-Private Partnerships[30]
IS-703.A: NIMS Resource Management[31]

Facility and First Responder Hazmat Training

Facilities regulated by EPCRA have corporate and company training requirements, in addition to those the LEPC expects of their representatives. Most facilities under EPCRA and the Risk Management Plan (RMP) program must comply with the provisions of 29 Code of Federal Regulations (CFR) 1910.120, also known as Hazardous Waste Operations and Emergency Response (HAZWOPER).[32] HAZWOPER defines the minimum requirements for hazmat operations and emergency response and designates minimum training standards for those engaged in activities regulated by HAZWOPER.

HAZWOPER requires the implementation of a site-specific Incident Command System. Therefore, personnel involved in HAZWOPER operations should have some level of familiarity with ICS or receive ICS training (listed in the LEPC Member Training section above). 29 CFR 1910.120(q)(6) and its subsections also outline specific training requirements for employees depending on their role. Before employees may take part in actual emergency operations in an incident, they must complete training in compliance with 29 CFR 1910.120.

Not all facilities have employees trained to all the levels designated by 29 CFR 1910.120, though EPCRA facilities should have designated employees trained to at least the *Awareness* level (see below). Some facilities, especially large facilities with on-site response capabilities, may have personnel trained beyond the HAZWOPER minimums. Many facilities have individuals trained to one or more HAZWOPER levels who have incident response or management responsibilities in an incident. Some of these individuals may work at corporate headquarters or locations other than the regulated facility. Other facilities have few individuals trained beyond the *Awareness* level and may contract out their entire hazmat response to other companies with personnel trained to higher levels, a situation especially common in the hazardous materials transportation and oil industries.

Facilities and employers determine their training requirements in accordance with applicable laws, regulations and company policies. Each training level under 29 CFR 1910.120 is "employer certified." This phrase means that the training requirements under HAZWOPER do not have an external certifying agency. Rather, internal training, experience or contracted training from outside providers may meet the requirements under the law if it complies with the minimums established in the regulation. The ultimate responsibility for certifying an employee as meeting the requirements of HAZWOPER, either through training or experience, is up to the employer/facility itself and its policies and procedures.

First Responder Awareness Level

According to 29 CFR 1910.120, the *Awareness* level of training includes all individuals "who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release." This requirement includes EPCRA-required notifications. *Awareness*-level employees "take no further action beyond notifying the authorities of the release."[33]

29 CFR 1910.120 does not designate required training time at the Awareness level.[34] Awareness training, according to 29 CFR 1910.120(q)(6)(i) and its subsections, should allow those trained to demonstrate the following competencies:

- An understanding of what hazardous substances are and the risks associated with them in an incident.
- An understanding of the potential outcomes associated with an emergency when hazardous substances are present.
- The ability to recognize the presence of hazardous substances in an emergency.
- The ability to identify the hazardous substances, if possible.
- An understanding of the role of the first responder *Awareness* individual in the employer's emergency response plan, including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.
- The ability to realize the need for additional resources and to make appropriate notifications to the communications center.

First Responder Operations Level

According to 29 CFR 1910.120, first responders at the *Operations* level are "individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release." First responders at the *Operations* level possess training allowing them to respond defensively to an incident without trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders certified at the *Operations* level "shall have received *at least eight hours of training* or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level:"[35]

- Knowledge of the basic hazard and risk assessment techniques.
- Knowledge of how to select and use proper personal protective equipment provided to the first responder operational level.
- An understanding of basic hazmat terms.
- Knowledge of how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available to their unit.
- Knowledge of how to implement basic decontamination procedures.
- An understanding of the relevant SOPs and termination procedures.

Hazardous Materials Technician

According to 29 CFR 1910.120, *hazardous materials technicians* are "individuals who respond to releases or potential releases to stop the release. They assume a more aggressive role than a first responder at the *Operations* level in that they will approach the point of release to plug, patch or otherwise stop the release of a hazardous substance. *Hazardous materials technicians* shall have received at least 24 hours of training equal to the first responder *operations* level and in addition have competency in the following areas:"[36]

- Knowledge of how to implement the employer's emergency response plan.
- Knowledge of the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.
- The ability to function within an assigned role in ICS.
- Knowledge of how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.
- An understanding of hazard and risk assessment techniques.
- The ability to perform advanced control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available to the unit.
- An understanding of and the ability to implement decontamination procedures.
- An understanding of termination procedures.
- An understanding of basic chemical and toxicological terminology and behavior.

Hazardous Materials Specialist

Under 29 CFR 1910.120, *hazardous materials specialists* are "individuals who respond with and provide support to *hazardous materials technicians*. Their duties parallel those of the *hazardous materials technician*, however, those duties require a more directed or specific knowledge of the various substances they may have to contain. The *hazardous materials specialist* would also function as the site liaison with federal, state, local and other government authorities regarding site activities. *Hazardous materials specialists* shall have received at least 24 hours of training equal to the *technician* level and in addition have competency in the following areas:"[37]

- Knowledge of how to implement the local emergency response plan.
- An understanding of classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.
- Knowledge of the state emergency response plan.
- The ability to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.
- An understanding of in-depth hazard and risk techniques.
- The ability to perform specialized control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available.
- The ability to determine and implement decontamination procedures.
- The ability to develop a site safety and control plan.
- An understanding of chemical, radiological, and toxicological terminology and behavior.

On-Scene Incident Commander

Incident commanders operate under the principles of ICS and NIMS. According to 29 CFR 1910.120, certified on-scene incident commanders who assume control of a hazardous materials incident scene beyond the first responder *Awareness* level require at least 24 hours of training equal to the first responder *Operations* level, and must have the following competencies[38]:

- Knowledge of and the ability to implement the employer's ICS.
- Knowledge of how to implement the employer's emergency response plan.
- Knowledge and understanding of the hazards and risks associated with employees working in chemical protective clothing.
- Knowledge of how to implement the local emergency response plan.
- Knowledge of the state emergency response plan and the federal Regional Response Team.
- Knowledge and understanding of the importance of decontamination procedures.

Trainers

According to 29 CFR 1910.120(q)(7), *trainers* who teach any of the above "shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the U.S. National Fire Academy, or they shall have the training and/or academic credentials and instructional

experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach."

State, federal, local and private firms offer a variety of train-the-trainer courses related to HAZWOPER and incident response. Some of these may be reimbursable or at low cost through several different programs. The preparingtexas.org website provides more information. Communities in rural or remote areas may consider joining with neighboring jurisdictions to develop shared trainers in order to meet the needs of their communities and reduce costs.

First Responder Competency Standards

Public agency first responders and some facility responders may have hazmat training beyond that required in 29 CFR 1910.120. Union contracts, state- or national-level certification agency requirements, and/or local and state laws and regulations usually reference any applicable standards. In the vast majority of cases related to hazardous materials, the standards referenced are the National Fire Protection Association (NFPA) standards defined in NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.[39] A more-recently developed, similar standard is NFPA 1072: Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications, [40] which converts the NFPA 472 content into a format that is more conducive to certification. [41]

The NFPA standards go beyond those in 29 CFR 1910.120 and are optional unless referenced in contract, law, regulation or certifying agency policy under which an organization operates–are optional. Many organizations providing hazardous-materials-related training, including courses available through preparingtexas.org, follow the NFPA standards. Organizations or facilities who are arranging training for their employees with outside organizations in order to comply with the HAZWOPER standards should inquire whether the training also meets NFPA standards and document the compliance accordingly.

The NFPA standards mirror those under HAZWOPER, though with more stringent competency requirements. The NFPA standard also identifies additional competencies for certain specialties beyond those contained in 29 CFR 1910.120. Specifically, NFPA 472 and NFPA 1072 identify competency standards for the following positions:

- Awareness-level responders
- Operations-level responders
- Operations-level responders assigned mission-specific responsibilities
- Incident commanders
- Specialist employees
- Hazardous materials officers
- Hazardous materials safety officers
- Hazardous materials technicians

Additionally, hazardous materials technicians can qualify with one of the following specialties under NFPA 472:

- Tank car
- Cargo tank
- Intermodal tank
- Marine tank and non-tank vessel
- Flammable liquids bulk storage
- Flammable gases bulk storage
- Radioactive material
- Advanced monitoring and detection
- Consequence analysis and planning
- Advanced chemical risk assessment and analysis
- Advanced product control
- Weapons of mass destruction
- Advanced decontamination

LEPCs, facilities or agencies seeking additional information about these and other standards related to hazmat training should consult the NFPA website and the most current version of NFPA 472 and NFPA 1072. [42] Additionally, NFPA offers other guides and other competency standards of interest to LEPCs and facilities, including:

- NFPA 424: Guide for Airport/Community Emergency Planning
- NFPA 600: Standard on Facility Fire Brigades
- NFPA 1081: Standard for Facility Fire Brigade Member Professional Qualifications
- NFPA 1082: Standard for Facilities Safety Director Professional Qualifications
- NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs
- NFPA 1620: Standard for Pre-incident Planning

The NFPA website provides a complete list of NFPA emergency response standards.[43]

Hazardous Materials Emergency Preparedness Training Grants

In Texas, TDEM's Hazards Unit, Preparedness Section administers Pipeline and Hazardous Materials Safety Administration (PHMSA) Hazardous Materials Emergency Preparedness (HMEP) grants. A significant component of the HMEP grant funding is to make available hazmat response training for locally-affiliated first responders. The Texas Engineering Extension Service (TEEX) provides the training, and courses are available at the site of a local host or TEEX's College Station facilities (see below for more information about hazmat training through TEEX).Texas HMEP grants are used to pay for the training of more than 1,000 responders annually.

Training costs covered through the HMEP program include course delivery and course tuition. Residents of rural counties may also be eligible for travel, lodging,

and per diem reimbursement. Specific details for classes offered through the HMEP Training Grant program are available at the Preparing Texas Training Catalog web page for hazmat classes. As of the date of this publication, the following classes are available through the program:

- H-100: HazMat Awareness
- H-101: Pipeline Emergencies - Awareness
- H-200: HazMat First Responder Operations
- H-201: Pipeline Emergencies - Operations
- H-202: Pipeline Emergencies - Awareness / Operations
- H-203: Confined Space Safety
- H-204: HazMat First Responder Awareness/Operations
- H-301: HazMat Emergency Response Technician
- H-302: HazMat Refresher Training
- H-303: Pipeline Emergencies - Technician
- H-304: Confined Space Rescue
- H-305: Oil Spill Containment, Protection, and Recovery Tactics (Inland Water)
- H-306: NFPA 1006 Trench Rescue (Non-Certification)
- H-307: NFPA 1072 Product Control
- H-401: HazMat Incident Command System
- H-402: NFA Chemistry for Emergency Response
- H-403: National Fire Academy Hazardous Materials Operating Site Practices (N0229)
- H-405: Air Monitoring for Hazardous Materials
- H-500 HazMat Technician - Texas Commission on Fire Protection (TCFP) Certification
- H-501: NFPA 1072 HazMat Technician - Pro Board Certification
- H-502: NFPA 1072 Incident Command, Pro Board Certification
- H-503: NFPA 1006 2013 Edition Confined Space Rescue Levels I and II Training (Pro Board Certificates)
- H-504: NFPA 1006 2008 Edition Trench Rescue Levels I and II Pro Board Certification
- H-505: NFPA 1072 Product Control Specialist (Pro Board Certification)
- H-506: NFPA 472 HazMat Rail Specialist, (Pro Board Certification)
- H-507: NFPA 472 HazMat Highway Specialist (Pro Board Certification)
- H-508: NFPA 472 HazMat Intermodal Specialist - (Pro Board Certification)
- H-509: NFPA 472 HazMat Transportation Specialist - (Pro Board Certification)
- H-510: NFPA 1072 Air Monitoring and Sampling for Hazardous Materials, Pro Board Certification
- H-511: NFPA 1072 HazMat Awareness Pro Board Certification
- H-512: NFPA 1072 HazMat First Responder Operations, Pro Board Certification

Training at Texas A&M Engineering Extension Service

As described in the previous section, the Texas A&M Engineering Extension Service (TEEX) is the primary training provider for Texas' HMEP Training Grant program, administered through Texas Division of Emergency Management. TEEX's National

Emergency Response and Recovery Training Center (NERRTC) is also a member of the National Domestic Preparedness Consortium (NDPC), and provides more than 55 courses of courses through DHS/FEMA's Homeland Security National Training Program (HSNTP) including those that cover hazmat response.

NERRTC provides training in ten core competency areas across the responder community: cybersecurity, crisis communications, executive and elected officials education, hazmat awareness and operations, health and medical services, incident management, infrastructure protection, search and rescue, threat and risk assessment, and training gap analyses. The NDCP currently offers more than 55 courses through the HSNTP. Many of the HSNTP courses apply to all-hazards preparedness and response, which include hazmat and all other types of emergencies and disasters. Hazmat-specific courses include:

- AWR-111-W: Basic Emergency Medical Services Concepts for Chemical, Biological, Radiological, Nuclear, and Explosive Events, web-based
- AWR-160-F: Conocimiento Sobre Armas de Destrucción Masiva/Terrorismo para Socorrista
- AWR-160-W: WMD/Terrorism Awareness for Emergency Responders, web-based
- PER-211: Medical Management of Chemical, Biological, Radiological, Nuclear, and Explosive Events
- PER-212: Operational Level Response to HazMat/WMD Incidents
- PER-212-1, Operational Level Response to HazMat/WMD Incidents, Train-the-Trainer
- PER-320: Personal Protective Measures for Biological Events

In addition to the hazmat specific courses, TEEX/NERRTC also delivers the following incident management courses that focus on the management of hazardous materials, and other types of incidents:

- MGT-904: Intermediate ICS for Expanding Incidents (ICS 300)
- MGT-905: Advanced ICS for Command and General Staff – Complex Incidents (ICS 400)
- MGT-314: Enhanced Incident Management for All-Hazards Incident Management / Unified Command
- MGT-346: EOC Operations and Planning for All Hazards

In addition to these courses and depending on the need, TEEX also provides training across the nation and on their College Station campus to Class 1 railroads, the energy sector (e.g. Exxon Mobil, Phillips 66, Valero, Marathon) as well as the local first response agencies that support them.

TEEX has many course options outside of HSNTP funded courses that would be of value to first responders. A sample list of TEEX courses not covered by any corporative agreement or sustained federal funding includes, but is not limited, to the following:

Industrial Emergencies for Municipal Based Responders (IEMBR): The IEMBR program trains municipal firefighters to handle industrial and other non-traditional emergencies. Phase I, the online portion of this training, targets a

specific tactical approach for handling an industrial emergency response. It is currently offered at no cost for the attendee. Phase II, the practical hands on-exercises portion of the training delivered at Brayton Fire Field, introduces and reinforces the tactical methods required to mitigate an industrial emergency incident. TEEX currently has limited funding through a FEMA Assistance to Firefighters Grant to deliver the course through FY 18, including travel for participants. More information is available at https://teex.org/Pages/Program.aspx?catID=721&courseTitle=Industrial%20Emergencies%20for%20Municipal%20Responders

Crude Oil by Rail (CBR) Training: TEEX has a new, state-of-the-art CBR rail training prop and curriculum designed by leaders in hazmat training, including response professionals from the Class 1 railroads and petroleum industries. Crude by Rail Emergency Response is a hands-on course designed to provide emergency responders with the skills and knowledge needed to mitigate a flammable liquid fire involving railcars. This course covers industry regulations concerning crude oil transportation, and the possible behaviors of a burning crude oil tank car involved in a train derailment, the characteristics of crude oil and examines the various types of flammable liquid firefighting equipment used in the event of a crude oil fire. More information is available at https://teex.org/Pages/Class.aspx?course=IND004&courseTitle=Crude By Rail Emergency Response Training.

Image courtesy of TEEX.

Advanced-level Hazmat Pro Board Certified Training Courses: These courses are taught in compliance with NFPA 472/1072 and are companion courses to those (Hazmat Awareness, Operations, Personal Protection Equipment (PPE)) currently offered by TEEX and funded by DHS (NDPC). These certification-based courses include and are currently offered by TEEX in certification and non-certification formats: TEEX offers a full array of HAZMAT training ranging for Awareness to Advanced Transportation Specialist training. The course can be taught for NFPA 472 and NFPA 1072) certification. TEEX has curriculum, equipment, training props, test banks and other resources to support all 12 accredited levels within the NFPA 472 and 1072 standards. A complete listing of HAZMAT courses offered by TEEX can be found at - https://teex.org/Pages/Program.aspx?catID=8&courseTitle=Hazardous%20Materials&division=%. They include:

Image courtesy of TEEX.

- Hazmat Mission-Specific Competencies as found in Chapter 6 of NFPA 472/1072 (PPE, Product Control, Air Monitoring, Illicit Drug Laboratories, Decontamination, etc.)
- Hazmat Incident Command
- Hazmat Technician
- Hazmat Container Specialist (Highway, Rail and Intermodal Specialist)
- Hazmat Flammable Liquid and Flammable Gas Specialist

Community Training and Education

Both the National Response Team *Hazardous Materials Emergency Planning Guide* (NRT-1) and the FEMA *Comprehensive Preparedness Guide* (CPG-101) note the importance of a public information and education program. NRT-1 emphasizes the importance of public outreach in educating the public about warning systems, evacuation routes and shelter-in-place procedures. CPG-101 notes public education in shelter operations and the FEMA Citizen Corps councils and other programs, such as the Community Emergency Response Team (CERT) program. The following programs may support LEPC-based public information, education and outreach programs or offer points of cooperation for such programs.

Citizen Corps Programs

Nationally, DHS administers the Citizen Corps program.[44] DHS coordinates its programs with the Corporation for National and Community Service (CNCS) to promote volunteer service activities that support homeland security and community

safety.[45] CNCS is best known for its two most prominent programs, AmeriCorps and Senior Corps, and both programs support a Disaster Response Team.[46]

The Citizen Corps program, of which CERT is a part in Texas, directly aligns with the National Preparedness Goal and the whole community approach to preparedness and emergency management. The Texas Association of Regional Councils manages the Texas Citizen Corps program. The Texas Association of Regional Council Citizen Corps webpage provides more information.[47]

The Texas Citizen Corps program consists of five separate programs:

- CERT
- The Fire Corps
- The National Neighborhood Watch
- The Medical Reserve Corps (MRC)
- Volunteers in Police Service (VIPS)

FEMA's CERT program trains community volunteers in disaster preparedness and basic disaster response skills.[48] LEPCs that work with CERT programs supply training and education on hazmat, shelter in place, and other topics, while CERTs also offer an opportunity to recruit new LEPC members. Ready.gov's CERT website provides more information on the CERT program.[49]

The Fire Corps is a DHS-funded program that "promotes the use of citizen advocates to enhance the capacity of resource-constrained fire and rescue departments at all levels: volunteer, combination and career."[50] Citizen advocates can assist local fire departments in a range of activities including fire safety outreach, youth programs, and administrative support, potentially including support to fire department related LEPC activities.[51]

The National Neighborhood Watch program, administered by the National Sheriffs' Association, exists in many communities. Many watch programs overlap with CERT and other training programs. The National Neighborhood Watch Program website provides more information.[52] A related program sponsored by the National Association of Town Watch is the National Night Out, which many police jurisdictions participate in along with community associations and Neighborhood Watches.[53]

The Medical Reserve Corps (MRC), administered nationally by the Department of Health and Human Services, brings together medical, public health and volunteer personnel with medical expertise to support communities during local disasters and public health emergencies. The MRC website offers more information.[54]

The Texas MRC Medical Brigade is a program under the jurisdiction of Texas Military Forces and is part of the Texas State Guard under the command of the Texas Adjutant General, co-sponsored by the University of Texas Health Science Center at San Antonio and other state-supported science centers. Additionally, the Texas Department of Health and Human Services and several communities and regions around Texas have their own MRC groups. MRC personnel may make good LEPC

members and LEPCs may wish to coordinate outreach, training, and education programs with local MRC activities or members.

The International Association of Chiefs of Police administers the Volunteers in Police Service (VIPS) program, funded by the Department of Justice. The program supports several law enforcement volunteer programs. The VIPS website provides more information.[55] VIPS volunteers are also a potential source for LEPC recruitment, education and outreach efforts.

These programs and volunteer activities are useful starting places for LEPCs looking to expand their membership, recruit volunteers, and carry out their public education and outreach functions.

Community Groups

LEPCs can find many other opportunities to educate their communities by engaging with other groups, including:

- Civic organizations (e.g., Rotary and Lions)
- Fraternal organizations (e.g., Knights of Columbus and Masons)
- Churches and religious organizations
- Veterans groups (e.g., Veterans of Foreign Wars and American Legion)
- Schools and adult education programs
- Homeowners associations
- Local chapters of professional and industrial associations
- Recreational and senior centers/organizations (e.g., YMCA and YWCA)

A good community education and outreach program need not be time consuming. Many community organizations welcome speakers from external organizations like LEPCs. A simple explanation of the LEPC, along with a call for volunteers, can increase public participation in an LEPC because most citizens are unaware of their local LEPC.

Other Agencies, Organizations and Industries

LEPCs can and should support and publicize other outreach programs and efforts. An LEPC can serve as a forum to share opportunities for outreach and deconflict training and education programs to avoid duplication of effort. Formal training on shelter-in-place procedures or evacuation routes may already be part of another agency/organization's program and is often part of the local emergency management agency's local public information or education program.

In areas with a large concentration of industry, local EPCRA-regulated facilities may also have a public outreach and information program offering training to local community groups. In some cases, the LEPC directly sponsors or supports these programs. Adequate for most other LEPCs is a simple outreach and engagement program with community organizations, along with activities that support or publicize existing training and education opportunities for the community.

Other Training Opportunities of Interest to LEPCs

Pipeline and Hazardous Materials Safety Administration Courses

Aside from the HMEP Training Grant program described previously, the Pipeline and Hazardous Materials Safety Administration (PHMSA) funds three other training programs of interest to LEPCs:

- The Hazmat Instructor Training (HMIT) program
- The Assistance for Local Emergency Response Training (ALERT) grant program
- The Supplemental Public Sector Training grant program

The HMIT program funds a course at the Texas A&M Engineering Extension Service designed for private- and public-sector employees involve in hazardous materials shipping and receiving, and teaches them to develop hazmat training programs.[56] This course is especially useful for facilities wishing to improve their hazmat training programs.

The ALERT grant program funds a training program provided by the International Association of Fire Chiefs (IAFC). The program provides hazmat training for volunteer or remote/rural emergency responders and focuses on emergency response to incidents involving the rail transport of crude oil, ethanol and other flammable liquids. Commodity flow studies around Texas show that rail and road transport of such flammable liquids is one of the most common hazardous materials risks for most communities in Texas. The IAFC ALERT grant page provides more information on the ALERT training program.[57]

The Supplemental Public Sector Training grant program, via the International Association of Fire Fighters (IAFF), provides several hazardous materials training programs. The IAFF Hazmat Training page supplies more information.[58]

Railway and Pipeline Courses

Several response training programs related to railway and pipeline transport of hazardous materials are of interest to LEPCs and the communities they serve.

The IAFC, National Association of State Fire Marshals and National Volunteer Fire Council sponsor the Pipeline Emergency Response Training program.[59] The program offers courses on emergency personnel awareness, first responder operations, hazmat technician tactical response guidelines, and liquefied natural gas emergencies.

The Security and Emergency Response Training Center in Pueblo, Colorado, is operated on behalf of the Association of American Railroads to train the transportation service industry, public-sector emergency responders, the chemical industry, government agencies, and emergency response contractors in hazardous materials tank car safety and response.[60] The center operates several training programs both at its training site in Colorado and elsewhere. The Security and Emergency Response Training Center website has more information.[61]

Many rail operators also offer training programs for first responders in their jurisdiction, some of which involve special training cars that first responder may use to practice hazardous materials response operations. For more information, contact the freight railroads operating in your jurisdiction. In Texas, these rail operators are usually Union Pacific Railroad, the Kansas City Southern railroad or BNSF Railway.[62]

Many hazardous materials carriers and industry organizations participate in the Transportation Community Awareness and Emergency Response (TRANSCAER) organization, which provides an extensive amount of haz mat-related training and preparedness information to communities across the U.S.. The TRANSCAER website offers more information.[63]

Exercises

Short of real-world events that no one wants to happen, exercises are the only way for a community to assess its planning and preparedness and are a critical part of the emergency management planning cycle. Plans seldom hold up when played-out in real-world incidents (or even in realistic scenarios). That is why exercises are so valuable. Not only do exercises show planning strengths and weaknesses, they are an opportunity for everyone to learn their part of the plan. That is why exercises are especially valuable for those who did not take part in the planning process.

President Dwight Eisenhower recalled words he had heard in the army when he said, "Plans are worthless, but planning is everything."[64] What he likely meant is that things seldom go according to plan but the process of planning allows leaders and organizations to think through problems and scenarios, discuss them, and evaluate their response. Working through the planning process in that way means that when the plan fails, those who were part of the planning process already thought about what to do and worked out how to deal with many situations, even if the one they now face is different than they expected. Having developed alternate scenarios during their planning and knowing the resources and pieces available when the plan falls apart, it is likely they already have an idea of what to do next. *The more planning you do, the better prepared you are when the plan fails*.

LEPCs in Texas, in most cases, *do not* write emergency plans. *Facilities and community emergency management districts write plans*, though facilities may contract the plan to a third party or to individuals in another state or different part of the company far removed from the facility. Likewise, some emergency management and response organizations work in silos with plans developed without widespread participation from the agencies and organizations expected to execute the plan in an emergency. Interagency disputes sometimes result in conflicting plans and procedures, which is a reality for many LEPCs.

Exercises are an opportunity to get everyone on the same page, even if the nature of the planning that preceded the exercise was suboptimal. LEPCs have a vital role to play in that they bring together all elements of the community, including some who may not regularly participate in emergency management exercises or planning. LEPCs review EOPs and can serve as a forum for deconflicting plans and procedures between both public and private agencies and organizations.

Exercises are a requirement of EPCRA and LEPCs can be a significant help in scheduling, planning and even funding exercises. While LEPCs might not participate in the exercises as an entity, their members often do. Following an exercise, LEPCs provide an ideal forum to discuss and review what did and did not work in the local Emergency Operations Plan and to develop a plan to implement changes and share successes.

LEPC members, especially those whose role does not typically include emergency management and response, may also benefit from participation in an LEPC seminar, workshop or tabletop exercise designed to help members better understand the challenges and experience of emergency management and response.

Types of Exercises

Exercises vary in complexity and size, and there are two general categories:

- Discussion-based
- Operations-based

Most jurisdictions and organizations have some requirements for exercise frequency, usually beyond those specified in federal and state regulations. The preferred method, used by most emergency management organizations, is to conduct exercises in a progression from the least involved (discussion-based) to major full-scale (operations-based) exercises involving response agencies simulating a response on the ground. This progression occurs over a set cycle, usually two years, before the cycle begins again.

The state of Texas and the federal government provide evaluators and facilitators to communities and both run larger exercise programs that can involve communities in exercises that assess state emergency plans and the National Response Framework (NRF).

This section provides a brief overview of the various types of emergency management exercises and exercise programs. FEMA's Training and Exercises

resource page for community and voluntary organizations provides more detailed examinations of these and other exercise programs.[65]

Discussion-Based Exercises

Seminars
Seminars are informal discussions about plans, policies or procedures. Participants review an updated or existing plan to familiarize themselves with its contents.

Workshops
Workshops are like seminars, but the aim is to produce a specific plan, policy or procedure, usually in draft form. Workshops are an effective way to incorporate changes to EOPs, SOPs and other documents based on input from AARs or during periodic planning review cycles.

Tabletop Exercises
Tabletop exercises are informal exercises that use simulated disaster scenarios. Participants discuss how they would respond to the scenario. Tabletop exercises can be simple or complex, involving a basic scenario up to multiple information *injects* in an evolving scenario across multiple operations centers. Tabletop exercises are a low-cost, low-impact way to assess current plans, policies and procedures, and determine areas of improvement.

Games
Games are like tabletop exercises in that they simulate disaster response operations in a discussion-based format. They involve two or more teams, who may compete against each other or act in cooperation. Participants discuss their response to a scenario with a facilitator or facilitators within a defined set of rules, data and procedures that determine outcomes. Depending on the format and system used, these games are a sort of role-playing or war game for emergency responders. Games work best at the tactical level of emergency response, such as fire crews or police units, but can be adapted for operations-level exercises in a non-competitive manner.

Operations-Based Exercises

Drills
Drills are limited exercises involving a single entity (e.g., a fire department or fire company) in a coordinated, supervised scenario that evaluates an operation, function or component of that organization's SOPs. For example, a fire department may run a decontamination drill involving a single fire company, or an organization like the Red Cross may conduct a call-out drill for its personnel to practice establishing shelter operations.

Functional Exercises
Functional exercises assess the interfaces, command, control and coordination between multi-agency centers (e.g., EOCs, fusion cells, joint offices and incident command posts). A functional exercise uses a scenario to test coordination in a formal setting but does not involve boots on the ground. Instead of first responders responding to an incident on the ground in real time, role players and facilitators provide information from the field to facilitate the exercise. Functional exercises can

occur within a jurisdiction or be multijurisdictional and incorporate elements of state and federal agencies and organizations.

Full-scale Exercises
Full-scale exercises are multi-agency, multidiscipline exercises that incorporate elements of drills and functional exercises. These exercises test all elements of a jurisdiction's emergency management system—from first responders responding to a simulated incident in the field with their equipment under a deployed incident command post, up to interagency coordination within the EOC and the various other elements of a jurisdiction's emergency management system. In the case of multijurisdictional, state or federal exercises, full-scale exercises test the interfaces between the various agencies and jurisdictions. Responders from the state and federal level may also participate at all levels of the exercise, from the local response and incident command all the way up to FEMA/DHS and the White House Situation Room.

Facility and Other Organizational Exercises

Facility Exercises

EPCRA does not require regulated facilities to conduct exercises or participate in community exercises. Some states have regulations that require exercises for EPCRA facilities, but Texas does not.

The amended RMP rule, now in effect, requires facilities regulated under the rule to establish a schedule of exercise frequency in consultation with local emergency management officials that includes at least one emergency notification exercise annually (testing emergency notification systems), one tabletop exercise every three years, and at least one field exercise (i.e., full-scale exercise or drill) every 10 years.[66] Under current regulation, facilities must complete their coordination of exercise schedules and have an exercise plan in place before March 15, 2021.

The current EPA administration proposed changes rule that would modify or remove some or all these exercise requirements. That process is ongoing and until EPA changes the regulations again, compliance with the current statutes is required. LEPCs should monitor the ongoing RMP rule amendment process due to the regulatory uncertainty. See also the discussion of RMP issues in Module 4, Module 5, and Appendix A.

Ready.gov offers several suggestions for businesses in the private sector looking to increase their resilience, planning and preparedness. The site includes a guide on implementing an exercise program.[67]

Hospital and Health Care Exercises

In 2017, the U.S. Department of Health and Human Services final rule Emergency Preparedness Requirements for Medicare- and Medicaid-participating providers and suppliers went into effect.[68] This rule requires facilities regulated under the rule to perform risk assessments and establish all-hazards EOPs, emergency management and response policies, along with procedures that support the plan, as well as an emergency preparedness communications plan in accordance with FEMA guidance.

Additionally, the rule requires facilities to develop and maintain an emergency preparedness training and testing program that includes drills and exercises.

LEPCs should actively seek to involve their local health care and medical community in their activities, coordinating decontamination and patient care between facilities, first responders, emergency medical services and emergency medical centers.For more information on the requirements under the Emergency Preparedness Rule, see the Centers for Medicare & Medicaid Services Emergency Preparedness Rule website.[69]

Schools and Institutions of Higher Learning

The Texas Education Code 61.1036(3)(f) requires schools and institutions of higher learning in Texas that have ten or more school days (including summer school) to conduct fire drills once each month and one drill within ten days of beginning classes. However, best practices and the Texas School Safety Center recommend additional drills and exercises and many school districts and institutions of higher learning in the state conduct exercises and drills on a regular schedule.

Figure 4 (following page) is from the Texas School Safety Center Training, Drilling and Exercising Toolkit. It recommends schools conduct one shelter-in-place hazmat drill each semester. The Texas School Safety Center website provides more information about emergency management programs for schools and institutions of higher learning.[70]

LEPCs should involve both public and private school districts and school leadership at all levels to include institutions of higher learning in LEPC activities and membership. LEPCs should evaluate the potential off-site impacts of hazardous materials releases on schools in their authority. Many emergency plans look only at fixed facilities and fail to account for bus routes, stops and related school transportation in relation to off-site impacts. *Communities and schools need not only plans for both shelter-in-place and evacuation of their schools, but also plans that cover what to do if children cannot return home or cannot reach school because of a shelter-in-place or evacuation that includes their route home.*

The Role of LEPCs in a Community Exercise Program

LEPCs, as an entity, do not typically function as a participant in community exercises, except in their own discussion-based exercises, seminars and workshops.[71] LEPCs are a point of exercise coordination and via grant programs, can provide sources of funding for community exercises.

The primary role of LEPCs in a community exercise program is as a source of deconfliction and coordination when developing a quality community-wide training and exercise program that is mutually supportive and successful. While other organizations usually determine the actual exercise schedule, LEPCs are a good place to coordinate community-wide exercises.

Because exercises build on training, LEPCs can examine training opportunities in the community and find ways to schedule exercises that optimize learning outcomes in the wake of any training activities. For example, if a fire department

informs the LEPC of upcoming hazmat training for its personnel, the LEPC may wish to coordinate with local police and emergency medical services for a corresponding training course for their personnel, culminating in a combined drill, functional exercise or full-scale exercise involving a hazmat scenario. Further expansion might include community evacuation training or a school shelter-in-place drill as part of the exercise.

Drill Type	Frequency (Minimum)	Guidance
Fire Evacuation	One Fire Drill each month that has 10 or more school days (including summer school), including one drill within 10 days of the beginning of classes (TEC 61.103, Section 3, F)	• One announced drill (during first two weeks of new school year) • One obstructed drill each semester • One drill with special circumstances (scheduled during lunch, class change, accountability/reunification issues, functional needs, etc.) • Test evacuation procedures not usually addressed during fire drills (Check with your local fire department about receiving fire drill credit for this drill)
	Recommended Practices	
Lockdown	One drill each semester and each summer school session	• Allow time after the drill for teachers and students to talk about options and safety considerations • Provide ways for staff to share their own concerns and those of students with administrators
Reverse Evacuation	One drill each semester and each summer school session	Consider conducting this drill in conjunction with other drills
Severe Weather/Tornado	One drill each semester and each summer school session	
Shelter-in-place/Hazardous Materials	One drill each semester and each summer school session	

Figure 4 Texas School Safety Center drill expectations and frequency.[72]

The possibilities for improved coordination and scheduling are endless, but the goal is the same–LEPCs are the whole-community linkage that a good training and exercise program and schedule need to be mutually supportive and improve overall community resilience and preparedness.

State and Federal Exercise Programs

Texas State Exercise Program

The DPS-TDEM Exercise Unit:

- Provides "support to local jurisdictions, regional and state level agencies, and

Voluntary Organizations Active in Disaster (VOAD) to design, conduct and evaluate emergency exercises at all levels."[73]

- Develops and coordinates the Texas state exercise program schedule in coordination with other state agencies and local governments.
- Administers compliance with the Emergency Management Performance Grant (EMPG) exercise requirements.
- Provides extensive information about exercises and Training and Exercise Programs (TEPs) on its website, where communities can also locate Exercise Reporting Forms and information as well as the Crosswalk of Target Capabilities to Core Capabilities.[74]

The DPS-TDEM Exercise Unit webpage and the Exercise Unit's FAQ provide more information or contact your local district disaster coordinator.[75]

DPS-TDEM requires jurisdictions that receive EMPG funds to adhere to the following exercise-related requirements, recommended for all jurisdictions in the state regardless of funding source:

- Conduct two discussion-based exercises and one operations-based exercise demonstrating a progressive exercise program per performance period.
- Conduct and evaluate a full-scale exercise at least every three years.
- Develop and submit a multi-year TEP of at least three years to DPS-TDEM.

Note, operations-based exercises may fulfill discussion-based exercise requirements only once per period. Similarly, certain real-world incident responses can substitute for operations-based exercise requirements.

The EMPG program uses the Exercise Standards Requirement Matrix in Figure 5 (next page) to evaluate TEPs. This matrix is useful for any jurisdiction, regardless of funding, in developing its own TEP.

National Exercise Program

The National Exercise Program (NEP) is a component of the National Preparedness System and is used to evaluate core capabilities nationwide across all preparedness mission areas (prevention, protection, mitigation, response and recovery).[76] The NEP is a two-year, progressive cycle of select exercises across the entire homeland security enterprise and is linked to a set of strategic objectives, called Principals' Objectives, that culminates in a biennial National Level Exercise (NLE).[77]Federal, state and local agencies nominate exercises into the NEP based on their alignment with the Principals' Objectives. The exercises can be discussion- or operations-based and occur at any level of government, non-government organizations and/or the private sector.[78]

The 2018 NLE was a hurricane-based exercise focused on the Atlantic coast, Hampton Roads, Virginia area.[79] The next NLE will be in 2020. FEMA publishes the Principals' Objectives and information about the current NEP cycle in a guidance document at the beginning of each cycle.

	Exercise Activity	No. of EM Agencies	CEO or REP Req.?	Coordination and Control?	Min. No. of Core Capabilities
Discussion Based	Seminar	2	No	No	2
	Workshop	3 (2 Regional)	No	No	3
	Special Event	3	No	No	4
	Tabletop	4 (3 Regional)	Yes	Yes	4
	Game	3 (2 Regional)	No	No	3
Operations Based	Drill	2	No	Yes	3
	Functional	4	Yes	Yes	4
	Full-scale	4	Yes	Yes	4
	Real World Incident	As needed	As needed	Yes	4

Figure 5 Exercise standards requirement matrix.[80]

Homeland Security Exercise and Evaluation Program

The Homeland Security Exercise and Evaluation Program (HSEEP) is a set of guiding principles for exercise programs and a common approach to exercise program management, design and development, conduct, evaluation, and improvement planning.[81] HSEEP is recommended for use in TEPs for the whole community at all levels, and is used in the NEP and in many state exercise programs, including Texas.'[82]

The latest HSEEP guidance from FEMA is dated April 1, 2013, and is available on the FEMA website.[83]

After-Action Reviews and LEPCs

The AAR process in emergency management originally came from the military, used AARs for decades to improve its training and exercise outcomes. AARs form a

critical component of any TEP and are essential for the development of Improvement Plans (IPs).

Following any real-world response, training or exercise event, organizations conduct internal and external AARs. The AARs evaluate what did and did not work for them, looking for areas of success that they can sustain and share with others, and areas for improvement based on the exercise, response, or training goals, focusing on improvements that relate to training, staffing, equipment, plans, policies and procedures. AARs are not the place for evaluating the performance of individuals or assessing blame.

An AAR (sometimes called a *hot wash* by first responders) can be used to help find ways to improve functions across an organization and deconflict interactions and enhance coordination between organizations. There are no correct responses to an incident or exercise scenario, nor right or perfect answers to questions raised by a response or incident. An AAR is a way to look for improvements, share successful techniques among the participants, and create IPs.

The format for an AAR varies across organizations, but a good AAR addresses the following:

- A review of the exercise goals and objectives.
- A review of what happened in the exercise.
- A discussion among participants about what did and did not work.
- Suggestions for improvement.

Several professional and academic studies examined what makes a successful AAR. A 2016 study identified the following traits of a positive AAR:[84]

- Showing respect for other members in the AAR.
- Asking for honest feedback and facilitating a candid discussion.
- Focusing on what went wrong/happened, not on individuals.
- Recognizing and acknowledging what went right, and talking about what worked.
- Avoiding generalizations and being precise.
- Starting on time, keeping to an agenda, and staying on topic.
- Keeping good humor–it is OK to laugh about what may have happened or to acknowledge humorous outcomes.

The same study also found that the following traits often lead to a negative/nonproductive AAR:

- Focusing on assigning blame.
- Limiting discussion to certain individuals, or allowing only a few individuals to engage or dominate the discussion.
- Arguing.
- Failing to stick to an agenda or stay on topic.
- Avoiding discussion of failures and deficiencies.

Other studies of the AAR process support these findings. These results and others lead to the conclusion that the principal factor for a successful AAR outcome is a

well-practiced facilitator who understands the process, can maintain focus and encourages a respectful and candid discussion.

The following are some common tools facilitators can use to maintain focus and encourage a respectful and candid discussion:

- Do not allow the AAR to become a complaint session. Encourage participants to point out things that went well (sustains) as well as things that went wrong (improves).
- Limit the number of sustains and improves any single individual or group can offer; two for each per participant is usually enough.
- Set and communicate ahead of time speaking time limits for individuals.
- Clearly and fairly enforce all limitations; do not make exceptions for certain groups or individuals.
- Discuss issues that apply only to subgroups or a single organization outside of the larger AAR so as not to slow down the conversation. Instead, direct the individuals/groups involved to remain after the larger AAR has concluded to continue their discussion and resolve their issues separately or to set up a meeting to do so.

The information gained from an AAR, whether formal or informal, internal or external, drives the preparation of IPs, which are action documents requiring both assigned responsibilities and a schedule for completion.

Improvement Plans

Improvement plans (IPs) are action documents that draw on AARs and other information, such as exercise evaluation reports, to identify deficiencies and areas of improvement. IPs also assign specific tasks or projects to individuals or organizations to correct those areas.

Following an exercise or real-world incident and a series of AARs, organizations should prepare IPs for those deficiencies identified in their specific area of responsibility. Communities should develop IPs that focus on areas where responsibility overlaps and identify deficiencies in command, control, coordination and other interfaces between organizations.

The LEPC Role in After-Action Reviews and Improvement Planning

LEPCs represent the whole community. They make excellent venues for coordinating improvement following an exercise, real-world response or training event. Many LEPC members participate in AARs and improvement planning in their respective agencies and as part of the community AAR (if done separately from the LEPC). An LEPC meeting is also a potential place to conduct a community-level AAR following an exercise or real-world response. Even if a community-level AAR occurs in another setting, an LEPC meeting offers a platform to discuss *that* AAR and coordinate improvement planning.

How your LEPC chooses to engage in the process is its own decision, but LEPCs must maintain awareness of improvement planning and offer input to any community training and exercise program.

Module 6 Action Items

What could our LEPC be doing?

- Conduct LEPC member training.
- Coordinate community and facility exercise schedules.
- Hold After-Action Reviews and share lessons learned.

How can our LEPC do it?

LEPC Member Training

- Step 1 (Basic): Send an email to LEPC members with links to NIMS training and sponsor an on-site training course (available at preparingtexas.org).
- Step 2 (Intermediate): Dedicate a few minutes of each LEPC meeting to review and share any upcoming training opportunities in the community.
- Step 3 (Advanced): Establish a training coordinator position and training subcommittee within the LEPC. Coordinate and share community and facility training opportunities among member organizations (ideally, the coordinator already has this role at a local agency, private facility or transport carrier).

Coordinate Exercise Schedules

- Step 1 (Basic): Dedicate a few minutes of each LEPC meeting to review and share with members any upcoming exercises in the community and discuss any training opportunities the LEPC wishes to sponsor.
- Step 2 (Intermediate): Hold an annual or biennial LEPC-sponsored meeting where hazmat transportion carriers and regulated facilities, responders, and the LEPC coordinate, share and develop a community-wide exercise schedule.
- Step 3 (Advanced): Recruit hazmat carriers and facilities to participate in community exercises. Request local emergency management to use scenarios that involve exercise carriers and facilities as often as possible.

Review AARs and Share Lessons Learned

- Step 1 (Basic): Dedicate several minutes at the beginning of each LEPC meeting for responders, hazmat transportation carriers, and facilities to share brief accounts of any real-world responses and lessons learned from responses or internal exercises since the last meeting and discuss these events.
- Step 2 (Intermediate): Following any multi-agency or community-level exercise, hold an LEPC meeting to review AARs and review or develop Improvement Plans. Consider assigning AAR review responsibilities to a subcommittee and tasking them with improvement planning.
- Step 3 (Advanced): Invite adjacent jurisdictions, LEPCs, and state and federal organizations to share lessons learned from their recent exercises or real-world responses, especially following major incidents or disasters. Use these opportunities to conduct inter-jurisdictional coordination of plans and mutual aid.
- Alternative project (Basic): Create a regularly-updated incident response and

lessons learned master list document or database system available to LEPC members and shared with local emergency management.

[1] Website, Preparingtexas.org, accessed July 30, 2018, https://www.preparingtexas.org/.
[2] "Distance Learning," Federal Emergency Management Agency – Emergency Management Institute, https://training.fema.gov/is/.
[3] "National Incident Management System (NIMS) Integration Center Fact Sheet," Federal Emergency Management Agency, March 1, 2007, https://www.fema.gov/pdf/emergency/nims/lepc_fs.pdf.
[4] "National Incident Management System (NIMS)," Federal Emergency Management Agency, accessed July 30, 2018, https://www.fema.gov/national-incident-management-system.
[5] "IS-100.C: Introduction to the Incident Command System, ICS 100," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c. In June 2018, FEMA consolidated the previous seven subdiscipline versions into the single updated ICS-100.C course. All ICS-100 level courses are now the same.
[6] "IS-200.B: ICS for Single Resources and Initial Action Incidents," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, http://training.fema.gov/is/courseoverview.aspx?code=IS-200.b.
[7] "IS-700.B: An Introduction to the National Incident Management System," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, http://training.fema.gov/is/courseoverview.aspx?code=IS-700.a.
[8] "IS-702.A: National Incident Management System (NIMS) Public Information Systems," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, http://training.fema.gov/is/courseoverview.aspx?code=IS-702.a.
[9] "IS-800.C: National Response Framework, an Introduction," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, http://training.fema.gov/is/courseoverview.aspx?code=IS-800.b.
[10] "G-300 - Intermediate Incident Command System for Expanding Incidents," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.preparingtexas.org/ViewCourse.aspx?courseid=402f88cb-2f13-4627-82ab-8fe44fb10502.
[11] "G-400 - Advanced Incident Command System, Command and General Staff," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.preparingtexas.org/ViewCourse.aspx?courseid=a903a479-726c-4a11-a8c6-b03cc7eeb56f.
[12] "G-402 - ICS Overview for Executive/Senior Officials," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.preparingtexas.org/ViewCourse.aspx?courseid=26b07d31-a749-4071-a303-4b08ceded23a.
[13] "IS-5.A: An Introduction to Hazardous Materials," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=is-5.a.
[14] "IS-346: An Orientation to Hazardous Materials for Medical Personnel," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-346.
[15] "IS-120.C: An Introduction to Exercises," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-120.c; and "S-139.A: Exercise Design and Development," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-139.a.
[16] "IS-130.A: How to be an Exercise Evaluator," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-130.a.

[17] "IS-235.C: Emergency Planning," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-235.c; and "IS-328: Plan Review for Local Mitigation Plans," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-328.
[18] "IS-11.A: Animals in Disasters: Community Planning," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-11.a.
[19] "IS-15.B: Special Events Contingency Planning for Public Safety Agencies," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=is-15.b.
[20] "IS-212.B: Introduction to Unified Hazard Mitigation Assistance (HMA)," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-212.b.
[21] "IS-26: Guide to Points of Distribution," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-26.
[22] "IS-271.A: Anticipating Hazardous Weather & Community Risk, 2nd Edition," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-271.a.
[23] "IS-36: Multi-Hazard Planning for Childcare," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-36.
[24] "IS-362.A: Multi-Hazard Emergency Planning for Schools," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-362.a.
[25] "IS-366.A: Planning for the Needs of Children in Disasters," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-366.a.
[26] "IS-453: Introduction to Homeland Security Planning," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-453.
[27] "IS-546.A: Continuity of Operations Awareness Course," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-546.a.
[28] "IS-554: Emergency Planning for Public Works," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-554.
[29] "IS-660: Introduction to Public-Private Partnerships," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-660.
[30] "IS-662: Improving Preparedness and Resilience through Public-Private Partnerships," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/is/courseoverview.aspx?code=IS-662.
[31] "IS-703.A: NIMS Resource Management," Federal Emergency Management Agency – Emergency Management Institute, accessed July 30, 2018, https://training.fema.gov/IS/courseOverview.aspx?code=IS-703.a.
[32] 29 CFR 1910.120 Subpart H.
[33] 29 CFR 1910.120(q)(6)(i).
[34] 29 CFR 1910.120 Subpart H.
[35] 29 CFR 1910.120(q)(6)(ii).
[36] 29 CFR 1910.120(q)(6)(iii).

[37] 29 CFR 1910.120(q)(6)(iv).
[38] 29 CFR 1910.120(q)(6)(v).
[39] National Fire Protection Association, *NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents,* 2018, https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=472.
[40] National Fire Protection Association, *NFPA 1072: Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications,* 2017, https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1072.
[41] "NFPA 472 VS NFPA 1072," accessed September 28, 2018, http://aifema.ca/wp-content/uploads/2018/03/NFPA-472-VS-NFPA-1072-Presentation.pdf.
[42] Website, National Fire Protection Association, accessed July 30, 2018, https://www.nfpa.org/.
[43] "List of NFPA Codes & Standards: Emergency Response," National Fire Protection Association, accessed July 30, 2018, https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards?topic=3.
[44] Department of Homeland Security, *Citizen Corps: A Guide for Local Officials*, last modified July 26, 2013, https://www.fema.gov/media-library-data/20130726-1859-25045-9954/citizen_corps_guide_for_local_officials.pdf.
[45] "Citizen Corps Partner Programs," Department of Homeland Security - Ready.gov, accessed July 30, 2018, https://www.ready.gov/citizen-corps-partner-programs.
[46] "Disaster Services," Corporation for National & Community Service, accessed July 30, 2018, https://www.nationalservice.gov/focus-areas/disaster-services .
[47] "Texas Citizen Corps," Texas Regional Council, accessed July 30, 2018, http://txregionalcouncil.org/regional-programs/emergency-preparedness/citizen-corps/.
[48] "Community Emergency Response Team," Department of Homeland Security - Ready.gov, accessed July 30, 2018, http://www.fema.gov/community-emergency-response-teams.
[49] "Community Emergency Response Team," Department of Homeland Security - Ready.gov, accessed July 30, 2018, https://www.ready.gov/community-emergency-response-team.
[50] Website, Fire Corps, accessed July 30, 2018, http://www.firecorps.org/.
[51] Description adapted from Website, Fire Corps, accessed July 30, 2018, http://www.firecorps.org/.
[52] "National Neighborhood Watch," National Sheriffs' Association, accessed July 30, 2018, http://www.nnw.org/.
[53] "National Night Out," National Association of Town Watch, accessed July 30, 2018, https://natw.org/.
[54] "Medical Reserve Corps," Department of Health and Human Services, accessed July 30, 2018, https://mrc.hhs.gov/homepage.
[55] "VIPS - Volunteers in Police Service," International Association of Chiefs of Police, accessed July 30, 2018, http://www.iacp.org/VIPS.
[56] "ENV501: Hazardous Materials Instructor," Texas A&M Engineering and Exchange Service, accessed July 30, 2018, https://teex.org/Pages/Class.aspx?course=ENV501&courseTitle=Hazardous%20Materials%20Instructor.
[57] "ALERT Grant," International Association of Fire Chiefs, accessed July 30, 2018, https://www.iafc.org/topics-and-tools/hazmat/alert-grant.
[58] "HAZMAT Training," International Association of Fire Fighters, accessed July 30, 2018, http://client.prod.iaff.org/#page=hazmat2.
[59] "Pipeline Emergency Response Training," National Association of State Fire Marshals, accessed July 30, 2018, https://nasfm-training.org/pipeline/.

[60] Website, Security and Emergency Response Training Center, accessed July 30, 2018, http://sertc.org/.
[61] Website, Security and Emergency Response Training Center, accessed July 30, 2018, http://sertc.org/.
[62] "Hazardous Materials Management Contacts," Union Pacific, accessed September 18, 2018, https://www.up.com/aboutup/environment/emgcontacts/hazmatcontacts/index.htm; Website, Kansas City Southern, accessed September 18, 2018, http://www.kcsouthern.com/en-us/; and Website, BNSF Railway, accessed September 18, 2018, https://www.bnsfhazmat.com/.
[63] Website, TRANSCAER, accessed July 30, 2018, https://www.transcaer.com/.
[64] William M. Blair, "President Draws Planning Moral: Recalls Army Days to Show Value of Preparedness in Time of Crisis," *New York Times*, November 15, 1957, Page 4, Column 3.
[65] "Training and Exercises," Federal Emergency Management Agency, accessed July 30, 2018, https://www.fema.gov/voluntary-faith-based-community-based-organizations/training.
[66] Environmental Protection Agency, "Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act," *Federal Register* 82:9 (January 13, 2017), 4594-4705, https://www.gpo.gov/fdsys/pkg/FR-2017-01-13/pdf/2016-31426.pdf; "Risk Management Plan (RMP) Delay Rule Vacatur," Environmental Protection Agency, last modified September 7, 2018, https://www.epa.gov/rmp/risk-management-plan-rmp-delay-rule-vacatur; "Final Amendments to the Risk Management Program (RMP) Rule," Environmental Protection Agency, last modified May 17, 2018, https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule.
[67] "Business," Department of Homeland Security – Ready.gov, accessed July 30, 2018, https://www.ready.gov/business; and "Exercises," Department of Homeland Security – Ready.gov, accessed July 30, 2018, https://www.ready.gov/business/testing/exercises.
[68] Center for Medicare and Medicaid Services, "Final Rule: Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers," in Federal Register 81:127 (July 1, 2016), 63859-64044, https://www.federalregister.gov/documents/2016/09/16/2016-21404/medicare-and-medicaid-programs-emergency-preparedness-requirements-for-medicare-and-medicaid.
[69] "Emergency Preparedness Rule," Centers for Medicare and Medicaid Services, last modified February 6, 2019, https://www.cms.gov/medicare/provider-enrollment-and-certification/surveycertemergprep/emergency-prep-rule.html.
[70] "Texas School Safety Center," Texas State University, accessed July 30, 2018, https://txssc.txstate.edu/.
[71] LEPC members, in their regular jobs, will typically participate in exercise in those roles, rather than as a representative of the LEPC.
[72] "Drill Expectations and Frequency," Texas School Safety Center, Texas State University, accessed 28 Apr 2018, https://txssc.txstate.edu/tools/tde-toolkit/drill-recs.
[73] "Exercise Unit," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/.
[74] "Exercise Unit," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/; "Training and Exercise Planning Workshop," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/TrainExerPlan.htm; "Exercise Reporting Information and Forms," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/exerciseRptngInfoForms.htm; and Texas Department of Public Safety – Division of Emergency Management, "Crosswalk of Target Capabilities to Core Capabilities," accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/targetToCoreCapabilitiesCrosswa

lk.pdf.
[75] "Exercise Unit," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/; "Field Response Section," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/FieldResponse/index.htm; and Texas Department of Public Safety – Division of Emergency Management, "Texas Exercise Frequently Asked Questions," 2013, http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/exerciseFAQ.pdf.
[76] "National Exercise Program," Federal Emergency Management Agency, last modified July 30, 2018, https://www.fema.gov/national-exercise-program; "Core Capabilities," Federal Emergency Management Agency, last modified February 7, 2018, accessed July 30, 2018, https://www.fema.gov/core-capabilities; and "Mission Areas," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/mission-areas.
[77]"National Exercise Program," Federal Emergency Management Agency, last modified July 30, 2018, https://www.fema.gov/national-exercise-program; "Core Capabilities," Federal Emergency Management Agency, last modified February 7, 2018, https://www.fema.gov/core-capabilities; "Mission Areas," Federal Emergency Management Agency, last modified May 2, 2018, https://www.fema.gov/mission-areas; and "National Level Exercise 2018," Federal Emergency Management Agency, last modified April 24, 2018, https://www.fema.gov/nle.
[78] "National Exercise Program," Federal Emergency Management Agency, last modified July 30, 2018, https://www.fema.gov/national-exercise-program; and "National Level Exercise 2018," Federal Emergency Management Agency, last modified April 24, 2018, https://www.fema.gov/nle.
[79]National Level Exercise 2018," Federal Emergency Management Agency, last modified April 24, 2018, https://www.fema.gov/nle..
Texas Department of Public Safety – Division of Emergency Management, *FY 2018 Local Emergency Management Performance Guide,* November 2017, https://www.dps.texas.gov/dem/CouncilsCommittees/EMPG/empgCurrentGuide.pdf.
[81] "Homeland Security Exercise and Evaluation Program (HSEEP)," Federal Emergency Management Agency, last modified February 13, 2018, https://www.fema.gov/hseep.
[82] "National Exercise Program," Federal Emergency Management Agency, last modified July 30, 2018, accessed July 30, 2018, https://www.fema.gov/national-exercise-program
[83] "Homeland Security Exercise and Evaluation Program," Federal Emergency Management Agency, last modified June 17, 2016, https://www.fema.gov/media-library/assets/documents/32326.
[84] "After action reviews: The good, the bad, and why we should care," U.S. Fire Administration, November 16, 2017, https://www.usfa.fema.gov/current_events/111617.html.

Module 7. Response

Important Takeaways in Module 7

- LEPCs are not response organizations, but many LEPC members have direct roles in incident, emergency and disaster response.
- Federal, state, and local laws, regulations, and industry standards often require the use of the Incident Command System (ICS) and National Incident Management System (NIMS) for planning and response.
- ICS and NIMS provide a common operating system and terminology for all responders.
- Understanding the way responders integrate inside facility, transportation and community incident response, and state and federal disaster response is essential for evaluating emergency planning.

Introduction

LEPCs in Texas do not have a direct role in incident and emergency response structures in their jurisdictions. LEPCs exist outside the command and control structures that respond to hazardous materials (hazmat) incidents and emergencies.[1] Many LEPC members *do* operate inside those structures and play critical roles in incident and emergency response. However, many members, even those who operate in a response role, may not understand how the pieces of incident response fit into the bigger picture, only their smaller part of it. LEPCs can help the big picture come together. LEPCs help those involved in response, planning and preparedness, along with others in the whole community, understand the roles of everyone involved and how they all fit together.

This module is not a detailed guide on the ICS or the NIMS, nor does this module address the unique nature of many local emergency management structures and coordinating systems. It provides a general overview of ICS/NIMS,and how they fit together, Its primary purpose is to assist LEPC members who want to understand more about how emergency management planning and incident response interface, so that they can enhance their ability to fulfill their emergency planning and preparedness roles.

Module 7 looks at incident response in a general sense. When a hazmat incident occurs within the jurisdiction of your LEPC, several different agencies, organizations and people may be involved in the response, not all of them local. Your community may organize itself differently than other communities, depending on the circumstances, resources, nature of the incident and structure of your response organizations.

Understanding how the emergency management system and incident response fit together is a key prerequisite for LEPC members to fulfill their planning review role under the Emergency Planning and Community Right to Know Act (EPCRA). Online and in-person courses are available from the Federal Emergency Management

Agency (FEMA) Independent Study Program and preparingtexas.org, which LEPC members can complete to increase their understanding of the overall system. Module 6 provides more information about these courses.

Incident Command System

ICS was originally developed in the California fire service during the late 1960s and early 1970s (FIRESCOPE), in response to problems faced when multiple agencies responded to extensive wildfires and failed to coordinate their efforts properly.[2] Congress nationalized the system in the 1980s and standardized it to be modular, allowing all responding organizations to know where they fit into the response, reporting, command and control structures. ICS standardizes the command, control and coordination of the response into a common hierarchy that incorporates multiple agencies, departments and levels of government, allowing them to function together efficiently and toward a common purpose. [3]

After September 11, 2001, the Department of Homeland Security Federal Emergency Management Agency developed a new, broader system of incident management, the National Incident Management System or NIMS, which underwent a series of significant revisions over the years, the most recent in 2017.

The most important thing to understand about the basis of NIMS, of which ICS is part, is that all incident and disaster response in the U.S. bases itself on a principle of local control. When an agency or organization arrives at an incident (regardless of where it comes from), it works for the incident commander, who is usually a local official.[4]

The legal and historical reasons for this principle are many, but the main reason is that local communities know best how to respond in their own communities and know the needs and requirements to do so. Some have argued that a significant problem during the Hurricane Katrina disaster was that this system broke down at the local level in a few jurisdictions because state and local officials were unwilling or unable to exercise their responsibilities under ICS/NIMS.[5] Others blamed a flawed federal response. Subsequent actions addressed many of those issues, but the fact remains–*local jurisdictions must be prepared to manage their own incident responses* no matter the scale and complexity of the incident.

Local communities may lack the necessary resources to respond to a major incident, however, except in the direst of circumstances, the community already possesses and must exercise the system of incident command and local coordination to respond.[6] Incident commanders request resources from local officials in their Emergency Operations Center (EOC), who will in turn coordinate with neighboring jurisdictions through mutual aid to provide those resources with state officials, who coordinate with federal officials. Those resources support the local response and operate under the direction of local incident commander(s) or unified command systems. In most cases, state and federal officials do not control what happens with the resources provided to your community do in the response, except as part of a local unified command system. Incident response is the

exclusive responsibility of your local incident commanders and why ICS and NIMS are such an important part of incident response at all levels.

ICS uses a common terminology to define organizational functions, incident facilities, resource descriptions and position titles. ICS also streamlines and coordinates communications across the response structure. ICS has undergone few changes in the 40-plus years since its widespread implementation (unlike NIMS). It remains widely understood and practiced by first responders and those who support them. In contrast, NIMS and its terminology is less ingrained owing to the fact it has changed significantly three times since its implementation (most recently in 2017).

ICS is scalable and used at all levels of incident response and by most organizations involved in response. Many federal, state, and local regulations and laws mandate its usage. When the Department of Homeland Security (DHS)/FEMA created NIMS in the 2000s after the events of September 11, 2001, DHS/FEMA incorporated ICS into the system, making it a key feature and replicating aspects of the system at all levels. Since DHS/FEMA made NIMS a prerequisite for federal funds, all state and local jurisdictions across the U.S. adopted ICS when they adopted NIMs.

The basic principles of ICS are quite simple and cover five basic functional areas: Command, Operations, Planning, Logistics and Finance and Administration

This section provides a basic review of these key aspects of ICS. The FEMA ICS Resource Center and the FEMA ICS pages provide more information on ICS.[7] LEPC members are highly encouraged to complete ICS training. Module 6 provides more information on ICS training programs.

Command

One of the most icritical aspects of ICS is the establishment of a command system with a clear chain and unity of command. ICS answers the fundamental question in incident response, "Who is in charge here?" The answer is, the "Incident Commander." The command system is simple in ICS. The first arriving senior-ranking member of the responding organization with responsibility for the incident response establishes incident command and assumes control over the response until relieved by a more senior individual or the creation of a Unified Command.

For most jurisdictions, this means incident commanders (ICs) primarily come from law enforcement or fire services, depending on the incident. For run-of-the-mill hazardous materials transportation accidents, the fire department usually assumes the incident command, though local law enforcement may be first on the scene and initiate the system until the first fire company arrives. For an active shooter or hostage situation, law enforcement will initially assume incident command.

As a situation or incident grows in complexity or size, it becomes more beneficial to establish a unified command structure. Unified commands are best suited to multijurisdictional incidents, or those in a single jurisdiction involving multiple agencies with different and overlapping responsibilities in the response.

In any case, whether through a single incident command or a unified command approach, ICS adheres to the principles of a chain of command and unity of command. This means that everyone responding to the incident has a designated supervisor, someone to whom they report at the scene. These supervisors may or may not be from the same agency or organization, but the chain of command from the incident command post to the lowest-ranking firefighter or patrol officer is clear and well defined by ICS. All responders must understand and follow this chain of command. No matter the agency, level of government or jurisdiction, everyone on the incident scene works for the incident commander or unified command during the response.

The organizational structure of ICS is modular and grows and contracts based on the size, complexity, and nature of the incident. Individuals with incident management supervisory responsibilities attempt to adhere to an optimal span of control designated by NIMS—one leader to five subordinates—with exceptions, depending on circumstance. Whenever there is a change in command—a change from a single incident commander to a unified command, or a change from one individual commander to another, or a shift change between incident commanders and/or the command or general staff–the handoff includes a detailed briefing between the incoming and outgoing command and staff, usually face to face.

Command Structure

Figure 6 outlines the basic ICS command structure.

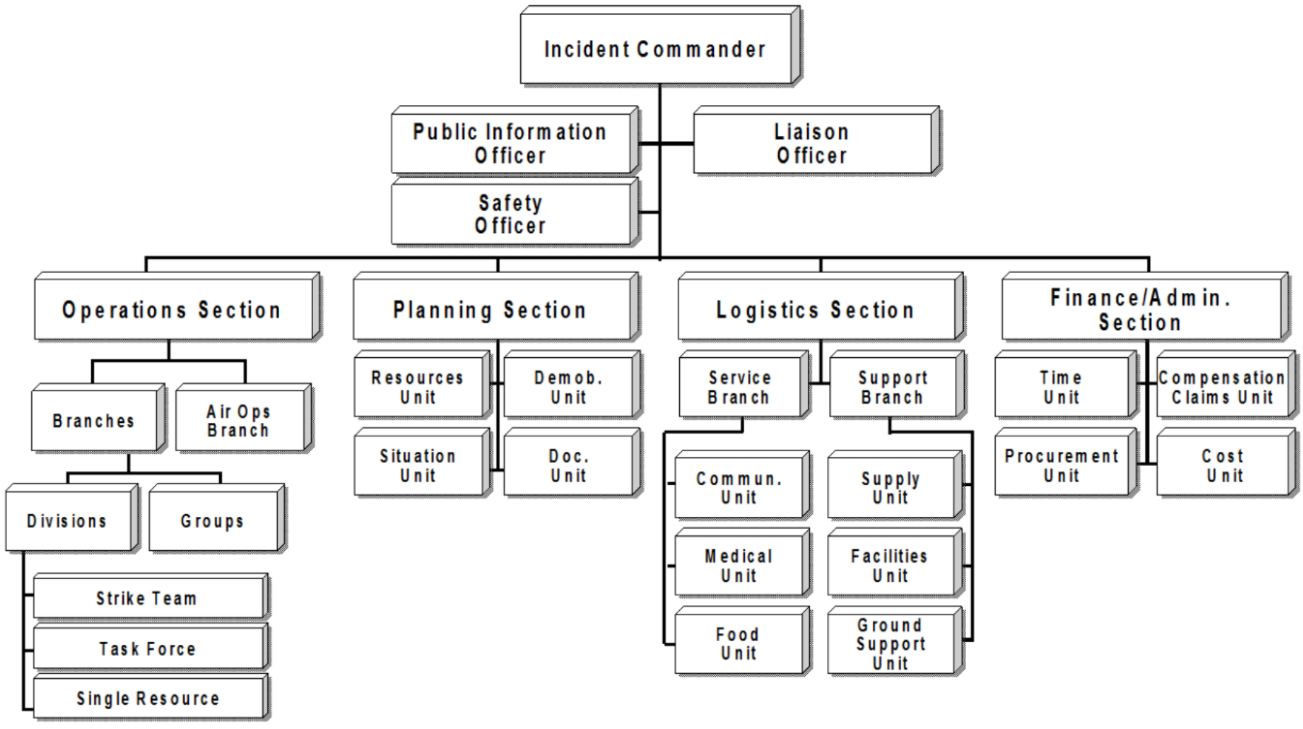


Figure 6 Sample ICS organizational structure[8]

Unified Command

Incident commanders implement a unified command structure when circumstance or the size and complexity of an incident requires it, or when specified by local policy, procedure, or regulation. A unified command structure may or may not operate with a single incident commander and consists of representatives of multiple agencies or organizations and/or jurisdictions with key responsibilities in the incident response. Having jurisdiction over an event does not necessarily mean a representative of that jurisdiction will exercise incident command. The representative may participate in a unified command or may simply present his or her requirements to the incident commander.

An example of this is Federal Bureau of Investigation (FBI) involvement in terrorism-related incidents, over which the FBI has exclusive jurisdiction in the U.S. In the initial stages of a response to an act of terrorism, the local FBI field office responds to the incident. However, the incident commanders from the local fire and/or police are likely to lead the actual response, especially in the initial stages, until the initial response phase is complete, and control of the scene establishes. Then the incident shifts to that of crime scene investigation. FBI officials work with incident commanders or inside a unified command structure to make sure the response accounts for FBI priorities, but FBI officials seldom assume command of a response where the incident involves fire, rescue or other activities best conducted and controlled by local fire and law enforcement.

Command Staff

The command staff under ICS works directly for the incident commander or unified command and consists of:

- The public information officer (PIO)
- The safety officer (SO)
- The liaison officer (LO)

These officers may also have an assistant officer and additional staff.

The PIO is responsible for media briefings and information control between the incident command and the public. PIOs try to hold regular press conferences and media briefings during an incident and especially during large or significant incidents that garner significant media attention from local, state, national or even international news organizations. The greater the media attention, the more frequent a good PIO will conduct media briefings and press conferences, which may or may not involve the incident commander and other command staff.

The SO is responsible for the overall safety of all those involved in the response, prepares detailed medical and safety plans, and contributes to incident action planning from the perspective of safety. The SO is especially important during hazardous materials incidents because SO responsibilities increase in such incidents. For most hazardous materials incidents, the SO prepares the Site Safety Plan under which everyone on scene operates.

The LO acts as a single point of contact for agency representatives, coordinates interagency contacts, inter-organizational communication and facilitates agency-specific activities. The LO may work with additional liaisons from other organizations or in other locations. For example, the incident LO may send a representative to the local EOC or a state or federal command post and those organizations may have liaisons at the incident command post (ICP). LOs act as information conduits and points of contact within the ICS, addressing issues related to their organization and providing information from their organization to the ICP as needed.

General Staff

The general staff under ICS works for the incident command or a unified command and consists of the following sections:

- Operations
- Planning
- Logistics
- Finance and administration

A chief assisted by a deputy chief commands each section. The position title of *chief* in ICS should not be confused with the *chief* rank held by police or fire personnel, though such organization leaders may assume incident command roles. For lengthier incidents, multiple individuals operating in shifts may take over these positions, or the chief and deputy chief may alternate in shifts, depending on the circumstance and expected length of the incident response.

The following positions have specific titles under ICS:

- Branch leaders, who work for section chiefs, referred to as directors.
- Branch leaders' assistants are deputy directors.
- Division or group leaders are supervisors.
- Unit and strike team or task force leaders are leaders.
- Leaders' assistants are managers (units) or single resource bosses (strike teams/task forces).

Operations and Planning

Operations conducted under ICS follow an Incident Action Plan (IAP) to achieve incident objectives established by incident command. The Operations Section under ICS manages the tactical operations at an incident, in accordance with the IAP prepared by the Planning Section, which tracks the response and the actions of the Operations Section assisting in developing plans, facilitating information sharing, and creating a common operating picture.

Logistics

The Logistics Section of ICS is responsible for providing, procuring or coordinating for all:

- Facilities

- Transportation
- Communications
- Supplies
- Equipment maintenance and fueling
- Food services (for responders)
- Medical services (for responders)
- Off-incident resources

The essential function of the Logistics Section is keeping track of resources from mutual aid and state and federal organizations, and managing the demobilization and return of those resources. In Texas, during larger-scale incidents, the Texas Forest Service provides significant Logistics Section support and provides support to the Operations and Planning Sections in managing staging areas and tracking resources through well established and frequently exercised systems.

Finance and Administration

Experienced responders usually consider the Finance and Administration Section one of the most important functions of the ICS. During a major incident, federal, state and local organizations expend funds at a rapid rate. Tracking that money is essential. Across the country each year, jurisdictions and organizations discover the hard way how important their Finance and Administration Sections are in a major incident. Failing to properly account for money expended in a declared state or national disaster may limit the funds a jurisdiction or organization can recoup from FEMA or the state following the disaster.

Experienced and knowledgeable finance and administration personnel, tracking and reporting systems must be in place *prior to a major incident.* Those personnel and systems need to deploy immediately and track expenditures from the beginning of any incident.

National Incident Management System

DHS/FEMA created NIMS[9] after 9-11, and the first NIMS policy went into force in 2004. [10] NIMS has undergone two revisions since, the most recent in late 2017. The responder and emergency management community consequently experienced confusion about NIMS, in part due to significant changes between the 2004 and 2008 system.

The initial version of NIMS was heavily criticized. FEMA has since taken measures to increase local and state input and better understand the ways that state and local agencies operate and implement the system. NIMS was often confused with the National Preparedness System and Goal, leading to more misunderstandings about its purpose. The most recent version incorporates many modifications to resolve these issues, building on those implemented in 2008, and includes lessons learned from recent disaster responses.

Despite the growing pains, NIMS remains the system by which the nation responds to disasters, from local ICPs to the president of the U.S.. NIMS incorporates ICS but is more than ICS. At its core, NIMS defines the roles of ICS structures, EOCs, multi-

agency coordination groups, and the Joint Information System and how they interface and work together in a collaborative whole-community response to disaster across all levels of government and the community.

NIMS also standardizes and creates a common terminology for all levels of emergency management and disaster/incident response. Because ICS only covers the interface between organizations and jurisdictions at the incident scene, NIMS extends to all levels of the response.

The current version of NIMS (2017) includes significant changes in structure and content. All responders, LEPC members and emergency management personnel should familiarize themselves with the newest version by reading the new guidance and completing FEMA training.

Three guiding principles form the basis of NIMS: flexibility, standardization and unity of effort.[11] Figure 7 shows the changes in structure and content between 2008 and 2017.

2008 NIMS		2017 NIMS	
1	Preparedness	**1**	Fundamentals and Concepts of NIMS
2	Communications and Information Management	**2**	Resource Management
3	Resource Management	**3**	Command and Coordination
4	Command and Management	**3.1**	Incident Command System (ICS)
4.1	Incident Command System (ICS)	**3.2**	Emergency Operations Centers (EOC)
4.2	Multiagency Coordination System (MACS)	**3.3**	Multiagency Coordination Group (MAC Group)
4.3	Public Information	**3.4**	Joint Information System (JIS)
5	Ongoing Management and Maintenance	**4**	Communications and Information Management

Figure 7 NIMS 2008 to 2017 comparison[12]

The 2017 NIMS guidance also implements new qualification, certification and credentialing systems and requirements. The number of changes to NIMS is significant and all LEPCs should familiarize themselves with these changes. The FEMA NIMS website and the FEMA NIMS Training Website provide more information.[13] NIMS training is currently undergoing revision to incorporate the 2017 changes. When complete, training available through the FEMA Independent Study Program and preparingtexas.org will reflect the updates.

Facility Incident Response

Facility personnel are the first to respond to a hazardous materials incident in their facility. The ability of facilities to respond to incidents varies widely, from the minimum evacuation and warning requirements of an Emergency Action Plan (EAP) specified by the Occupational Safety and Health Administration (OSHA) to advanced mitigation and reduction capabilities provided by contractors or in-house fire departments and hazmat technicians.

For facilities required to have an EAP or Facility Response Plan (FRP) under the Clean Air Act or the Oil Pollution Prevention regulations, employees carrying out actions under the plans are supposed to have knowledge of ICS and NIMS. Facilities under the regulations should, and in some cases must, coordinate with the LEPC and the community so that the facilities' response plans are consistent with community Emergency Operations Plans (EOPs). [14] Plans and incident response under an Emergency Response Plan (ERP) must also conform to 29 Code of Federal Regulations (CFR) 1910.120 hazardous waste operations and emergency response, as will community responses to hazardous materials. Some facilities may also conform to National Fire Protection Association or other standards due references in contracts or company policies.

Coordination between facility and community plans is vital. In some jurisdictions with both volunteer fire departments and significant chemical industry presence, the response capabilities between members of the community volunteer fire department and facility personnel may include significant overlaps. Understanding these personnel challenges requires coordination to ensure that both groups can meet their requirements in the event of an incident. If the facility FRP depends on its own fire department supported by a community volunteer department, and the personnel rosters for the two departments are mostly the same people, there is a problem with the plan.[15]

Facilities without response capabilities, usually those having only an EAP, depend entirely on community resources for their response. That means that communities must be aware of the requirements and resources of such a response. Under EPCRA, the facility is responsible for ensuring that the community can respond in such a circumstance. Facility plans cannot assign responsibility to the community if the community lacks the resources to respond. The facility is also responsible for working with LEPCs to identify the resources necessary to respond to incidents at the facility and to assist communities in developing resources if they are not currently available. This is especially important when facilities depend on volunteer fire companies, as in the West, Texas disaster.

Facility incidents involving releases into only the air do not fall under the Texas Commission on Environmental Quality (TCEQ) purview, involving the EPA directly. Consequently, these incidents may present additional complications in any response. Facilities must plan for such incidents and coordinate their response with both EPA and the LEPC/local community.

Transportation Incident Response

For hazmat transportation incidents, the response process varies depending on the mode of transport, the type of spill and the location it occurs. The *responsible party* is accountable for response expenses and cleanup, which in most cases is the transporting company.[16] For many carriers, their emergency responders and contractors can take many hours or even days to respond. Consequently, it is important to understand the measures and capabilities a community possesses, either organically or through mutual or state aid, to respond to a hazardous materials transportation accident to protect life, property and the environment. Further, responsible party involvement does not obviate community responsibilities for incident command and control over the response.

This section outlines some of the basics related to transportation accidents involving hazardous materials. LEPCs and local communities should work with private-sector partners that transport hazardous materials in their community in order to determine their specific requirements and responsibilities. Communities may also wish to conduct hazmat commodity flow studies to determine what and where hazardous materials are transiting through their community. The related projects in the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document provide more information on that process.

Railway Hazardous Materials Incidents

Texas has four freight railway operators:

- Union Pacific Railroad
- Kansas City Southern railroad
- BNSF Railway
- South Orient Rail Line

Additionally, Texas has some short line operators and small common carriers associated with industrial and shipping facilities.

The Texas Department of Transportation (TxDOT) Rail Division offers extensive information about railways in Texas on its website that can help communities determine the railways operating in their jurisdictions.[17] To view which railways transit a specific jurisdiction, consult the Federal Railroad Administration's FRAGIS website, which allows users to view detailed railroad information by state and county.[18] Confusingly, the Texas Railroad Commission (RRC) *has no authority over railroads in Texas*. The last of its railway responsibilities transferred to the Texas Department of Transportation (TxDOT) in 2005, though the RRC may have responsibilities if a spill incident occurs that involves 240 or less barrels of oil (see the State Disaster Response section below).[19]

In the event of a hazardous materials incident involving railway transport of hazardous materials, the railway operator will aid a local community and bring in contractors for the cleanup. However, the initial response and incident command is the responsibility of the community. Because a major railway incident is beyond the capability of many jurisdictions in Texas, the response is likely to include mutual aid resources such as hazmat teams from other jurisdictions, state agencies and even

federal agencies, depending on the size and scope of the incident. In most cases, the responding state agency is TCEQ.

Communities and LEPCs must plan and prepare to respond to such incidents and identify mutual aid and other resources available in the event such an incident occurs in their community. Because many railways transit through residential areas in the state, such planning must include shelter-in-place and evacuation plans.

Under new regulation implemented on February 28, 2019, railways carrying high hazard flammables above certain thresholds must create new emergency plans and coordinate those plans with local communities. For more information on these new requirements see Module 10.

Pipeline Incidents

Texas is home to more miles of pipeline than any other state. While the pipeline transport of hazardous materials is the safest of any mode of transport, incidents still occur. Incident causes are usually the result of a failure to use one-call notification systems before digging or a failure to heed pipeline warning markers, an important consideration for LEPCs looking for outreach or public education projects.

Pipeline incidents, like railway incidents, are usually beyond the capability of most jurisdictions in the state. These incidents can escalate quickly to require requesting mutual aid from state agencies and even federal resources depending on the size and complexity of the incident. In most cases, the responding state agencies are TCEQ for hazardous materials and RRC for pipelines.

Texas has many more pipeline operators than freight rail operators. The Pipeline and Hazardous Materials Safety Administration's National Pipeline Mapping System website can help you find out which pipelines are in your jurisdiction.[20] RRC also maintains an online list of active pipeline operators and permit numbers, though its contact information may not be useful in an incident. Paradigm Alliance, Inc., a contractor to many pipeline operators for compliance services, also maintains useful websites of interest, including the Texas Pipeline Awareness website, which includes a list of contact information for many pipeline operators in the state.[21] The Pipeline Association for Public Awareness Training Resources website has additional resources and training materials for local responders, planners, and LEPCs.[22]

Pipelines must prepare special Pipeline Response Plans under state and federal regulations and should coordinate those plans with local communities. See Module 10 for more information.

Roadway Incidents

Roadway incidents are the most common hazardous materials transportation incidents and can affect all Texas communities. These incidents can vary widely in complexity and scope depending on the materials involved and the amounts. Many incidents require hazmat teams, either local or through mutual aid. Larger spills

usually involve hazmat contractors for cleanup and remediation, which are the responsibility of the carrier.

Most complaints around the state related to problems in dealing with the responsible party in transportation incidents related to roadway carriers of hazardous materials. Under hazmat transportation regulations, the *responsible party* in a transportation incident is the hazmat carrier. Do not confuse the responsible party under hazardous materials regulations with the responsible party for the accident. Insurance companies may determine fault and monetary responsibility for the costs of any cleanup/response to an incident long after the incident ends. Even if the fault of the accident was a party other than the carrier, and that other party may eventually be liable financially, the immediate responsible party for the hazardous material response and cleanup as defined by law is the carrier.

Because of the enormous number of roadway hazardous materials t transporters, no accurate lists of emergency contacts are available. Emergency contacts are only available through shipping papers or other documents that are transported with the materials and therefore not always available during incidents. In most cases, alack of proper documentation should not delay response if the vehicle is placarded correctly, but it may cause problems with cleanup.

LEPCs can assist their communities by developing lists based on information provided by facilities in their community about what shipping companies those facilities use with their emergency contacts. Tier II reports may include companies that conduct shipping operations or other firms that operate their own delivery fleets. Past hazardous materials transportation accident reports gathered from local responders, state, or federal databases can also help identify carriers in a local jurisdiction. LEPCs may also sponsor Hazardous Materials Commodity Flow Studies through the HMEP grant program to evaluate local hazardous materials transport conditions and in some cases, carriers.

In cases where the responsible party is unwilling or unable to respond to a roadway incident, TCEQ can respond, except in certain cases (see the State Disaster Response below). The EPA also administers a reimbursement program for some transportation-related hazardous materials incidents. However, the reimbursement program only applies to substances on the EPA list of hazardous substances regulated by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact the EPA Region 6 Dallas office at (800) 887-6063 or (214) 665-2760 for additional information.

Transfer Incidents

Transfer points are one of the more frequent areas where a hazardous materials spill occurs. Transfer points are those points in the transportation system where hazardous materials move from one vessel or mode of transport to another. Most tank transfers occur at terminals or industrial facilities and involve the transfer of material either to or from a ship, railcar, truck or intermodal container vessel to or from a pipeline, fixed tank facility, ship, railcar, truck or intermodal containment

vessel. The transfer point is often a focus for safety and process improvement within the chemical industry.

Transfer incidents at terminals can be quite severe due to the quantities and flow rates involved, especially if the transfer involves temperature-controlled or air/water reactive substances. Fortunately, many transfer locations have advanced safety measures and response procedures. Many, though not all, terminals and transfer points are documented in Tier II reports but only if they have fixed tanks that contain EPCRA-regulated substances above threshold quantities.

LEPCs and response agencies should be aware of transfer points in their community, especially those not appearing in Tier II reports. In addition to asking local industry and first responders for information on transfer points, LEPCs may use online satellite imagery and mapping programs like Google Earth to identify terminals and transfer points not part of their Tier II reporting.

Depending on the material involved, the nature of the release, and the location of the terminal, any one of several state or federal agencies may become involved in the response (see State Disaster Response below). Because of the risks and complexity of transfer incidents, they frequently involve mutual aid as well as state and federal resources.

Community Incident Response

Community incident response occurs every day, and most of those responses do not reach a level requiring activation of ICS and/or an EOC. Most are single-agency responses–police responding to an alarm or a report of a criminal act, fire departments and emergency medical services (EMS) responding to traffic accidents, and EMS responding to medical assistance calls. Dispatchers and emergency services process these calls every shift and manage them according to agency and department standard operating procedures and policy. Only when an incident grows in scope or complexity does incident response begin to activate ICS and/or an EOC.

Response Process

Community incident response does not begin with a call to 911 but with the individual placing the 911 call. A whole-community approach to preparedness and response considers the actions taken by citizens, absent emergency services or prior to their arrival. These may include cardiopulmonary resuscitation (CPR) or first aid, shutdown of gas, electricity or water supplies to a building or facility, self-evacuation, rescue and other actions. The incident response begins at the point of the incident with those in the immediate vicinity, including regulated facility employees. Facilities under EPCRA should follow the procedures from their EAP or ERP.

After the initial incident response, escalation depends on the nature of the incident. Some incidents, as noted, are routine and dealt with according to standard operating procedures by a single agency or agencies used to working in cooperation (fire, police and EMS). When an incident, due to scope or complexity, exceeds the routine, then those agencies activate the ICS and request additional support.

Initially, support comes from the same agencies involved in the response, so the request will be for more fire, police and EMS units to respond. When the scope or complexity of the incident exceeds their capabilities or requires resources they do not possess, agencies make requests for mutual aid and additional support via an Emergency Operations Center (EOC), which usually activates at some level in such circumstances.

In Texas, mayors and county judges are the local officials responsible for emergency management in their jurisdictions. Local EOCs are under their authority, with the direction of local emergency management coordinators who typically manage local EOCs. EOCs now have additional FEMA guidance and procedures for operation under the updated version of NIMS. [23]

Mutual Aid

Many jurisdictions have mutual aid agreements with neighboring jurisdictions that allow for the sharing of response resources and reimbursement for those resources. Some jurisdictions use these agreements so frequently that they are routine.

In Texas, the Texas A&M Forest Service maintains the Texas Intrastate Fire Mutual Aid System (TIFMAS) as part of the Texas Interagency Coordination Center.[24] TIFMAS is a statewide opt-out program, meaning that it does not require a memorandum of understanding (MOU) or mutual aid agreement between jurisdictions to request assistance through the system. Local agencies can also manage mutual aid agreements through the Texas Department of Public Safety - Division of Emergency Management's (DPS-TDEM's) preparingtexas.org portal.[25]

The International Association of Fire Chiefs, in cooperation with the geographical information system (GIS) company ESRI and the developers of WebEOC, is rolling out the National Mutual Aid System (NMAS), which represents the next evolution of the Mutual Aid Net. While Texas is not currently a member of the Mutual Aid Net, some of its jurisdictions use the WebEOC and ESRI products in their emergency operations planning and response. The NMAS webpage has more information about these systems.[26]

State Disaster Response

Unless an incident is so routine that mutual aid agreements regularly exercised in the region suffice to address it, the local EOC will contact the DPS-TDEM district disaster coordinator. [27] The district disaster coordinator can make requests of other state agencies. These state agencies can initiate the more formal process with the state EOC/DPS-TDEM, allowing for the deployment of needed resources.[28] These contacts may vary from those required by facilities during an incident, although there is some regulatory overlap. What happens next depends on the nature of the incident. For most hazardous materials incidents, TCEQ is the primary responding state agency, except where noted for the following types of incidents:[29]

Texas Commission on Environmental Quality

Texas Spill Reporting Hotline (SERC): (800) 832-8224 (24 hours)

Texas Regional Office (Weekdays, 8:00 to 5:00): See TCEQ webpage[30]

Discharge or spill of oil to coastal waters:

Texas General Land Office: (800) 832-8224 (24 hours)

Spill of 240 barrels of oil or less:

Texas Railroad Commission: 844-773-0305 (toll free) or 512-463-6788

Pipeline Incidents:

Texas Railroad Commission: (844) 773-0305 (toll free) or (512) 463-6788

Releases only into the air:

EPA Region Six Office (Dallas): (800) 887-6063

Radiation incidents or incidents involving radioactive material:

Texas Department of State Health Services Radiation Control Program: (512) 834-6688

Incidents involving communicable diseases or the public health:

Local Health Department[31]

Texas Department of State Health Services: (512) 776-7219

Terrorism involving chemical, biological, radiological, nuclear or explosives:

Federal Bureau of Investigation Field Office[32]

Dallas: (972) 559-5000

El Paso: (915) 832-5000

Houston: (713) 693-5000

San Antonio: (210) 225-6741

Texas National Guard 6th Civil Support Team: (512) 782-1900

TCEQ maintains strike teams around the state and regional offices that respond to most hazardous materials incidents under their jurisdiction, as well as many incidents that are not in support of other state agencies.[33]

For smaller incidents, TCEQ and the DDC notifications are the only outside request channels to state agencies from a local community, with most additional support coming through mutual aid or contracts with private-sector hazmat contractors.

For larger incidents and disasters, the state EOC activates with the members of the Texas Emergency Management Council (TEMC) staffing the EOC. The number of agencies and staff in the EOC can vary according to the scope and nature of the disaster. The most significant emergency asset with the largest workforce and most

resources in Texas and most states is the Texas National Guard, which during a disaster, operates under state authority and control.[34] National Guard units responding to an incident will typically work within the ICS structure and operate under the direction of incident commanders at the local level.[35]

TDEM manages the state EOC as part of the (DPS) and works for the governor of Texas, operating under his or her authority, with the chief of DPS-TDEM, who is also an assistant director of the DPS, acting as the state emergency management coordinator and manager of the state EOC.

The state may exercise interstate mutual aid agreements with other states. The most frequent agreements Texas are with the other states in FEMA Region VI, made up of Texas and all the states that border Texas. When a disaster exceeds the ability of the state to respond, or in incidents where a federal agency has jurisdiction over the incident or possesses necessary resources the state does not, then the state can request aid from federal agencies or request a federal disaster declaration, which will activate a federal response.

In some cases, a federal declaration/request is not necessary from the state. This happens usually in cases where the federal government has exclusive authority. Federal exclusive authority includes EPA responses to hazardous materials releases only to air, certain hazardous materials responses involving the Coast Guard and terrorism-related incidents involving the FBI and/or the Bureau of Alcohol, Tobacco, Firearms and Explosives.

Incidents involving military weapons, bases or equipment result in Department of Defense involvement in the response, though DoD interfaces with local organizations and ICS varies depending on the incident. For example, when citizens or communities discover military ordnance outside of a military reservation, military Explosive Ordnance Disposal (EOD) teams may be deployed. Those teams usually work with local incident commanders. If classified material, a nuclear weapon or other special weapon or material is involved, the military will assume complete jurisdiction.

Incidents occurring on a military reservation usually fall under exclusive military jurisdiction, unless they have other agreements or MOUs with the local community. Incidents involving military units or assets outside of military property or extending beyond military property will usually include community response assets and incident command, especially if the incident involves or affects civilians or civilian property.

Federal Disaster Response

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) defines the formal system of disaster declarations and federal assistance to state and local communities. The primary federal agency responsible for emergency management is FEMA, which is part of the DHS.

While most Americans have some awareness of FEMA, many misunderstand its role in emergency management and disaster response. Experienced emergency

management professionals often refer to FEMA's primary role as "providing the checkbook." That statement is accurate, to a point, though many changes to FEMA roles occurred after 9/11 and Hurricane Katrina.

The Stafford Act and the system of federal disaster assistance administered by FEMA provide both direct and indirect assistance to citizens and state and local governments following a declared national disaster. FEMA is also responsible for coordinating government-wide relief efforts and managing the federal response to disasters.

Because authorities and missions overlap within the federal government, federal incident response can be confusing and misunderstood. [36] NIMS, the National Response Framework (NRF) and their predecessors attempted to bring order to that system, along with the Post-Katrina Emergency Reform Act and other legislation, with some success. Compared to the more defined operations and authorities of most local and state emergency management systems, the federal response can still seem chaotic.

From the local level at which LEPCs operate, such issues are not likely to be a major concern. Only a small number of agencies typically involve themselves in most hazardous materials incidents. Agencies involved depend on the nature of the incident, and what and where the substance spills.

With the exception of FEMA response, the National Response Team (NRT) handles hazmat response at the federal level in most cases. The NRT is comprised of fifteen federal departments and agencies with the EPA and U.S. Coast Guard as co-chairs. [37] During a federal response, the EPA, as chair of the NRT, provides the Federal On-Scene Incident Coordinator (FOSC), who oversees the federal response.

Other federal agencies that may become involved in incident response at the local level include:

- The FBI for incidents involving terrorism or certain crimes.
- The Coast Guard (USCG) for spills in navigable waters.
- The Department of Energy (DOE) for incidents involving radioactive material or nuclear reactors.
- The Forest Service in national parklands and bordering areas.
- OSHA for certain enforcement activities and investigations related to chemical and/or workplace safety.
- The Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF) for incidents involving explosives.
- The DoD in incidents involving its personnel, equipment, weapons, property, or installations.

Jurisdictions that include or are near federal land or DoD installations may frequently interact with federal agencies or military forces during incident response at or near those federal properties. In some cases, local jurisdictions may have MOUs with such facilities for incident response and mutual aid.

LEPCs should encourage military organizations in their jurisdiction to participate in their LEPC, if they do not already, and should be aware of any MOUs with such entities in their jurisdiction as well as the DoD policies regarding compliance with laws like EPCRA. LEPCs and local communities should also coordinate their planning with federal installations, especially if a THIRA suggests off-site impacts from or to federal property based on Tier II or Risk Management Plan (RMP) data. See Module 4 for more information.

Federal facilities may or may not provide information to LEPCs about the specific risks their facilities pose to the community and may not be subject to regulation in the same way as the private sector. The differences in federal compliance increases the necessity for good relations between the community and federal installations, and participation of those installations in the planning process and LEPC.

Some federal facilities in Texas, especially Pantex, have existing agreements with the state and local governments in their area related to response and preparedness. In most jurisdictions, coordination varies depending on the priorities of the federal installation's leaders and their understanding of and compliance with DoD and other federal policy.

Due to frequent turnover in military and federal personnel, many communities with such installations report difficulty with coordination. Therefore, the level of coordination varies widely and goes through cycles of involvement. LEPCs are excellent venues to facilitate better federal/local coordination in such circumstances and DoD policy strongly encourages such actions. Local leaders engaging with federal organizations and encouraging them to participate in the LEPC fosters better relations between communities and their federal/military neighbors.

No matter the incident or the nature of federal involvement, federal resources and organizations responding to any incident in the U.S. adhere to the principles of NIMS, the NRF, and the National Response System and Goal. Resources can easily be integrated at the local incident command level by using these systems.

LEPCs should be aware of the federal resources present in their jurisdictions as well as federal agencies' regional offices, encouraging their local community response agencies to coordinate and liaise with those organizations. Likewise, LEPCs should encourage local federal organizations to participate in the LEPC. While working with federal organizations at the local level can be challenging, responses best when established relationships already exist.

Module 7 Action Items

What could our LEPC be doing?

- Review and integrate latest ICS/NIMS guidance.
- Coordinate hazmat transportation and facility incident response plans with community plans.
- Review community mutual aid agreements and response contractors.

How can our LEPC do it?

Integrate the Latest ICS/NIMS Guidance

- Step 1 (Basic): Mail or email a reminder of the next LEPC meeting to members and prospective members that includes an information sheet on the new NIMS and how to get training.
- Step 2 (Intermediate): Sponsor a local NIMS training course for the LEPC and invite facilities, hazmat carriers, and community emergency response organizations to participate.
- Step 3 (Advanced): During the next EOP, transportation, or facility plan review, evaluate content against the new NIMS/NRF guidance.

Coordinate Facility and Local Emergency Operations Plans

- Step 1 (Basic): Establish a subcommittee of the LEPC to conduct periodic reviews of facility and hazmat carrier plans and provide feedback to facilities, carriers, and local emergency management.
- Step 2 (Intermediate): Request copies of emergency response and emergency action plans from EPCRA regulated facilities and hazmat transportation carriers in your LEPC and establish a review schedule/process for facility, carrier, and local EOP coordination and review.
- Step 3 (Advanced): Establish a mentorship program between local emergency management and facility emergency management to improve facility planning and coordination.

Review Mutual Aid Agreements

- Step 1 (Basic): Develop a contact list of hazardous materials and response contractors used by facilities and hazmat transportation companies (road, rail, and pipeline) in the community.
- Step 2 (Intermediate): Obtain copies of any mutual aid agreements referenced in the community Emergency Operations Plan or part of any jurisdictional plan in the LEPC area of responsibility.
- Step 3 (Advanced): Establish a temporary LEPC subcommittee to review mutual aid agreements and response contractors to identify capability gaps or areas where there is overlap and recommend solutions to the appropriate parties (Note: This is especially useful following an EOP or facility plan review process that identifies capability gaps).

[1] While this is true in Texas, it is not the norm everywhere. In some parts of the country, LEPCs act as the local emergency management organization.
[2] "The History of Incident Command System," in *NIMS and the Incident Command System*, Federal Emergency Management Agency, accessed March 7, 2019, https://www.fema.gov/txt/nims/nims_ics_position_paper.txt.
[3] This section draws on ICS training material provided by FEMA, particularly "ICS Review Material," May 2008, https://training.fema.gov/emiweb/is/icsresource/assets/reviewmaterials.pdf.
[4] In some incidents involving terrorism or a chemical, biological, nuclear or radiological attack on the U.S., state or even federal officials may assume command. Except for the rarest of instances, even in large-scale disasters, incident command remains under local control until the incident or disaster moves from response to the recovery phase. Large-scale disasters may have multiple incident commands, each operating under local control but coordinating their action with state and federal officials.
[5] The federal and state governments had to exercise control over the response in some parts of Louisiana. This exceeded their legal authority under the Stafford Act and led to much controversy after the fact. For a time, Congress debated the merits of this system and considered increased federalization of emergency management, but finally preserved the principle of local control.
[6] The West Fertilizer Company Disaster is an example of dire circumstances, as was 9-11 in New York City. In both cases, the incident killed or injured many of the local personnel normally responsible for incident command and damaged or destroyed the facilities required to direct the response under ICS/NIMS. In both cases, local incident command temporarily became the responsibility of outside organizations and state-level response organizations until the communities reconstituted or relocated their own capability.
[7] "ICS Resource Center," Federal Emergency Management Agency, last modified 2017, https://training.fema.gov/emiweb/is/icsresource/index.htm; and "Incident Command System Resources," Federal Emergency Management Agency, last modified June 26, 2018, https://www.fema.gov/incident-command-system-resources.
[8] Federal Emergency Management Agency, "ICS Review Material," May 2008, https://training.fema.gov/emiweb/is/icsresource/assets/reviewmaterials.pdf.
[9] "National Incident Management System," Federal Emergency Management Agency, last modified June 11, 2018, https://www.fema.gov/national-incident-management-system.
[10] "National Incident Management System," Federal Emergency Management Agency, last modified June 11, 2018, https://www.fema.gov/national-incident-management-system.
[11] Unity of effort is a new addition appearing in the 2017 edition.
[12] Federal Emergency Management Agency, "NIMS 2017 Instructor Student Learning Materials," 2017, https://training.fema.gov/nims/docs/nims.2017.instructor%20student%20learning%20materials.pdf
[13] "National Incident Management System," Federal Emergency Management Agency, last modified June 11, 2018, https://www.fema.gov/national-incident-management-system; and "National Incident Management System (NIMS)," Federal Emergency Management Agency – Emergency Management Institute, last modified August 10, 2015, https://training.fema.gov/nims/.
[14] Recent changes to the RMP rule and other new regulations may require such coordination that also includes documentation of such coordination. See Module 5 for more information.
[15] This problem is not isolated to facilities. In some jurisdictions, volunteer fire department roles may include government or elected personnel with important roles in the ICS system in the event of a major incident. LEPCs can facilitate comparisons and play an important role in deconflicting such personnel conflicts.
[16] A frequent problem for communities relates to a misunderstanding of who is responsible

for the response and cleanup. Responsible party under the Superfund legislation means the party responsible for the hazardous material, *not the accident*. The parties to the accident and their insurance companies must settle liability as to ultimate fiscal responsibility, but that does not obviate the carrier or a facility's obligations in the event of an accident as the responsible party for the material under federal hazardous materials regulations.

[17] Website, Rail Division, Texas Department of Transportation, accessed July 30, 2018, https://www.txdot.gov/inside-txdot/division/rail.html.

[18] "FRAGIS," U.S. Department of Transportation, Federal Railroad Administration, accessed September 18, 2018, http://fragis.fra.dot.gov/GISFRASafety/. For the User Guide with detailed information on how to use the site, click on the "Help" link on the top of the page.

[19] "Railroads," Railroad Commission of Texas, last modified April 2,2018, accessed July 30, 2018, http://www.rrc.state.tx.us/about-us/railroads/.

[20] "Find Who's Operating Pipelines in Your Area," National Pipeline Mapping System, Pipeline and Hazardous Materials Safety Administration, accessed July 30, 2018, https://www.npms.phmsa.dot.gov/FindWhosOperating.aspx.

[21] "Texas Pipeline Awareness," Paradigm Liaison Services, accessed July 30, 2018, http://tx.pipeline-awareness.com/home.

[22] "Training Resources," Pipeline Association for Public Awareness, https://pipelineawareness.org/stakeholder-resources/emergency-response-training-resources/.

[23] "Lesson 5: Emergency Operations Centers," IS-700b: An Introduction to the National Incident Management System, Federal Emergency Management Agency Emergency Management Institute, last modified June 25, 2018, https://emilms.fema.gov/IS700b/groups/338.html.

[24] "Texas Intrastate Fire Mutual Aid System (TIFMAS)," Texas Interagency Coordination Center, last modified 2018, http://ticc.tamu.edu/response/TIFMAS.htm#index.html.

[25] Website, PreparingTexas.org, accessed July 30, 2018, https://www.preparingtexas.org/MAALandingPage.aspx.

[26] "National Mutual Aid System," International Association of Fire Chiefs, accessed July 20, 2018, https://www.iafc.org/topics-and-tools/nmas.

[27] "Texas District Coordinators and Areas," Texas Department of Public Safety – Division of Emergency Management, last updated August 2018, https://www.dps.texas.gov/dem/fieldresponse/distcoordmap.pdf

[28] Many jurisdictions practice both a formal and informal process for requesting state assistance. The informal channels get assets in motion, but eventually the community and the agencies involved must coordinate formally with DPS-TDEM via district disaster coordinators and the DPS-TDEM EOC.

[29] Even though TCEQ may not be the primary agency, it will likely respond to many of these incidents, either in support of another state agency or because it has resources agencies require.

[30] "Region Directory," Texas Commission on Environmental Quality, last modified January 31, 2019, https://www.tceq.texas.gov/agency/directory/region/reglist.html.

[31] "Texas Local Public Health Organizations," Texas Department of State Health Services, last modified May 23, 2018, accessed July 30, 2018, https://www.dshs.texas.gov/regions/lhds.shtm.

[32] "Field Offices," Federal Bureau of Investigation, accessed July 30, 2018, https://www.fbi.gov/contact-us/field-offices.

[33] TCEQ is usually the first point of contact in the state for most hazardous materials incidents. Even if TCEQ is not the state responder, the local office can and will offer advice and assistance to local communities in the initial stages of a response.

[34] The Texas National Guard consists of approximately 20,000 personnel between the Army and Air Guard. Additionally, the State of Texas also has a state-only militia, the Texas State Guard, which varies in size and capability. In addition to lots of heavy lift capability (trucks),

construction and engineering equipment, and other vehicles, the National Guard provides air assets in disaster support, both rotary and fixed wing. The Texas National Guard also maintains a Brigade-sized element dedicated to homeland security and disaster support that includes specialized anti-terrorism response units.

[35] National Guard forces are under the exclusive command and control of the governor, as managed under the authority of the state's adjutant general. Under this status, National Guard forces are Title 32 forces: federally funded but state controlled. When called to active duty by the federal government, National Guard forces operate under Title 10 of the federal code and become part of the active U.S. Army or Air Force and are under the exclusive command of the president. Reserve forces are also Title 10 forces and under exclusive federal authority.

During disasters in the U.S., states often call out their National Guard at the order of the governor. The units so activated work under the governor's authority and report to incident commanders, like any other state resource. Federal troops of the active military and Reserves can only perform actions in accordance with Posse Comitatus Act, limiting their functions, especially as it relates to law enforcement activities. Federal forces may work for incident commanders like other federal resources in a disaster, but do not work under the authority of the governor and remain under the command of the president and the National Command Authority.

The exceptions to both the National Guard's and federal forces' authorities and roles are when the governor or the president declares martial law, or the nature of the incident gives military forces additional powers and jurisdiction authorized under special legislation, such as incidents involving nuclear weapons, bioterrorism and pandemics.

[36] Confusion associated with the federal response to Hurricane Katrina has been blamed on unclear guidance and unfamiliarity with the (then) new National Response Plan after FEMA became part of the Department of Homeland Security. While the new National Response Frameworks address some of the confusion, federal response roles and responsibilities still include overlapping authorities and agency roles.

[37] The EPA is the Chair and the USCG is Vice-Chair of the NRT. The EPA (as Chair) provides the Federal On-Scene Incident Coordinator (FOSC). The fifteen member agencies are: Department of Agriculture (USDA), Department of Commerce – National Oceanic and Atmospheric Administration (NOAA), Department of Defense (DoD), Department of Energy (DOE), Department of Health and Human Services (HHS), Department of the Interior (DOI), Department of Labor (DOL), Department of State (DOS), Department of Transportation (DOT), Environmental Protection Agency (EPA), U.S. Coast Guard (USCG), General Services Administration (GSA), U.S. Nuclear Regulatory Commission (NRC), Federal Emergency Management Agency. For additional information see National Response Team, National Response Team Brochure, 2011, https://www.nrt.org/sites/2/files/NRT_Brochure_2011_FINAL.pdf.

Module 8. Funding

Important Takeaways in Module 8

- Studies show that funding is not a primary obstacle to Local Emergency Planning Committee (LEPC) effectiveness, rather, LEPC effectiveness appears to drive funding.
- No two LEPCS fund their operations in the same way. They may use a variety of funding models and methods in combination, but the most effective LEPCs focus their funding and budgets toward specific goals.
- This module identifies five funding models LEPCs may use: Direct funding, In-kind Donation/Volunteer Effort, Membership Dues, Fundraising and Donations, and Grants.
- There are numerous grant programs available to fund preparedness activities carried out by an LEPC
- Some fundraising activities provide an opportunity for LEPCs to participate in their communities and inform the community about chemical safety and the LEPC.
- If the responsible party for a hazardous materials (hazmat) incident fails to cover the clean-up expenses, there is a reimbursement program that may assist communities on a need basis of up to $25,000 for certain materials.

Introduction

Funding is one of the most frequently cited obstacles to maintaining an active and effective LEPC.[1] The Emergency Planning and Community Right to Know Act (EPCRA) and related regulations provide no direct funding for LEPCs, nor does Texas state legislation. Most LEPCs self-fund through volunteer efforts and in-kind donations of time, space, equipment, and supplies. The majority of LEPCs, nearly 60 percent, according to the 2008 Environmental Protection Agency [EPA] LEPC survey, do not have an operating budget. Few LEPCsreceive direct funding of any kind.[2] In a 1995 survey, EPA determined the average annual LEPC budget ranged between $3,000 and $5,000.[3]

Usually, only the largest metropolitan LEPCs or those with high concentrations of refineries or companies that produce industrial chemicals receive significant direct funding and have operating budgets.[4] The majority of funding for LEPCs is in-kind or indirect funding, usually the free use of meeting space, computers and other equipment, or materials and office supplies.

The same 2008 LEPC survey that cited lack of funding as the greatest obstacle to effectiveness did not identify funding as a major factor for the success or failure of an LEPC. Far from it. Only 5.3 percent of respondents cited funding as a major factor for the success and effectiveness of their LEPC.[5]

Thus, funding is beneficial but not a prerequisite for success. The problem of funding for an LEPC can also solve itself. With dedicated membership that includes both elected officials and government officials from supporting agencies, the

effectiveness and outreach of an LEPC increases. The more effective the LEPC becomes, the more likely it is to garner both direct and indirect funding and other financial support.

Funding Models

Many LEPCs in the U.S. use one or a combination of the following basic funding models, described below.

Direct funding–funding from a local or state government, originating from taxes or fees:

- Some states collect reporting fees from EPCRA-regulated industries and distributes them exclusively to LEPCs (Texas does not do this).
- Some localities charge reporting fees from EPCRA-regulated industries dedicated to the use of the LEPC. This may or may not be an option under Texas law. Consult local city attorneys for legal counsel and the Texas Attorney General for additional information.
- The EPA suggests that city governments may want to consider the possibility of implementing inspection fees for facilities covered by hazmat reporting requirements to assist with LEPC expenses. Again, seek legal counsel regarding such action.[6]
- In Texas, the Texas Commission on Environmental Quality (TCEQ) collects fees and splits them between the Texas Department of State Health Services (DSHS) and TCEQ. Twenty percent of the total goes toward TCEQ's LEPC grant program.

In-kind donation/volunteer effort–donations of time, space and/or equipment from participating organizations:

- Members are volunteers (unpaid), or their participating organization pays for their time.
- Senior citizens[7] and retired members of the LEPC, facilities, and emergency services often have the time to help, and their knowledge and experience are invaluable.
- According to the EPA, enlisting prison and jail honor inmates in some LEPC activities has produced satisfactory results.[8] Citizens serving community service obligations produce a similar type of effort. Practical experience indicates that some of these participants can be enthusiastic and help collect high-quality information for projects such as hazmat traffic studies. However, carefully monitoring and quality control methods are recommended when working with these personnel, as well as other volunteers who may have limited familiarity with hazmat and freight transport.

Membership dues–fees/dues collected from organizations participating in the LEPC according to the LEPC bylaws:

- LEPCs can collect fees through membership (or filing fees) using a variety of scales, including the number of chemicals reported under EPCRA, fixed price, number of employees, or other methods.

- Like filing fees related to direct funding, LEPCs should consult legal counsel to understand their authority and their ability to impose fees on their members.

Fundraising and donations:

- The LEPC conducts fundraising activities (e.g., safety days) or solicits donations from members, industries and other organizations.
- According to EPA, 80 percent of business and industry giving to LEPCs is in-kind support.[9]
- An alternate form of donation is that of bequests, solicited from members of the community as part of their estate planning.

Grants:

- Texas has no grant programs that provide funding for all LEPC activities. However, many grant programs can fund specific LEPC projects or activities.
- In addition to public grant programs, some LEPCs find private foundations may provide funds or grants for some of their activities.
- The U.S. has more than 16,000 private foundations, each with different missions and goals. Identifying private foundation grant sources requires extensive research and the process for applying for grants varies by organization.[10]

When your LEPC considers methods of funding using one or more of the models discussed above; you may also wish to consider the following:

- Encourage your LEPC member organizations to pay their personnel for the time they spend participating as representatives to the LEPC.
- If you have an active LEPC, consider a membership fee or solicitation of funds from your members or their organizations on an annual basis.
- If your LEPC has recently become or is inactive, you may have difficulty obtaining membership compliance from those organizations required to be members if you charge membership dues in the beginning when it becomes active again. Such fees often work better for established LEPCs.
- Imposing municipal or county fines for failure to participate in your LEPC or comply with local/county ordinances may be an option to obtain both funding and membership compliance if you have the support of local government officials and actions conform to legal requirements.
- Determine the actual budgetary needs of your LEPC. LEPCs can fund many of the requirements of LEPC activities (e.g., records storage, compliance with right-to-know requests and meeting space) through in-kind donations.
- The annual budget for your LEPC may be limited year over year, but you may wish to budget for specific projects or activities for one or more years and link their funding to fundraising activities, grants and other sources.
- Link your funding objectives to your LEPC mission statement and goals. Think about what goals you want to accomplish what they might cost, then seek the funds to accomplish them.

Texas Funding Sources for LEPCs

The majority of LEPCs that receive direct funding nationwide do so through the redistribution of state fees collected from EPCRA reporting by facilities. That is not the case in Texas. Until quite recently, fees from EPCRA reporting in Texas went exclusively to DSHS to fund its obligations under Texas Community Right-to-Know and EPCRA statutes.

Amendments to state law in 2015 made TCEQ the responsible party for Tier II reporting and the collection of fees. A portion of those fees still goes to the Department of State Health Services and TCEQ, However, TCEQ, as stipulated under the new law, devotes 20 percent of the collected fees to a new grant program to support LEPCs, as discussed below.

Texas Local Emergency Planning Committee Grant Program

The Texas LEPC Grant program is a new grant program created in 2015 by the 84th Texas Legislature.[11] In 2016, TCEQ received an initial $4 million to fund the first round of the program in 2017. Beginning in 2018, the program disbursed significantly less, approximately $200,000 per year.

The grant program is exclusively for LEPCs, to "establish, maintain, and/or improve their implementation of EPCRA. Only LEPCs that are officially recognized by the State Emergency Response Commission (SERC) are eligible for this grant."[12]

The TCEQ Grant webpage provides information on the grant program and application forms.

Texas Rural Volunteer Fire Department Assistance Program

The Texas Rural Volunteer Fire Department (VFD) Assistance Program provides funds to rural VFDs for the acquisition of firefighting vehicles, fire and rescue equipment, protective clothing, dry hydrants, computer systems and firefighter training.[13] The Texas Legislature funds this cost-share program, and the Texas A&M Forest Service administers it. The program webpage provides more information.[14]

Texas Intrastate Fire Mutual Aid System Grant Assistance Program

The Texas Intrastate Fire Mutual Aid System (TIFMAS) Grant Assistance Program provides reimbursement grants to career fire departments and volunteer/career-combined fire departments not eligible for the Texas Rural VFD Assistance Program.[15] The Texas A&M Forest Service administers the program.

Federal Grant and LEPC Project Funding Sources

Hazardous Materials Emergency Preparedness Planning Grants

The most frequent source of grant funding for LEPCs nationwide is the Hazardous Materials Emergency Preparedness (HMEP) grant program.[16] The Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM) administers the HMEP program in Texas on behalf of the Pipeline and Hazardous Materials Safety Administration (PHMSA), which funds the program.[17] Training provided under the Texas HMEP Program, and three other grant programs related to hazmat training are discussed in Module 6.

The HMEP grant program also funds LEPC hazmat-transportation-related planning projects. Program rules limit the grant program to projects that:

- Increase effectiveness in safely and efficiently handle hazmat accidents and incidents.
- Enhance implementation of EPCRA.
- Encourage a comprehensive approach to emergency training and planning by incorporating the unique challenges of responses to transportation situations.[18]

HMEP grants are performance based. LEPCs must link their grant projects to specific long-term goals and objectives. The performance period is based on the federal fiscal year, running from October through September of the following year. HMEP grant recipients must "provide 25 percent of the direct and indirect costs of all activities covered under the grant award program with non-federal funds."[19] LEPCs can fulfill the 25 percent match in cash, in-kind contributions or any combination thereof, and many LEPCs using the HMEP program in Texas use in-kind contributions to avoid direct expenses.

Projects in recent years in Texas funded through the HMEP Planning Grant were:

- Emergency Operations Plan reviews
- Commodity flow studies
- Hazmat transport risk studies
- Hazmat transport incident response exercises
- Hazmat response workshops

Other activities that HMEP funds include[20]:

- Development, improvement, testing and implementation of emergency plans required under EPCRA. These plans provide enhancement of emergency plans to include hazards analysis, as well as response procedures for emergencies involving transportation of hazardous materials, including radioactive materials.
- An assessment to determine the flow patterns of hazardous materials inter- or intra-states or tribal lands and the development and maintenance of a system to keep such information current (commodity flow study).
- An assessment of the need for regional hazmat emergency response teams.
- An assessment of local response capabilities.

- Conduct of emergency response drills and exercises associated with emergency preparedness plans.
- Provision of technical staff to support the planning effort.
- Additional activities appropriate to implement the scope of work for the proposed project plan and approved in the grant. DPS-TDEM must approve these activities before initiation.

Expertise on conducting hazmat transportation planning projects is available through the Texas A&M Transportation Institute. The DPS-TDEM grants page and the PHMSA HMEP Program page provide more information on the HMEP grant program.[21]

Emergency Management Performance Grant Program

The Emergency Management Performance Grant (EMPG) program is a FEMA-funded grant program that DPS-TDEM administers in Texas.[22] Grant funds are for "supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient nation," and aid in the implementation of the National Preparedness System.[23] The EMPG program is an all-hazards emergency preparedness program funded on a population-share basis by the state, with the states distributing the funds to applicable state and local emergency management programs.

Applicants to the EMPG program are often highly functioning, effective emergency management systems and the grant funding is competitive. EMPG applicant evaluations base decisions on an applicant's current planning and training accomplishments, and recent exercise activities. The EMPG program matches funds on a one-for-one match, although cost sharing may include in-kind/non-cash matches or contributions of reasonable value or services in lieu of cash.[24]

To participate in the program, a jurisdiction must[25]:

- Have a legally-established city or county emergency management program and be the designated primary jurisdiction in accordance with Chapter 418 of the Texas Government Code
- Have adopted the National Incident Management System
- Have appointed an emergency management coordinator (EMC). Each qualifying jurisdiction must have its own appointed EMC. An individual EMC cannot be assigned to both a county and city jurisdiction.
- Submit a completed EMPG application to DPS-TDEM by the established deadline date that includes all required attachments.
- Satisfactorily complete the requirements and all tasks described in the approved statement of work.
- Submit all required progress reports, FEMA metrics tables and financial reports in accordance with the published EMPG timeline milestones.
- Participate and meet the most current FEMA-mandated emergency planning, training and exercise requirements.
- Resolve any deficiencies noted during reviews of the emergency planning, training and/or exercise materials submitted to DPS-TDEM within 60 days of the

deficiencies notification.

The latest DPS-TDEM guide on the EMPG website provides more information on the EMPG program.[26]

FEMA Firefighter Grant Programs

FEMA administers three Assistance to Firefighters Grant (AFG) programs to fire departments, emergency medical services organizations and state fire training academies nationwide:

- Assistance to Firefighters Grants[27]
- Fire Prevention and Safety Grants[28]
- Staffing for Adequate Fire and Emergency Response[29]

These programs fund training, equipment, personal protective equipment, wellness and fitness initiatives, modification of facilities and vehicles. One program also funds staffing increases for local fire departments. Agencies eligible for grant funds include fire departments, institutions of higher education and other state, local, tribal or non-profit organizations that assist fire prevention programs and support firefighter health and safety research and development. LEPC projects related to these activities may be eligible for funding.

Submit applications for the program through the FEMA E-Grant system.[30] The programs are highly competitive, and FEMA directly administers them. The FEMA AFG webpage provides more information.[31]

Pre-disaster Mitigation Program and Post-disaster Hazard Mitigation Grant Program

The Pre-Disaster Mitigation (PDM) Grant Program and the Hazard Mitigation Grant Program (HMGP) are FEMA-administered grant programs that provide funds for hazard mitigation planning and projects. The FEMA PDM and HMGP pages provide more information.[32]

Local governments apply for these grants as subgrant applicants because FEMA funds the grants at the state level.[33] In Texas, the Mitigation Section of DPS-TDEM administers both the pre-PDM and HMGP programs.[34] The DPS-TDEM website provides more information.[35]

Homeland Security Grant Program

Following the events of September 11, 2001 (9/11), EPA instructed LEPCs to incorporate homeland security into their activities. By 2008, most LEPCs had incorporated homeland security into their planning as part of an all-hazards approach. 9/11 also led to the creation of the Department of Homeland Security, of which FEMA is part, and the Homeland Security Grant Program (HSGP) administered by FEMA, which consists today of three separate but related initiatives and programs:[36]

- The State Homeland Security Program (SHSP)

- The Urban Areas Security Initiative
- Operation Stonegarden (a border area initiative)

Grants given to states fund all three programs. In Texas, the Homeland Security Grants Division (HSGD) of the Office of the Texas Governor (OTG), which is the state administrative agency for the program in Texas, administers HSGP grants.[37]

OTG/HSGD coordinates grants under the program with the 24 regional councils of governments, which in most parts of the state are the point of contact for information about local projects funded by HGSPs.[38]

The following websites provide more information:

- The FEMA HSGP website provides more information about the HSGP.
- The OTG/HSGD website provides information about Texas HSGP programs.
- The Texas Association of Regional Councils website provides information about the Texas and regional councils.[39]

Local Funding Sources

A little more than a third of LEPCs responding to the 2008 LEPC survey reported receiving direct funding from their local governments. Local governments can appropriate funds or provide in-kind/indirect funding to LEPCs in many ways. Some LEPCs receive funding through their county or municipal office of emergency management or fire department budgets. Local employers in communities may fund LEPC activities indirectly or in-kind by reimbursing their employees for time spent representing their organizations as a member of the LEPC.

Private-Sector Funding

Only 8.3 percent of LEPCs in the 2008 LEPC survey reported receiving direct funding from industries. This practice is most common in areas with large concentrations of EPCRA-regulated industries and may include funds provided by local industry organizations. LEPCs can solicit any number of state and local industry organizations for funding, or LEPCs can charge membership fees for private-sector organizations. While EPCRA-regulated facilities must participate in their LEPC according to the law, not all of them comply. Few mechanisms exist to enforce compliance. Some jurisdictions and municipalities use local code and law to encourage or require compliance by passing ordinances that require membership, but there is limited state and federal enforcement.

The private sector provides a limited source of funding for LEPCs but is a source few LEPCs use. In addition to asking for funds, municipal and county governments can find other ways to obtain funding for LEPCs from the private sector and improve compliance with EPCRA.[40] LEPCs that work with local industry associations and groups may also find funds available for their operations or special projects.

The key to obtaining private-sector contributions to your LEPC is to ask-something that a surprising number of LEPCs fail to do. LEPCs can also form a cooperative arrangement between industrial facilities and local government that, properly managed, can apply both incentives and disincentives to achieve greater industry

compliance with EPCRA. Increased LEPC participation by private sector entities often leads to increased funding from the private sector.

Other Funding Sources

Some LEPCs conduct fundraising activities in their communities, often as part of local safety fairs. Other LEPCs collect membership fees to fund their operations. A few LEPCs fund themselves through local fees collected from industrial facilities. Several non-governmental grant and assistance programs also provide funds to some LEPC projects.

Imagination and dedication are the only limits to how LEPCs can raise and solicit funds for operations. Of course, LEPCs must comply with federal, state and local laws in doing so, but that does not rule out creativity or non-traditional methods. Some LEPCs may limit their fundraising to specific projects or activities, while others fund themselves entirely by in-kind contributions and volunteer efforts.

Do not overlook ways your community organizations can contribute to LEPC activities with in-kind funding. For example, a fire or police department or office of emergency management can pay employees for time spent working on LEPC projects or attending meetings. A city hall may provide the use of a dedicated office for the LEPC. The most common in-kind contributions to LEPCs are meeting space, office space, use of computers and other equipment, materials and office supplies and printing. All these costs, if an LEPC had to pay out of its budget, would be significant.

The crucial factor in the success of your LEPC is a dedicated membership, and the most important thing dedicated members give their LEPC is their time. Local governments and organizations that reimburse employees for their time spent on their organization's behalf as LEPC members goes a long way toward building a dedicated membership and a successful LEPC.

Reimbursement for Hazardous Materials Cleanup

Whenever there is a hazardous materials incident, the response and cleanup are the liability of the responsible party, under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund. Under the act, any one potential responsible party may be liable for the entire cleanup when the harm caused by multiple parties is not separable.[41]

The legal definitions and case law regarding Superfund liability, responsible parties, and the liability of parties involved in a hazmat transportation-related incident are complex. In some cases, especially those associated with Superfund sites, the federal government must cover the expenses of the cleanup when liablity is undetermined. Indeterminate liability is the purpose of the Superfund.

> ***Responsible Party:*** *Under the law, the responsible party for purposes of covering response expenses is the facility or transportation carrier handling the hazardous materials. Insurance or legal actions may later recover some of these costs from other parties, but the carrier or facility must cover the expense of the immediate response and cleanup.*

For local communities responding to a release (or threatened release) of hazardous substances, an EPA reimbursement program can, under certain circumstances, reimburse local governments for expenses related to the release and associated emergency response measures. The Local Governments Reimbursement Program (LGR) reimburses local governments up to $25,000 per incident when the local government does "not have funds available to pay for response actions."[42]

To be eligible for reimbursement:

- The entity applying for reimbursement must be a county, parish, city, town, township, municipality or federally-recognized Indian Tribe.
- The applicant must have legal jurisdiction over the site where the incident occurred (if more than one entity responded to the incident, the legal entity with jurisdiction can submit on behalf of all participating governments).
- The local government applying for reimbursement must not be the responsible party (responsible parties are responsible whether they are a local government or not).
- Reimbursement only applies to releasted substances that are designated as hazardous under CERCLA. Petroleum products (crude or refined oil, natural gas, etc.) or any other specified fractions thereof not designated under CERCLA are not eligible. Some mixed wastes (containing such products) may be eligible.
- Funds cannot supplant local funds normally provided for a response. For example, an agency cannot request reimbursement for the pay of firefighters unless that pay was unbudgeted, for example, overtime.
- The applicant must complete a cost recovery summary table prior to application, demonstrating pursuit of all available sources of cost recovery (responsible parties and their insurance, state and local insurance or cost reimbursement programs, etc.).
- A complete, detailed cost breakdown table with supporting documentation must be prepared and submitted with the application.
- The highest-ranking local official (mayor, county judge, etc.) must sign the

application.
- The applicant must apply within one year of the "date of response completion."

The EPA LGR website provides additional information on the program and the application for reimbursement.[43]

Module 8 Action Items

What could our LEPC be doing?

- Identify your LEPC funding model(s).
- Identify potential LEPC funding sources.
- Focus LEPC budgets on goals and projects.

How can our LEPC do it?

Identify Funding Model(s)

- Step 1 (Basic): Conduct an LEPC meeting to discuss the ways your LEPC can be funded, identifying models of funding that work best in your community.
- Step 2 (Intermediate): Prepare a report for your local government, recommending changes to local ordinance or agency procedures that can provide LEPC funds or other support (like paid time for responders participating in LEPC activities, if not currently covered).
- Step 3 (Advanced): Work with local, state and congressional political leaders to encourage agency and facility support to the LEPC, provide funding from local organizations/agencies and identify state and federal funding opportunities.

Identify LEPC Funding Sources

- Step 1 (Basic): Establish a budget/finance sub-committee on the LEPC to head up the search for funding, lead any fundraising efforts, prepare grant applications and develop an action plan to implement and improve your funding model and sources of funding.
- Step 2 (Intermediate): Using the identified model(s) from the previous section, evaluate potential sources of funding consistent with your funding model and solicit funds or apply for grants.
- Step 3 (Advanced): Actively solicit funding and donations from member and community organizations identified through specific fundraising projects developed by the budget/finance sub-committee.

Focus LEPC Budgets on Goals and Projects

- Step 1 (Basic): Establish current budgetary requirements (mailing costs, printing costs, etc.) and whether they are cash payments or met with in-kind donations. Use that information to develop a regular budget of recurring LEPC (year-to-year) costs met with funds or in-kind donations.
- Step 2 (Intermediate): Identify short and long-term projects and goals that the LEPC wishes to complete that require additional funding beyond the regular budget. Have the finance subcommittee develop plans to fund these projects (see previous section).
- Step 3 (Advanced): Develop a longer-term multi-year budget that plans for LEPC growth and increases in budget expenses. The budget should identify long-term projects and goals and the sources of funding for those projects/goals.

[1] In the EPA LEPC survey, last conducted in 2008, 37.3 percent of respondents cited funding as the greatest obstacle to LEPC success, making it the number-one cited obstacle. See Environmental Protection Agency, *2008 Nationwide Survey of LEPCs*, page 27, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.
[2] Environmental Protection Agency, *2008 Nationwide Survey of LEPCs*, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.
[3] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[4] According the 2008 survey (see citation above), LEPCs in jurisdictions with more than 500,000 residents are the most likely to receive direct funding.
[5] Dedicated membership was the most important success factor. The next Module, "Building a More Effective LEPC," provides more information.
[6] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[7] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[8] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[9] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[10] Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.
[11] "Texas Local Emergency Planning Committee (LEPC) Grant Program," Texas Commission on Environmental Quality, last modified July 3, 2018, https://www.tceq.texas.gov/response/security/LEPC_Grant.
[12] "Texas Local Emergency Planning Committee (LEPC) Grant Program," Texas Commission on Environmental Quality, last modified July 3, 2018, https://www.tceq.texas.gov/response/security/LEPC_Grant.
[13] "Fire Department Programs: Rural Volunteer Fire Department Assistance Program (HB 2604)," Texas A&M Forest Service, accessed July 30, 2018, http://tfsweb.tamu.edu/RuralVFDAssistanceProgram/.
[14] "Fire Department Programs: Rural Volunteer Fire Department Assistance Program (HB 2604)," Texas A&M Forest Service, accessed July 30, 2018, http://tfsweb.tamu.edu/RuralVFDAssistanceProgram/.
[15] "Texas Intrastate Fire Mutual Aid System (TIFMAS)," Texas Interagency Coordination Center, last modified 2018, http://ticc.tamu.edu/response/TIFMAS.htm#index.html.
[16] "Hazardous Materials Emergency Preparedness (HMEP) Grant Program," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm
[17] "Hazardous Materials Emergency Preparedness (HMEP) Grant Program," Texas

Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm; and "Hazardous Materials Grants Program," Pipeline and Hazardous Materials Safety Administration, last modified July 14, 2017, http://www.phmsa.dot.gov/hazmat/grants; and Website, Pipeline and Hazardous Materials Safety Administration, accessed July 30, 2018, https://www.phmsa.dot.gov/.

[18] Texas Department of Public Safety – Division of Emergency Management, *HMEP Grant Application and Planning Guide for LEPCs FY 2017*, September 19, 2016, https://www.dps.texas.gov/dem/GrantsResources/lepcPlanningGuide.pdf.

[19] 49 CFR 110.60(a).

[20] Texas Department of Public Safety – Division of Emergency Management, *HMEP Grant Application and Planning Guide for LEPCs FY 2017*, September 19, 2016, https://www.dps.texas.gov/dem/GrantsResources/lepcPlanningGuide.pdf.

[21] "Grants and Resources," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/GrantsResources/index.htm; and "Hazardous Materials Emergency Preparedness (HMEP) Grant," Pipeline and Hazardous Materials Safety Administration, last modified July 14, 2017, https://www.phmsa.dot.gov/grants/hazmat/hazardous-materials-emergency-preparedness-hmep-grant.

[22] "Emergency Management Performance Grant Program," Federal Emergency Management Agency, last modified June 7, 2018, https://www.fema.gov/emergency-management-performance-grant-program.

[23] "Emergency Management Performance Grant Program," Federal Emergency Management Agency, last modified June 7, 2018, https://www.fema.gov/emergency-management-performance-grant-program.

[24] Texas Department of Public Safety – Division of Emergency Management, "FY 2018 Local Emergency Management Performance Guide," November 2017, https://www.dps.texas.gov/dem/CouncilsCommittees/EMPG/empgCurrentGuide.pdf.

[25] Texas Department of Public Safety – Division of Emergency Management, "FY 2018 Local Emergency Management Performance Guide," November 2017, https://www.dps.texas.gov/dem/CouncilsCommittees/EMPG/empgCurrentGuide.pdf.

[26] Texas Department of Public Safety – Division of Emergency Management, "FY 2018 Local Emergency Management Performance Guide," November 2017, accessed July 30, 2018, https://www.dps.texas.gov/dem/CouncilsCommittees/EMPG/empgCurrentGuide.pdf; and "Emergency Management Performance Grant (EMPG): Application Materials," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/CouncilsCommittees/empg/info.htm.

[27] "Assistance to Firefighters Grant," Federal Emergency Management Agency, last modified July 20, 2018, https://www.fema.gov/assistance-firefighters-grant.

[28] "Fire Prevention & Safety Grants," Federal Emergency Management Agency, last modified April 9, 2018, https://www.fema.gov/fire-prevention-safety-grants-fps.

[29] "Staffing for Adequate Fire & Emergency Response Grants," Federal Emergency Management Agency, last modified July 20, 2018, https://www.fema.gov/staffing-adequate-fire-emergency-response-grants.

[30] "E-Grant Application Access," Federal Emergency Management Agency, last Modified April 30, 2018, https://www.fema.gov/e-grant-application-access.

[31] "Welcome to the Assistance to Firefighters Grant Program," Federal Emergency Management Agency, last modified July 20, 2018, https://www.fema.gov/welcome-assistance-firefighters-grant-program.

[32] "Pre-Disaster Mitigation Grant Program," Federal Emergency Management Agency, last modified April 30, 2018, https://www.fema.gov/pre-disaster-mitigation-grant-program; and "Hazard Mitigation Grant Program," Federal Emergency Management Agency, last modified

May 21, 2018, https://www.fema.gov/hazard-mitigation-grant-program.
[33] "Mitigation eGrants System for Subapplicant Users," Federal Emergency Management Agency, last modified May 21, 2018, https://www.fema.gov/mitigation-egrants-system-subapplicant-users.
[34] "Mitigation," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Mitigation/index.htm; Texas Department of Public Safety – Division of Emergency Management, "Pre-Disaster Mitigation Grant Program (PDM) Fact Sheet, accessed July 30, 2018, https://www.dps.texas.gov/dem/Mitigation/PDMFactSheet2015.pdf; and Texas Department of Public Safety – Division of Emergency Management, "Hazard Mitigation Grant Program (HMGP)," August 20, 2015, https://www.dps.texas.gov/dem/Mitigation/hmgp_fact_sheet.pdf.
[35] "Mitigation," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Mitigation/index.htm.
[36] "Homeland Security Grant Program," Federal Emergency Management Agency, last modified June 7, 2018, https://www.fema.gov/homeland-security-grant-program.
[37] "Homeland Security Grants Division," Office of the Texas Governor, accessed July 30, 2018, https://gov.texas.gov/organization/hsgd.
[38] "Regional Councils of Governments," Texas Commission on Environmental Quality, last modified July 24, 2018, https://www.tceq.texas.gov/permitting/waste_permits/waste_planning/wp_cogs.html.
[39] http://txregionalcouncil.org/, a list is also available via TCEQ (see previous note).
[40] For example, dedicating to LEPCs a portion of local fines or fees collected from certain enforcement activities related to safety or hazardous materials.
[41] "Superfund Liability," Environmental Protection Agency, last modified January 4, 2018, https://www.epa.gov/enforcement/superfund-liability.
[42] "Local Governments Reimbursement Program," Environmental Protection Agency, last modified November 30, 2016, https://www.epa.gov/emergency-response/local-governments-reimbursement-program.
[43] "Local Governments Reimbursement Program," Environmental Protection Agency, last modified November 30, 2016, https://www.epa.gov/emergency-response/local-governments-reimbursement-program.

Module 9. Building a More Effective LEPC

Important Takeaways in Module 9

- Four important ingredients for Local Emergency Planning Committees (LEPC) success are dedicated members, cohesive schedule of meetings, dedicated leadership, and local government support.
- Involving elected and key agency officials in the LEPC is critical to success.
- There are many ways to energize and improve LEPCs, but all depend on the establishment of clear LEPC goals and the ability of the LEPC to measure its effectiveness and conduct continuous improvement activities.
- New international standards for chemical safety, recommended by the EPA, may provide useful tools for measuring community safety and LEPC effectiveness.

Introduction

In 2008, the Environmental Protection Agency (EPA) surveyed LEPCs nationwide. The survey asked respondents, "What is the single greatest factor contributing to the success of your LEPC?" The top four responses accounted for 77 percent of all responses, indicating some unanimity about what makes a successful LEPC. The responses were:

- Dedicated membership (33 percent)
- Regularly scheduled meetings (16 percent)
- Dedicated leadership (14 percent)
- Local government support (14 percent)

The same survey asked about the greatest obstacles to the success of LEPCs. The three top responses garnered the majority (70 percent) of all responses:

- Funding (37 percent)
- Low membership involvement (20 percent)
- Public apathy (13 percent)

Interestingly, only one of these (membership involvement) appears in both lists. Only 5 percent of responding LEPCs identified funding as a factor for success, while 37 percent cited funding as the biggest obstacle. Likewise, previous studies showed an extraordinarily low public awareness about LEPCs nationwide, even in areas with highly effective LEPCs.

LEPC Ingredients for Success

What do the statistics from the EPA's 2008 survey tell us? The biggest obstacles to the success of your LEPC are probably not funding or public awareness, two of the most commonly-cited factors. Academic studies show that the greatest factors contributing to LEPC success and effectiveness are some of the same identified by the 2008 EPA survey.[1]

So, the real secret of success for any LEPC is *dedication*. Specifically:

- Dedicated members
- Dedication to a regular schedule of meetings
- Dedicated leadership
- Dedicated local government support (and the dedication of local leaders)

A first step to LEPC success is finding and keeping dedicated members who participate regularly. From these members comes dedicated leadership. If your membership includes local government officials, especially elected officials, from the outset, you will naturally garner government support. The Emergency Planning and Community Right-to-Know Act mandates that LEPC membership include representation from:

- Elected state and local officials
- Police, fire, civil defense, public health, environmental, transportation, and hospital officials
- Facility representatives
- Community groups
- The media

Representation of appointed and elected government officials among a diverse set of LEPC members is not just a prerequisite for success–it is the law. Funding also helps, as does community awareness and involvement. However, the lack of these things need not be an obstacle to establishing, maintaining and growing the effectiveness of your LEPC. Community awareness and funding can both flow from the increased effectiveness of your LEPC–they are frequently problems that solve themselves if you have dedicated members.

The key factor is recruiting the right members to your LEPC. Membership is the starting point for all LEPCs and a primary point that determines success or failure. How do you do it? In 2007, a group of Kansas emergency planners met to discuss this exact question. The results of that conference, along with the 2008 LEPC survey, were incorporated into the 2009 EPA document, Energize Your Local Emergency Planning Committee.[2]

The 2007 group and the resulting 2009 document, identified the following essential factors for energizing and maintaining effective participation at a local level:

- Provide avenues to continuing education
- Focus on effective leadership
- Perform team building
- Empower members to complete meaningful tasks
- Recognize contributions
- Stay positive
- Remove hindrances

These recommendations, explained in the Energize Your Local Emergency Planning Committee document, generally serve to increase LEPC member dedication.[3]

The EPA also advises the following "proven ideas to help keep LEPCs active":[4]

Conduct an annual meeting to review the emergency plan

- Provides an opportunity for each member to review their roles and missions during a response, as detailed by the plan.
- Allows the committee to meet one of its legislated mandates (annual review of the plan).

Conduct a meeting near the Tier II report deadline

- Provides an opportunity for facilities to deliver copies of Tier II reports to the committee.
- Use the meeting to help facilities complete Tier II forms.
- Helps both the committee and facility document more accurate reports.
- Serves as a reminder to industries that Tier II forms are due. [5]

Invite guest speakers to address topics of interest

- Cost recovery.
- District hazmat response considerations.
- Industry safety programs.
- Transportation companies (especially railroad and pipeline operators).
- Contractor cleanup considerations.

Invite government agencies to speak on their programs, roles and responsibilities

- Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM) district disaster coordinator (DDC) or regional liaison officer.
- Local or area hazmat team.
- Local or regional Texas Commission on Environmental Quality (TCEQ) office or strike team.
- Environmental Protection Agency (EPA) regional office (Region 6).
- US Department of Transportation (DOT) affiliations (e.g., Pipeline and Hazardous Materials Safety Administration (PHMSA) or Federal Motor Carrier Safety Administration (FMCSA)) and Texas DPS Commercial Vehicle Enforcement (CVE) personnel who deal with hazmat transport carriers.
- Local industry representatives, especially safety officers and industrial hygienists.
- Cleanup contractors.
- 6th Civil Support Team–Weapons of Mass Destruction (WMD), or Texas National Guard, or other homeland security personnel.
- U.S. Customs and Border Protection (CBP) officials and emergency management personnel.
- Texas Department of State Health Services (DSHS).
- Public health officials.
- Industry and professional organization representatives.

Conduct an after-action review meeting for incident responses

- Identifies best practices and lessons learned, which provides a unique opportunity to incorporate changes to Emergency Operations Plans (EOPs).
- Begin every meeting with local fire officials and facilities reviewing all their hazardous materials incidents for that month and any issues arising from them.[6]

Conduct a facility process review

- Can serve as an awareness tool for the responder community.
- May include an industry member explaining how and why he or she uses hazardous substances, which can improve awareness of the specific facility and the hazardous substances used.
- Familiarizes the responders with uses of and storage locations for various hazardous substances.

Conduct a review of any new regulation or law

- Review new laws or regulations recently passed (National Incident Management System (NIMS), Risk Management Plan (RMP) rules, ammonium nitrate, HHFT/FAST Act, etc.).
- Review new governing standards issued by organizations such as the National Fire Protection Association, American National Standards Institute, or International Organization for Standardization that impacts the LEPC or facilities.
- Recent changes include RMP rule amendments or ammonium nitrate regulations, the new requirements for High Hazard Flammable Trains under the FAST Act, and the new emergency preparedness planning requirements for municipal water supplies, all examined elsewhere in this document.

Conduct a review of, or training on, software and online tools:

- Computer-Aided Management of Emergency Operations (CAMEO) and CAMEO*fm*
- Aerial Locations of Hazardous Atmospheres/Mapping Application for Response, Planning and Local Operational Tasks (ALOHA/MARPLOT)
- Tier II Submit software
- RMP eSubmit
- AskRail
- North American Emergency Response Guide (ERG)
- WebEOC or similar response software solutions

Tour facilities within the jurisdiction

- Effective way to connect the private and public sectors.
- Allows LEPC members to become more familiar with the hazardous materials within their jurisdiction.
- Could include tours of non-regulated facilities, such as the local Humane Society or Red Cross evacuation centers, to review their Emergency Operations Plans (EOPs) and discuss how to coordinate efforts during a disaster.
- Might include tours of response organizations or facilities such as local and regional EOPs, hazmat team firehouses or public utilities.

Conduct a tabletop exercise

- Provides the ideal location to discuss potential disaster scenarios and identify ways each agency would coordinate with one another and respond to the disaster.
- Can incorporate input from the LEPC members into the EOP or hazard-specific annexes by using realistic scenarios based on Tier II reports or hazmat commodity-flow studies.
- Provides an opportunity to identify areas requiring additional planning or coordination.
- Should include all LEPC members and the organizations they represent.

Measuring Effectiveness

The Organization for Economic Development (OECD), as part of its Chemical Accident Prevention, Preparedness and Response Program, published several guides on developing safety performance indicators, including:[7]

- Guidance on Developing Safety Performance Indicators Related to Chemical Accident Prevention, Preparedness, and Response for Public Authorities and Communities[8]
- Corporate Governance for Process Safety: OECD Guidance for Senior Leaders in High Hazard Industry[9]
- Guidance on Safety Performance Indicators for Industry[10]
- Guidance Documents on Safety Performance Indicators for Public Authorities and Communities/Public[11]

In 2013, EPA looked at these documents and other tools, and prepared a useful guide for LEPCs looking to measure their effectiveness in improving chemical safety in their community, titled Measuring Progress in Chemical Safety: A Guide for Local Emergency Planning Committees and Similar Groups.[12] This brief document is a good starting point for any LEPC looking to measure and evaluate its overall effectiveness.

Additional Resources and Projects

TDEM's publication on *Hazardous Materials Emergency Preparedness Projects for LEPCs* covers five categories of projects that include 17 project ideas your LEPC can use to enhance its effectiveness. They are:

1. Threat and Hazard Identification and Risk Analysis Projects

- Project 1.1. Identify and Map Hazardous Materials Transportation Corridors
- Project 1.2. Vulnerability Analysis for Hazmat Transportation Corridors
- Project 1.3. Conduct a Hazmat Commodity Flow Study

2. Public Relations and Engagement Projects

- Project 2.1. Create a List of Recent and/or Significant Hazardous Materials Transportation Incidents in the Community/Region

- Project 2.2. Develop an LEPC Culture That Requires Active Participation
- Project 2.3. Engage the Community
- Project 2.4. Engage Tier II Facilities and Supplement Tier II Reporting

3. Emergency Planning and Response Support Projects

- Project 3.1. Establish an Inventory of Response Resources
- Project 3.2. Become Experts on and Sources for Unique and Powerful Tools
- Project 3.3 Tier II Report Improvement and Reporting Deadline Reminder
- Project 3.4. Review Existing Hazmat Emergency Plans
- Project 3.5. Incorporate Multi-Hazard, Multi-Function Planning into Your LEPC

4. Planning for Emergency Response–Training Projects

- Project 4.1. Evaluate Your Community Hazardous Materials Training Program
- Project 4.2. Leverage Free Training Opportunities
- Project 4.3. Identify and Use Train-the-Trainer Programs

5. Planning for Emergency Response –Equipment Projects

- Project 5.1. Obtain Important Hazmat Personal Protective and Response Equipment
- Project 5.2. Increase the Hazard Detection Capability of First Responders
- Project 5.3. Improve Decontamination Capabilities and Coordination

Module 9 Action Items

What could our LEPC be doing?

- Set LEPC short and long-term goals.
- Measure your LEPC effectiveness.
- Develop an Improvement Plan to increase LEPC effectiveness and meet goals.

How can our LEPC do it?

Set Short and Long-Term Goals

It should be a priority that the LEPC set goals prior to measuring effectiveness. See Module 3 and its related action items for ways to achieve this.

Measure LEPC Effectiveness

- Step 1 (Basic): Using Measuring Progress in Chemical Safety: A Guide for Local Emergency Planning Committees and Similar Groups[13] and Energizing Local Emergency Planning Committees as guides, hold an LEPC meeting to discuss ways to measure effectiveness and implement procedures for measuring LEPC effectiveness against specific goals.
- Step 2 (Intermediate): Using the *Hazardous Materials Emergency Preparedness Projects* for LEPCs document, identify projects that increase LEPC effectiveness related to LEPC short and long-term goals (see also Module 8 for suggestions related to funding such activities).
- Step 3 (Advanced): Develop a project with funding for an independent organization to conduct an evaluation of LEPC effectiveness using the criteria and suggestions from the OECD Chemical Accident Prevention, Preparedness and Response Program or another criteria.

Develop an Improvement Plan

- Step 1 (Basic): Having developed goals and ways to measure progress against them (see above), appoint a subcommittee to offer specific recommendations to the LEPC to address any deficiencies and increase effectiveness. With LEPC approval, develop a plan to implement some or all these suggestions.
- Step 2 (Intermediate): Dedicate time at the beginning of each LEPC meeting to evaluate progress against specific LEPC goals and adjust any measures of effectiveness related to those goals.
- Step 3 (Advanced): Using input from an external review (Step 3 in Measure LEPC Effectiveness above), develop an advanced plan to improve chemical safety in both the LEPC and member facilities

[1] Jill Templeton and Gary Kirk, "Factors Influencing the Activity and Perceived Effectiveness of Virginia Local Emergency Planning Committees (LEPCs)," Presentation, Midwest Political Science Association 2008 Conference; Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf; Robert Heath, Julie Bradshaw, and Jaesub Lee, "Leadership in the Risk Communication Infrastructure," *Journal of Public Relations Research*, 14, No. 4 (2002): 317–353; David J, Whitney and Michael K. Lindell, "Member Commitment and Participation in Local Emergency Planning Committees," *Policy Studies Journal*, 28, No. 3 (2000): 467–484; Michael K. Lindell and Ronald W. Perry, "Community Innovation in Hazardous Materials Management: Progress in Implementing SARA Title III in the U.S.," *Journal of Hazardous Materials,* 88 (2001): 169-194; and David H. Bierling, *Participants and Information Outcomes in Planning Organizations,* Doctoral dissertation, Texas A&M University, 2012.

[2] Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.

[3] Environmental Protection Agency, "Energize Your Local Emergency Planning Committee," February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.

[4] The recommendations are adapted from the list provided in Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.

[5] Also, ask facilities about which transport carriers they use, which routes they take, and how they review and monitor carrier safety records.

[6] Some of the most effective LEPCs in Texas do this.

[7] "Chemical Accident Prevention, Preparedness and Response," Organisation for Economic Co-operation and Development, last modified 2018, http://www.oecd.org/env/ehs/chemical-accidents/.

[8] "Guiding Principles for Chemical Accident Prevention, Preparedness and Response," Organisation for Economic Co-operation and Development, last modified 2018, http://www.oecd.org/env/ehs/chemical-accidents/guiding-principles-chemical-accident-prevention-preparedness-and-response.htm.

[9] "Corporate governance for process safety: Guidance for senior leaders in high hazard industries," Organisation for Economic Co-operation and Development, last modified 2018, http://www.oecd.org/env/ehs/chemical-accidents/corporategovernanceforprocesssafety.htm.

[10] "Guidance on Safety Performance Indicators," Organisation for Economic Co-operation and Development, last modified 2018, http://www.oecd.org/chemicalsafety/chemical-accidents/guidanceonsafetyperformanceindicators.htm.

[11] Guidance on Safety Performance Indicators," Organisation for Economic Co-operation and Development, last modified 2018, http://www.oecd.org/chemicalsafety/chemical-accidents/guidanceonsafetyperformanceindicators.htm.

[12] Environmental Protection Agency, Measuring Progress in Chemical Safety: *A Guide for Local Emergency Planning Committees and Similar Groups*, August 2013, https://www.epa.gov/sites/production/files/2013-08/documents/measuring_progress_lepc.pdf.

[13] Environmental Protection Agency, Measuring Progress in Chemical Safety: *A Guide for Local Emergency Planning Committees and Similar Groups*, August 2013, https://www.epa.gov/sites/production/files/2013-08/documents/measuring_progress_lepc.pdf.

Module 10. Other Hazardous Materials

Important Takeaways in Module 10

- Texas is one of the world's largest producers of oil and natural gas and home to the most extensive pipeline network in the nation. During boom cycles, greater amounts of oil and gas transit the state by road, rail, pipeline, and waterway, creating additional risks for communities they may not have faced in the past.
- The regulations governing hazardous materials associated with the oil, gas, rail, and pipeline industries, as well as regulations for radioactive materials are different from those of the Emergency Planning and Community Right-to-Know Act (EPCRA) and the Clean Air Act.
- Expanding LEPC membership and advisory capabilities to include other hazardous materials, not just those under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and EPCRA, meets the expectations of communities, which view LEPCs as " hazardous materials (hazmat) experts."
- For communities with no or few EPCRA-regulated facilities, but with oil and gas activity, pipelines or other hazardous materials facilities or transportation activities, the LEPC's primary focus may be non-EPCRA hazardous materials and such a focus provides a much-needed impetus to resurrect inactive LEPCs in such areas.
- Where there is oil and gas activity, pipelines, or major industry concentrations, there are radioactive source materials used in non-destructive testing, construction, and drilling.Awareness of these activities, license holders and the response measures to incidents involving these materials is critical to community preparedness.

Introduction

LEPCs serve as a hazmat information clearinghouse in many communities. The LEPC's role extends into other hazards and planning beyond those substances regulated under CERCLA; EPCRA; or the Clean Air Act. Following the terrorist attacks of September 11, 2001 (9/11), the Environmental Protection Agency (EPA) recommended that LEPCs include homeland security in their activities. Many LEPCs now use an all-hazards approach to planning and preparedness.

While EPCRA focuses on chemical hazards, its focus is not all-inclusive. Many chemicals not regulated by EPCRA can pose a danger to the community. Your community likely has other dangers from hazards such as radioactive material or petroleum crude oil. Not all hazardous materials are the same or regulated by the same agency, nor is there only one agency that responds to all kinds of hazardous materials incidents.

Increasing awareness of hazardous materials beyond those regulated under EPCRA is a good practice for all LEPCs. Because of the expertise contained within an effective LEPC, communities tend to seek LEPC advice in cases that do not fall

under the narrower strictures of the EPCRA legislation. Even if the LEPC lacks the knowledge necessary to respond to such requests, it should know where to direct inquiries.

LEPCs also need to be aware of these issues and account for them when evaluating their community Emergency Operations Plans (EOPs) and supporting preparedness activities in their jurisdiction. Because a community plan for hazardous materials must cover materials beyond those subject to EPCRA, an LEPC cannot review local plans without some awareness of the other hazards, and some planning and response criteria may differ from those for EPCRA-related chemical incidents.

In Texas, two of the most significant materials not subject to EPCRA that LEPCs should be most aware of are oil and radioactive material. Many jurisdictions in Texas are aware of oil and gas related hazards. The awareness of radioactive hazards is not as common. This module provides information that LEPCs can use to increase their awareness of both hazards, and relates to Appendix F, which provides information LEPCs and local response organizations can use to increase awareness in their communities of common radioactive material hazards.

Oil

Texas is an oil and gas state and the home to many of the world's largest and most important oil and gas industries and their headquarters. With the advent of hydraulic fracturing, oil and gas exploration, extraction and transport quickly re-emerged as a major component of the state's economy.[1] These activities have far-reaching impacts on communities across the state, especially in rural areas not accustomed to such activity.

Increased oil and gas activity in the state expanded not only the number of facilities associated with oil and gas exploration and extraction, but also oil and gas transport via road, rail, pipeline and marine vessels. Consequently, many areas across the state have seen significant increases in the flow of hazardous materials through their jurisdictions, even if they did not directly experience extensive oil and gas exploration and extraction operations.

Oil, both crude and refined, petroleum gas and natural gas (liquefied and compressed) all fall under different regulations than other hazardous materials in Texas, resulting in differences in response and reporting. The volume and location of spilled oil determines the state agency with regulatory and response authority.

State Oil Spill Responsibilities

In Texas, the following agencies have jurisdiction over oil spills from pipelines, roadway incidents and railway accidents:

- The Texas Commission on Environmental Quality (TCEQ) is the lead agency for spills of oil exceeding 200 barrels (approximately 8400 gallons).[2]
- The Texas Railroad Commission (RRC) is the lead agency for spills of oil of 200 barrels or less.

- The Texas General Land Office (GLO) and the U.S. Coast Guard (USCG) are the lead agencies for any spill of oil (of any size) into coastal waters or that threatens to enter coastal waters. RRC and TCEQ do not have jurisdiction in these cases, though those agencies may support the response.

RRC is also the primary regulatory agency of:

- Liquefied petroleum gas
- Compressed natural gas
- Liquefied natural gas
- Any spill (of any size) that occurs in any activity related to the exploration, development or production of oil, gas and geothermal resources.[3] Facilities and carriers must report certain incidents involving oil and gas to RRC. The RRC Accident and Incident Reporting webpage provides more information.[4]

The Texas Parks and Wildlife Department (TPWD) supports the response to any hazardous materials spill (not just oil) that kills fish and/or wildlife. During incident responses, the TPWD works with the lead agency and the responsible party to minimize environmental impacts, protect fish and wildlife and rehabilitate any fish and wildlife harmed by the spill.

This confusing regime can lead to problems when faced with an incident involving oil leading to a delay in response. Therefore, it is vital that areas with oil and gas industry and activities, which include much of Texas, understand whom to call under what circumstances, and spell that out in their EOPs.

For large spills not related to extraction, such as those that might occur at a terminal or in a rail shipment, TCEQ will usually respond (except in the case of marine terminals). For a spill in a coastal region near water or tributary, GLO is the lead agency. The Texas RRC is the lead agency if a spill involves oil extraction (drilling) or is "related" to such activity. The law is not entirely clear on what "related" means. When in doubt, jurisdictions should consult the Texas Spill Reporting Hotline/SERC at 1-800-832-8224. Spills often involve more than one agency, and especially in the case of larger spills, only the lead agency may vary.

Fortunately, most of the oil and gas industry in Texas has safety measures to limit accidents and companies and their contractors regularly respond to incidents when they occur. Most exploration and wellhead companies, just like the carriers that transport oil, have on-call hazmat contractors ready to respond to any incident, though their response time can vary widely depending on where they originate.

LEPCs should be aware of the oil and gas companies and their contractors that operate in their jurisdiction and the response times associated with any contracted hazmat services. Response time is especially important in parts of the state with limited hazmat response capabilities or areas that rely on mutual aid for hazmat response.

Federal Oil Spill Responsibilities

Two primary federal agencies have responsibilities related to oil spills, and several other agencies have roles in oil spill response.

- The Environmental Protection Agency (EPA) is the lead federal agency for most hazardous materials incidents that include oil on land. EPA is also the lead federal agency for most oil spills occurring in inland waters.
- U.S.USCG is the lead federal agency for spills in coastal waters and deep-water ports. USCG typically responds to all oil and chemical spills that enter or threaten to enter navigable waterways.[5]

EPA serves as chair of the National Response Team (NRT).[6] EPA also regulates parts of the oil industry through the Spill Prevention, Control, and Countermeasure and the Facility Response Plan rules.[7]

USCG is vice chair of the NRT and contributes manpower and resources to its 13 Regional Response Teams.[8] USCG also operates the National Response Center–the sole federal point of contact for reporting oil and chemical spills (1-800-424-8802).[9] Note: Notification of the National Response Center is a regulatory requirement, and it does not constitute notification of the state (see above).

USCG also manages the National Pollution Funds Center. The National Pollution Funds Center implements Title I of the Oil Pollution Act (OPA). The OPA focuses on preventing, responding to and paying for oil pollution. It establishes oil spill liability and compensation regulations and established the Oil Spill Liability Trust Fund to pay for oil removal and reimburse uncompensated damages when the responsible party is unwilling or unable to do so.[10]

The National Oceanic and Atmospheric Administration (NOAA) Office of Response and Restoration acts as the scientific support coordinator for USCG during spill responses.[11] Two federal agencies engaged in wildlife protection and rehabilitation related to oil spills are:

- The NOAA National Marine Fisheries Service
- The U.S. Fish and Wildlife Service.[12]

The National Oil and Hazardous Substances Pollution Contingency Plan

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) defines how the federal government responds to oil spills and hazardous substances releases.[13] The NRT and the 13 Regional Response Teams implement the NCP. The NCP includes regulations related to the Clean Water Act of 1972 and the Superfund legislation in 1980. The last revisions to the NCP in 1994 also incorporated provisions of the Oil Pollution Act of 1990.[14] EPA proposed revisions to the NCP that will align it with the National Response Framework (NRF), though at present it may not align directly.[15]

One of the differences between the NCP and Incident Command System/National Incident Management System (ICS/NIMS) is that it designates an "on-scene coordinator" to "direct all federal, state, and private response activities at the site of a discharge."[16] This designation sometimes leads to confusion about the on-scene coordinator's role because the NCP also designates a unified command

structure for any NCP incident. The on-scene coordinator is *not* the incident commander, though they may be part of the unified command structure.[17]

The EPA and NRT websites provide more information on the NCP.[18]

Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains (FAST Act)

On February 28, 2019, the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a final rule as part of the Fixing America's Surface Transportation Act of 2015 (FAST Act) changes to the HMEP program.[19] The new rule, originally proposed in 2016, requires railroads transporting high-hazard flammable above a certain threshold to develop comprehensive oil-spill response plans (COSRPs) and share information regarding the transportation of these high-hazard flammables with State and Tribal Emergency Response Commissions (SERCs/TERCs).[20]

Under the rule, Class I railroads with High-Hazard Flammable Trains (HHFT) of 20 or more cars in a block or 35 cars of any Class 3 flammable liquid in a single consist must notify the SERC or other appropriate State designated entity, who must provide notification information and updates to appropriate local authorities, upon the request of those authorities.[21]

The State of Texas is working out the actual mechanisms for these changes. When it completes that work, local authorities (presumably including LEPCs) may request notification from the SERC or other designated state agency notification under the regulation. Notifications must include:[22]

- A reasonable estimate of the number of HHFTs expected to travel per week through the county
- The routes over with the trains will travel
- A description of the material shipped, and applicable response information required under 49 CFR 172, Subparts C and G
- At least one point of contact at the railroad that the SERC and/or emergency responders may contact in an emergency
- Petroleum oil trains subject to COSRP rules in 49 CFR 130 must include contact information for the "Qualified Individual" and the response zone description from their COSRP

COSRPs share similar requirements to those specified by PHMSA for Pipeline Oil Spill Response Plans, discussed below (49 CFR 194). The specifics requirements will be in 49 CFR 130 when updated.[23] At the time of publication, the changes to federal regulation were in 84 FR 6910 published February 28, 2019, effective April 1, 2019.[24] PHMSA posts additional information to its Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains webpage.[25]

Pipeline Oil Spill Response Plans

Onshore pipelines transporting oil that "could reasonably be expected to cause substantial harm, or significant and substantial harm, or significant and substantial

harm to the environment by discharging oil into or on any navigable waters of the United States or adjoining shorelines," must prepare Pipeline Oil Spill Response Plans under the provisions of 49 CFR 194.[26]

Pipeline Oil Spill Response Plans divide the pipeline into response zones, and the regulations require operators to develop plans based on the worst case discharge scenario for each response zone (49 CFR 194.105).[27] Pipeline Oil Spill Response plans are one of many safety regulations affecting pipelines and associated facilities, though Pipeline Oil Spill Response Plans requirements are generally more robust than those for pipelines transporting hazardous liquids, natural gas, and other gases.

Current regulations for pipeline response plans, unlike those for COSRPs (above), do not require coordination with LEPCs or local emergency response. The regulations do require coordination with the Pipeline and Hazardous Materials Safety Administration (PHMSA), and plans must conform to the National Contingency Plan (NCP) and Area Contingency Plans (ACP) prepared by EPA and the Coast Guard as part of the National Response Team. Further, PHMSA does not define the plan length, form, and contents. The only requirement is that the plan addresses the regulations and requirements in 49 CFR 194.[28]

For additional information regarding pipeline safety and response, see Module 7, Pipeline Incidents and the Pipeline Association for Public Awareness Training Resources website.[29]

The Railroad Commission of Texas (RRC) administers several different state laws and regulations cover pipeline safety and response plans, whose requirements may exceed those in federal law. For more information consult Appendix A and the Texas RRC Pipeline Safety website.[30]

Nuclear Material, Radiation and Radioactive Material

Most communities in Texas have radioactive sources and material present somewhere in their vicinity. Some of these are related to medical applications, while others are related to the oil and gas industry or used in non-destructive testing (NDT). Texas is also home to two nuclear power plants, three university research reactors, and the Pantex Plant where the U.S. government assembles, dismantles, retrofits, refurbishes and maintains the U.S. nuclear weapons stockpile. In addition, there are transport corridors in the state over which certain radioactive material and waste travel to disposal areas.

Communities must be aware of and plan for incidents involving material and sites where radiation is a hazard. In Texas, most local EOPs contain an annex (Annex D under the current EOP templates) addressing these considerations, though the content and quality of these plans vary widely.

Radioactive materials have a variety of applications in industry, especially the oil and gas industry. Consequently, radioactive sources transit the roadways in many communities. Some of the sources include wellhead loggers and soil density gauges, nondestructive testing sources and cameras, pipeline pigs, and a variety of medical and health-related equipment. Appendix F provides more information about some of these sources.

In Texas, the DSHS Radiation Control Program regulates and licenses many of these sources. The Radiation Control Program can assist LEPCs in determining the sources present in their communities and the risks associated with these sources should an incident occur that releases sources from their shielding or containment.

The regulation of radioactive material falls under many different federal statutes and different agencies of the federal government. Appendix A provides more information about regulation and legislation related to the control, licensing, response, and management of nuclear material, radiation, and radioactive material.

State Agencies and Regulation

In Texas, three primary agencies have regulatory and other responsibilities for radioactive material and related activities, response and cleanup:

- TCEQ
- DSHS
- RRC

Under memoranda of understanding and in coordination with the Texas Radiation Advisory Board, TCEQ, DSHS and RRC all coordinate their regulatory actions related to radiation and radioactive material. TCEQ and DSHS also coordinate their emergency response capabilities.

Several Texas National Guard assets, including the 6th Civil Support Team-Weapons of Mass Destruction, may also respond to incidents of radiological and nuclear terrorism or other radiological incidents.

Texas Commission on Environmental Quality Radioactive Materials Regulation

TCEQ regulates by-product and low-level radioactive waste from radioactive waste brokers, licenses uranium and thorium recovery facilities and the disposal of their by-product wastes, and decommissions inactive uranium-recovery facilities and radioactive material disposal sites.[31] For example, sites with open pit and in-situ leach mining of uranium and thorium in south Texas fall under TCEQ regulation.

Texas Department of State Health Services Radiation Control Program

DSHS regulates radioactive waste, such as that from radioactive tracers, well loggers and other radioactive material associated with the oil and gas industry. The DSHS Radiation Control Program regulates many sources of radiation and materials in Texas through licensing, registration, inspection and enforcement activities.[32] The program also maintains an emergency response and training capability related to radiation safety and radioactive source material.

Texas Railroad Commission Regulation of Naturally Occurring Radioactive Material Waste

RRC regulates oil- and gas-related naturally occurring radioactive material (NORM) waste.[33] (Note: TCEQ regulates NORM wastes not related to oil and gas).

Texas National Guard Chemical, Biological, Radiological, and Nuclear and Homeland Security Response Forces

The Texas National Guard maintains two organizations whose primary mission is to respond to incidents involving chemical, biological, radiological and nuclear (CBRN) weapons or materials:[34]

- The 6th Civil Support Team Weapons of Mass Destruction (6th CST-WMD)
- The 6th CBRN Enhanced Response Force Package (6th CERFP)

Both operate as part of a larger Homeland Response Force (HRF) of the Texas National Guard–the Joint Task Force-136 (Maneuver Enhancement Brigade) known as the Minuteman Brigade. The task force provides National Guard support to all of Federal Emergency Management Agency Region 6.[35] The National Guard Bureau, through its homeland security and CBRN support roles, provides additional support to these elements when deployed.

Federal Agencies and Regulation

The key division between federal jurisdictions when discussing nuclear and radioactive material is whether the purpose of the material is for military or civilian use.

When deployed by the military on a delivery system (i.e., missile or bomb), nuclear material is under the control of the Department of Defense (DoD) and the military

service in possession of the material. A similar arrangement applies to military nuclear reactors like those on submarines or ships. The Department of Energy's (DOE) National Nuclear Security Administration (NNSA) develops, produces, refurbishes and maintains the U.S.' nuclear weapons. Some of these activities occur at the Pantex Plant near Amarillo, Texas, an NNSA facility.

The Nuclear Regulatory Commission and/or the state, depending on the material and its use, regulates civilian nuclear power plants and radiation sources used in industry, medicine and research.

Military Nuclear Weapons and Nuclear Weapons Incidents

Nuclear Weapon Incident Response Group: DoD leads the response to a nuclear weapons incident within the U.S.. The DoD Nuclear Weapon Incident Response Group (NRG) works under the control of the DoD and Department of Homeland Security (DHS) depending on the circumstances of the incident. NRG, DoD and DHS work in coordination with other agencies under a unified command system and within the National Response Framework.
NRG consists of special experts, and liaison officers come from:

- The Defense Threat Reduction Agency (DTRA)
- The Armed Forces Radiobiology Research Institute
- The Federal Bureau of Investigation (FBI)
- Department of Energy, National Nuclear Security Administration (NNSA)

The DoD 3150.08-M Nuclear Weapon Accident Response Procedures (NARP) Internet Supplement provides additional information about the response to a nuclear weapons accident.[36]

Deputy Assistant Secretary of Defense for Nuclear Matters: The deputy assistant secretary of defense for nuclear matters in the Office of the Assistant Secretary of Defense for Nuclear, Chemical and Biological Defense Programs/Nuclear Matters is the federal focal point for all matters related to the U.S. nuclear deterrent/weapons to counter nuclear proliferation and prevent nuclear terrorism.[37] The office is the primary component of NRG and includes representatives from:

- NNSA
- The Departments of the Navy and the Air Force
- National Laboratories
- FBI

Defense Threat Reduction Agency: The Defense Threat Reduction Agency (DTRA) is the U.S. agency responsible for counter-weapons of mass destruction programs within DoD.[38] DTRA provides DoD with expert support on the full spectrum of chemical, biological, radiological, nuclear and explosive (CBRNE) threats. DTRA develops security programs related to CBRNE weapons, monitors treaty compliance, and destroys material related to CBRNE programs. DTRA also maintains robust atmospheric modelling and fallout prediction capabilities and provides a host of tools and expert support to CBRNE response entities such as the

6th CST-WMD in Texas and NRG, in the event of a nuclear weapons or CBRNE incident.

Department of Energy National Nuclear Security Administration: The National Nuclear Security Administration (NNSA), a division of DOE, manages the development, production and refurbishment of nuclear weapons, including the Pantex facility in Texas.[39] NNSA also carries out several missions related to the safety and security of those weapons. When operational, nuclear weapons are under the custody of the Department of the Navy or Air Force.[40]

Pantex Plant: The Pantex Plant, near Amarillo, Texas in Carson County is where NNSA assembles, dismantles, retrofits, refurbishes and maintains the U.S. nuclear weapons stockpile.[41] Consolidated Nuclear Security, LLC, and the Y-12 National Security Complex in Oak Ridge, Tennessee, jointly operate the plant under contract to NNSA.

The Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM) has an Agreement-in-Principle Program with Pantex that brings together NNSA, TCEQ, DSHS, EPA and other organizations to improve preparedness and response capabilities related to any incident related to the plant or its operations.[42] Additionally, under the program TCEQ and EPA jointly monitor and regulate cleanup activities related to the site.

Civilian Nuclear Power and Radiation Sources

Department of Energy Office of Nuclear Energy: DOE promotes the use of nuclear power and supports research and development related to nuclear energy and the nuclear fuel cycle through the Office of Nuclear Energy.[43]

Nuclear Regulatory Commission: The Nuclear Regulatory Commission (NRC) regulates civilian uses of radioactive material and nuclear activities like power plants.[44] The NRC licenses and regulates the civilian use of uranium and thorium, special nuclear material (enriched uranium and thorium) and their by-product materials, to include tails or residue from uranium and thorium mining or milling activities. Texas is an agreement state under the Atomic Energy Act and state agencies regulate most civilian radioactive materials, except for nuclear-power-related activities.

Environmental Protection Agency: EPA sets the air emission and drinking water standards for radioisotopes and sets the public protection limits for radiation control.[45]

Module 10. Action Items

What could our LEPC be doing?

- Identify oil and gas facilities and/or companies in your jurisdiction and encourage them to join the LEPC if they are not already members.
- Identify radioactive material licensees in the community and encourage them to join the LEPC.
- Review and coordinate community, facility, and operator oil spill and radioactive material response plans (Annexes D and Q in current EOPs).

How can our LEPC do it?

Identify Oil and Gas Facilities and Companies

- Step 1 (Basic): Appoint a project team or subcommittee to develop a list of oil and gas operators engaged in exploration, extraction, and transport operating in the LEPC jurisdiction that are not participating in the LEPC nor required to file Tier 2 reports. Potential sources of information regarding such firms include business listings, other LEPC members, TCEQ and Texas RRC.
- Step 2 (Intermediate): Using the project team or subcommittee in Step 1, contact these firms directly via mail, email, phone and in person, encouraging them to join the LEPC and participate in its activities.
- Step 3 (Advanced): Sponsor an Oil and Gas Industry Safety Day or similar event for local oil and gas firms to provide information to the public. If your LEPC already holds a Safety Day event, encourage non-EPCRA/LEPC firms like oil and gas companies to participate.

Identify Radioactive Material Licensees

- Step 1 (Basic): Appoint a project team or subcommittee to develop a list of radioactive material license holders operating in the LEPC jurisdiction that are not participating in the LEPC nor required to file Tier 2 reports. Make a special note of firms using soil density gauges and non-destructive testing sources (see Appendix F) which are the most likely to result in a radioactive material incident in your jurisdiction. Potential sources of information regarding such firms include business listings, other LEPC members and the Texas DSHS –Radiation Control Program.
- Step 2 (Intermediate): Using the project team or subcommittee in Step 1, contact these firms directly via mail, email, phone and in person, encouraging them to join the LEPC and participate in its activities.
- Step 3 (Advanced): Sponsor a Radiation Safety Day or similar event for local radioactive material license holders to provide information to the public. If your LEPC already holds a Safety Day event, encourage non-EPCRA/LEPC firms like NDT or other radioactive material related entities (power plants, research facilities, etc.) to participate.

Review and Coordinate Oil Spill and Radioactive Material Response Plans

- Step 1 (Basic): In coordination with local emergency management, conduct a review of current community oil spill and radioactive material response plans (EOP Annexes Q and D) and any mutual aid associated with those plans. Look specifically for capability gaps and means to address them.
- Step 2 (Intermediate): Establish a permanent sub-committee of knowledgeable individuals and stakeholders dedicated to oil spill and/or radioactive material safety, planning improvement and coordination. The committee or project team used in the preceding "identification" sections can form the basis of such a committee.
- Step 3 (Advanced): Evaluate projects in the Planning for Emergency Response – Equipment Projects section in the Hazardous Materials Emergency Preparedness (HMEP) Projects for LEPCs document along with the information in Appendix F that the LEPC can sponsor or undertake to improve community preparedness for oil or radioactive material incidents.

[1] Hydraulic fracturing is also known as fracking. There is no agreed-on convention for what to call it or how to spell it, but it is all basically the same thing: the injection of liquid into a well to fracture shale rock and release trapped deposits of oil and/or natural gas in the shale. The combination of fracturing and horizontal drilling is relatively new, and it completely transformed the oil and gas industry in Texas and the U.S.. Texas is home to some of the largest shale deposits in the world suitable for extraction by hydraulic fracturing and the last decade saw a rapid expansion of oil and gas exploration and extraction in the state, with dramatic economic and social effects on many communities around Texas.
[2] DOT-111 rail cars carry approximately 30,000 gallons of crude oil. Tanker trucks hold between 5,500 and 11,600 gallons.
[3] The regulatory muddle surrounding RRC and TCEQ responsibility confuses many. When the spill happens in a coastal region it may lead to even more confusion. It is advisable for communities to contact all the relevant agencies whenever there is doubt about the agency with authority over the spill.
[4] "Accident and Incident Reporting," Railroad Commission of Texas, last modified August 7, 2017, http://www.rrc.state.tx.us/pipeline-safety/enforcement/accidentincident-reporting/.
[5] Website, United State Coast Guard, accessed July 30, 2018, https://www.uscg.mil/. Note, in Texas such spills also involve the Texas General Land Office.
[6] Website, U.S. National Response Team, accessed July 30, 2018, https://www.nrt.org/.
[7] "Oil Spill Liability Trust Fund," Environmental Protection Agency, last modified June 6, 2017, https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/oil-spill-liability-trust-fund.
[8] Website, U.S. National Response Team, accessed July 30, 2018, https://www.nrt.org/; and "Regional Response Teams (RRTs)," U.S. National Response Team, accessed July 30, 2018, https://www.nrt.org/site/regionmap.aspx.
[9] "National Response Center," U.S. Coast Guard, accessed July 30, 2018, http://www.nrc.uscg.mil/.
[10] "National Pollution Funds Center," U.S. Coast Guard, accessed July 30, 2018, https://www.uscg.mil/npfc/; "Summary of the Oil Pollution Act," Environmental Protection Agency, last modified April 26, 2018, https://www.epa.gov/laws-regulations/summary-oil-pollution-act; and "Oil Spill Liability Trust Fund," Environmental Protection Agency, last modified June 6, 2017, https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/oil-spill-liability-trust-fund.
[11] "Office of Response and Restoration," National Oceanic and Atmospheric Administration, last modified July 30, 2018, http://response.restoration.noaa.gov/.
[12] "Fisheries," National Oceanic and Atmospheric Administration, accessed July 30, 2018, http://www.nmfs.noaa.gov/pr/health/MMHSRP.html; and "Contaminants Spill Response," U.S. Fish and Wildlife Service – Ecological Services – Southwest Region, accessed July 30, 2018, http://www.fws.gov/southwest/es/SpillPlan_Main.html.
[13] "National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Overview," Environmental Protection Agency, last modified April 4, 2018, https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview.
[14] "Summary of the Oil Pollution Act," Environmental Protection Agency, last modified April 6, 2018, accessed July 30, 2018, https://www.epa.gov/laws-regulations/summary-oil-pollution-act, "Summary of the Clean Water Act," Environmental Protection Agency, last modified March 29, 2018, accessed July 30, 2018, https://www.epa.gov/laws-regulations/summary-clean-water-act; and "Superfund History," Environmental Protection Agency, last modified June 4, 2018, accessed July 30, 2018, https://www.epa.gov/superfund/superfund-history.
[15] "National Contingency Plan Proposed Rule - Revisions to Align with the National Response Framework," last modified December 17, 2016, https://www.epa.gov/emergency-

response/national-contingency-plan-proposed-rule-revisions-align-national-response. Since making the proposal, the EPA has not taken action any published action to implement the proposal.

[16] 40 CFR 300.135(a).

[17] Part of the confusion is that some on-scene coordinators may choose to carry out functions or perform actions that would traditionally be associated with an incident command. Understanding how an on-scene coordinator fits into the response structure is an important ingredient for success whenever the NCP is activated.

[18] "National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Overview," Environmental Protection Agency, last modified April 4, 2018, https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview; and Website, U.S. National Response Team, accessed July 30, 2018, https://www.nrt.org/.

[19] 84 FR 6910, 28 February 2019, https://www.federalregister.gov/documents/2019/02/28/2019-02491/hazardous-materials-oil-spill-response-plans-and-information-sharing-for-high-hazard-flammable.

[20] "USDOT issues final rule requiring rail oil-spill response plans," Progressive Railroading, last modified February 19, 2019, https://www.progressiverailroading.com/federal_legislation_regulation/news/USDOT-issues-final-rule-requiring-rail-oil-spill-response-plans--56792?email=dhb@tamu.edu&utm_medium=email&utm_source=prdailynews&utm_campaign=prdailynews2/19/2019.

[21] The language here is adapted from the PHMSA submission to the Federal Register, https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/standards-rulemaking/hazmat/rulemakings/70471/hm-osrp-final-rule-fr-submission_0.pdf.

[22] The following language comes from the PHMSA submission to the Federal Register, https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/standards-rulemaking/hazmat/rulemakings/70471/hm-osrp-final-rule-fr-submission_0.pdf.

[23] 49 CFR 130, https://www.govinfo.gov/app/details/CFR-2011-title49-vol2/CFR-2011-title49-vol2-part130.

[24] 84 FR 6910, https://www.federalregister.gov/documents/2019/02/28/2019-02491/hazardous-materials-oil-spill-response-plans-and-information-sharing-for-high-hazard-flammable.

[25] "Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains," Pipeline and Hazardous Materials Safety Administration, last modified February 14, 2019, https://cms.phmsa.dot.gov/news/oil-spill-response-plans-and-information-sharing-high-hazard-flammable-trains.

[26] 49 CFR 194, https://www.ecfr.gov/cgi-bin/text-idx?SID=63d25ee4f4195e8ae81ee8f44ff70078&mc=true&tpl=/ecfrbrowse/Title49/49cfr194_main_02.tpl.

[27] 49 CFR 194.105, https://www.ecfr.gov/cgi-bin/text-idx?SID=63d25ee4f4195e8ae81ee8f44ff70078&mc=true&node=se49.3.194_1105&rgn=div8.

[28] 49 CFR 194, https://www.ecfr.gov/cgi-bin/text-idx?SID=63d25ee4f4195e8ae81ee8f44ff70078&mc=true&tpl=/ecfrbrowse/Title49/49cfr194_main_02.tpl.

[29] "Training Resources," Pipeline Association for Public Awareness, https://pipelineawareness.org/stakeholder-resources/emergency-response-training-resources/.

[30] "Pipeline Safety," Railroad Commission of Texas, https://www.rrc.state.tx.us/pipeline-safety/.

[31] "Radioactive Materials," Texas Commission on Environmental Quality, last modified December 13, 2017, https://www.tceq.texas.gov/permitting/radmat.
[32] "Home Page - Radiation Control Program," Texas Department of State Health Services, last modified April 20, 2018, https://www.dshs.texas.gov/radiation/.
[33] "NORM (Naturally Occurring Radioactive Material)," Railroad Commission of Texas, last modified July 18, 2017, http://www.rrc.state.tx.us/oil-gas/applications-and-permits/environmental-permit-types-information/norm/.
[34] "JTF-136 Maneuver Enhancement Brigade ," Texas Military Department, accessed July 30, 2018, https://tmd.texas.gov/jtf-136-maneuver-enhancement-brigade.
[35] FEMA Region 6 (which corresponds to EPA Region 6) consists of Texas and all the states that share a border with Texas: New Mexico, Oklahoma, Arkansas, Louisiana.
[36] "DoD 3150.08-M "Nuclear Weapon Accident Response Procedures" (NARP) Internet Supplement," Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs/Nuclear Affairs, accessed July 30, 2018, https://www.acq.osd.mil/ncbdp/narp/.
[37] "Nuclear Matters," Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, accessed July 30, 2018, https://www.acq.osd.mil/ncbdp/nm/.
[38] Website, Defense Threat Reduction Agency, accessed July 30, 2018, https://www.dtra.mil/.
[39] Website, National Nuclear Security Administration, accessed July 30, 2018, https://nnsa.energy.gov/.
[40] The Army disposed of its stockpile of nuclear weapons in the 1990s. The Army and Marine Corps do not currently maintain any nuclear weapons under their control.
[41] Website, Pantex Plant, Department of Energy – National Nuclear Security Administration, accessed July 30, 2018, http://www.pantex.com/.
[42] "Agreement-in-Principal (AIP)/Pantex ," Texas Department of Public Safety – Division of Emergency Management, accessed July 30, 2018, https://www.dps.texas.gov/dem/Preparedness/aipPantex.htm.
[43] Website, Office of Nuclear Energy, Department of Energy, accessed July 30, 2018, https://www.energy.gov/ne/office-nuclear-energy.
[44] Website, Nuclear Regulatory Commission, accessed July 30, 2018, https://www.nrc.gov/.
[45] "Radiation Protection," Environmental Protection Agency, last modified June 25, 2018, https://www.epa.gov/radiation .

Module 11. Conclusion

The National Preparedness Goal is to have a secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to and recover from the threats and hazards that pose the greatest risk.

Your Local Emergency Planning Committee (LEPC) can be whatever it needs to be if it meets the basic requirements of the Emergency Planning and Community Right to Know Act (EPCRA). LEPCs are not optional and are required by both state and federal laws and regulations. However, the law does not confine LEPCs to the minimums established in EPCRA.

No two LEPCs operate the in the same manner, but all adapt to the requirements and conditions of the communities they serve. When properly functioning, LEPCs represent the whole community and play a critical role in local, state, and national preparedness, emergency planning and public awareness of chemical safety, whether in transportation or at fixed facilities.

The most significant factor in the success of your LEPC is not funding, industry involvement or public awareness. The key factor is dedicated members. EPCRA defines who must be a member, and many of those are from local government. Elected leaders and agency/department heads should lead the way. Without their support, an LEPC is less likely to be effective. However, with just a few dedicated members acting with the support of their leaders and organizations, LEPCs also can accomplish amazing things. Along the way, most LEPCs find that the funding and public awareness come with their success.

This guide provides a vast amount of information about LEPCs but is not comprehensive. Not all of it will apply to any specific LEPC's circumstances. Some of it is subject to increasingly frequent change. The intent of this guide is not to be the final word, but to serve as a starting point for LEPC members seeking to learn more and make their LEPC more effective. This guide can benefit both experienced members of long-established LEPCs and those attempting to reinvigorate an inactive LEPC.

LEPCs are also where the whole-community approach to emergency management can happen. No matter which direction your LEPC goes, it exists as part of a broader community involved in emergency preparedness and response. No matter how an LEPC chooses to function and organize itself, the LEPC's goals and objectives should align with the preparedness goal of your community and the goal of Texas emergency management community, as part of the National Preparedness Goal. *Those goals begin with you.*

Module 12. Bibliography

For legal and regulatory references, refer to Appendix A and Appendix B.

After Action Reviews and Improvement Planning

Crowe, J., J. A. Allen, C. W. Scott, M. Harms, and M. Yoerger. "After-Action Reviews: The Good Behavior, the Bad Behavior, and Why We Should Care." *Safety Science* 96 (2017): 84-92. doi:10.1016/j.ssci.2017.03.006.

U.S. Fire Administration. "After action reviews: The good. the bad. and why we should care." November 16, 2017. https://www.usfa.fema.gov/current_events/111617.html.

Ammonium Nitrate

Durkovich, Caitlin, David Michaels, and Mathy Stanislaus. *Executive Order 13650: Actions to Improve Chemical Facility Safety and Security–A Shared Commitment. Report for the President.* May 2014. https://www.osha.gov/chemicalexecutiveorder/final_chemical_eo_status_report.pdf .

Environmental Protection Agency, Occupational Safety and Health Administration, and Bureau of Alcohol, Tobacco, Firearms, and Explosives. *Chemical Advisory: Safe Storage, Handling, and Management of Ammonium Nitrate.* August 2013. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100GRIF.PDF?Dockey=P100GRIF.PDF.

Environmental Protection Agency. "Executive Order on Improving Chemical Facility Safety and Security." Accessed April 6, 2018. https://www.epa.gov/rmp/executive-order-improving-chemical-facility-safety-and-security.

Environmental Protection Agency, Occupational Safety and Health Administration, and Bureau of Alcohol, Tobacco, Firearms, and Explosives. "Chemical Advisory: Safe Storage. Handling. and Management of Ammonium Nitrate." Last modified August 2013. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100GRIF.PDF?Dockey=P100GRIF.PDF.

Office of the Texas State Chemist. Website. Accessed July 30, 2018. http://otscweb.tamu.edu.

State Fire Marshal, Texas Department of Insurance. "Ammonium Nitrate in Texas." Last modified August 31, 2016. https://www.tdi.texas.gov/fire/fman.html.

State Fire Marshal, Texas Department of Insurance. *Best Practices–Ammonium Nitrate Storage Facilities*. August 31, 2016. https://www.tdi.texas.gov/fire/documents/fmnitratepractice.pdf.

Texas Department of Insurance. "Ammonium Nitrate in Texas." Last modified August 31, 2016. http://www.tdi.texas.gov/fire/fman.html#skipcon.

Contacts

Federal

Environmental Protection Agency. "EPA Region 6 South Central." Last modified July 19, 2018. https://www.epa.gov/aboutepa/epa-region-6-south-central.

Federal Bureau of Investigation. "Field Offices." Accessed July 30, 2018. https://www.fbi.gov/contact-us/field-offices.

U.S. National Response Team. Website. Last updated 2018. https://www.nrt.org/.

U.S. National Response Team. "Regional Response Teams RRTs." Accessed July 30, 2018. https://www.nrt.org/site/regionmap.aspx.

State

Texas Association of Regional Councils. "Regional Councils." Accessed April 6, 2018. http://txregionalcouncil.org/regional-councils/.

Texas Commission on Environmental Quality. "Regional Councils of Governments." Last modified July 24, 2018. https://www.tceq.texas.gov/permitting/waste_permits/waste_planning/wp_cogs.html.

Texas Department of Public Safety – Division of Emergency Management. "Field Response Section." Accessed July 30, 2018. https://www.dps.texas.gov/dem/FieldResponse/.

Texas Department of Public Safety – Division of Emergency Management. "Texas District Coordinators and Areas." July 2018. https://www.dps.texas.gov/dem/FieldResponse/DistCoordMap.pdf.

Texas Department of Public Safety – Division of Emergency Management. "Texas State Coordinators." July 2018. https://www.dps.texas.gov/dem/FieldResponse/RegStateCoordMap.pdf.

Texas Military Department. "JTF-136 Maneuver Enhancement Brigade." Accessed July 30, 2018. https://tmd.texas.gov/jtf-136-maneuver-enhancement-brigade.

Exercises

Department of Homeland Security – Ready.gov. "Exercises." Accessed July 30, 2018. https://www.ready.gov/business/testing/exercises.

Federal Emergency Management Agency. "Homeland Security Exercise and Evaluation Program (HSEEP)." Last modified February 13, 2018. https://www.fema.gov/hseep.

Federal Emergency Management Agency. "Homeland Security Exercise and Evaluation Program." Last modified June 17, 2016. https://www.fema.gov/media-library/assets/documents/32326.

Federal Emergency Management Agency. "National Exercise Program." Last modified July 30, 2018. https://www.fema.gov/national-exercise-program.

Federal Emergency Management Agency. "National Level Exercise 2018." Last modified April 24, 2018. https://www.fema.gov/nle.

National Fire Protection Association. "NFPA 1620: Standard for Pre-incident Planning." 2015. https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1620.

Texas Department of Public Safety – Division of Emergency Management. "Exercise Reporting Information and Forms." Accessed July 30, 2018. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/exerciseRptngInfoForms.htm.

Texas Department of Public Safety – Division of Emergency Management. "Exercise Unit." Accessed July 30, 2018. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/.

Texas Department of Public Safety – Division of Emergency Management. "Training and Exercise Planning Workshop." Accessed July 30, 2018. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/TrainExerPlan.htm.

Texas Department of Public Safety – Division of Emergency Management. "Texas Exercise Frequently Asked Questions." 2013. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/exerciseFAQ.pdf.

Texas School Safety Center, Texas State University. "Drill Expectations and Frequency." In Training, Drilling, and Exercising Toolkit. Accessed April 28, 2018. https://txssc.txstate.edu/tools/tde-toolkit/drill-recs.

Facility, Private Sector, School, and Non-Profit Emergency Planning

Department of Homeland Security – Ready.gov. "Business." Accessed July 30, 2018. https://www.ready.gov/business.

Environmental Protection Agency. "Elements to include in Facility Response Plan." Accessed July 30, 2018. https://emergencymanagement.zendesk.com/hc/en-us/articles/211415578-Elements-to-include-in-Facility-Response-Plan.

Environmental Protection Agency. "Facility Response Plan Part 112." Accessed July 30, 2018. https://emergencymanagement.zendesk.com/hc/en-us/sections/202347797-Facility-Response-Plan-Part-112-.

National Fire Protection Association. "NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs." 2016. https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1600.

National Fire Protection Association. "NFPA 424: Guide for Airport/Community Emergency Planning." 2018. https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=424.

National Fire Protection Association. "NFPA 600: Standard on Facility Fire Brigades." 2015. https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=600.

Occupational Safety and Health Administration. *OSHA 3122-06R-2004 Principal Emergency Response and Preparedness: Requirements and Guidance.* Washington, DC: Occupational Safety and Health Administration, 2004. https://www.osha.gov/Publications/osha3122.pdf.

Texas Department of Insurance, Division of Workers' Compensation/Workplace Safety. *Publication HS03-023C (2-08): Emergency Response Planning for Hazardous Materials.* Accessed April 6, 2018. http://www.tdi.texas.gov/pubs/videoresource/stperplan.pdf.

Texas State University. "Texas School Safety Center." Accessed July 30, 2018. https://txssc.txstate.edu/.

Funding and Grant Programs

Environmental Protection Agency. "Local Governments Reimbursement Program." Last modified November 30, 2016. https://www.epa.gov/emergency-response/local-governments-reimbursement-program.

Environmental Protection Agency. "Superfund Liability." Last modified January 4, 2018. https://www.epa.gov/enforcement/superfund-liability.

Federal Emergency Management Agency. "Assistance to Firefighters Grant." Last modified July 20, 2018. https://www.fema.gov/assistance-firefighters-grant.

Federal Emergency Management Agency. "E-Grant Application Access." Last modified April 30, 2018. https://www.fema.gov/e-grant-application-access.

Federal Emergency Management Agency. "Emergency Management Performance Grant Program." Last modified June 7, 2018. https://www.fema.gov/emergency-management-performance-grant-program.

Federal Emergency Management Agency. "Fire Prevention & Safety Grants." Last modified April 9, 2018. https://www.fema.gov/fire-prevention-safety-grants-fps.

Federal Emergency Management Agency. "Hazard Mitigation Grant Program." last Modified May 21, 2018. https://www.fema.gov/hazard-mitigation-grant-program.

Federal Emergency Management Agency. "Homeland Security Grant Program." Last modified June 7, 2018. https://www.fema.gov/homeland-security-grant-program.

Federal Emergency Management Agency. "Mitigation eGrants System for Subapplicant Users." Last modified May 21, 2018. https://www.fema.gov/mitigation-egrants-system-subapplicant-users.

Federal Emergency Management Agency. "Pre-Disaster Mitigation Grant Program." Last modified April 30, 2018. https://www.fema.gov/pre-disaster-mitigation-grant-program.

Federal Emergency Management Agency. "Staffing for Adequate Fire & Emergency Response Grants." Last modified July 20, 2018. https://www.fema.gov/staffing-adequate-fire-emergency-response-grants.

Federal Emergency Management Agency. "Welcome to the Assistance to Firefighters Grant Program." Last modified July 20, 2018. https://www.fema.gov/welcome-assistance-firefighters-grant-program.

International Association of Fire Chiefs. "ALERT Grant." Accessed July 30, 2018. https://www.iafc.org/topics-and-tools/hazmat/alert-grant.

Office of the Texas Governor. "Homeland Security Grants Division." Accessed July 30, 2018. https://gov.texas.gov/organization/hsgd.

Pipeline and Hazardous Materials Safety Administration. "Hazardous Materials Emergency Preparedness (HMEP) Grant." Last modified July 14, 2017. https://www.phmsa.dot.gov/grants/hazmat/hazardous-materials-emergency-preparedness-hmep-grant.

Pipeline and Hazardous Materials Safety Administration. "Hazardous Materials Grants Program." Last modified July 14, 2017. http://www.phmsa.dot.gov/hazmat/grants.

Texas A&M Forest Service. "Fire Department Programs: Rural Volunteer Fire Department Assistance Program HB 2604." Accessed July 30, 2018. http://tfsweb.tamu.edu/RuralVFDAssistanceProgram/.

Texas A&M Forest Service. "Fire Department Programs: TIFMAS Grant Assistance Program." Accessed April 6, 2018. http://tfsweb.tamu.edu/TIFMAS/.

Texas Commission on Environmental Quality. "Texas Local Emergency Planning Committee LEPC Grant Program." Last modified February 13, 2018. https://www.tceq.texas.gov/response/security/LEPC_Grant.

Texas Department of Public Safety – Division of Emergency Management. "Emergency Management Performance Grant EMPG: Application Materials." Accessed July 30, 2018. https://www.dps.texas.gov/dem/CouncilsCommittees/empg/info.htm.

Texas Department of Public Safety – Division of Emergency Management. "Grants & Resources." Accessed July 30, 2018. https://www.dps.texas.gov/dem/GrantsResources/.

Texas Department of Public Safety – Division of Emergency Management. "Hazardous Materials Emergency Preparedness (HMEP) Grant Program." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Preparedness/hmepGrantPrgm.htm.

Texas Department of Public Safety – Division of Emergency Management. *FY 2018 Local Emergency Management Performance Guide.* November 2017. https://www.dps.texas.gov/dem/CouncilsCommittees/EMPG/empgCurrentGuide.pdf .

Texas Department of Public Safety – Division of Emergency Management. *HMEP Grant Application and Planning Guide for LEPCs FY 2017*. September 19, 2016. https://www.dps.texas.gov/dem/GrantsResources/lepcPlanningGuide.pdf.

Texas Department of Public Safety – Division of Emergency Management. "Pre-Disaster Mitigation Grant Program PDM Fact Sheet. Accessed July 30, 2018. https://www.dps.texas.gov/dem/Mitigation/PDMFactSheet2015.pdf.

Texas Department of Public Safety – Division of Emergency Management. "Hazard Mitigation Grant Program HMGP." August 20, 2015.

https://www.dps.texas.gov/dem/Mitigation/hmgp_fact_sheet.pdf.

U.S. Coast Guard. "National Pollution Funds Center." Accessed July 30, 2018. https://www.uscg.mil/npfc/.

Hazardous Materials Safety

Environmental Protection Agency. "The Frank R. Lautenberg Chemical Safety for the 21st Century Act." Accessed April 9, 2018. https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act.

National Fire Protection Association. "NFPA 400: Hazardous Materials Code." Last modified 2016. http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=400.

National Fire Protection Association. "NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, 2018." https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=472.

National Fire Protection Association. "NFPA 704–Warning Placard Requirements." Last modified June 25, 2007. https://www.tdi.texas.gov/fire/documents/fmannfpa704.pdf.

National Fire Protection Association. Website. Accessed July 30, 2018. https://www.nfpa.org/.

Occupational Safety and Health Administration. "Process Safety Management." Accessed July 30, 2018. https://www.osha.gov/SLTC/processsafetymanagement/.

State Fire Marshal, Texas Department of Insurance. "NFPA 704 Warning Placard Requirements." last updated June 25. 2007. https://www.tdi.texas.gov/fire/documents/fmannfpa704.pdf.

Texas Department of Public Safety – Division of Emergency Management. "Technological Hazards Unit." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Preparedness/techHazUnit.htm.

Hazardous Materials Transportation

Bierling, David, and Brad Trefz. "Hazardous Materials Commodity Flow & Emergency Operations Plan Studies: Hazardous Materials Emergency Preparedness (HMEP) Grant Program." Presentation to the Emergency Management Association of Texas, 2014.

Bierling, David, and Brad Trefz. "Hazardous Materials Emergency Preparedness (HMEP): LEPC Planning for Hazardous Materials Transportation Incidents." Presentation, September 2015.

BNSF Hazmat. Website. https://www.bnsfhazmat.com/.

Federal Railroad Administration, U.S. Department of Transportation, "FRAGIS," Accessed September 18, 2018, http://fragis.fra.dot.gov/GISFRASafety/.

Kansas City Southern Railroad. "Kansas City Southern Safety & Security." Accessed

July 30, 2018. http://www.kcsouthern.com/en-us/corporate-responsibility/safety-security/kcs-safety-security.

Paradigm Liaison Services. "Texas Pipeline Awareness." Accessed July 30, 2018. http://tx.pipeline-awareness.com/home.

Pipeline and Hazardous Materials Safety Administration, National Pipeline Mapping System. "Find Who's Operating Pipelines in Your Area." Accessed July 30, 2018. https://www.npms.phmsa.dot.gov/FindWhosOperating.aspx.

Pipeline and Hazardous Materials Safety Administration. "How to Use the Hazardous Materials Regulations CFR 49 Parts 100 To 185." Accessed July 30, 2018. https://hazmatonline.phmsa.dot.gov/services/publication_documents/howtouse0507.pdf.

Pipeline and Hazardous Materials Safety Administration. *Emergency Response Guidebook* Washington. DC: Government Printing Office, 2016. Accessed July 30, 2018. https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg.

Pipeline and Hazardous Materials Safety Administration. Website. Accessed July 30, 2018. https://www.phmsa.dot.gov/.

Rail Division, Texas Department of Transportation. Website. Accessed July 30, 2018. https://www.txdot.gov/inside-txdot/division/rail.html.

Railroad Commission of Texas. "Accident and Incident Reporting." Last modified August 7, 2017. http://www.rrc.state.tx.us/pipeline-safety/enforcement/accidentincident-reporting/.

Railroad Commission of Texas. "Railroads." Last modified April 2.2018. http://www.rrc.state.tx.us/about-us/railroads/.

TRANSCAER. Website. Accessed July 30, 2018. https://www.transcaer.com/.

Trefz, Bradley and Bierling, David. *Guide for Using Hazmat Transportation Information: Recommendations and Resources for Local Emergency Planners.* College Station, TX: Texas A&M Transportation Institute.

Union Pacific Railroad. "Hazardous Materials Management Contacts." Accessed July 30, 2018. https://www.up.com/aboutup/environment/emgcontacts/hazmatcontacts/index.htm.

Incident Response

National Fire Protection Association. "List of NFPA Codes & Standards: Emergency Response." Accessed July 30, 2018. https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards?topic=3.

National Fire Protection Association. "NFPA 1081: Standard for Facility Fire Brigade Member Professional Qualifications." 2018. https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1081.

National Fire Protection Association. "NFPA 1082: Standard for Facilities Safety Director Professional Qualifications." proposed edition. Accessed July 31, 2018.

https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1082.

Federal Emergency Management Agency. "National Incident Management System." Last modified June 11, 2018. https://www.fema.gov/national-incident-management-system.

Federal Emergency Management Agency. "ICS Resource Center." Last modified 2017. https://training.fema.gov/emiweb/is/icsresource/index.htm.

Federal Emergency Management Agency. "ICS Review Material." May 2008. https://training.fema.gov/emiweb/is/icsresource/assets/reviewmaterials.pdf.

Federal Emergency Management Agency. "Incident Command System Resources." Last modified June 26, 2018. https://www.fema.gov/incident-command-system-resources.

Federal Emergency Management Agency. "Introduction." in *National Response Framework*. Third Edition Washington. DC: Government Printing Office, 2016. https://www.fema.gov/media-library/assets/documents/117791.

Federal Emergency Management Agency. "Mission Areas." Last modified May 2, 2018. https://www.fema.gov/mission-areas.

Federal Emergency Management Agency. "National Incident Management System NIMS." Last modified June 11, 2018. https://www.fema.gov/national-incident-management-system.

Federal Emergency Management Agency. "National Incident Management System NIMS Integration Center Fact Sheet." 1 March 2007. https://www.fema.gov/pdf/emergency/nims/lepc_fs.pdf.

Federal Emergency Management Agency. "NIMS 2017 Instructor Student Learning Materials." 2017. https://training.fema.gov/nims/docs/nims.2017.instructor%20student%20learning%20materials.pdf.

Federal Emergency Management Agency. National Response Framework. Third Edition Washington. DC: Government Printing Office, 2016. https://www.fema.gov/media-library/assets/documents/117791.

Texas Department of Public Safety – Division of Emergency Management. "Crosswalk of Target Capabilities to Core Capabilities." Accessed July 30, 2018. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/targetToCoreCapabilitiesCrosswalk.pdf.

U.S. Fire Administration. *Operational Lessons Learned in Disaster Response.* June 2015. https://www.usfa.fema.gov/downloads/pdf/publications/operational_lessons_learned_in_disaster_response.pdf.

LEPC Effectiveness

Adams, William C., Stephen D. Burns, and Phillip G. Handwerk. *Nationwide LEPC Survey: Summary Report.* Washington. DC: George Washington State University.

1994. https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=100039HU.txt.

Bierling, David. "Participants and Information Outcomes in Planning Organizations." Doctoral dissertation, Texas A&M University, 2012.

Blackwood, Matthew J. *Local Emergency Planning Committees: Collaboration. Risk Communication. Information Technology. and Homeland Security.* PhD Diss. Virginia Polytechnic Institute and State University. 2003.

Environmental Protection Agency. "2008 Nationwide Survey of Local Emergency Planning Committees LEPCs". Accessed April 6, 2018. https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

Environmental Protection Agency. "Energize Your Local Emergency Planning Committee." February 2009. https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.

Environmental Protection Agency. "How to Better Prepare Your Community for a Chemical Emergency: A Guide for State. Tribal and Local Agencies." Accessed April 9, 2018. https://www.epa.gov/epcra/how-better-prepare-your-community-chemical-emergency-guide-state-tribal-and-local-agencies.

Environmental Protection Agency. *A Guide for Local Emergency Planning Committees and Similar Groups*. August 2013. https://www.epa.gov/sites/production/files/2013-08/documents/measuring_progress_lepc.pdf.

Environmental Protection Agency. *Measuring Progress in Chemical Safety: A Guide for Local Emergency Planning Committees and Similar Groups*. August 2013. https://www.epa.gov/sites/production/files/2013-08/documents/measuring_progress_lepc.pdf.

Georgia Emergency Management Agency. *LEPC Activities Guide,* Volume 1. Atlanta, GA, 2014. http://www.caloes.ca.gov/FireRescueSite/Documents/Activities%20Guide_Dec2014_FINAL.pdf.

Guidance on Safety Performance Indicators. "Organisation for Economic Co-operation and Development." Last modified 2018. http://www.oecd.org/chemicalsafety/chemical-accidents/guidanceonsafetyperformanceindicators.htm.

Heath, Robert, Julie Bradshaw. and Jaesub Lee. "Community Relationship Building: Local Leadership in the Risk Communication Infrastructure." *Journal of Public Relations Research*. 14. no. 4 2002: 317-353. Accessed July 29, 2018. DOI: 10.1207/S1532754XJPRR1404_2.

Lindell, Michael K. and Ronald W. Perry. "Community Innovation in Hazardous Materials Management: Progress in Implementing SARA Title III in the U.S.." *Journal of Hazardous Materials* 88 2001: 169-194.

Organisation for Economic Co-operation and Development. "Guidance on Safety Performance Indicators." Last modified 2018. http://www.oecd.org/chemicalsafety/chemical-

accidents/guidanceonsafetyperformanceindicators.htm.

Organisation for Economic Co-operation and Development. "Chemical Accident Prevention, Preparedness and Response." Last modified 2018. http://www.oecd.org/env/ehs/chemical-accidents/.

Organisation for Economic Co-operation and Development. "Corporate governance for process safety: Guidance for senior leaders in high hazard industries." Last modified 2018. http://www.oecd.org/env/ehs/chemical-accidents/corporategovernanceforprocesssafety.htm.

Organisation for Economic Co-operation and Development. "Guiding Principles for Chemical Accident Prevention, Preparedness and Response." Last modified 2018. http://www.oecd.org/env/ehs/chemical-accidents/guiding-principles-chemical-accident-prevention-preparedness-and-response.htm.

Starik, Mark, William C. Adams, Polly A. Berman, and Krishnan Sudharsan. "1999 Nationwide LEPC Survey." May 17. 2000. https://www.epa.gov/sites/production/files/2014-01/documents/lepcsurv_2000.pdf.

Templeton, Jill and Gary Kirk. "Factors Influencing the Activity and Perceived Effectiveness of Virginia Local Emergency Planning Committees LEPCs." Presentation. Midwest Political Science Association 2008 Conference.

Trefz, Bradley and Bierling, David. "Jim Hogg County South Texas LEPC Workshop: Summary, Recommendations, Resources." July 2016.

Whitney, David J. and Michael K. Lindell. "Member Commitment and Participation in Local Emergency Planning Committees." *Policy Studies Journal*. Vol. 28. No. 3. 2000. pp. 467–484.

LEPC Organization and Authorization

Environmental Protection Agency. "EPCRA Sections 311-312." Last modified April 4, 2018. https://www.epa.gov/epcra/epcra-sections-311-312.

Environmental Protection Agency. *Region 6 Local Emergency Planning Committee LEPC Handbook* Dallas, TX: EPA Region 6 Emergency Response Team, 2014. http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201.%202014.pdf.

Environmental Protection Agency. "Superfund Community Advisory Groups." Last modified June 26, 2018. Accessed July 31, 2018. https://www.epa.gov/superfund/superfund-community-advisory-groups.

Environmental Protection Agency. "Superfund History." Last modified June 4, 2018. https://www.epa.gov/superfund/superfund-history.

Office of the Attorney General of Texas. *Public Information Act Handbook 2018*. Accessed July 29, 2018. https://www.texasattorneygeneral.gov/files/og/PIA_handbook_2018.pdf.

Ruling of the Attorney General of Texas in Letter to Mr. David Timberger. Director-General Law Division of the Texas Commission on Environmental Quality. OR2016-

03419. February 11, 2016. https://www2.texasattorneygeneral.gov/opinions/openrecords/51paxton/orl/2016/pdf/or201603419.pdf.

Schierow, Linda-Jo. *The Emergency Planning and Community Right-to-Know Act (EPCRA): A Summary.* Washington, DC: Congressional Research Service, 2012. http://nationalaglawcenter.org/wp-content/uploads/assets/crs/RL32683.pdf.

Texas Commission on Environmental Quality. "Local Emergency Planning Committees and Fire Departments." Last modified January 3, 2018. https://www.tceq.texas.gov/permitting/tier2/local-emergency-planning-committee.html.

Texas Department of Public Safety -Division of Emergency Management. *Local Emergency Planning Committee (LEPC): A Primer for Local Planning for Hazardous Materials*. July 2006.

Texas Department of Public Safety – Division of Emergency Management. "TDEM Form 151 -Local Emergency Planning Committee Membership Update Form." Last modified September 2013. http://www.dps.texas.gov/internetforms/Forms/TDEM-151.pdf.

Texas Supreme Court. *BCCA Appeal Group, Inc. v. City of Houston, Texas*. No. 13-0768, 2016. http://www.txcourts.gov/media/1364029/130768.pdf.

Youngblood, Susan. "Balancing the Rhetorical Tension Between Right to Know and Security in Risk Communication: Ambiguity and Avoidance." *Journal of Business and Technical Communication* 26. no. 1 (2011): 35-64. DOI:10.1177/2F1050651911421123.

Mutual Aid

International Association of Fire Chiefs. "National Mutual Aid System." Accessed July 20, 2018. https://www.iafc.org/topics-and-tools/nmas.

Texas Interagency Coordination Center. "Texas Intrastate Fire Mutual Aid System TIFMAS." Last modified 2018. http://ticc.tamu.edu/response/TIFMAS.htm#index.html.

Oil and Gas

Environmental Protection Agency. "National Contingency Plan Proposed Rule - Revisions to Align with the National Response Framework." Last modified December 17, 2016. https://www.epa.gov/emergency-response/national-contingency-plan-proposed-rule-revisions-align-national-response.

Environmental Protection Agency. "National Oil and Hazardous Substances Pollution Contingency Plan NCP Overview." Last modified April 4, 2018. https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview.

Environmental Protection Agency. "Oil Spill Liability Trust Fund." Last modified June 6, 2017. https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/oil-spill-liability-trust-fund.

Environmental Protection Agency. "Summary of the Oil Pollution Act." Last modified April 26, 2018. https://www.epa.gov/laws-regulations/summary-oil-pollution-act.

U.S. National Response Team. "Regional Response Teams (RRTs)." Last updated 2018. https://www.nrt.org/site/regionmap.aspx.

U.S. Coast Guard. "National Response Center." Accessed July 30, 2018. http://www.nrc.uscg.mil/.

Planning and Preparedness

Department of Homeland Security – Ready.gov. "CAMEO Computer-Aided Management of Emergency Operations." Environmental Protection Agency. Last modified July 11, 2018. https://www.epa.gov/cameo.

Department of Homeland Security. *2017 National Preparedness Report. Accessed* April 6, 2018. https://www.fema.gov/media-library-data/1503926640648-0b64216b808eb42a93ba96fe8888d113/2017NationalPreparednessReport_508_COMPLIANT.pdf.

Eisenhower, Dwight D. "Speech to the National Defense Executive Reserve Conference in Washington. D.C. 14 November 1957." in *Public Papers of the Presidents of the U.S.. Dwight D. Eisenhower. 1957*. National Archives and Records Service. Government Printing Office.

Environmental Protection Agency. "What is the CAMEO software suite?" Last modified October 17, 2017. https://www.epa.gov/cameo/what-cameo-software-suite.

Federal Emergency Management Agency. "National Preparedness Goal." Last modified May 2, 2018. Accessed March 10, 2018. https://www.fema.gov/national-preparedness-goal.

Federal Emergency Management Agency. "National Preparedness System." Last modified August 21, 2017. https://www.fema.gov/national-preparedness-system.

Federal Emergency Management Agency. "Threat and Hazard Identification and Risk Assessment." Last modified May 31, 2018. https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment.

Federal Emergency Management Agency. "Core Capabilities." Last modified February 7, 2018. https://www.fema.gov/core-capabilities.

Federal Emergency Management Agency. "Developing High Quality Emergency Operation Plans for Houses of Worship." Last modified May 1, 2014. https://www.fema.gov/media-library/assets/documents/33007.

Federal Emergency Management Agency. "Developing High-Quality School Emergency Operations Plan." Last modified July 11, 2013. https://www.fema.gov/media-library/assets/documents/33599.

Federal Emergency Management Agency. "Guide for Developing High-Quality Emergency Operations Plans for Institutions of Higher Education." Last modified July 14, 2014. https://www.fema.gov/media-library/assets/documents/33597.

Federal Emergency Management Agency. "National Planning Frameworks." Last

modified June 19, 2018. https://www.fema.gov/national-planning-frameworks.

Federal Emergency Management Agency. "National Preparedness Goal." Last modified August 9, 2017. https://www.fema.gov/national-preparedness-goal.

Federal Emergency Management Agency. "National Preparedness System." Last modified August 21, 2017. https://www.fema.gov/national-preparedness-system.

Federal Emergency Management Agency. "Pre-Disaster Recovery Planning Guide for Local Governments Final." Last modified February 14, 2018. https://www.fema.gov/media-library/assets/documents/129203.

Federal Emergency Management Agency. "Strategic and Operational Planning." Last modified July 26, 2018. https://www.fema.gov/plan.

Federal Emergency Management Agency. "Threat and Hazard Identification and Risk Assessment THIRA." Last modified May 31, 2018. https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment.

Federal Emergency Management Agency. "Whole Community." Last modified May 2, 2018. https://www.fema.gov/national-preparedness/whole-community.

Federal Emergency Management Agency. *CPG 101–Comprehensive Preparedness Guide: Developing and Maintaining Emergency Operations Plans*. Version 2.0. November 2010. https://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf.

Federal Emergency Management Agency. *CPG 101, Version 2.0–Process and Analysis Support Tool–March 2011.* https://www.fema.gov/pdf/about/divisions/npd/CPG_101_v2_past.pdf.

Federal Emergency Management Agency. *CPG 502–Comprehensive Preparedness Guide: Considerations for Fusion Center and Emergency Operations Center Coordination.* May 2010. https://www.fema.gov/pdf/about/divisions/npd/cpg_502_eoc-fusion_final_7_20_2010.pdf.

National Response Team. *NRT-1A: Criteria for Review of Hazardous Materials Emergency Plans*. Washington. DC: National Response Team. 1998. https://www.nrt.org/sites/2/files/nrt1a%201998.pdf.

Texas Department of Public Safety -Division of Emergency Management. *TDEM-100: Preparedness Standards for Emergency Management in Texas*. June 2000. https://www.dps.texas.gov/InternetForms/Forms/TDEM-100.pdf.

Texas Department of Public Safety -Division of Emergency Management. *Texas Emergency Management Executive Guide: FY 2017 Edition*. Accessed April 6, 2018. http://www.dps.texas.gov/dem/GrantsResources/execGuide.pdf.

Texas Department of Public Safety – Division of Emergency Management. "Mitigation." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Mitigation/index.htm.

Texas Department of Public Safety – Division of Emergency Management. "Plans Units." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Preparedness/plansUnit.htm.

Texas Department of Public Safety – Division of Emergency Management. *Emergency Management Planner's Guide: CPG 101 Content Requirements*. May 2014. https://www.dps.texas.gov/dem/Preparedness/plannerGuideCPG101.docx.

Texas Department of Public Safety – Division of Emergency Management. *Emergency Management Planner's Guide: The Planner's Toolkit*. May 2014. https://www.dps.texas.gov/dem/Preparedness/emerMgmtPlanGuide.docx.

Texas Department of Public Safety – Division of Emergency Management. *Emergency Management Planner's Guide: Documentation Standards*. February 2015. https://www.dps.texas.gov/dem/Preparedness/docStandards.pdf.

Texas Department of Public Safety – Division of Emergency Management. *Emergency Management Planner's Guide: Legislation Navigation Guide*. March 2014. https://www.dps.texas.gov/dem/Preparedness/legNavGuide.pdf.

Texas Department of Public Safety -Division of Emergency Management. "The Planner's Toolkit." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Preparedness/plannerstoolkit.htm.

Public Health

Center for Medicare and Medicaid Services. "Final Rule: Medicare and Medicaid Programs. Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers." in *Federal Register* 81:127 July 1, 2016. 63859-64044. https://www.federalregister.gov/documents/2016/09/16/2016-21404/medicare-and-medicaid-programs-emergency-preparedness-requirements-for-medicare-and-medicaid.

Department of Health and Human Services. "Medical Reserve Corps." Accessed July 30, 2018. https://mrc.hhs.gov/.

Texas Department of State Health Services. "Texas Local Public Health Organizations." Last modified May 23, 2018. https://www.dshs.texas.gov/regions/lhds.shtm.

Radioactive Material

American Society for Nondestructive Testing, "Introduction to Nondestructive Testing." Accessed May 4, 2018. https://www.asnt.org/MinorSiteSections/AboutASNT/Intro-to-NDT.

Defense Threat Reduction Agency. Website. Accessed July 30, 2018. https://www.dtra.mil/.

Department of Energy. "Office of Nuclear Energy." Accessed April 6, 2018. https://www.energy.gov/ne/office-nuclear-energy.

Environmental Protection Agency. "Radiation Protection." Last modified June 25, 2018. https://www.epa.gov/radiation .

Federal Emergency Management Agency. *Program Manual: Radiological Emergency Preparedness*. January 2016. https://www.fema.gov/media-library-data/1452711021573-a9b920f4f7ac34ea9f32738f51982afe/DHS_FEMA_REP_Program_Manual_Jan2016_S

ecure.pdf.

National Nuclear Security Administration -Pantex Plant. Website. Accessed July 30, 2018. http://www.pantex.com/.

National Nuclear Security Administration. Website. Accessed July 30, 2018. https://nnsa.energy.gov/.

Nuclear Regulatory Commission. Website. Accessed July 30, 2018. https://www.nrc.gov/.

Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs. "Nuclear Matters." Accessed July 30, 2018. https://www.acq.osd.mil/ncbdp/nm/.

Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs/Nuclear Affairs. "DoD 3150.08-M Nuclear Weapon Accident Response Procedures NARP Internet Supplement." Accessed July 30, 2018. https://www.acq.osd.mil/ncbdp/narp/.

Railroad Commission of Texas. "NORM Naturally Occurring Radioactive Material." Last modified July 18, 2017. http://www.rrc.state.tx.us/oil-gas/applications-and-permits/environmental-permit-types-information/norm/.

Texas Commission on Environmental Quality. "Radioactive Materials." Last modified December 13, 2017. https://www.tceq.texas.gov/permitting/radmat.

Texas Department of Public Safety – Division of Emergency Management. "Agreement-in-Principal AIP/Pantex." Accessed July 30, 2018. https://www.dps.texas.gov/dem/Preparedness/aipPantex.htm.

Texas Department of State Health Services. "Home Page -Radiation Control Program." Last modified April 20, 2018. https://www.dshs.texas.gov/radiation/.

Risk Management Plan (RMP) Rule

Bevin, Michael. *Petition for Reconsideration and Stay submitted by the States of Louisiana. Arizona. Arkansas. Florida. Kansas. Texas. Oklahoma. South Carolina. Wisconsin. West Virginia. and the Commonwealth of Kentucky by and through Governor Matthew Bevin. In RE: Accidental Release Prevention Requirements: Risk Management Programs under the Clean Air Act. Final Rule 82 Fed. Reg. 4595*, January 13, 2017, Docket No. EPA-HQ-OEM-2015-0725. Before the Administrator U.S. Environmental Protection Agency. https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OEM-2015-0725-0762&contentType=pdf.

Environmental Protection Agency. "Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act." *Federal Register* 82:9 January 13, 2017. 4594-4705. https://www.gpo.gov/fdsys/pkg/FR-2017-01-13/pdf/2016-31426.pdf.

Environmental Protection Agency. "Chapter 1: General Applicability." in *General Guidance on Risk Management Programs for Chemical Accident Prevention 40 CFR Part 68*. Last modified April 2004. https://www.epa.gov/sites/production/files/2013-10/documents/chap-01-final.pdf.

Environmental Protection Agency. "Chapter 9: Risk Management Plan." in General RMP Guidance. April 2015. https://www.epa.gov/rmp/general-rmp-guidance-chapter-9-risk-management-plan.

Environmental Protection Agency. "EPA Activities Under EO 13650: Risk Management Program RMP Final Rule Questions and Answers." Accessed May 8, 2018. https://www.epa.gov/sites/production/files/2016-12/documents/rmp_final_rule_qs_and_as_12-21-16_final_formatted_342.pdf

Environmental Protection Agency. "Final Amendments to the Risk Management Program RMP Rule." Last modified May 17, 2018. https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule.

Environmental Protection Agency. "General Risk Management Program Guidance." April 4, 2018. https://www.epa.gov/rmp/guidance-facilities-risk-management-programs-rmp#general.

Environmental Protection Agency. "Introduction." In *General Risk Management Program Guidance*. April 2015, https://www.epa.gov/sites/production/files/2015-04/documents/intro_final_general_guidance.pdf.

Environmental Protection Agency. "List of Regulated Substances under the Risk Management Plan RMP Program." Last modified August 31, 2017. https://www.epa.gov/rmp/list-regulated-substances-under-risk-management-plan-rmp-program.

Environmental Protection Agency. "Proposed Risk Management Program RMP Reconsideration Rule." Accessed July 27, 2018. https://www.epa.gov/rmp/proposed-risk-management-program-rmp-reconsideration-rule.

Environmental Protection Agency. "Response to Comments on the 2016 Proposed Rule Amending EPA's Risk Management Program Regulations March 14, 2016. 81 FR 13637." https://www.epa.gov/sites/production/files/2016-12/documents/rmp_rtc_compiled_12-21-16.pdf.

Environmental Protection Agency. "Resubmitting. Correcting. De-Registering or Withdrawing a Risk Management Plan." Last modified April 4, 2018. https://www.epa.gov/rmp/resubmitting-correcting-de-registering-or-withdrawing-risk-management-plan.

Environmental Protection Agency. "Risk Management Plan RMP Rule Overview." Last modified April 4, 2018. https://www.epa.gov/rmp/risk-management-plan-rmp-rule-overview.

Environmental Protection Agency. "Risk Management Plan RMP Rule." Last modified July 20, 2018. https://www.epa.gov/rmp.

Environmental Protection Agency. "Risk Management Program." Accessed July 30, 2018. https://emergencymanagement.zendesk.com/hc/en-us/categories/201455608-Risk-Management-Program.

Environmental Protection Agency. "RMP*Comp." Last modified April 4, 2018. https://www.epa.gov/rmp/rmpcomp.

Environmental Protection Agency. "RMP*eSubmit." Last modified February 12, 2018. https://www.epa.gov/rmp/rmpesubmit.

Environmental Protection Agency. "Summary of the Clean Air Act." Last modified August 27, 2017. https://www.epa.gov/laws-regulations/summary-clean-air-act.

Environmental Protection Agency. "Vulnerable Zone Indicator System." Last modified November 27, 2017. https://www.epa.gov/rmp/forms/vulnerable-zone-indicator-system.

Environmental Protection Agency. *ECDIC-2000-011 Guidance for Implementation of the General Duty Clause Clean Air Act Section 112r1*. Washington. DC: Chemical Emergency and Preparedness Office. 2000. https://www.epa.gov/sites/production/files/documents/gendutyclause-rpt.pdf.

Texas Commission on Environmental Quality. "Comparison of Tier II, TRI, and 112r Requirements." Last modified June 22, 2018. https://www.tceq.texas.gov/assistance/resources/tierIIchart.html.

Tier II Reporting

Environmental Protection Agency. "Final Rule: Extremely Hazardous Substance List and Threshold Planning Quantities. Emergency Planning and Release Notification Requirements 52 FR 13378." Last modified April 4, 2018. https://www.epa.gov/epcra/final-rule-extremely-hazardous-substance-list-and-threshold-planning-quantities-emergency.

Environmental Protection Agency. "List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112(r) of the Clean Air Act." March 2015. https://www.epa.gov/sites/production/files/2015-03/documents/list_of_lists.pdf.

Environmental Protection Agency. "Tier II Forms and Instructions." Last modified February 2, 2018. https://www.epa.gov/epcra/tier-ii-forms-and-instructions.

Texas Commission on Environmental Quality. "Comparison of Tier II, TRI, and 112r Requirements." Last modified June 22, 2018. https://www.tceq.texas.gov/assistance/resources/tierIIchart.html.

Texas Commission on Environmental Quality. "Laws and Regulations: Tier II Chemical Reporting." Last modified January 3, 2018. https://www.tceq.texas.gov/permitting/tier2/laws-and-regulations.html.

Texas Commission on Environmental Quality. "Reporting: How to Report data to the TCEQ and how to file a complaint." Last modified March 16, 2018. https://www.tceq.texas.gov/permitting/reporting.html.

Texas Commission on Environmental Quality. "Step 1: Types of Tier II Reports and Timelines." Last modified May 18, 2018. https://www.tceq.texas.gov/permitting/tier2/reporting-steps/types-of-tier-ii-reports-and-timelines.

Texas Commission on Environmental Quality. "Step 3: Tier 2 Reporting Software." Last modified March 2, 2018.

https://www.tceq.texas.gov/permitting/tier2/reporting-steps/reporting_software.html.

Texas Commission on Environmental Quality. "Tier II Chemical Reporting." February 2, 2018. https://www.tceq.texas.gov/permitting/tier2/.

Texas Commission on Environmental Quality. "Tier II Chemical Reporting." Last modified May 16, 2018. https://www.tceq.texas.gov/permitting/tier2.

Toxic Release Inventory (TRI)

Environmental Protection Agency. "Electronic Submission of TRI Reporting Forms." Last modified July 18, 2018. https://www.epa.gov/toxics-release-inventory-tri-program/electronic-submission-tri-reporting-forms.

Environmental Protection Agency. "Toxics Release Inventory TRI Program." Last modified July 9, 2018. https://www.epa.gov/toxics-release-inventory-tri-program.

Texas Commission on Environmental Quality. "Comparison of Tier II, TRI, and 112r Requirements." Last modified June 22, 2018. https://www.tceq.texas.gov/assistance/resources/tierIIchart.html.

Training

Federal Emergency Management Agency – Emergency Management Institute. "Distance Learning." https://training.fema.gov/is/.

Federal Emergency Management Agency – Emergency Management Institute. "IS-5.A: An Introduction to Hazardous Materials." Last modified October 31, 2013. https://training.fema.gov/is/courseoverview.aspx?code=is-5.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-11.A: Animals in Disasters: Community Planning." Last modified October 2, 2015. https://training.fema.gov/IS/courseOverview.aspx?code=IS-11.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-15.B: Special Events Contingency Planning for Public Safety Agencies." Last modified October 31, 2013. https://training.fema.gov/is/courseoverview.aspx?code=is-15.b.

Federal Emergency Management Agency – Emergency Management Institute. "IS-26: Guide to Points of Distribution." Last modified August 11. 2010. https://training.fema.gov/IS/courseOverview.aspx?code=IS-26.

Federal Emergency Management Agency – Emergency Management Institute. "IS-36: Multi-hazard Planning for Childcare." Last modified October 31, 2013. https://training.fema.gov/IS/courseOverview.aspx?code=IS-36.

Federal Emergency Management Agency – Emergency Management Institute. "IS-100.C: Introduction to the Incident Command System. ICS 100." Last modified June 25, 2018. https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c.

Federal Emergency Management Agency – Emergency Management Institute. "IS-120.C: An Introduction to Exercises." Last modified February 12, 2018. https://training.fema.gov/is/courseoverview.aspx?code=IS-120.c.

Federal Emergency Management Agency – Emergency Management Institute. "IS-130.A: How to be an Exercise Evaluator." Last modified February 12, 2018. https://training.fema.gov/is/courseoverview.aspx?code=IS-130.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-139.A: Exercise Design and Development." Last modified March 1, 2018. Accessed July 30, 2018. https://training.fema.gov/is/courseoverview.aspx?code=IS-139.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-200.B: ICS for Single Resources and Initial Action Incidents." Last modified October 31, 2013. http://training.fema.gov/is/courseoverview.aspx?code=IS-200.b.

Federal Emergency Management Agency – Emergency Management Institute. "IS-212.B: Introduction to Unified Hazard Mitigation Assistance HMA." Last modified December 7, 2015. https://training.fema.gov/is/courseoverview.aspx?code=IS-212.b.

Federal Emergency Management Agency – Emergency Management Institute. "IS-235.C: Emergency Planning." Last modified December 15, 2015. https://training.fema.gov/IS/courseOverview.aspx?code=IS-235.c

Federal Emergency Management Agency – Emergency Management Institute. "IS-271.A: Anticipating Hazardous Weather & Community Risk. 2nd Edition." Last modified October 31, 2013. https://training.fema.gov/is/courseoverview.aspx?code=IS-271.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-328: Plan Review for Local Mitigation Plans." Last modified October 31, 2015. https://training.fema.gov/IS/courseOverview.aspx?code=IS-328.

Federal Emergency Management Agency – Emergency Management Institute. "IS-346: An Orientation to Hazardous Materials for Medical Personnel." Last modified October 31, 2013. https://training.fema.gov/is/courseoverview.aspx?code=IS-346.

Federal Emergency Management Agency – Emergency Management Institute. "IS-362.A: Multi-Hazard Emergency Planning for Schools." Last modified October 31, 2018. https://training.fema.gov/IS/courseOverview.aspx?code=IS-362.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-366.A: Planning for the Needs of Children in Disasters." Last modified December 9.,2015. https://training.fema.gov/IS/courseOverview.aspx?code=IS-366.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-453: Introduction to Homeland Security Planning." Last modified October 31, 2013. https://training.fema.gov/IS/courseOverview.aspx?code=IS-453.

Federal Emergency Management Agency – Emergency Management Institute. "IS-546.A: Continuity of Operations Awareness Course." Last modified October 31, 2013. https://training.fema.gov/IS/courseOverview.aspx?code=IS-546.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-554: Emergency Planning for Public Works." Last modified October 31, 2013. https://training.fema.gov/IS/courseOverview.aspx?code=IS-554.

Federal Emergency Management Agency – Emergency Management Institute. "IS-

660: Introduction to Public-Private Partnerships." Last modified December 20, 2011. https://training.fema.gov/IS/courseOverview.aspx?code=IS-660.

Federal Emergency Management Agency – Emergency Management Institute. "IS-662: Improving Preparedness and Resilience through Public-Private Partnerships." Last modified October 31, 2013. https://training.fema.gov/is/courseoverview.aspx?code=IS-662.

Federal Emergency Management Agency – Emergency Management Institute. "IS-700.B: An Introduction to the National Incident Management System." Last modified June 25, 2018. http://training.fema.gov/is/courseoverview.aspx?code=IS-700.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-702.A: National Incident Management System NIMS Public Information Systems." Last modified October 31, 2013. http://training.fema.gov/is/courseoverview.aspx?code=IS-702.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-703.A: NIMS Resource Management." Last modified January 15, 2010. https://training.fema.gov/IS/courseOverview.aspx?code=IS-703.a.

Federal Emergency Management Agency – Emergency Management Institute. "IS-800.C: National Response Framework. an Introduction." Last modified March 27, 2018. http://training.fema.gov/is/courseoverview.aspx?code=IS-800.b.

Federal Emergency Management Agency. "Training and Exercises." Last modified March 31, 2016. https://www.fema.gov/voluntary-faith-based-community-based-organizations/training.

International Association of Fire Fighters. "Hazmat Training." Accessed July 30, 2018. http://client.prod.iaff.org/#page=hazmat2.

National Association of State Fire Marshals. "Pipeline Emergency Response Training." Accessed July 30, 2018. https://nasfm-training.org/pipeline/.

Security and Emergency Response Training Center. Website. Accessed July 30, 2018. http://sertc.org/.

Texas A&M Engineering and Exchange Service. "ENV501: Hazardous Materials Instructor." Last modified February 4, 2015. https://teex.org/Pages/Class.aspx?course=ENV501&courseTitle=Hazardous%20Materials%20Instructor.

Texas Department of Public Safety – Division of Emergency Management. "G-300 - Intermediate Incident Command System for Expanding Incidents." Accessed July 30, 2018. https://www.preparingtexas.org/ViewCourse.aspx?courseid=402f88cb-2f13-4627-82ab-8fe44fb10502.

Texas Department of Public Safety – Division of Emergency Management. "G-400 - Advanced Incident Command System. Command and General Staff." Accessed July 30, 2018. https://www.preparingtexas.org/ViewCourse.aspx?courseid=a903a479-726c-4a11-a8c6-b03cc7eeb56f.

Texas Department of Public Safety – Division of Emergency Management. "G-402 -

ICS Overview for Executive/Senior Officials." Accessed July 30, 2018. https://www.preparingtexas.org/ViewCourse.aspx?courseid=26b07d31-a749-4071-a303-4b08ceded23a.

Texas Department of Public Safety – Division of Emergency Management. "Preparingtexas.org." Website. Accessed July 30, 2018. https://www.preparingtexas.org/.

Texas Department of Public Safety – Division of Emergency Management. "Training and Exercise Planning Workshop." Accessed July 30, 2018. http://www.dps.texas.gov/dem/Preparedness/exerciseUnit/TrainExerPlan.htm.

Water and Aquifer Protection

Environmental Protection Agency. "Summary of the Clean Water Act." Last modified March 29, 2018. https://www.epa.gov/laws-regulations/summary-clean-water-act.

National Oceanic and Atmospheric Administration. "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments." In *Federal Register* Vol. 59, No. 60 (March 29, 1994). https://www.gpo.gov/fdsys/pkg/FR-1994-03-29/html/94-7314.htm

National Oceanic and Atmospheric Administration. "Fisheries." Accessed July 30, 2018. http://www.nmfs.noaa.gov/pr/health/MMHSRP.html.

National Oceanic and Atmospheric Administration. "Marine Fisheries Service." Accessed April 6, 2018. https://www.fisheries.noaa.gov/welcome.

National Oceanic and Atmospheric Administration. "Office of Response and Restoration." Last modified July 30, 2018. http://response.restoration.noaa.gov/.

U.S. Coast Guard. Website. Accessed July 30, 2018. https://www.uscg.mil/.

U.S. Fish and Wildlife Service, Ecological Services, Southwest Region. "Contaminants Spill Response." Accessed July 30, 2018. http://www.fws.gov/southwest/es/SpillPlan_Main.html.

Volunteers

Corporation for National & Community Service. "Disaster Services." Accessed July 30, 2018. https://www.nationalservice.gov/focus-areas/disaster-services.

Department of Homeland Security -Ready.gov. "Citizen Corps Partner Programs." Accessed July 30, 2018. https://www.ready.gov/citizen-corps-partner-programs.

Department of Homeland Security – Ready.gov. "Citizen Corps." Accessed July 31, 2018. https://www.ready.gov/citizen-corps.

Department of Homeland Security -Ready.gov. "Community Emergency Response Team." Accessed July 30, 2018. http://www.fema.gov/community-emergency-response-teams.

Fire Corps. Website. Accessed July 30, 2018. http://www.firecorps.org/.

International Association of Chiefs of Police. "VIPS -Volunteers in Police Service." Accessed July 30, 2018. http://www.iacp.org/VIPS.

National Association of Town Watch. “National Night Out.” Accessed July 30, 2018. https://natw.org/.

National Sheriffs' Association. “National Neighborhood Watch.” Accessed July 30, 2018. http://www.nnw.org/.

Texas Regional Council. “Texas Citizen Corps.” Accessed July 30, 2018. http://txregionalcouncil.org/regional-programs/emergency-preparedness/citizen-corps/.

Appendix A. Laws, Regulations, Policy, Guidance and Standards

Introduction

A considerable number of federal and state laws, codes, regulations, policies, guidance, standards and related materials apply to hazardous materials emergency management, preparedness, and planning in the U.S. This appendix is not comprehensive. Instead, this appendix highlights key areas of interest to Local Emergency Planning Committees (LEPCs). However, no two LEPCs are the same, so the items of interest to different LEPCs may vary.

Organization of this appendix is by topic and then by federal statute. Related state laws and regulations follow. Highlights of guidance and standards related to the state and federal laws and regulations appear below each. This appendix uses the following headings for clarity:

Federal Law, Regulation or Executive Order

State Law, Regulation or Executive Order

Guidance, Standards or Other Related Information

In the digital version of this guide, these headings are hyperlinked to computerized versions of the referenced document and lead to the related statute, regulations, guidance or other source document. These links functioned at the time of publication, but legislation and websites change. Users of the print version of this document should conduct their own searches related to any information. Digital users may also discover non-functioning links or those that are otherwise out-of-date due to legislative or regulatory change. This document is *not* comprehensive; LEPCs need to consult legal representation and outside experts for questions about legal obligations, enforcement or related matters.

The 1986 Superfund Amendment and Reauthorization Act of 1986 (SARA), Title III, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA), created LEPCs and set their purpose. While the EPCRA deals with LEPCs specifically and a few laws reference LEPCs or EPCRA statutes, other laws impact LEPC operations related to emergency planning, and emergency management and response in general.

Primarily of interest to LEPCs, are the interrelated reporting requirements created by EPCRA and Section 112(r) of the Clean Air Act (Risk Management Program). These relate directly to the purpose and function of LEPCs.

These two pieces of legislation create different reporting requirements for businesses that store or manufacture, process or use certain chemicals. Understanding the differences between these requirements and the three reports they result in is critical to LEPC operations. The chart below this section, adapted from one used by the Texas Commission on Environmental Quality (TCEQ), outlines

the differences between these three reports. LEPCs may also wish to consult EPA's "List of Lists" for more information.

EPCRA and the Clean Air Act are not the only laws and regulations that impact the work of LEPCs. The most important act for emergency management and response is the Stafford Act, though there are many other statutes, codes and regulations related to emergency management and hazardous materials safety. Some of the laws and regulations in this guide changed while this guide was being written, a few passed as it went to print requiring revision.

Understanding the interrelations between laws and regulations requires a basic understanding of how legislatures write such laws, how governments issue them to the public and how agencies and departments of government use these laws to make rules or regulations.

For a comprehensive guide to understanding and finding legislation related to a specific LEPC, please consult the Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM) Preparedness Planning Unit's *Planner's Toolkit–Legislation Navigation Guide,* dated March 2014 or later. Other documents of interest include the *TDEM Executive Guide*, FY 2017 edition (or more recent), the DPS-TDEM publication *Texas Emergency Management Statutes* (dated 2011 or more recent) and the Environmental Protection Agency (EPA) *Region 6 LEPC Guide*.

	Tier II	Toxics Release Inventory (TRI)	Section 112(r)
Administered By:	Texas Commission on Environmental Quality (TCEQ)	US Environmental Protection Agency (EPA) & Texas Commission on Environmental Quality (TCEQ)	U.S. Environmental Protection Agency (EPA)
Description	Emergency Planning (the EP in EPCRA): reporting significant quantities of hazardous chemicals maintained at fixed facilities for emergency planning purposes.	Community Right-to-Know (the CRA in EPCRA): reporting on air emissions, waste disposal, and wastewater discharges.	Risk Management for Accident Prevention: responding to emergencies and planning to prevent accidents.
Applies To:	Any company using chemicals that could present a physical or health hazard	Companies with 10 employees or more; and hazardous waste treatment, chemical distributors, metal mining, coal mining, petroleum bulk stations (wholesale), and electric utilities. Industry sector must be covered by the NAICS code list found in Table 1 of the December 2012 EPA publication 260-R-10-001, Toxic Chemical Release Inventory Reporting Forms and Instruction, and; manufacture, process, or otherwise use more than the triggering amount for that classification of a TRI chemical.	Businesses such as: farm cooperatives, chemical manufacturers, chemical distributors, metal product manufacturers, food processors, drinking water systems, and utilities.
Reports Required:	One-time Emergency Planning Letters (EPLs) for facilities that have certain hazardous chemicals in specified amounts. Annually - Texas Tier II Chemical Inventory Reports.	**Form A:** a shorter report for companies that meet the qualifications for reporting but have lower chemical on-site amounts and off-site transfers. **Form R:** an inventory of on-site releases and off-site waste transfers of substances (not products) listed under TRI.	Risk Management Plan should include: hazard assessment, prevention program, emergency response program.
How Submitted	As of August 1, 2006, all EPLs and Tier II Chemical Inventory Reports are required to be submitted in electronic format. TCEQ provides software called Tier2Submit for reporting.	The EPA requires facilities to use TRI-MEweb to submit TRI reporting forms (except for trade secret information, which facilities will still complete on paper).	Submitted electronically through RMPeSubmit
Report Due:	March 1st of every year for the previous calendar year.	July 1st of every year for the previous calendar year.	June 20, 1999, initially; update every 5 years.
Reportable Chemicals:	Thre is no "list" of all reportable hazardous chemicals. TCEQ uses OSHA's definition of "hazardous chemical" to determine which products must be reported.	Yes, on the EPA's TRI-Listed Chemicals site.	Yes, in 40 CFR §68.130
Number of Reportable Chemicals:	There are 356 chemicals on the Extremely Hazardous Substances list; however, 650,000 reportable hazardous substances are **not on the list.**	There are 650 toxic chemicals and chemical categories.	There are 77 acutely toxic substances and 63 flammable gases and volatile liquids.
Reporting Thresholds:	Each limit represents the **peak storage quantity** of that chemical over a year: 500 lb or the Threshold Planning Quantity (TQP), whichever is less, for 356 chemicals listed on the Extremely Hazardous Substances list and 10,000 lb for 650,000 hazardous substances	The TRI program classifies chemicals as normal TRI chemicals or as persistent, bioaccumulative toxins (PBT) chemicals. If the company manufactures or processes more than 25,000 lb cumulative total in a year of any one normal TRI chemical, or otherwise uses more than 10,000 lb of any TRI chemical, then the company must report any on-site releases or off-site waste transfers of those chemicals (no minimum for releases or transfers). Lower manufacturing, processing ,and otherwise use thresholds trigger reporting of PBT chemicals (see section B.4 of the December 2012 EPA publication 260-R-10-001, Toxic Chemical Release Inventory Reporting Forms and Instruction).	Each chemical has a different threshold quantity. If the peak storage quantity of any chemical exceeds the limit on the 112(r) list at any point in the year, the company must report to EPA.

EPCRA Crosswalk of Statute, Code of Federal Regulations, U.S. Code Citation

The following information is from EPA *Region 6 LEPC Handbook*, Appendix A.

PL 99-499, SARA Title III	Description	40 CFR §	42 USC, Ch. 116, §
Subtitle A			
Section 301	Establishment of SERCs, Planning Districts, and LEPCs		11001
Section 302	Substances and Facilities Covered and Notification	355.10	11002
Section 303	Comprehensive Emergency Response Plans		11003
Section 304	Emergency Release Notification	355.30	11004
Section 305	Emergency Training and Review of Training Systems		11005
Subtitle B			
Section 311	Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS)	370	11021
Section 312	Emergency and Hazardous Chemical Inventory Forms	370	11022
Section 313	Toxics Release Inventory (TRI)	372	11023
Subtitle C			
Section 321	Relationship to Other Laws		11041
Section 322	Trade Secrets	350	11042
Section 323	Provision of Information to Health Professionals, Doctors, and Nurses	350	11043
Section 324	Public Availability of Plans, Data Sheets, Forms, and Follow-up Notices		11044
Section 325	Enforcement		11045
Section 326	Civil Actions		11046
Section 327	Exemption		11047
Section 328	Regulations		11048
Section 329	Definitions		11049

Understanding the Legal Structure behind Chemical Safety and LEPCs

At first, understanding the various legal citations related to LEPCs and hazardous materials seems daunting. What is the difference between a public law, the U.S. Code, the Code of Federal Regulations or any of the various state codes? How does an executive order fit into the picture? The way different publications cite laws also varies widely, which adds more confusion. The following explanation answers the above questions and gives a framework for understanding how the law affects your LEPC.

At the federal level, when Congress passes an act, the National Archives and Records Administration assigns it a Public Law (PL) Number and the Government Printing Office (GPO) publishes the Public Law in the *U.S. Statutes at Large* (available online). Eventually, the GPO updates and publishes the U.S. Code (USC) incorporating the new law. Significant legislation creates new elements of the USC, but most legislation (Public Laws) amends the existing code. The Public Law is often a list of amendments to the USC. When these amendments appear in the latest USC, the Code cites them, noting which laws amend which sections.

The USC has many statutory authorities that create elements of the Executive Branch and authorize them to regulate something specific. This authority allows that element of the Executive Branch (a department, agency, commission, office or other element) to issue regulations and rules, known as rulemaking, statutory, or regulatory authority. The USC supplies the authority and legislative instructions regarding how an element of the executive branch regulates and the scope of its regulation.

The rules and regulations that the element of the Executive Branch then issues under their statutory authority appear in the U.S. Code of Federal Regulations (CFR). Like public laws first published in the Statutes at Large, regulations appear first in the F*ederal Register*, which prints all federal agency rules, proposed rules and public notices related to rulemaking. Only the final rules appear in the CFR.

In the past, *Statutes at Large*, the USC, the CFR, and the *Federal Register* were only available in print form in law libraries or by purchase from the GPO. Fortunately, they are all online now. The Statutes at Large are published online by the Law Library of Congress at https://www.loc.gov/law/help/statutes-at-large/. The US House of Representatives hosts the US Code online at http://uscode.house.gov/. The Code of Federal Regulations is available on GPO's e-CFR website, https://www.ecfr.gov. The National Archives publishes the Federal Register at https://www.federalregister.gov/.

At the state level, there is a system like the federal system. However, there is no single, combined Texas Code but multiple codes arranged by general subject. For example, the Texas Government Code (TGC sets up the system of Texas government derived from the Texas Constitution and legislation, while the Texas Water Code (TWC) is the regulatory authority over water in the state and includes

instructions for water management. The complete Texas Code is online at http://www.statutes.legis.state.tx.us/. For LEPCs, in addition to the TGC and TWC, the Texas Health and Safety Code, Texas Natural Resources Code and Texas Agriculture Code hold the most relevant laws.

As with the federal structure, Texas codes grant regulatory authority to various elements of state executive government. While various parts of the code create regulatory authority, sometimes across multiple codes, all state agencies conduct their rulemaking under provisions of the Texas Administrative Procedure Act (10 TGC §2001 et seq. and 10 TGC §2002 et seq.).[1]

The rules in the Texas Administrative Procedure Act set up a system that mirrors the federal system. Proposed rules, final rules and public notices appear in the *Texas Register*. The Texas Administrative Code (TAC) contains only the final rules. The Texas Secretary of State publishes the TAC annually, and it is available online, along with the Texas Register, at https://www.sos.texas.gov/tac/index.shtml.

Browsing through the vast number of laws and regulations contained in the U.S. and Texas Codes and the CFR and TAC is an activity confined primarily to the legal profession and lobbyists. Thus, most federal and state agencies have extensive websites that include pages related to their rules and regulations, often organized topically. These exist to aid those seeking to remain compliant. Additionally, official guidance and standards are available on these websites, giving supplementary material related to regulations/rules meant to clarify part of a regulation or give recommendations on implementation.

In addition to the codes, both federal and state government agencies follow the instructions they receive from the chief executive in the form of executive orders. Presidents issue Executive Orders (EOs) and Presidential Decision Directives (PDDs) and the Texas governor issues Executive Orders (EOs) and proclamations. However, because of the structure of the Texas Constitution, the governor's powers in this regard are significantly more restricted than those of the president.

Regardless, EOs at the federal and state level do not change once issued, unless changed or rescinded by a later EO. For example, President Clinton issued EO 12856 in 1993 that applied portions of the EPCRA, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and other related environmental laws to the federal government and its departments, agencies and administrative organizations.

Prior to that EO, the federal government was exempt from many environmental laws. An example at the state level is the EO issued by Governor Rick Perry on February 23, 2005, designating the National Incident Management System (NIMS) as the incident management system for Texas. That order remains in effect, though parts of it eventually made it into state code as part of broader legislation.

At both the state and federal level, presidents, governors and legislatures often set up commissions, committees, councils and working groups.[2] Some of these are permanent. They exist to offer regular advice and recommendations. Permanent or long-standing organizations often made up of multiple agencies, government

representatives and experts, may have some form of statutory authority as well. Others, like the National Commission on Terrorist Attacks Upon the U.S. (the 9/11 Commission), are temporary and meet to analyze a problem and make recommendations to the government on legislative or executive changes to deal with that problem. These recommendations appear in a report that the legislature or executive may or may not act on, depending on political considerations.

Working groups exist throughout the federal government to coordinate agency actions where various parts of the government have overlapping authorities or responsibilities. The most significant of these affecting LEPCs is the Chemical Facility Safety and Security Working Group set up by *EO 13650 on Improving Chemical Facility Safety and Security.*

Finally, there are councils and other organizations that can include a public-private partnership or fulfill a coordinating role (like an LEPC). These range from initiatives at the federal level, like the Chemical Sector Coordinating Council, to state-level organizations like the Texas Emergency Management Advisory Committee (TEMAC), which incorporates several councils, working groups, advisory groups and committees. Organizations like these fulfill many roles depending on their mandate, including offering advice, recommendations for legislation or organization change, regulatory input, agency oversight, or intra or inter-governmental coordination.

Finally, the organization of the USC, CFR and TGC breaks down into components known as titles, parts, chapters, subchapters, and sections or rules. For example, the Texas Administrative Code, Title 16, Part 1, Chapter 9, Subchapter A, Rule 36 is the rule requiring reports related to liquid propane gas (LPG) incidents or accidents in Texas. To avoid having to cite all of that information every time it is referenced, legal citations typically include only the title and the symbol "§" followed by the chapter and/or section/rule. Thus, the report of an LPG incident/accident rule is 16 TAC §9.36, or the list of LPG safety rules, Chapter 9 of the code, is 16 TAC §9. Many publications, including this one, choose to drop the § symbol. Some legal citations also use the Latin *abbreviation et seq*, meaning "and what follows," which just means the remainder of the section referenced in the citation.

A Brief History of LEPCs and Chemical Safety

Congress and the Texas Legislature changed the role of LEPCs and created the modern emergency and disaster management system after the passage of EPCRA. The most notable change was the passage of the Stafford Act in 1988. That act created the current system of federal, state and local emergency assistance and cooperation; established FEMA as the lead federal agency for disaster relief; and required local, state and federal emergency planning and preparedness. The Stafford Act, as amended, especially by the Post-Katrina Emergency Management Reform Act of 2006 (Public Law [PL] 109-295) and presidential executive action, did not specifically address the role of LEPCs.

Until quite recently, especially in Texas and other states where other officials (not the LEPC) have planning responsibility, the LEPC planning role envisioned in EPCRA turned into more of a planning review role in most jurisdictions. LEPCs continued to

hold an advisory role (the third responsibility above).[3] Planning, under the Stafford Act and the Texas Disaster Act (4 TGC § 418), was the responsibility of the Texas DPS-TDEM at the state level and emergency management coordinators at the local level, operating under the authority of the governor and county judges/mayors, respectively.

This legislation created a "dual track" system of emergency management, planning, and coordination. Congress and the Texas Legislature never fully reconciled the two structures. LEPCs and the State Emergency Response Committee (SERC) exist outside the formal structure of the Stafford Act and the Texas Disaster Act, though they overlap in many areas.

While the Stafford Act and federal and state policy all stressed the importance of all-hazards planning, EPCRA focused only on the threat posed by hazardous substances, specifically the threats from certain chemicals above defined threshold amounts. EPCRA only regulates chemicals defined by the act, and in the Occupational Safety and Health Act (OSHA), the Safe Drinking Water Act, and their corresponding regulations.

This narrower definition may have played a role in the disaster in West, Texas, as ammonium nitrate fell under a different regulatory regime, and a lack of oversight and emergency planning contributed to the disaster. Multiple state and federal regulatory agencies regulate different chemicals and hazardous substances, including ammonium nitrate and crude oil. Many substances fall under overlapping and different requirements. These differing regulatory regimes and legislative requirements may not include reporting or require coordination with local emergency management agencies or LEPCs, as was the case in West.

Because LEPCs focused originally on emergency planning for chemical hazards, some jurisdictions without large concentrations of chemical-related industry allowed their LEPCs to become functionally inactive and stop meeting, despite their legal obligation to maintain them. Consequently, it is not unusual to find jurisdictions in the U.S. where an LEPC exists in name only and the emergency management coordinator and the county judge or other elected official are the only "members." Studies conducted in the 1990s and early 2000s found that the number of "compliant/non-compliant" and "active/inactive" LEPCs varied. The bad news was that the overall compliance/activity trend was downward and the number of inactive LEPCs in 2000 was already at 40.9 percent of the total nationwide.[4]

The events of 9/11 resulted in changes. Following the attacks, EPA issued directives to LEPCs nationwide to incorporate homeland security planning into their emergency plans. By 2008 EPA's nationwide survey of LEPCs found that 77.5 percent of responding LEPCs incorporated homeland security into their emergency response plans, though that survey only looked at self-selected "active LEPCs."[5] The same survey also found that many active LEPCs moved away from a chemical hazard focus to an all-hazards approach after 9/11.

Additionally, many jurisdictions experienced fewer public requests for information under EPCRA than originally envisioned, which meant that the community right-to-

know provisions were seldom, if ever, exercised in these places. Some jurisdictions did publish information online during the latter half of the 1990s, until the 9/11 attacks changed perspectives on that practice. The trend since 9/11 is to make information access more difficult or the procedure to request information ambiguous, offering some protection from terrorism threats by requiring individuals who wish to obtain information under the act to apply in person with officials, while not violating the public's right to know under the law.[6]

Likewise, some jurisdictions restrict access to information by proximity to the facility, requiring proof of residence to obtain information. EPA and the state of Texas have yet to issue final guidelines in this regard, though EPA is reviewing the situation and may issue guidance soon, and the Office of the Attorney General of Texas issued guidance related to public records that may apply to some information covered under EPCRA.

The fact that most citizens are not aware of their local LEPC or the fact they can request information from it may also relate to the limited number of information requests for EPCRA-related information by the public . A study conducted in 2000 reported that, in communities with LEPCs, only 29 percent of survey respondents claimed familiarity with an LEPC, and of those, only 58 percent were able to explain correctly what an LEPC does.[7]

This lack of community familiarity with LEPCs is neither the intent nor the exact meaning of the law when it was passed in 1986. Fortunately, things have changed since 2013 for many jurisdictions. Unfortunately, many of these changes were in response to a major chemical disaster in Texas.

The 2013 industrial disaster in West, Texas that killed 15 people, injured hundreds, and caused severe damage to the community, exposed gaps in both the federal and state system of emergency planning, chemical regulation and reporting. This disaster led to significant changes, much as the attacks of 9/11 and Hurricane Katrina led to many changes in emergency and disaster management and response.

Many of these changes at the federal level were the result of EO 13650, Improving Chemical Facility Safety and Security, issued on August 1, 2013.[8] The order was created the Chemical Facility Safety and Security Working Group. That group implemented the order and developed a plan to support and further enable state regulators; state, local and tribal emergency responders; chemical facility owners and operators, and local and tribal communities to work together to improve chemical facility safety and security.

EO 13650 set four major goals, among other tasks:

- Improve operational coordination with state and local partner.
- Enhance federal agency coordination and information sharing.
- Modernize policies, regulations and standards.
- Work with stakeholders to identify best practices.

EO 13650 changed the way the federal government operated and shared information. Agencies and the federal government also changed their guidance and regulations related to LEPCs. Multiple federal agencies, commissions, departments, regulations and programs participated in the working group process. Primarily, the order affected the following agencies and pre-existing programs:

Environmental Protection Agency

Risk Management Program

- Established under the Clean Air Act.
- Requires owners and operators of a facility that manufactures, uses, stores or otherwise handles certain listed flammable and toxic substances to develop a risk management program that includes hazard assessment, prevention mechanisms and emergency response measures.
- Requires facilities to submit a Risk Management Plan (RMP) to EPA.

Emergency Planning and Community Right to Know Act

- Requires facilities with extremely hazardous chemicals to notify the SERC or TERC and LEPC of releases.
- Requires facilities to participate in local emergency planning activities.
- Makes LEPCs responsible for developing community emergency response plans.

Department of Labor/Occupational Safety and Health Administration)

Process Safety Management (PSM) standard

- Sets requirements for the management of highly hazardous substances to prevent and mitigate the catastrophic releases of flammable, explosive, reactive and toxic chemicals that may endanger workers.
- Covers the manufacturing of explosives and processes involving threshold quantities of flammable liquids and flammable gases, as well as 137 other highly hazardous chemicals.

2011 Chemical Plant National Emphasis Program

- Conducts focused inspections at randomly-selected facilities among worksites likely to have highly hazardous chemicals in quantities covered by PSM standards.

Department of Homeland Security/National Protection and Programs Directorate

Chemical Facility Anti-Terrorism Standards (CFATS)

- Provides regulatory authority for the security of chemicals at stationary facilities.
- Requires facilities to develop and implement security plans that meet 18 risk-based performance standards.

DHS/U.S. Coast Guard

- Responsible for maritime security under the Maritime Transportation Security

Act (MTSA), including authority over certain port facilities that use, store, or transport chemicals or engage in other chemical-related activities
- Staffs the National Response Center, the designated federal point of contact for reporting all oil, chemical, radiological, biological and etiological discharges into the environment, anywhere in the U.S. and its territories, as well as security reports related to MTSA.
- Co-chairs (with EPA) the National Response Team.

Department of Justice/Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)

- Enforces federal explosives laws including licensing, storage, record-keeping and conduct of business related to the commerce in explosives.
- Conducts inspections of federal explosives licensees who manufacture, import, sell or store explosives.

Changes within the federal government and proposals for regulatory and legislative changes produced by the working group established by EO appeared in a final report to the president on May 2014; EO 13650: Actions to Improve Chemical Facility Safety and Security–A Shared Commitment, Report for the President.[9]

In addition to immediate changes related to information sharing and collaboration at the federal level, several regulatory changes came out of the final report. Of principal interest to LEPCs are the proposed Final Amendments to the Risk Management Program (RMP) Rule administered by EPA under the Clean Air Act.[10]

On January 13, 2017, after a three-year process of consultation, the EPA published the amended RMP Final Rule in the Federal Register, due to take effect on June 19, 2017. Following the receipt of petitions, including one that included the State of Texas as a petitioner, the new EPA executive administration delayed the RMP Rule implementation and proposed a new rule that removed many of the requirements in the rule created by the previous presidential administration following EO 13650.

The DC Circuit Court of Appeals in *Air Alliance Houston, Et Al. v. EPA*, August 17, 2018, found that the EPA violated administrative procedure and exceeded its rulemaking authority in the process of issuing the delay and vacated it. In September 2018, the Court of Appeals required the EPA to implement the January 2017 rule. On December 3, 2018, the EPA published a rule in the federal register complying with the court order. A more regular process by EPA to amend the rule again and remove many of its requirements is ongoing. Until that process completes, the January 13, 2017 rule is the law.

The December 3, 2018 rule in the Federal Register reimplements the rule published on January 13, 2017.[11] It is important to note: *several compliance dates in the original January 2017 rule passed prior to the court ruling and are now enforceable.*[12] For a complete discussion of the Final Amendments to the Risk Management Program Rule, see Module 4 of this guide and the rule published on January 13, 2017 in Federal Register, Volume 82, Number 9.[13]

OSHA also proposed changes to the Process Safety Management standard and issued new policies.[14] In 2013, OSHA and EPA jointly produced a guide for LEPCs, How to Better Prepare Your Community for a Chemical Emergency: A Guide for State, Tribal and Local Agencies.[15] Additionally, OSHA formed the Fertilizer Safety and Health Partners Alliance with the fertilizer industry, emergency response organizations and other agencies to offer guidance and training resources to better protect the health, safety and security of chemical facility work.

The Protecting and Security Chemical Facilities from Terrorist Attacks Act was signed into law in 2014, providing multi-year funding to the CFATS program. Additionally, DHS solicited information on updates to CFATS in preparation for additional rule-making.

BATF proposed new rules related to the federal explosives regulations that would change the reporting requirements for explosives licensees and permittees. Requirements for notification of local fire departments would change from an initial notification when commencing storage to annual notification.

The working group established under EO 136509 issued Chemical Advisory: Safe Storage, Handling, and Management of Ammonium Nitrate in June, 2015.[16] EPA, OSHA and ATF also enhanced and upgraded the Computer-Aided Management of Emergency Operations (CAMEO) applications used in many jurisdictions, provided free of charge by EPA. These enhancements included updates to the Substance Registry System including substances covered by the OSHA PSM standards and regulations and the ATF List of Explosive Materials.

In September 2015, the Texas Legislature changed the management of the Tier II reporting system in Texas. House Bill (HB) 942 transferred the responsibility for Tier II compliance (under EPCRA) from DSHS to TCEQ.[17] Additionally, the bill modified the Agriculture Code related to ammonium nitrate storage facilities, affecting rules related to inspection and compliance and requiring such facilities to register and report under the Tier II reporting system.[18]

Due to Hurricane Harvey, TCEQ delayed implementation of its new Tier II online reporting system. As of 2019 the new system, known as the State of Texas Environmental Electronic Reporting System (STEERS) is online. STEERS replaced the EPA's Tier2 Submit software and is now the only method for submitting Tier II reports in Texas. TCEQ maintains a resources page for LEPCs and fire departments as part of its Tier II Program page.[19] That page usually has the latest updates on reporting regulations regarding Tier II and related requirements in Texas. Additionally, HB 942 set up a system for TCEQ to devote a portion of the Tier II filing fees it receives to an LEPC grant program used to fund LEPC projects related to EPCRA implementation.[20]

The Texas Attorney General also issued a ruling in February 2016, related to Tier II reports and the Texas Public Information Act (5 TGC § 552), following a request for clarification from TCEQ. This ruling allowed TCEQ to maintain confidentiality of some information related to the Tier II reporting system, without affecting other right-to-know legislation and regulations, including requests directly to a facility. The opinion issued by the Attorney General's Office provides a complete discussion of the ruling.[21] The TCEQ Laws and Regulations: Tier II Chemical Reporting page provides the latest information related to right to know and has links to relevant information.[22]

At the local level, following the West disaster, several municipalities also passed ordinances related to ammonium nitrate facilities. Several localities banned fertilizer-related facilities outright, primarily through changes in zoning or other

ordinances. LEPCs should be aware of any local or municipal rules related to these or other chemical facilities within their jurisdiction because these rules can vary.

Some local ordinances are also subject to litigation. In 2016, the Texas Supreme Court ruled that the Texas Clean Air Act and TWC preempted city of Houston air quality ordinances,originally passed in 2007. The ruling in BCCA Appeal Group, Inc. v. City of Houston may affect similar ordinances in other municipalities. [23] LEPCs should consult with TCEQ, local jurisdictions and legal counsel regarding issues related to local inspection and environmental ordinances.

In 2016, Congress passed the Frank R. Lautenberg Chemical Safety for the 21st Century Act, amending the Toxic Substances Control Act. [24] This broadened EPA regulatory authority in evaluating health risks for new and existing chemicals, established a new risk-based safety standard and provided a consistent source of funding for EPA to implement the law. Since implementation, EPA has issued a number of rules related to the act. [25]

In 2017, the U.S. Department of Health and Human Services final rule Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers went into effect. [26] This rule requires facilities regulated under the rule to perform risk assessments and establish all-hazards EOPs and emergency management and response policies and procedures that support the plan, as well as an emergency preparedness communication plan in accordance with FEMA guidance. Additionally, the rule requires facilities to develop and maintain an emergency preparedness training and testing program that includes drills and exercises.

New legislation passed in 2018 affected water system emergency planning and their management of risk and resilience to incidents and disaster that also grants them access to facility Tier II reports. [27] Among other requirements the law requires community water systems to prepare or revise an emergency response plan incorporating the findings of an assessment and coordinate their plan with their LEPC. For more information regarding these changes, see America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans on the Environmental Protection Agency (EPA) website and the relevant sections of the U.S. Code. [28]

Under new regulation implemented on February 28, 2019 as part of the Fixing America's Surface Transportation (FAST) Act, railways carrying high hazard flammables above certain thresholds must create new emergency plans and coordinate those plans with local communities. For more information on these new requirements see the Federal Register (84 FR 6910).

Since 2017, the executive branch began attempting to roll back or change many environmental-related regulations implemented by the previous presidential administration, including some of those resulting from EO 13650. These changes had the greatest impact on regulations under EPA authority, particularly the RMP Rule amendments. This trend may continue. Congress and several regulatory agencies also created new laws or regulations related to chemical safety and emergency planning that directly affect LEPCs, some while this document was being written. Consequently, LEPCs should closely monitor federal regulatory

announcements related to chemical safety regulations as they remain in a near constant state of change.

Hazardous Materials, Waste and Pollution Control

Comprehensive Environmental Response, Compensation, and Liability Act

Also known as the Superfund legislation, CERCLA establishes regulatory control over abandoned hazardous waste sites and their remediation (42 USC 9601 et seq.). It set up the superfund to pay for sites where the responsible party is unable to pay for cleanup or is no longer in business. Full regulations (as amended by EPCRA) are at 40 CFR 305 et seq.

Texas Solid Waste Disposal Act

The Texas Solid Waste Disposal Act (5 THSC §361) contains the regulatory authority and duties of TCEQ in administering and controlling hazardous waste disposal in Texas. It includes sections related to responses to abandoned sites and Superfund/CERCLA-related remediation operations and the Texas state Superfund. Regulations are at 30 TAC §335.

Texas Environmental Health Institute

5 THSC §427 sets up the Texas Environmental Health Institute, which oversees the statewide plan to identify health conditions related or potentially related to environmental contamination of populations who live or have lived in areas immediately surrounding a federal or state superfund site.

Texas Environmental Health Institute Homepage

The Texas Environmental Health Institute homepage includes links to projects funded by the institute, the history of the institute, project submission information and progress reports related to the institute's activities.

Alphabetical Index of Superfund Sites in Texas

TCEQ maintains a list of all superfund sites in Texas, active and remediated.

Superfund Site Discovery and Assessment Program

This program explains the process for the TCEQ Remediation Division to assess of potential state or federal superfund sites and associated rules, procedures and related programs to aid local communities in finding and assessing potential superfund sites for remediation.

Emergency Planning and Community Right-to-Know Act

This act establishes LEPCs, State Emergency Response Commissions (SERCs)/Tribal Emergency Response Commissions (TERCs), community right-to-know laws and the Tier II reporting system (42 USC §11001 et seq.). EPCRA is also known as Title III of the Superfund Amendments and Reauthorization Act (SARA Title III), and grants

regulatory authority to EPA. Full regulations can be found at 40 CFR Part 300 et seq.

The act requires an annual hazardous chemical inventory (Tier II report) for all chemicals whose peak storage amount is greater than 500 pounds or the threshold planning quantity for extremely hazardous substances (EHSs) or 10,000 pounds of any hazardous chemicals not included on the EHS list or otherwise exempt. Facilities report these types of chemicals to the SERC, the LEPC and local fire departments.[29] Facilities are subject to compliance inspections and administrative penalties.

Texas Health and Safety Code Chapter 505 Manufacturing Facility Community Right-to-Know Act

6 THSC §505 contains the Texas community right-to-know law for facilities with standard industrial classification (SIC) Codes 2011 through 3999. In Texas, facilities file Tier II reports to TCEQ, who acts on behalf of the SERC and shares them with local fire departments and LEPCs. Upon request, facilities must give a list of any hazardous material on site, including the amount, to the fire chief or LEPC and give a Safety Data Sheet for any hazardous chemical on their site (regardless of the amount) to TCEQ, fire departments or an LEPC representative. Facilities are subject to compliance inspections and administrative penalties, and communities can file civil suits under the act against non-compliant facilities.

Texas Public Employer Community Right-to-Know Act

6 THSC §506 contains the Texas community right-to-know law for facilities run by city, county and state agencies, public schools, colleges and universities, tax-supported hospitals, river authorities, volunteer emergency service organizations and agencies created by state law with SIC Codes 8011 through 9999. This law also applies to water supply and water treatment facilities (SIC Code 4941) run by local government agencies. SDS, compliance with information requests, Tier II reporting and compliance procedures apply.

Texas Non-Manufacturing Facility Community Right-to-Know Act

6 THSC §507 contains the Texas community right-to-know law for facilities not covered by Chapter 505 or 506 of the act. SDS, compliance with information requests, Tier II reporting and compliance procedures apply.

Hazardous Chemical Right-to-Know Regulations (all)

25 TAC §295 contains the regulations associated with the Texas Community Right-to-Know Acts listed above.

Personal Liability Exemption of LEPC Members

4 TGC 418.174 exempts members of LEPCs from legal liability for actions carried out during their duties as an LEPC member.

Local Emergency Planning Committees and Fire Departments for Tier II Filers

TCEQ's contact list page for fire departments and LEPCs in Texas contains information for fire departments and LEPCs on how to obtain Tier II information from TCEQ and update their contact information. The site also offers EPA guidance for LEPCs, DPS-TDEM guidance and LEPC grant program links.

TCEQ Tier II Chemical Reporting

TCEQ homepage for the Tier II reporting system contains links that explain its operation, requirements and relation to LEPCs, as well as related training on the system.

Spills, Discharges and Releases

This website explains the process for reporting an environmental emergency, discharge, spill or air release, with links to rules, laws, technical assistance, waste management and SERC.

EPA EPCRA Guidance

This homepage has links to all information related to EPCRA on the EPA website.

EPA LEPC Guidance

This EPA website holds links to guidance and information for LEPCs.

EPA Region 6 - Regional Response Team

The homepage for the Regional Response Team for EPA Region 6–Texas and all the states that border Texas–publishes the Region 6 LEPC Handbook and develops and maintains the Regional Contingency Plan. The website has links to guidance and a variety of EPCRA-related documents of interest to LEPCs.

DPS-TDEM Technological Hazards Unit

The DPS-TDEM Technological Hazards Unit administers the Hazardous Materials Emergency Preparedness (HMEP) Grant Program for LEPCs, manages the states coordination with Pantex and the Waste Isolation Pilot Plant (WEPP) and manages the state's Radiological Emergency Preparedness Program.

Clean Air Act

The Clean Air Act establishes regulatory control over air quality in the U.S. (42 USC §7401 et seq.). It establishes air quality standards, emitter-permitting process, and air protection standards. Full regulations are available at 40 CFR §50 et seq.

Texas Clean Air Act

5 THSC §382 establishes TCEQ authority to regulate and control the quality of air in Texas. Regulations are found at 30 TAC §101 to §122.

EPA Risk Management Plan Rule Section 112(r)

Public Law 101-549 §112(r) of the Clean Air Act Amendments of 1990 authorizes EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance fall under the Risk

Management Plan (RMP) rule in the 40 CFR §68, issued by EPA. The EPA Section 112(r) website (see below) outlines the current rule and the procedures and contents of an RMP, as well as links to related guidance, training and submission systems. Current regulations under Section 112(r) are at 40 CFR §68.

Final Amendments to the Risk Management Program Rule

After a three-year process of consultation, significant changes to the RMP rule were to take effect on June 19, 2017. The outgoing EPA administration published the final rule in the federal register in January 2017, prior to the change of Presidential administrations. Following the receipt of petitions, including one with the State of Texas as a petitioner, the incoming EPA administrator delayed rule implementation from June 2017 until February 2019. The new EPA administration also proposed an updated version of the amendments that removed many of the requirements of the original. On August 17, 2018, the DC Circuit Court of Appeals struck down the EPA delay, and in September 2018 ordered EPA to implement the previous administration's amendments, while leaving open the possibility for EPA to make changes to those amendments, but through the regular process, which will not complete before 2020 and the next presidential election.

EPA published a rule incorporating the original January 2017 amendments into the Code of Federal Regulations (40 CFR Part 68) on December 3, 2018. See the EPA's RMP Delay Rule Vacatur page and the Final Amendments to the Risk Management Program (RMP) Rule page for more information.[30] The December and January rules are the current regulation and several compliance dates within the rule passed before publication, meaning they are now enforceable. See Module 4 of this guide for a more complete discussion.

TCEQ Rules and Rulemaking

This webpage is the homepage for all rules and rulemaking activities of TCEQ. It includes rules related to CERCLA, EPCRA, Clean Air Act, Clean Water Act and Solid Waste Act.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) establishes regulatory control over the transportation of hazardous materials in the U.S. (49 USC §5101 et seq.) by rail, air, water and highway. Regulations can be found at 49 CFR §171 et seq.

Texas Transportation Code–Hazardous Materials

5 TTC §193 requires railroad companies transporting hazardous materials in or through Texas to file hazardous materials incident reports within 15 days. Railroad companies must file a report annually with the Texas Department of Transportation (TxDOT) that includes a map of their lines, geographical limits of their operating divisions/districts and contact information for each. Railroad companies must also annually file with TxDOT a list of each type of hazardous material by hazard class and quantity of the material transported over the company's lines, and the point of contact for a company employee in charge of hazardous materials incident response training. Under the law, once a year, DPS-TDEM distributes the compiled

information to local officials for inclusion in local emergency plans developed in accordance with 4 TGC §418.

Texas Department of Transportation Non-Radioactive Hazmat Routes

TxDOT publishes a list of all non-radioactive hazmat routes in Texas.
U.S. Department of Transportation, Federal Railroad Administration, Hazardous Materials Division

The Federal Railroad Administration, Hazardous Materials Division administers a safety program that regulates the movement of hazardous materials and related dangerous goods in the U.S.. It does so primarily through regulation, specifically in 49 CFR §171 to 174 and 178 to 180. The division also oversees the Hazardous Materials Incident Reduction Program and the Spent Nuclear Fuel and High-Level Nuclear Waste Programs, conducted in coordination with the Nuclear Regulatory Commission.

Transportation of Spent Nuclear Fuel

This U.S. Nuclear Regulatory Commission (NRC) website discusses how to regulate the transportation of spent nuclear fuel.

Waste Isolation Pilot Plant Shipments

DPS-TDEM coordinates with TxDOT and the Department of Energy (DoE) on the shipment of transuranic waste through Texas. LEPCs along transportation routes can coordinate with DPS-TDEM Technological Hazards Unit, which oversees this program, and the Radiological Emergency Preparedness Program in Texas. See also http://www.wipp.energy.gov.

Public Guidance for Managing Hazardous Material Transportation in Texas

Several changes to federal regulations and laws following September 11, 2011, as well as legislation passed by the Texas Legislature following hazardous materials transportation accidents in populated areas of Texas, led to a renewed focus on hazardous materials transportation routes, especially in densely populated urban zones. In 2009, a study by the Texas A&M Transportation Institute examined these changes and produced this guide for local officials.

Fixing America's Surface Transportation (FAST) Act

Among other changes, the FAST Act (PL 114-94) Title VII made changes to the Hazardous Materials Preparedness program and created new regulatory requirements related to improving the safety of flammable liquid transportation by rail, overseen by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). The FAST Act includes the Hazardous Materials Transportation Safety Improvement Act of 2015 (PL 114-94, sections 7001 through 7311) and instructs the Secretary of Transportation to make specific regulatory amendments to the Hazardous Materials Regulations (49 CFR parts 171-180).

On February 28, 2019, PHMSA issued a final rule under FAST ACT authority.[31] The new rule requires railroads transporting high-hazard flammable above a certain

threshold to develop comprehensive oil-spill response plans (COSRPs) and share information regarding the transportation of these high-hazard flammables with State and Tribal Emergency Response Commissions (SERCs/TERCs).[32]

The specifics requirements of the HHFT rule will be in 49 CFR 130 when updated.[33] At the time of publication, the changes to federal regulation were in 84 FR 6910 published February 28, 2019, effective April 1, 2019.[34] PHMSA posts additional information to its Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains webpage.[35]

Texas Code may require legislative amendments and/or additional rulemaking at the state level to implement the new rules. As of publication of this document, the state had not acted on the new requirements and no corresponding information on the state implementation was available.

Clean Water Act

The Clean Water Act establishes regulatory control over the chemical, physical and biological integrity of surface waters in the U.S. (33 USC 1251-1387). It was amended by the Oil Pollution Act (33 USC 2701 et seq.), which established prevention, preparedness and response programs for oil spills at non-transportation-related facilities. Full regulations are available at 40 CFR §100 to 135, 40 CFR §136 to 149, 40 CFR §401 to 424, 40 CFR §425 to 471**,** and 40 CFR §500 to 503. U.S. Army Corps of Engineers' regulations related to discharge permits for dredge and fill material into the waters of the U.S. are at 33 CFR 323.

Texas Water Code–TCEQ

2 TWC §5 authorizes TCEQ to control and regulate water quality in Texas. Full regulations are available at 30 TAC §205 to §321.

Texas Water Code

This code covers all aspects related to the regulation of water and water quality in Texas.

Texas Water Quality Standards

This EPA webpage provides a useful list of water quality standards in effect under the Clean Water Act.

TCEQ Water Program

This webpage provides links to all TCEQ water-related programs, regulations and guidance.

Executive Order 12856: Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements

This webpage contains the 1993 EO, still in effect, that applied portions of EPCRA, CERCLA and other laws to the federal government and its departments, agencies and administrative organizations. EPA provides an EPRCA and Federal Facilities

website that contains additional information regarding federal agency compliance with EPCRA.

EPA Questions and Answers Guidance on EO 12856

This 1995 document outlines the implementation of EO 12856 and offers guidance on how to comply through a series of questions and answers.

Department of Defense Policy Regarding EPCRA Compliance

The DoD Environment, Safety, and Occupational Health Network and Information Exchange website has links to current DoD policy regarding EPCRA and other environmental and safety compliance regulations.[36] The 2006 policy implementing DoD EPCRA compliance is on the site.

Occupational Safety and Health Act

29 USC §651 et seq. establishes OSHA regulatory control over occupational health and safety in both the private sector (by the act) and the federal government (by EO 12196 and regulations contained in 29 CFR §1960). It defines hazardous materials, requires safety data sheets for hazardous materials and sets the hazard communication standard for all regulated entities. It also sets out requirements for hazmat operations, training and response. Full regulations are at 29 CFR 1910.

The Occupational Safety and Health Act does not apply to Texas state or local governments, but some state laws implement similar provisions for governments (see below). The Act also applies to contractors to state and local governments (as private-sector entities). The Act applies to all private employers, non-governmental organizations and non-profits, and most non-military elements of the federal government, as defined under Executive Order 12196.

Note: It is a common misunderstanding/statement in state and local government that Texas is "not an OSHA state." While technically true (in a legal sense) for state and local government employees, the act applies to the private sector as noted above and public employees still fall under state law (see below), which in some ways is more stringent than the federal law.

Texas Health and Safety Code–Hazardous Substances

6 THSC §501 defines hazardous materials under Texas law and contains regulatory authority for the DSHS to regulate flammability standards, ban hazardous substances and establish labeling and packing requirements. DSHS rulemaking authority must conform with regulations under federal statute, including the Hazardous Substances Act (15 USC 1261), the Consumer Product Safety Act (15 USC 2051), the Flammable Fabrics Act (15 USC 1191) and the Poison Prevention Packaging Act (15 USC 1471).

Texas Hazard Communication Act

6 THSC §502 establishes regulatory authority for DSHS to regulate the hazard communication standards for Texas as they apply to public employers. OSHA standards apply to private-sector employers and covers lists of chemicals and

SDSs. **Note:** Texas hazard communications laws are stricter than some OSHA requirements. Full regulations are at 25 TAC §295.

National Fire Protection Association

The National Fire Protection Association (NFPA) is a non-profit organization set up in 1896. Originally focused on fire and electrical standards (including the National Electrical Code), it also prepares standards related to hazardous materials, training and emergency services. Some state and local laws, codes and regulations cite NFPA standards and codes, giving them the force of law. Some labor contracts may also reference the standards.

Standards related to hazardous materials include the Hazardous Materials Code (NFPA 400); Recommend Practice for Responding to Hazardous Materials Incidents (NFPA 471); Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents (NFPA 472); NFPA 473; and Recommended Practice for Organizing, Managing, and Sustaining a Hazardous Materials/Weapons of Mass Destruction Response Program (NFPA 475).

Texas Commission on Fire Protection Standards Manual

The Texas Commission on Fire Protection (TCFP) certifies regulated fire fighters and fire fighter training facilities in Texas and issues higher level certifications, including those for hazardous material responders. TCFP, under its rulemaking authority (4 TGC §419), cites NFPA 471 for Hazardous Materials Technicians and Incident Commanders in 37 TAC §453 for Texas firefighters. State agencies may voluntarily submit to commission regulation.

Executive Order 12196: Occupational Safety and Health Programs for Federal Employees

In 1980, President Reagan signed EO 12196, requiring federal agencies (with the exemption of non-civilian aspects of the military) to follow many of the provisions of OSHA of 1970, as amended.

Toxic Substances Control Act

15 USC §2601 et seq. establishes regulatory control over industrial chemicals in the U.S. Under the Toxic Substances Control Act (TSCA), EPA evaluates the risk posed by chemicals and has authority to limit, restrict or ban their trade and importation. EPA also sets acute exposure guideline levels for airborne chemicals (AEGLs) under the act. EPA has a website, ChemView, that gives access to health and safety data on chemicals registered under the TSCA.

Texas Health Risk Assessment Act

The Texas Health Risk Assessment Act (6 THSC §503) establishes the Toxic Substances Coordinating Committee and assigns it the responsibility for developing health risk assessments to DSHS and developing an information management system related to the use of toxic substances and harmful physical agents. Regulations are at 25 TAC §1000. The Toxic Substances Coordinating Committee coordinates regulation development, health risk assessments, cooperative studies,

information dissemination and public education efforts among member agencies concerning each state agency's efforts to regulate toxic substances and harmful physical agents. Notifiable Conditions Reporting Rules related to the act are at https://www.dshs.texas.gov/epitox/Notifiable-Conditions---Reporting-Rules.doc.

EPA Guidance to Regulation under the Toxic Substances Control Act

The Frank R. Lautenberg Chemical Safety for the 21st Century Act updates the TSCA. EPA released some guidance in December 2017 related to these changes; additional information is available at the above hyperlink.

DSHS Health Assessment and Toxicology Program

The DSHS Health Assessment and Toxicology program is the public health program that deals primarily with hazardous waste issues. The Texas Health Risk Assessment Act charges the department with assessing the potential adverse health effects that exposure to toxic substances or harmful physical agents may have on people. Under this program, the department coordinates with EPA, TCEQ and the Center for Disease Control's Agency for Toxic Substances and Disease Registry (ATSDR) to assess the public health impacts of hazardous waste sites (including superfund sites in Texas) and chemical spills through public health assessments and health consultations.

Oil Pollution Act

The Oil Pollution Act of 1990 (33 USC §2701 et seq.), passed in the wake of the Exxon Valdez disaster, streamlines the regulatory authority for EPA and the U.S. Coast Guard (USCG) to regulate and respond to oil spills from vessels and facilities in the U.S. and streamlined the legislation and legal requirements previously under other legislation. Under the act, EPA regulates and responds to spills on land, and USCG licenses oil-carrying vessels and responds to spills in, or threatening, navigable waters. The act sets up an oil spill response trust fund that works like the superfund under CERCLA/EPCRA. The act requires response plans from transport vessels (submitted to the Coast Guard) and oil storage facilities (submitted to EPA). The law also requires Area Contingency Plans for responses on a regional scale. Full regulations are at 40 CFR 109 to 113. Facility Response Plans fall under Section 112 of the Clean Water Act (see above).

Texas Oil Spill Prevention and Response Act

The Texas Oil Spill Prevention and Response Act (2 TNRC §40) establishes the regulatory responsibilities for various state agencies involved in preventing and responding to oil spills. Regulations are at 31 TAC §19. Related code follows.

Conservation and Regulation of Oil and Gas

3 TNRC §85 includes regulatory authority for General Land Office response to oil spills in Texas coastal waters. Regulations are at 31 TAC §1 to 25.

Railroad Commission Authorities and Responsibilities

3 TNRC §91 includes regulatory authority for the Texas Railroad Commission (RRC) over oil and gas exploration and extraction and its transportation through pipelines; it also includes procedures for spill response. Regulations are at 16 TAC §1, §3, §4, §8 and §18.

Texas General Land Office Oil Spill Page

The General Land Office (GLO) website contains this webpage related to its spill program, as administered under the Texas Oil Spill Prevention and Response Act. Under the act, GLO responds to and regulates all oil spills that enter or threaten to enter coastal waters in coordination with the U.S.USCG.

TCEQ Spills, Discharges and Releases

This general page discusses TCEQ responsibilities related to discharges, spills or air releases. TCEQ is the state's lead agency in spill response. TCEP responds to and regulates oil spills on land from pipelines carrying refined products and spills involving crude oil transported over the roadway.

Railroad Commission of Texas Accident and Incident Reporting

The RRC is the state's lead agency for most oil spills not in coastal waters or not the responsibility of TCEQ. Jurisdiction includes all spills resulting from the exploration, development, production, storage or pipeline transportation of oil, gas and geo-thermal resources except for refined product spills from pipelines or crude oil spilled during transport by road (which are the responsibility of TCEQ).

Pollution Prevention Act

This act establishes national policy and regulation over pollution prevention and reduction at the source whenever possible (42 USC 13101 et seq.) The Toxics Release Inventory (TRI) covers expanded releases. EPA did not issue specific regulations associated with the act, but several EOs by Presidents Bush (43) and Obama relate to the act. EO 13693, Planning for Federal Sustainability in the Next Decade, is the only order currently in effect because it revokes all earlier orders.

Texas Emissions Reduction Plan

The Texas Emissions Reduction Plan (TERP) (5 THSC §386) provides "financial incentives to eligible individuals, businesses, or local governments to reduce emissions from polluting vehicles and equipment." Senate Bill 1731, which the 85th Texas Legislature enacted, amended the plan. That led to several proposed rule changes by TCEQ (see Executive Summary). The complete code is at 5 THSC §386 to §394. The related code is 5 THSC §384 to §385.

Surface Mining Control and Reclamation Act

This act establishes regulatory control over the environmental effects related to coal mining in the U.S. (30 USC 1201 to 1328). It covers active coal mines and abandoned mine lands and sets up environmental standards, permitting, inspection and enforcement and the Abandoned Mine Land Reclamation Fund, which pays for

cleanup association with abandoned mine sites. Full regulations are available at 30 CFR 700 et seq.

Texas Surface Coal Mining and Reclamation Act

This Texas law (4 TNRC §134), implements the Federal Surface Mining and Reclamation Act Section 503, which allows states to assume exclusive jurisdiction over the regulation of surface coal mining and reclamation operation in their state.

National Environmental Policy Act

This act establishes a national environment policy and sets up national goals for the protection, maintenance and enhancement of the environment (42 USC 4321 et seq.). It establishes the President's Council on Environmental Quality and orders federal agencies to establish procedures for evaluating and reducing their environmental impact. Full regulations are located at 40 CFR 1500 et seq.

Federal Insecticide, Fungicide, and Rodenticide Act

This act establishes regulatory control over the sale, distribution and use of pesticides in the U.S. (7 USC §136). Regulatory authority granted to EPA at the federal level (40 CFR §150 et seq.) does *not* fully pre-empt state, tribal or local pesticide law or regulation.

Texas Agriculture Code–Pesticide and Herbicide Regulation

5 TAGC §76 grants authority to the Texas Department of Agriculture (TDA)to regulate pesticides and herbicides in Texas. 4 TAC §7 et seq. contains TDA rules and regulations related to pesticides and herbicides.

Texas Department of Agriculture Pesticide Publications

This webpage lists publications by the TDA related to pesticides and includes guidance on state and federal regulations.

Texas Regulated Herbicides

This webpage discusses Texas-regulated herbicides and categorizes them by regulated herbicide counties.

Rodenticide Risk Mitigation

On this webpage, the TDA supplies guidance related to rodenticide risk mitigation, EPA regulations, and studies related to this topic.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) amends the Solid Waste Disposal Act of 1965 and establishes regulatory control over the management of waste (42 USC 6901 et seq.) The Hazardous and Solid Wastes Amendment Act further amended RCRA. Full regulations are available at 40 CFR 239 et seq. and cover nonhazardous waste, hazardous waste and underground storage tanks.

Texas Solid Waste Disposal Act

The Texas Solid Waste Disposal Act (5 THSC §361) lists the regulatory authority and TCEQ duties for administering and controlling hazardous waste disposal in Texas. Regulations are at 30 TAC §335. Hazardous waste and nonhazardous industrial waste permit rules are on the TCEQ IHW Rules page (see below).

EPA Guidance Documents for RCRA

This webpage contains policies and guidance related to RCRA state authorization.

RCRA Online

This online database indexes letters, memoranda, publications, and questions and answers issued by EPA Office of Resource Conservation and Recovery on past interpretations of RCRA regulations.

TCEQ Guidance for Industrial and Hazardous Waste Permits and Permit Holders

This webpage offers guidance and information related to permits for industrial and hazardous waste disposal and for existing permit holders.

Safe Drinking Water Act

This act establishes regulatory control over the protection of public drinking water supplies (42 USC 300(f) et seq.). It also establishes drinking water standards and

source water, wellhead and aquifer protection programs. Full regulations are available at 40 CFR 141 et seq.

Recent changes to the law modified Section 1433 of the Safe Drinking Water Act (42 USC 300i-2) and Section 312(e) of EPCRA (42 USC 11002(e)).[37] The law requires each community water system serving a population of 3,300 persons or more to assess the risks and resilience of their system across a range of criteria, to be completed according to a schedule in the law between 2020 and 2021 among other requirements. The law also modifies Section 312(e) of EPCRA at 42 USC 11022(e), granting community water systems access to Tier II reports and requiring the SERC or LEPCs to provide water systems with Tier II information, on request, to assist the water system in its emergency planning. For more information regarding these changes, see America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans on the Environmental Protection Agency (EPA) website and the relevant sections of the U.S. Code.[38]

Texas Water Quality Control

1 TWC §26 establishes regulatory authority and how the state controls water quality in Texas. Water quality regulations are located in many parts of the Texas Administrative Code, depending on the regulated activity and can be found in 30 TAC Environmental Quality (multiple chapters) and 31 TAC Part 1, Part 9, Part 10, Part 17 and Part 18, among others.

Texas Minimum Standards of Sanitation and Health Protection Measures

5 THSC §341 sets the regulatory authority and defines the minimum standards of sanitation and health protection measures for Texas, including those related to drinking water. TCEQ regulations for drinking water are at 30 TAC §290 Public Drinking Water.

TCEQ Rules and Guidance for Public Water Systems

This webpage lists the principal rules and related guidance for operators of public water systems in Texas.

EPA Drinking Water Regulations and Contaminants

This webpage lists the national primary drinking water regulations, drinking water contaminants and maximum contaminant levels, national secondary drinking water regulations and unregulated drinking water contaminants.

Executive Order 13650: Improving Chemical Facility Safety and Security

EO 13650 created the Chemical Facility Safety and Security Working Group. This group sought to improve chemical facility safety and security after the West disaster. Specifically, the EO sought to "improve federal and state coordination with local communities, increase federal agency coordination and information sharing, modernize policies, regulations, and standards, and work with stakeholders to identify best practices."

The working group proposed a series of regulatory changes, in addition to several changes at the federal level implemented by the EO, and many interest LEPCs. These included rule and proposed rule changes to the Risk Management Program of the Clean Air Act, the OSHA Process Safety Management Standard and Chemical Plan National Emphasis Program, as well as for Chemical Facility Anti-Terrorism Standards and handling procedures for ammonium nitrate prills. All of the working group's recommendations appeared in a May 2014 Report, Executive Order 13650: Actions to Improve Chemical Facility Safety and Security–A Shared Commitment: Report for the President.

EPA Webpage on EO 13650

This EPA webpage relates to EO 13650 and includes the latest updates on information related to the RMP rule and its delayed implementation.

DHS Chemical Security Webpage (EO 13650)

This Department of Homeland Security (DHS) webpage relates to EO 13650 and focuses on DHS chemical security programs.

OSHA Webpage on EO 13650

This OSHA webpage relates to EO 13650 and has links to more information and OSHA-related programs.

Emergency Management and Homeland Security

Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988

42 USC Chapter 68 Disaster Relief (42 USC §5121 et seq.), also known as the Stafford Act, sets up the current system of federal, state, tribal and local emergency assistance and cooperation in disasters and emergencies. It authorizes federal emergency technical, financial, logistical and other aid to states and localities. It sets up procedure for presidential disaster declarations and establishes FEMA) as the lead federal agency for coordinating disaster relief resources and aid to states. The act was a significant revision of the Disaster Relief Act of 1974 (Public Law 93-288) and was modified by the Post-Katrina Emergency Management Reform Act of 2006 (Public Law 109-295). Its most recent amendments were in 2016 (see FEMA 592, August 2016).

6 USC §2 National Emergency Management codifies the National Preparedness System and defines the National Disaster Recovery Strategy and the National Disaster Housing Strategy. It also defines specific emergency management capabilities, including evacuation preparedness technical assistance, the Urban Search and Rescue Response System, the Prepositioned Equipment Program and the Metropolitan Medical Response Grant Program. Other provisions include the Emergency Management Assistance Compact Grant Program, the Emergency Management Performance Grants Program and several pilot programs and other authorities related to public aid, location of separated family members and individuals with disabilities.

Texas Disaster Act

The Texas Disaster Act (4 TGC §418 Emergency Management) establishes the emergency management structure and procedures for Texas. Regulations related to the act are at 37 TAC §7. The act and its associated regulations appoint the mayor of each municipal corporation and the county judge of each county as the emergency management director for their respective jurisdictions. The mayor and county judge may each appoint an emergency management coordinator. The TAC also requires each political subdivision of the state to notify DPS-TDEM using TDEM Form 147 of its emergency management program and the person leading the program. The TAC requires each county and incorporated city in Texas to maintain an emergency management agency or take part in a local or interjurisdictional emergency management agency.

FEMA Public Assistance: Local, State, Tribal and Private Non-Profit

The FEMA Public Assistance (PA) grant program is the program through which FEMA administers public grants following a presidential disaster declaration. Federal aid under the program is not less than 75 percent of the eligible cost, while the state decides the non-federal share of the program and divides it among recipients. The PA website has links and information on the PA Program and its operation and procedures.

FEMA Deductible Supplemental Advanced Notice of Proposed Rulemaking

FEMA has proposed the creation of a PA deductible that allows FEMA to place conditions on reimbursement for the repair and/or replacement of public infrastructure damaged in a disaster. These conditions primarily focus on increasing the resilience of said infrastructure in future disasters. The proposed rule changes ended their public comment period in April 2017.

FEMA Public Assistance Delivery Model

As of September 12, 2017, FEMA has implemented an updated PA delivery model that streamlines and categorizes projects under the grant program. FEMA now uses the Grants Manager and Grants Portal Tool for projects and offers training and guidance on its use.

Community Recovery Management Toolkit

This webpage contains a FEMA compilation of "guidance, case studies, tools, and training to assist local communities in managing long-term recovery following a disaster." Includes lists of funding resources.

Texas Department of Public Safety - Division of Emergency Management

DPS-TDEM is the primary element of Texas government involved in emergency management. Their website hosts several documents and the most up-to-date information related to the state's emergency management system. Additionally, information is available for local and county emergency management officials and LEPCs. The Regional Disaster Finance Program is related to the Stafford Act and federal and state PA programs. DPS-TDEM also administers the State of Texas Assistance Request (STAR) and Emergency Tracking Network (ETN) systems.

DPS-TDEM also provides county and local entities with emergency operations sample plans for preparing their own emergency management plans and guidance on how to use and change those sample plans.

FEMA Comprehensive Preparedness and Planning Guidance

The FEMA Planning Page offers links to information that explain the National Response Framework (NRF), the Comprehensive Preparedness Guides (CPG), the FEMA Technical Assistance Program and the Regional Catastrophic Preparedness Grant Program. Of specific interest to LEPCs are CPG 101 (Comprehensive Planning Guide), the Plan Analysis Tool, CPG 201 (Threat Hazard Identification Risk Assessment–THIRA) and CPG 502 (Fusion Center and EOC Coordination).

National Emergencies Act

The National Emergencies Act (NEA) (50 USC §1601 et seq.) allows the president to declare a national emergency, which triggers emergency authorities contained in other federal statutes. National emergencies relate to special statutory authorities authorized to the executive branch and the president in an emergency. NEA does not hold any specific emergency authority on its own. It relies on the emergency authorities in other statutes, such as the Public Health Service Act and the Stafford Act. Under the act, the 2009 H1N1 influenza pandemic was a national emergency.

Note: National emergencies are different from public health emergencies, though a public health emergency can also be a national emergency, as was the 2009 H1N1 declaration. The secretary of the U.S. DSHS makes public health emergency declarations (see Section 319 of the Public Health Service Act below).

There are currently 28 active national emergency declarations (renewed annually); the oldest is a November 14, 1979, declaration by President Carter related to the Iranian hostage crisis, and the three most recent were in 2015, by President Obama, related to cyber-attacks and unrest in Venezuela and Burundi. Of current interest to state and local communities are the 2001 declarations related to 9/11 and terrorism that are still active.

Texas State of Emergency Laws

Under state law, the governor can declare a state of emergency that allows the government to enforce restrictions not normally allowed by law on individuals and businesses within the zone of emergency–like curfews, restrictions on movement, and the sale of certain goods and services. The law authorizes the governor to provide state military forces to help local and county authorities enforce a state of emergency. 4 TGC §433 authorizes the governor to proclaim a state of emergency in a country or municipality, on request of the chief executive officer or governing body of that jurisdiction, in the following situations:

- A riot or unlawful assembly by three or more persons acting together by use of force or violence.
- A clear and present danger of the use of violence exists.
- A natural or manmade disaster.

Army Doctrine Publication 3-28 Defense Support of Civil Authorities

This Department of the Army doctrine details how military forces support civil authorities (Active and Reserve) in emergencies and disasters. **Note:** It does not apply to Texas National Guard forces operating on state active duty. State National Guard and state military forces under command of the governor have broader powers than active duty forces due to the Posse Comitatus Act and other statutory restrictions. See also JP 3-28 Defense Support of Civil Authorities.

National Guard Regulation 500-1 National Guard Domestic Operations

This webpage provides the National Guard Bureau guidance and regulations for domestic operations (to include state active duty) of Army and Air National Guard forces, including the Weapons of Mass Destruction-Civil Support Teams (CST-WMD), the National Guard Reaction Force, and the chemical, biological, radiological

and nuclear (CBRN) Response Force Package (CERFP), among other elements. See also NGR 500-5 National Guard Domestic Law Enforcement Support and Mission Assurance Operations.

Homeland Security Act of 2002 (Public Law 107-296)

6 USC §1 establishes the DHS and defines its primary mission. It has been amended by the Post-Katrina Emergency Management Reform Act, Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) and the Implementing Recommendations of the 9-11 Commission Act of 2007 (Public Law 110-53).

The act defines the national biodefense strategy and the intelligence, critical infrastructure, information security and cybersecurity, research and development, border and transportation security, immigration enforcement, and national emergency management system responsibilities of DHS, in addition to other organizational and legal issues related to department operations and oversight.

See also 6 USC §488, which deals with the secure handling of ammonium nitrate.

Texas Homeland Security Law

In 2003, the Texas Legislature established the Texas Homeland Security Council (4 TGC §421), which was amended in 2011 and 2015. The current law makes the governor responsible for the direction of homeland security and directs him/her to develop a statewide homeland security strategy. A Border Security Council under this section of law ended in 2017. In addition to creating the Homeland Security Council, the law sets up several different advisory councils and functions to advise the governor on matters related to homeland security, instructs DPS to develop rules governing the function and operations of intelligence-sharing "fusion" centers and directs the governor to develop and administer an interoperability communications program.

National Exercise Program

The National Exercise Program is a two-year cycle of exercises across all aspects of homeland security at the federal, state, tribal and local level, as well as for private enterprise and non-governmental organizations. It culminates every two years with a National Level Exercise; the next will occur in 2020.

Department of Homeland Security Publications Library

This webpage provides access to DHS publications and forms.

Texas Homeland Security Strategic Plan 2015-2020

This webpage contains the most recent strategic plan required under Texas Homeland Security Law.

Emergency Management Assistance Compact (Public Law 104-321)

This law is a congressionally authorized interstate mutual aid compact helping states assist other states during emergencies. All states have joined the Emergency Management Assistance Compact (EMAC) by adopting model language into their

state's statutes. EMAC addresses reimbursement, liability, compensation and licensure issues.

Texas EMAC Law

9 HSC §778 enacts the EMAC in Texas and defines its implementation within the state. 4 TGC 418.111-418.1181 creates the Texas Statewide Mutual Aid System and makes DPS-TDEM the administrator over it.

Emergency Management Assistance Compact Website

This National Emergency Management Association website for EMAC includes publications, information, training resources and other information of interest to emergency management officials and LEPCs. EMAC also administers the Mutual Aid Support System (MASS) portal.

Presidential Policy Directive 8, National Preparedness, March 30, 2011

This directive replaced Homeland Security Presidential Directive (HSPD) 8, on December 17, 2003. It establishes the National Preparedness Goal, the National Preparedness System and Frameworks and the National Preparedness Report.

FEMA National Preparedness

This webpage explains the National Preparedness Goal and System and Frameworks and links to the most recent National Preparedness Report.

Texas Emergency Management Preparedness Website–preparingtexas.org

This DPS-TDEM website lists a variety of training opportunities and courses offered to state and local first responders, emergency management personnel and other groups around the state.

FEMA Emergency Management Institute

This webpage discusses FEMA's educational institute that manages its complete training program, including the popular online Independent Study Program.

Homeland Security Presidential Directive 5 Management of Domestic Incidents

This directive establishes the NIMS and the NRF.

Governor Rick Perry Executive Order #40 (February 23, 2005)–Relating to the Designation of the National Incident Management System as the Incident Management System for Texas

This executive order made NIMS the official Incident Management System for Texas Emergency Management.

Texas NIMS Law

In 2007, the state legislature added language to 4 TGC 418.1152 stating that elements providing mutual aid under the Texas Statewide Mutual Aid System "must be organized and function in accordance with the NIMS guidelines."

FEMA National Incident Management System

This FEMA website explains NIMS with links to more information, training and the latest versions of the doctrine (issued October 17, 2017), along with supporting documents, tools and guides.

Presidential Policy Directive 21 Critical Infrastructure and Resilience (2013)

Presidential Policy Directive (PPD) 21 replaced HSPD-7. The directive requires the executive branch (primarily DHS) to develop a situational awareness capability for critical physical and cyber infrastructure that functions in near real time, evaluates the effects of cascading infrastructure failures and improves the public-private partnership in critical infrastructure and cyber protection. It also updated the National Infrastructure Protection Plan (NIPP-2013), and developed a comprehensive infrastructure protection research and development effort.

National Infrastructure Protection Plan

This webpage features the latest NIPP ordered by PPD-21.

EO 13636: Improving Critical Infrastructure Cybersecurity

EO 13636 relates to PPD-21 and seeks to increase cybersecurity related to critical infrastructure, both physical and network related.

Texas Cybersecurity Act

The Texas Cybersecurity Act, effective September 1, 2017, establishes cybersecurity requirements for all state agencies, creates a cybersecurity council, and requires the production of certain reports related to cybersecurity. The bill is comprehensive in that it affects most state operations. The act expands the powers of the Texas Department of Information Resources (DIR), authorizing it to administer many of the act's elements. The law is at 10 TGC §2054. Regulations and standards are at 1 TAC §202. The legislature also passed the Texas Cybercrime Act in 2017, which criminalizes several malicious actions associated with cybercrime and cybersecurity (Texas Penal Code §33).

DHS Cybersecurity

This webpage features DHS cybersecurity programs and education.

Texas Department of Information Services

In addition to its other responsibilities, the Texas DIR administers several key elements of the Texas Cybersecurity Act, as described on this webpage.

Ammonium Nitrate Storage Facilities

Ammonium Nitrate Security Program (Homeland Security Act)

Section 563 of the 2008 Consolidated Appropriations Act, Subtitle J, Secure Handling of Ammonium Nitrate amended the Homeland Security Act of 2002, establishing DHS regulatory control over the sale and transfer of ammonium nitrate. States regulate ammonium nitrate and related fertilizer product storage and production under elements of the Toxic Control Substances Act. DHS has proposed rules to implement the act, when implemented they will appear at 6 CFR Part 31. Facilities must also send information to DHS using their Chemical Security Awareness Tool.

Texas Agriculture Code–Commercial Fertilizer

This Texas Agriculture Code (TAGC) (5 TAGC §63) grants regulatory authority over the manufacture, sale and use of commercial fertilizer in Texas to the Feed and Fertilizer Control Service of the Office of the Texas State Chemist. 5 TAGC 63.153 to 157 sets out the legally required security requirements related to the storage and sale of commercial fertilizer. 5 TAGC 63.158, added in 2015, addresses fire prevention and allows local fire marshals to inspect ammonium nitrate storage facilities and local fire departments access to the facility to perform a pre-fire planning assessment. Full regulations are at 4 TAC §65. Since 2014, new rules for ammonium nitrate (especially 4 TAC §65.6) require ammonium nitrate facilities to register with the TCEQ Tier II Chemical Reporting Program.

DHS Chemical Sector Resources

This webpage explains DHS programs associated with the chemical industry.

Chemical Advisory: Safe Storage, Handline, and Management of Solid Ammonium Nitrate Prills

This webpage is a joint publication of EPA, OSHA and the Bureau of Alcohol, Tabacco, and Firearms (ATF) in 2015, produced under EO 13650.

ATF Ammonium Nitrate Security

ATF provides educational material related to ammonium nitrate security, at this webpage.

Office of the Texas State Chemist

The Office of the Texas State Chemist regulates the feed and fertilizer industry in Texas, including ammonium nitrate and anhydrous ammonia. The office has produced a Guide (dated 2015) for Ammonium Nitrate Facility compliance.

The Fertilizer Institute–Safety and Security

The Fertilizer Institute, a joint organization of the U.S. fertilizer industry, produces resources and standards for retailers and agribusiness, as well as information related to securing facilities and safe handling of ammonium nitrate and other fertilizers.

Agriculture Retailers Association

The Agriculture Retailers Association (ARA) provides information and standards to fertilizer retailers. ARA also provides information to first responders on how to respond to an incident at their facilities. See also Safety and Security Guidelines for the Storage and Transportation of Fertilizer Grade Ammonium Nitrate at Fertilizer Retail Facilities.

Association of American Plant Food Control Officials

The Association of American Plant Food Control Officials (AAPFCO) is an organization made up of U.S. and Canadian fertilizer regulatory officials and produces standards and guidance to create uniformity among their procedures and regulatory regimes. AAPFCO provides several useful publications (for a fee) to regulators, inspectors, lawmakers and officials, including a video on the proper inspection of facilities.

Texas State Fire Marshal

The State Fire Marshal's Office, part of the Texas Department of Insurance, carries out voluntary inspections of ammonium nitrate facilities in Texas after the West, Texas dDisaster. The office is the chief investigator of arson and suspected arson in Texas and conducts firefighter fatality investigations.

Natural and Petroleum Gas

Natural Gas Act

The Natural Gas Act (15 USC §717 et seq.) establishes federal regulation over natural gas in interstate commerce (local distribution/intrastate commerce is covered by state law) and the import and export of natural gas, which is regulated by the Federal Energy Regulation Commission and DoE. It requires an emergency response plan for all liquefied natural gas (LNG) terminals. Regulation varies depending on the activity, which also determines the regulating agency or department. For state and local safety considerations, see 15 USC §717b.

Note: Liquefied petroleum gas (LPG) regulations are different from natural gas and fall under different statutes related to energy, commerce, transportation and safety. OSHA standards related to LPG storage and handling are at 29 CFR 1910.110 and 29 CFR 1926.153.

Texas Liquefied Petroleum Gas Code

In Texas, regulation of LPG is the responsibility of the Texas RRC under the provisions of 3 TNRC §113. Facilities must report incidents involving certain LPG equipment and facilities to the Texas RRC, within two hours. Emergency reporting rules for LPG are at 16 TAC §9.36. Complete regulations are at 16 TAC §9.

Texas Compressed Natural Gas Code

In Texas, regulation of compressed natural gas (CNG) and LNG is the responsibility of the Texas RRC under the provisions of 3 TNRC §16. Facilities must report

incidents involving certain CNG or LNG equipment and facilities to the RRC, as soon as possible. Regulations for CNG are at 16 TAC §13, while LNG regulations are at 16 TAC §14.

Railroad Commission Accident and Incident Reporting

This RRC webpage related to accident and incident reporting includes information related to LPG and CNG/LNG incidents.

Pipelines

Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011

This act amends the Pipeline Transportation Code contained in 49 USC 60101 et seq., which establishes the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (USDOT PHMSA) as the regulatory agency responsible for pipeline safety in the U.S. Regulations under PHMSA authority are at 49 CFR §100 to 199.

Protecting Our Infrastructure of Pipelines and Enhancing Safety Act

The 2016 Protecting Our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act increased PHMSA regulatory authority and required the publication of a PHMSA rulemaking chart located on its website. Additionally, the act provided funding for PHMSA.

Texas Hazardous Liquid or Carbon Dioxide Pipeline Transportation Industry Code

Under the provisions of 3 TNRC §117 and 3 TUC §121 Gas Pipelines, the Texas RRC regulates the pipeline industry in Texas. Associated regulations are at 16 TAC §8 Pipeline Safety Regulations and 16 TAC §18 Underground Pipeline Damage Prevention, which relates to the "One Call" notification center provisions of 5 TUC §251 Underground Facility Damage Prevention and Safety (also known as Texas811, formerly known as "DigTess").

USDOT Pipeline and Hazardous Materials Safety Administration

PHMSA is the federal regulatory authority for pipeline safety. In addition to its regulatory functions, it provides training, resources and grants to states and LEPCs, including the grant program that funded the development of this document.

PHMSA Rule Interpretations

PHMSA publishes interpretations of its rules at this website.

Railroad Commission Pipeline Safety

This webpage describes the RRC role in Pipeline Safety with links to more resources.

Railroad Commission Public GIS Viewer

This Public GIS Viewer (map) hosted by the RRC is a useful tool for LEPCs and emergency management planners. It allows users to see pipelines on an interactive online map that also includes locations of railroad lines, LPG/CNG/LNG sites, well logs, orphan wells and other information.

Texas811

This is the website of the Texas "One Call" before you dig notification center for underground excavation. The service also provides training and information for pipeline damage prevention.

Nuclear Activities and Radioactive Material

The regulation of radioactive material falls under many different federal statutes and different agencies of the federal government. In Texas, there are three primary agencies with regulatory and other responsibilities for radioactive material and related activities, response and cleanup. These are TCEQ, RRC and DSHS. 25 TAC §289.101 and 25 TAC §289.102 contain memoranda between these agencies delineating their various radiation control functions. A brief description of federal agency and state agency responsibilities follows.

Federal Agencies, Offices, Departments and Commissions

Nuclear Weapons

Deputy Assistant Secretary of Defense for Nuclear Matters

The Deputy Assistant Secretary of Defense for Nuclear Matters and the Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs/Nuclear Matters is the federal focal point for all matters related to the U.S. deterrent of nuclear weapons and countering nuclear proliferation and preventing nuclear terrorism. The office includes representatives from the National Nuclear Security Administration (NNSA), the Department of the Navy and the Air Force, the National Laboratories and the Federal Bureau of Investigation (FBI).

If an incident involving a nuclear weapon occurs, the Nuclear Weapon Incident Response Group (NRG) from the office responds and operates under the control of the Department of Defense (DoD) and DHS (depending on the circumstances) in coordination with other agencies under a unified command system and the National Response Framework. NRG consists of special experts and liaison officers from the Defense Threat Reduction Agency (DTRA), Armed Forces Radiobiology Research Institute, FBI, and DoE NNSA. For more information on the response to a nuclear weapon accident, refer to the DoD 3150.08-M Nuclear Weapon Accident Response Procedures (NARP).

Defense Threat Reduction Agency

DTRA is the U.S. agency responsible for counter-weapons of mass destruction programs within DoD. DTRA provides DoD with expert support on the full spectrum of chemical, biological, radiological, nuclear and explosive (CBRNE) threats and develops security programs related to CBRNE weapons, monitors treaty compliance, and destroys material related to CBRNE programs. It also has robust atmospheric modeling and fallout prediction capabilities and provides a host of tools and expert support to CBRNE response agencies like the 6th CST-WMD in Texas and NRG in case of a nuclear weapons incident.

National Nuclear Security Administration

NNSA, a division of the DoE, manages the development, production and refurbishment of nuclear weapons, including management of the Pantex facility in Texas. It also carries out several missions related to the safety and security of those weapons when operational nuclear weapons are under the custody of the Departments of the Navy or Air Force.

PANTEX

The Pantex Plant in Carson County, near Amarillo, Texas, is where NNSA assembles, dismantles, retrofits, refurbishes and keeps the U.S.' nuclear weapons stockpile. Consolidated Nuclear Security, LLC and the Y-12 National Security Complex in Oak Ridge, Tennessee, operate the plant jointly, under contract to the NNSA. The DPS-TDEM has an Agreement in Principle (AIP) Program with Pantex that brings together the NNSA, TCEQ, DSHS, EPA and other organizations to improve preparedness and response capabilities related to any incident related to the plant or its operations. Additionally, TCEQ and EPA jointly check and regulate cleanup activities related to the site under the AIP.

Civilian Nuclear Power and Radiation Sources

Department of Energy, Office of Nuclear Energy

The DoE Office of Nuclear Energy promotes the use of nuclear power and supports research and development related to nuclear energy and the nuclear fuel cycle through the Office of Nuclear Energy.

Nuclear Regulatory Commission

This commission regulates civilian uses of radioactive material and nuclear activities like power plants. It licenses and regulates the civilian use of uranium and thorium, special nuclear material (enriched uranium and thorium) and their by-product materials, including tails, or residue, from uranium and thorium mining or milling activities. Texas is an agreement state under the Atomic Energy Act (see below), and state agencies control much of the regulation of civilian radioactive materials except for nuclear-power-related activities.

Environmental Protection Agency

EPA sets the air emission and drinking water standards for radioisotopes and sets the public protection limits for radiation control.

State Agencies

TCEQ Radioactive Materials

TCEQ regulates by-product and low-level radioactive waste from radioactive waste brokers, licenses uranium and thorium recovery facilities and the disposal of their by-product wastes and decommissions inactive uranium recovery facilities and radioactive material disposal sites. There are many sites in south Texas associated with open pit and in-situ leach mining of uranium and thorium that fall under TCEQ regulation.

Texas Railroad Commission NORM Waste

The Texas RRC regulates oil- and gas-related, naturally occurring radioactive material (NORM) waste. DSHA regulates radioactive tracers, well loggers and other radioactive material associated with the oil and gas industry. TCEQ regulates other wastes, including non-oil and gas-related NORM waste.

Department of State Health Services Radiation Control Program

This program regulates many sources of radiation and materials in Texas through licensing, registration, inspection and enforcement activities. It also maintains an emergency response and training capability related to radiation safety and radioactive source material. Under the memorandum of understanding (MOU) agreements and in coordination with the Texas Radiation Advisory Board, TCEQ, RRC and DSHS all coordinate their regulatory actions related to radiation and radioactive material. TCEQ and DSHS also coordinate their emergency response capabilities.

Texas National Guard CBRNE and Homeland Security Response Forces

The Texas National Guard has two organizations whose primary mission is to respond to incidents involving CBRN weapons or materials. These are the 6th CST-WMD and the 6th CERFP. Both work as part of a larger Homeland Ready Force of the Texas National Guard–the Joint Task Force-136 (Maneuver Enhancement Brigade) known as the Minuteman Brigade–that provides National Guard Support to FEMA Region VI. The National Guard Bureau provides more support to these elements through its homeland security and CBRN support roles.

Legislation, Code and Regulations

Atomic Energy Act and Energy Reorganization Act of 1974

Current law is at 42 USC §2011 to 2297h-13. Regulations are in Title 10 Energy, of the CFR.

The Atomic Energy Act of 1954 set up the regulation of radioactive materials in the U.S. under the auspices of the Atomic Energy Commission (AEC). The Energy Reorganization Act of 1974 terminated AEC and split its responsibilities. The DoE took over the responsibility for the development and production of nuclear weapons now managed within DoE by NNSA; this includes operation of the Pantex facility in Texas. Effectively, NNSA manages the regulation of military-related nuclear activity and radioactive material. DoE also became responsible for the promotion of nuclear power and other energy- related work involving radioactive material.

The Energy Reorganization Act of 1974 also created the Nuclear Regulatory Commission and made it responsible for the civilian regulatory control of radioactive material and nuclear activities. The U.S. NRC licenses and regulates the civilian use of source material (uranium and thorium), special nuclear material (enriched uranium and plutonium) and by-product material (material made radioactive in a reactor and tails, or residue, from the milling of uranium and thorium). NRC

regulations are in Title 10 of the CFR, Chapter I, but the items of primary interest to LEPCs are in 10 CFR Part 20 Standards for Protection Against Radiation.

In Texas, an agreement state under the Atomic Energy Act, the regulation of many radiation sources not associated with power generation is handled by DSHS, TCEQ and RRC in coordination with the Texas Radiation Advisory Board, according to the terms of their MOU (cited at the beginning of this section).

Texas Radiation Control Act

5 THSC §401 sets up a program under the supervision of the Texas DSHS and the Radiation Advisory Board to regulate sources of radiation compatible with federal regulations and the regulations of other states and to "permit the maximum use of sources of radiation consistent with public health and safety and environmental protection." Regulations are at 25 TAC §289. See also DSHS Radiation Control Program Law and Rules page.

Texas DSHS Radiation Control Program

The DSHS Radiation Control Program website includes information related to the implementation of the Texas Radiation Control Act and regulations and licensing information produced by DSHS, as well as links to all related laws and rules.

Nuclear Waste Policy Act

The Nuclear Waste Policy Act of 1982 (42 USC §10101 et seq.) set up the federal program regulating the disposal of highly radioactive wastes (regulations are at 10 CFR §960 to 963). The act set up the regulatory scheme for highly radioactive waste and set up the procedure for selection and operation of a permanent storage. This set off what some referred to as the ultimate not-in-my-backyard (NIMBY) contest, in which sites competed to eliminate themselves from consideration. In 1987, Congress amended the act to declare Yucca Mountain, Nevada, as the permanent repository for high-level radioactive waste.

Since then, the Yucca site went through a series of legal and legislative challenges, and changes made late in the previous presidential administration effectively ended consideration of the Yucca site. That decision resulted in several lawsuits claiming the DoE decision was a violation of the Nuclear Waste Policy Act. A 2013 federal court ruling cut the ability of DoE to collect fees for the Nuclear Waste Fund created by the act until DoOE begins to collect nuclear waste, which it cannot do until it selects a repository, or it assumes control over the temporary waste storage at reactor sites across the country.

All regulatory requirements related to Yucca Mountain are complete. However, the final hearing needed to begin accepting waste is still on indefinite hold. Until a repository comes online (a prospect that looks dim), high-level nuclear waste stays on site at nuclear facilities in temporary facilities. If a disposal site ever comes on line, this high-level waste will begin to transit the country to the site, including the material at temporary sites in Texas.

As of 2008, there were nine temporary storage sites where the reactors were no longer in operation, and the sites decommissioned except for the temporary storage. Additionally, there were 72 commercial-spent nuclear fuel temporary storage sites at operating plants, for a total of 81 temporary storage sites. NRC regulates temporary storage of spent nuclear fuel under the Nuclear Waste Policy Act and under agreements with DoE. **Note:** Information related to the Transuranic WIPP is under Hazardous Materials Transportation in a previous section.

NRC Spent Nuclear Fuel

This is the NRC website that explains temporary storage of spent nuclear fuel and the regulatory program related to it.

NRC Yucca Mountain Page

This NRC page is related to the Yucca Mountain disposal site.

Comanche Peak Nuclear Power Plant

Comanche Peak is one of two commercial nuclear power plants in Texas and one of the state's two temporary storage facilities for highly radioactive waste and spent fuel.

South Texas Project Nuclear Power Plant

The South Texas Project Nuclear Power Plant (also referred to as the South Texas Plant or South Texas Nuclear Generating Station) is the other commercial nuclear power plant in Texas. It is the other temporary storage facility in Texas for highly radioactive waste and spent fuel.

Low-Level Radioactive Waste Policy Act

42 USC §2021 et seq. contains the Low-Level Radioactive Waste Policy Act, amended in 1985. The amended act set up a system authorizing states to enter compacts for the "efficient management and disposal of low-level radioactive waste."

Texas Low-Level Radioactive Waste Disposal Compact

5 THSC §403 establishes the Texas Low-Level Radioactive Waste Disposal Compact Commission, an independent entity not associated with any state agency, charged with administering the Texas Low-Level Radioactive Waste Disposal Compact set up with the federal government under the Low-Level Radioactive Waste Policy Act. Regulations are at 31 TAC §675.

Uranium Mill Tailings Radiation Control Act of 1978

42 USC §7901 et seq. amends the Atomic Energy Act and sets up the regulation of uranium mill waste. EPA creates the health and safety standards related to the "stabilization, restoration, and disposal of uranium mill waste," while DOE is to assume control for 20 sites that closed prior to passage of the act. NRC reviewed remediation efforts and licensed future uranium mill activities to ensure compliance and remediation of the site following closure. Regulation of sites licensed by NRC

after the act's passage is by the agreement states (of which Texas is one). For more information, refer to the NRC Backgrounder on Uranium Mill Tailings.

Texas Uranium Surface Mining and Reclamation Act

The Texas Uranium Surface Mining and Reclamation Act (4 TNRC §131) implements the agreement of the Uranium Mill Tailings Radiation Control Act, administered by the RRC and in agreement with the TCEQ. Regulations are at 16 TAC §11.

TCEQ Uranium Recovery and By-Product Disposal

This webpage covers the licensing for uranium recovery firms (in-situ leach mining) and the by-product (mill tailings) disposal regulations and procedures in Texas.

Texas RRC Mining and Exploration

Texas RRC issues uranium exploration permits. Its website includes links to regulations and statutes related to uranium mining.

URI, Inc. v. Kleberg County, Texas, Texas Supreme Court, March 23, 2018

On March 23, 2018, the Texas Supreme Court ruled in favor of URI, Inc. (now operating as Westwater Resources), in its suit against Kleberg County, Texas related to its Kingsville Dome in-situ leech mining operation and well water remediation activities at the site. See the Texas Supreme Court ruling for more information and consult legal counsel regarding the ruling's effects on any related regulatory or enforcement activities.

Public Health and Etiological Threats

Public Health Service Act Section 319

This act authorizes the Health and Human Services (HHS) secretary to declare a public health emergency, triggering emergency powers that allow the federal government to aid state and local governments, suspend or modify certain legal requirements, and expend available funds to address public health emergencies. A Section 319 public health emergency declaration is separate and distinct from a presidential declaration under the National Emergencies Act or the Stafford Act. The secretary does not need a presidential declaration to issue a public health emergency declaration under Section 319. The president must make a declaration in addition to a Section 319 declaration, if the HHS secretary wants to exercise waiver authority under Social Security Act Section 1135. Other sections of the Public Health Service Act allow the secretary to give aid to states and localities without declaring a public health emergency.

Texas Communicable Disease Prevention and Control Act

2 THSC §81.003 defines a public health disaster. The definition requires the governor to declare a state of disaster (under 4 TGC §418–Texas Disaster Act) and the commissioner of state health services' determination that an immediate threat from a communicable disease exists. The threat exists because it poses a high risk of death or serious long-term disability to a large number of people or because the disease carries a high risk of public exposure due to the disease's contagion levels and/or method of transmission. Public health disasters in the state cannot exceed more than 30 days in duration with one 30-day renewal.

Texas DSHS Health Emergency Preparedness and Response Section

The DSHS Health Emergency Preparedness and Response Section administers programs related to the mitigation, preparedness, response and recovery from public health emergencies in Texas and disasters (natural or manmade) affecting public health. In addition, the section administers the preparedness grants program and the Medical Reserve Corps, carries out exercises, planning support and training, and provides a response and recovery unit. Tthe section also handles disaster epidemiology, disaster disease surveillance and the Strategic National Stockpile in Texas.

Pandemic and All Hazards Preparedness Act (Public Law No. 109-417)

42 USC §300hh et seq. addresses the organization of public health emergency preparedness and response activities and authorizes programs concerning medical surge capacity, the capacity of states and localities to prepare for and respond to public health emergencies, and the development of countermeasures to biological threats (the Biodefense Advanced Research and Development Authority [BARDA]). Many of the offices and programs within HHS that Texas public health preparedness programs interact with on a daily basis were developed or refined through the Pandemic and All Hazards Preparedness Act (PAHPA). These offices include the Office of the Assistant Secretary for Preparedness and Response, grant programs such as Public Health Emergency Preparedness (PHEP) grants, the Hospital Preparedness Program and the Healthcare Facility Partnership Program. The act also focuses on the needs of at-risk populations in emergency planning and response. PAHPA was reauthorized in March 2013 in the Pandemic and All-Hazards Preparedness Reauthorization Act.

Texas Communicable Disease Prevention and Control Act

2 THSC §81 grants authority to a local health authority (defined under 2 THSC §121.021 et seq.) to investigate suspected incidents and outbreaks of communicable disease and establish, maintain and enforce quarantines. The law also grants authority to the Commissioner of State Health Services to impose quarantines and control measures in addition to or in the absence of local health authority actions. The state legislature amended the act in 2015 following Ebola cases in Texas in 2014.

Communicable Disease Control Measures in Texas: A Guide for Health Authorities in a Public Health Emergency

This slightly out-of-date guide (2007) is still useful for explaining the procedures by which health officials can implement control measures and quarantines for individuals, property, areas and common carriers.

Pandemic and All-Hazards Preparedness Reauthorization Act (Public Law No. 113-5)

42 USC §300hh et seq. amended the act. It authorizes funding for public health and medical preparedness programs, including some begun under PAHPA (see above), as well as for the Hospital Preparedness Program and the PHEP Cooperative Agreement. It amended the Public Health Service Act to grant state health departments greater flexibility in dedicating resources during disasters, authorized funding through 2018 for medical countermeasures under the Project BioShield Act and funded more research and development under that act. It also enhanced U.S. Food and Drug Administration rapid response capabilities.

Public Readiness and Emergency Preparedness Act

The Public Readiness and Emergency Preparedness (PREP) Act has been amended by 42 USC §300hh et seq. It authorizes the HHS secretary to issue a declaration giving immunity from tort liability for claims of loss caused by countermeasures against diseases or other threats of public health emergencies. The act covers persons and entities involved in the manufacture, testing, distribution, administration and use of covered countermeasures. A PREP Act declaration is different from and independent of other federal emergency declarations and is not dependent on other emergency declarations. Current declarations under the act are available on the Public Health Emergency Page of the U.S. Department of Health and Human Services and include the following:

- Nerve Agents and Certain Insecticides (Organophosphorus and/or Carbamate) Countermeasures (effective April 11, 2017)
- Zika Virus Vaccines (effective August 1, 2016)
- Ebola Virus Disease Therapeutics (amended effective February 27, 2017)
- Ebola Virus Disease Vaccines (amended effective December 3, 2016)
- Pandemic Influenza Medical Countermeasures (amended effective January 1, 2016)
- Anthrax Medical Countermeasures (amended effective January 1, 2016)
- Acute Radiation Syndrome Medical Countermeasures (amended effective January 1, 2016)
- Botulinum Toxin Medical Countermeasures (amended effective January 1, 2016)
- Smallpox Medical Countermeasures (amended effective January 1, 2016)

HSPD-9 Defense of the U.S. Agriculture and Food

This presidential directive issued in 2004 directs the federal government to coordinate its efforts, assess national vulnerabilities, prepare response plans, conduct research and carry out public outreach and awareness campaigns related to protecting the U.S. agriculture and food systems from attack.

[1] The system of legal citation is a simpler form of noting where to find a law. The first element, a number, denotes the "Title." The next element is an abbreviation noting the source; for instance, TGC = Texas Government Code. Then, the symbol § is used as a way of eliminating all the parts, sub parts, chapters, sections, etc., that the code is structured into, jumping straight to the relevant paragraphs. Both the U.S. and Texas Codes are numbered sequentially by chapter and verse. Thus, the first number is the chapter, and then the specific paragraph. For example, 10 TGC § 2002 is Chapter 2002 of Title 10 of the Texas Government Code, while §2002.01 is the first paragraph of that chapter. The "et seq." is Latin and means "and what follows." Most legal documents use the § symbol, while many other documents (including this one) may leave it out.

2 In this case, committees refer to organizations outside of the legislature and do not include committees within the legislature with oversight functions.

[3] This is true in Texas, where county judges and mayors have ultimate responsibility for emergency plans in the state's Emergency Planning Districts, with most delegating the actual planning to professional emergency managers or emergency management organizations. In a few other states and local jurisdictions, LEPCs are the primary emergency planners/emergency management organizations for their jurisdictions, and the ideas of EPCRA and the Stafford Act are in greater alignment.

[4] See Mark Starik, William C. Adams, Polly A. Berman, and Krishnan Sudharsan, "1999 Nationwide LEPC Survey," May 17, 2000, https://www.epa.gov/sites/production/files/ 2014-01/documents/lepcsurv_2000.pdf. The 2008 Nationwide survey did not measure activity, only focusing on active LEPCs.

See also Environmental Protection Agency, "2008 Nationwide Survey of Local Emergency Planning Committees (LEPCs)", accessed April 6, 2018, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf; William C. Adams, Stephen D. Burns, and Phillip G. Handwerk. *Nationwide LEPC Survey: Summary Report. Washington, DC: George Washington State University, 1994, https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=100039HU.txt*; Michael K. Lindell and Ronald W. Perry, "Community Innovation in Hazardous Materials Management: Progress in Implementing SARA Title III in the U.S.," *Journal of Hazardous Materials* 88 (2001): 169-194.; Matthew J. Blackwood, "Local Emergency Planning Committees: Collaboration, Risk Communication, Information Technology, and Homeland Security" (PhD Diss., Virginia Polytechnic Institute and State University, 2003); and Jill Templeton and Gary Kirk, "Factors Influencing the Activity and Perceived Effectiveness of Virginia Local Emergency Planning Committees (LEPCs)," Presentation, Midwest Political Science Association 2008 Conference.

[5] Environmental Protection Agency, "2008 Nationwide Survey of Local Emergency Planning Committees (LEPCs)", accessed April 6, 2018, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf.

[6] Susan Youngblood, "Balancing the Rhetorical Tension Between Right to Know and Security in Risk Communication: Ambiguity and Avoidance," *Journal of Business and Technical Communication* 26, no. 1 (2011): 35-64, DOI:10.1177/2F1050651911421123.

[7] Robert Heath, Julie Bradshaw, and Jaesub Lee, "Community Relationship Building: Local Leadership in the Risk Communication Infrastructure," *Journal of Public Relations Research*, 14, no. 4 (2002): 317-353, DOI: 10.1207/S1532754XJPRR1404_2.

[8] "Executive Order on Improving Chemical Facility Safety and Security," Environmental Protection Agency, accessed April 6, 2018, https://www.epa.gov/rmp/executive-order-improving-chemical-facility-safety-and-security.

[9] Caitlin Durkovich, David Michaels, Mathy Stanislaus, Executive Order 13650: Actions to Improve Chemical Facility Safety and Security — A Shared Commitment, Report for the President. May 2014. https://www.osha.gov/chemicalexecutiveorder/final_chemical_eo_status_report.pdf.

[10] "Final Amendments to the Risk Management Program (RMP) Rule," Environmental

Protection Agency, last modified May 2018, https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule.
[11] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf; and Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf.
[12] Federal Register, Vol. 83, No. 232, December 3, 2018, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, 62268-62269, https://www.govinfo.gov/content/pkg/FR-2018-12-03/pdf/2018-26224.pdf.
[13] Federal Register, Vol. 82, No. 9, January 13, 2017, Rules and Regulations, Environmental Protection Agency, 40 CFR Part 68, https://www.govinfo.gov/content/pkg/FR-2017-01-13/pdf/2016-31426.pdf.
[14] "Process Safety Management," Occupational Safety and Health Administration, accessed April 9, 2018, https://www.osha.gov/SLTC/processsafetymanagement/.
[15] Environmental Protection Agency, "How to Better Prepare Your Community for a Chemical Emergency: A Guide for State, Tribal and Local Agencies," accessed April 9, 2018, https://www.epa.gov/epcra/how-better-prepare-your-community-chemical-emergency-guide-state-tribal-and-local-agencies.
[16] Environmental Protection Agency, Occupational Safety and Health Administration, and Bureau of Alcohol, Tobacco, Firearms, and Explosives, "Chemical Advisory: Safe Storage, Handling, and Management of Ammonium Nitrate," last modified August 2013, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100GRIF.PDF?Dockey=P100GRIF.PDF.
[17] H.B. No. 942, Sess. of 2015 (Texas 2015), http://www.capitol.state.tx.us/tlodocs/84R/billtext/pdf/HB00942F.pdf#navpanes=0.
[18] Note, this is a Texas only requirement, not part of EPCRA nor subject to EPA regulation or oversight.
[19] "Tier II Chemical Reporting," Texas Commission on Environmental Quality, accessed April 9, 2018, https://www.tceq.texas.gov/permitting/tier2/tier-2-chemical-reporting.
[20] "Texas Local Emergency Planning Committee (LEPC) Grant Program," Texas Commission on Environmental Quality, accessed April 9, 2018, https://www.tceq.texas.gov/response/security/LEPC_Grant.
[21] Ruling of the Attorney General of Texas in Letter to Mr. David Timberger, Director-General Law Division of the Texas Commission on Environmental Quality, OR2016-03419, February 11, 2016, https://texasattorneygeneral.gov/opinions/openrecords/51paxton/orl/2016/pdf/or201603419.pdf.
[22] "Laws and Regulations: Tier II Chemical Reporting, Texas Commission on Environmental Quality, accessed April 9, 2018, https://www.tceq.texas.gov/permitting/tier2/laws-and-regulations.html.
[23] BCCA Appeal Group, Inc v. City of Houston, Texas, No. 13-0768 (Texas Supreme Court, 2016), accessed April 9, 2018, http://www.txcourts.gov/media/1364029/130768.pdf.
[24] S. 697, 114th Cong. (2015-2016), https://www.congress.gov/bill/114th-congress/senate-bill/697 and 15 USC Ch. 53, accessed April 9, 2018, http://uscode.house.gov/view.xhtml?path=/prelim@title15/chapter53&edition=prelim.
[25] "The Frank R. Lautenberg Chemical Safety for the 21st Century Act," Environmental Protection Agency, accessed April 9, 2018, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act; and "The Frank R. Lautenberg Chemical Safety for the 21st Century Act Implementation Activities," Environmental Protection Agency, accessed April 8, 2018, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-c-0entury-act-5.
[26] Center for Medicare and Medicaid Services, "Final Rule: Medicare and Medicaid Programs;

Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers," in Federal Register 81:127 (July 1, 2016), 63859-64044, https://www.federalregister.gov/documents/2016/09/16/2016-21404/medicare-and-medicaid-programs-emergency-preparedness-requirements-for-medicare-and-medicaid.

[27] 42 USC 300i-2, http://uscode.house.gov/view.xhtml?req=(title:42%20section:300i-2%20edition:prelim); and "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans.

[28] "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans

[29] In Texas, regulated facilities file Tier II reports with the Texas Commission on Environmental Quality, who shares them with LEPCs. A report to TCEQ constitutes a report to the SERC under state regulation.

[30] "Final Amendments to the Risk Management Program (RMP) Rule," Environmental Protection Agency, last modified May 17, 2018, https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule; and "Risk Management Plan (RMP) Delay Rule Vacatur," Environmental Protection Agency, last modified December 3, 2018, https://www.epa.gov/rmp/risk-management-plan-rmp-delay-rule-vacatur.

[31] 84 FR 6910, 28 February 2019, https://www.federalregister.gov/documents/2019/02/28/2019-02491/hazardous-materials-oil-spill-response-plans-and-information-sharing-for-high-hazard-flammable.

[32] "USDOT issues final rule requiring rail oil-spill response plans," Progressive Railroading, last modified February 19, 2019, https://www.progressiverailroading.com/federal_legislation_regulation/news/USDOT-issues-final-rule-requiring-rail-oil-spill-response-plans--56792?email=dhb@tamu.edu&utm_medium=email&utm_source=prdailynews&utm_campaign=prdailynews2/19/2019.

[33] 49 CFR 130, https://www.govinfo.gov/app/details/CFR-2011-title49-vol2/CFR-2011-title49-vol2-part130.

[34] 84 FR 6910, https://www.federalregister.gov/documents/2019/02/28/2019-02491/hazardous-materials-oil-spill-response-plans-and-information-sharing-for-high-hazard-flammable.

[35] "Oil Spill Response Plans and Information Sharing for High-Hazard Flammable Trains," Pipeline and Hazardous Materials Safety Administration, last modified February 14, 2019, https://cms.phmsa.dot.gov/news/oil-spill-response-plans-and-information-sharing-high-hazard-flammable-trains.

[36] "Emergency Planning and Community Right-to-Know Act/Toxics Release Inventory Home," Department of Defense Environment, Safety and Occupational Health Network and Information Exchange, accessed March 6, 2019, https://denix.osd.mil/epcratri/home/.

[37] 42 USC 300i-2, http://uscode.house.gov/view.xhtml?req=(title:42%20section:300i-2%20edition:prelim); and "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans.

[38] "America's Water Infrastructure Act of 2018: Risk Assessments and Emergency Response Plans," Environmental Protection Agency, last modified November 16, 2018, https://www.epa.gov/waterresilience/americas-water-infrastructure-act-2018-risk-assessments-and-emergency-response-plans

Appendix B. Facility Regulations

This appendix is a basic guide to significant legislation and regulations related to the chemical industry and Emergency Planning and Community Right-to-Know Act (EPCRA)–related facilities. Not all of these apply to every facility, but Local Emergency Planning Committee (LEPC) members should be aware of and understand each of them. This list does not cover all regulations or laws governing hazardous materials. For a more complete examination of federal and state legislation, regulation and guidance, see Appendix A.

Emergency Planning and Community Right-to-Know Act

This act established LEPCs, State Emergency Response Commissions (SERCs)/Tribal Emergency Response Commissions (TERCs), community right-to-know laws and the Tier II reporting system (42 USC §11001 et seq.). It is also known as Title III of the Superfund Amendments and Reauthorization Act. The act granted regulatory authority to the Environmental Protection Agency (EPA). Full regulations are at 40 CFR Part 300 et seq.

The act requires an annual hazardous chemical inventory (Tier II report) for all chemicals whose peak storage amount is greater than 500 pounds or the threshold planning quantity for extremely hazardous substances (EHSs) or 10,000 pounds of any hazardous chemicals not included on the EHS list or otherwise exempt. Facilities file reports with the SERC, the LEPC and local fire departments. Facilities are subject to compliance inspections and administrative penalties. In Texas, facilities file reports with the Texas Commission on Environmental Quality (TCEQ) and local communities. TCEQ receives the reports, acting on the behalf of the SERC, and may share Tier IIinformation with LEPCs and fire departments.

Related Texas Legislation

Texas Health and Safety Code Chapter 505 Manufacturing Facility Community Right-to-Know ACT

6 THSC §505 contains the Texas community right-to-know law for facilities with Standard Industrial Classification (SIC) Codes 2011 through 3999. In Texas, TCEQ receives Tier II reports on behalf of SERC and then shares them with local fire departments and LEPCs on behalf of facilities. Upon request, facilities must provide a list of any hazardous materials on site, including the amount, to the fire chief or LEPC. Facilities must also provide safety data sheets (SDSs) for any hazardous chemical on their site (regardless of the amount) to TCEQ, fire departments or an LEPC representative. Facilities are subject to compliance inspections and administrative penalties.

Texas Public Employer Community Right-to-Know Act

6 THSC §506 contains the Texas community right-to-know law for facilities run by city, county and state agencies; public schools; colleges and universities; tax-

supported hospitals; river authorities; volunteer emergency service organizations; and agencies created by state law with SIC Codes 8011 through 9999. This law also applies to water supply and water treatment facilities (SIC Code 4941) run by local government agencies. SDSs, compliance with information requests, Tier II reporting and compliance procedures apply.

Texas Non-Manufacturing Facility Community Right-to-Know Act

6 THSC §507 contains the Texas community right-to-know law for facilities not covered by Chapter 505 or 506 of the act. SDSs, compliance with information requests, Tier II reporting and compliance procedures apply.

Texas Hazardous Chemical Right-to-Know Regulations (All)

25 TAC §295 contains the regulations associated with the Texas Community Right-to-Know Acts listed above.

Personal Liability Exemption of LEPC Members

4 TGC 418.174 exempts members of LEPCs from legal liability for actions carried out during their duties as an LEPC member.

Occupational Safety and Health Administration Hazard Communication (HazCom) Standard

29 CFR 1910.1200 requires that chemicals produced or imported into the U.S. be classified according to the United Nation's Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Revision 3 and that information on the hazards associated with those chemicals be communicated to employers and employees in a consistent manner.

Related Texas Legislation

Texas Hazard Communication Act

6 THSC §502 sets up regulatory authority for the Department of State Health Services (DSHS) to regulate the Hazard Communication Standards for Texas applicable to public employers. Occupational Safety and Health Administration (OSHA) standards apply to private-sector employers. The act covers lists of chemicals and SDSs. Note: Some elements of the Texas Hazard Communications laws are stricter than related OSHA requirements. Full regulations are at 25 TAC §295.

Risk Management Plan Rule

Public Law 101-549 §112(r) of the Clean Air Act Amendments of 1990 authorized EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance fall under the Risk Management Plan (RMP) rule in 40 CFR §68 issued by EPA. The EPA Section 112(r) website outlines the current rule and the procedures and contents of an RMP, as well as links to related guidance, training and submission systems. Current regulations under Section 112(r) are at 40 CFR §68. **Note:** Recently, the

DC Circuit Court of Appeals issued a ruling related to the RMP Rule that reversed many recent actions by the EPA related to that rule. See below.

Final Amendments to the Risk Management Program Rule

After the West, Texas disaster, Executive Order (EO) 13650 was issued, related to improving chemical safety in the U.S.. As part of that examination, EPA proposed several significant changes to the RMP rule that directly affect LEPCs and facilities. Lawmakers intended these changes to increase cooperation and preparedness between facilities, emergency responders, LEPCs and local communities.

After a three-year process of consultation, the rule changes were to take effect on June 19, 2017. Following the receipt of petitions, including one that included the state of Texas as a petitioner, the new executive administration delayed implementation and proposed a new rule that removed many of the requirements in the rule created by the previous presidential administration following EO 13650. The DC Circuit Court of Appeals in Air Alliance Houston, Et Al. v. EPA, August 17, 2018 found that the EPA violated administrative procedure and exceeded its rulemaking authority in the process of issuing the delay and proposed new amendment.

Thus, the rule due to take effect on June 19, 2017 is currently in effect. The EPA RMP website is the primary source for information about the rule changes and any further action, including the Appeals Court Ruling. See the Risk Management Plan (RMP) Delay Rule Vacatur page for more information. It is unclear what enforcement activities the current EPA administration will take to implement the rule, or if it will now act within the normal procedure to amend or rescind the rule. Because of the RMP rule changes and their significance to LEPCs, LEPC members must be aware of the proposed RMP rule changes and their implementation and facilities should consult legal counsel, the appellate court ruling, and any EPA guidance issued prior to the delay for more information regarding the rule and any changes now in effect.

Related Texas Regulation

Texas Clean Air Act

5 THSC §382 establishes TCEQ authority to regulate and control the quality of air in Texas. Regulations are located at 30 TAC §101 to §122. Rules appear on the TCEQ rulemaking website.

Process Safety Management

29 CFR 1910.119 contains the OSHA regulations for the Process Safety Management of Highly Hazardous Chemicals standard. Specific standards for certain industries, including explosive and pyrotechnic manufacturers, petroleum refiners and those covered by the National Emphasis Program, appear in separate OSHA publications. Refer to the OSHA Process Safety Management website for more information and to download copies of OSHA publications that are related to process safety management.

Related Texas Regulation

Texas Health and Safety Code–Hazardous Substances

6 THSC §501 defines hazardous materials under Texas Law and contains regulatory authority for DSHS to regulate flammability standards, ban hazardous substances and set up labeling and packing requirements. DSHS rule-making authority must conform with regulations under federal statute, including the Hazardous Substances Act (15 USC 1261), the Consumer Product Safety Act (15 USC 2051), the Flammable Fabrics Act (15 USC 1191) and the Poison Prevention Packaging Act (15 USC 1471).

Chemical Facility Anti-Terrorism Standards

The Chemical Facility Anti-Terrorism Standards (CFATS) first came into effect in 2007. In 2014, the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014 reauthorized the program. CFATS uses a risk assessment program to identify certain high-risk facilities and require them to meet certain performance-based security standards. For more information, refer to the DHS CFATS website. DSHS has issued an Interim Final Rule implementing federal security regulations for high-risk chemical facilities with chemicals of interest above certain quantities.

Executive Order 13650

EO 13650 created the Chemical Facility Safety and Security Working Group. This group sought to improve chemical facility safety and security after the West disaster. Specifically, the EO sought to "improve federal and state coordination with local communities, increase federal agency coordination and information sharing, modernize policies, regulations, and standards, and work with stakeholders to identify best practices." The working group proposed a series of regulatory changes in addition to several changes at the federal level implemented by the EO, many of primary interest to LEPCs. These included rule and proposed rule changes to the Risk Management Program of the Clean Air Act, the OSHA Process Safety Management Standard, Chemical Plan National Emphasis Program, and CFATS and handling procedures for ammonium nitrate prills. All of the working group's recommendations appeared in a May 2014 Report, Executive Order 13650: Actions to Improve Chemical Facility Safety and Security–A Shared Commitment: Report for the President.

Texas Related Legislation

Texas House Bill 942

In September 2015, the Texas Legislature changed the management of the Tier II reporting system in Texas. House Bill 942 transferred the responsibility for Tier II compliance (under EPCRA) from DSHS to TCEQ. Additionally, the bill changed the Agriculture Code related to ammonium nitrate storage facilities, affecting rules related to inspection and compliance and requiring such facilities to register and report under the Tier II reporting system.

Oil Pollution Act

The Oil Pollution Act of 1990 (33 USC §2701 et seq.), passed after the Exxon Valdez disaster, streamlined the regulatory authority for EPA and the U.S. Coast Guard (USCG) to regulate and respond to oil spills from vessels and facilities in the U.S. and updated the legislation and legal requirements previously under other legislation. Under the act, EPA regulates and responds to spills on land, and USCG licenses oil-carrying vessels and responds to spills in, or threatening, navigable waters. The act set up an oil spill response trust fund that operates like the superfund under CERCLA/EPCRA. The act requires response plans from transport vessels (sent to the Coast Guard) and oil storage facilities (sent to EPA). The law also requires area contingency plans for responses on a regional scale. Full regulation is at 40 CFR 109 to 113. Facility response plans fall under Section 112 of the Clean Water Act (see above).

Related Texas Legislation

Texas Oil Spill Prevention and Response Act

The Texas Oil Spill Prevention and Response Act (2 TNRC §40) establishes the regulatory responsibilities for various state agencies involved in preventing and responding to oil spills. Regulations are at 31 TAC §19.

Conservation and Regulation of Oil and Gas

3 TNRC §85 includes regulatory authority for General Land Office response to oil spills in Texas coastal waters. Regulations are at 31 TAC §1 to 25.

Railroad Commission Authorities and Responsibilities

3 TNRC §91 includes regulatory authority for the Railroad Commission over oil and gas exploration and extraction and its transportation via pipelines. It also includes spill response measures. Regulations are at 16 TAC §1, §3, §4, §8 and §18.

Appendix C. Sample LEPC Bylaws and Rules

BYLAWS OF THE [COUNTY NAME] COUNTY LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)

[Each LEPC has its unique characteristics, and each LEPC should make sure their bylaws or plans are not simply a copy-paste of a template, but carefully –tailored to their individual organizational needs. The bylaws listed below, with blue headers and black text, are from the 2006 LEPC Handbook. Comments below sections in this template [in red and in brackets] identify some additional considerations that your LEPC might want to think about before finalizing or updating its bylaws. Use a good internet search tool to obtain bylaws of other LEPCs, and adapt them to what works best for your community. See the action items at the end of Module 3 in the *2018 Texas Local Emergency Planning Committee Guide* for some starting points.]

Article I. Name and Purpose.

Section 1. Name.

The name of this organization is the [County] Local Emergency Planning Committee, hereinafter referred to as the "LEPC."

Section 2. Purpose.

The purpose of the LEPC shall be:

A To carry out for [County] those responsibilities established for the LEPC by Public Law 99-499, Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, the Emergency Planning and Community Right-to-Know Act (EPCRA) and related regulations, including but not limited to:

(1) Assistance in developing, training and testing of (a) hazardous substance emergency response plan(s) for jurisdictions within [County].

(2) Development of procedures for regulated facilities to provide notification to the LEPC in accordance with EPCRA.

(3) Development of procedures for receiving and processing requests from the public under the community right-to-know provisions of EPCRA.

(4) Provision for public notification of committee activities.

[For paragraph A, in addition to EPCRA some LEPCs refer to the corresponding state laws including Texas Health and Safety Code Chapter 505 (Manufacturing Facility Community Right-to-Know Act), Chapter 506 (Texas Public Employer Community Right-to-Know Act), and Chapter 507 (Texas Non-Manufacturing Facility Community Right-to-Know Act), and other applicable state regulations. For item 1, some LEPCs state specific which EOP annexes they shall review annually. In addition to the Hazardous Materials Response Annex (currently Annex Q in most EOPs), the following annexes contain content that is also necessary for fulfilling EPCRA planning requirements: The Basic Plan; Warning; Shelter and Mass Care; Evacuation; Public Information; and Resource Management. Identifying the specific content in these annexes that relate to EPCRA may make future reviews easier.

Consider including your Radiological Annex (Annex D) in the reviews as well. See Modules 3 and 5 in the *2018 Texas Local Emergency Planning Committee Guide* for more information on EOPs and evaluating your plan, respectively.]

B. To implement such other and further related activities as hereafter legally required by the federal government, the State Emergency Response Commission (SERC) or the County Judge.

[Some LEPCs include statements on ensuring compliance with notification and reporting requirements of EPCRA, ensuring requirements to maintain and enhance security, forming partnerships between government and industry, performing hazard analysis, maintaining databases on chemical hazards locations and quantities, and other data management activities. Some LEPCs have included a statement that the purpose of their organization is to operate as a non-profit, 501(c)(3) charitable organization. LEPCs might also consider a section that links LEPC purpose to goals established by the LEPC and references effectiveness measures and an improvement process. See the Action Items in Module 9 of the *2018 Texas Local Emergency Planning Committee Guide* for ideas on goal setting and LEPC effectiveness.]

Article II. Membership.

Section 1. Qualification.

The organization shall consist of those members nominated by the County Judge and approved by the SERC for membership in this body. Those persons named shall represent the various professional and community groups as designated by EPCRA. Members of the LEPC shall be residents of or conduct business in [County].

[The requirement for residence or conducting business in the jurisdiction may be too restrictive. Some LEPCs modify this statement to include those who generate potential hazmat impacts in the jurisdiction, or those who represent special expertise to the LEPC. Some LEPCs, especially in major industrial areas, expand this section to include classes or categories of membership according to governmental (appointed) members, industrial or facility members, and affiliate members. These classifications can link back to both membership/participation requirements, voting rights, and dues/fees structures that contribute to LEPC finances. See Module 3 of the *2018 Texas Local Emergency Planning Committee Guide* for a more complete discussion of membership requirements under EPCRA.]

Section 2. Officers.

The LEPC will elect officers to conduct meetings, appoint subcommittees, keep minutes and otherwise accomplish the work of the LEPC.

[Some LEPCs modify this statement allowing the lead elected official in the jurisdiction to appoint officers. Some LEPCs include provisions related to the keeping of financial records as part of officer duties.]

Section 3. Terms of Membership.

Membership in the LEPC, once established, shall be for a period of two years. Members may be selected to succeed themselves or to move to other positions on the LEPC. No term limits are established for this jurisdiction. The term of office for LEPC elected or appointed members shall be as provided in Article III, Section 3.

[The periods above and the term limitation clause may be adjusted according to the needs of the LEPC. Some LEPCs differentiate between voting members (for example, who participate in the LEPC as required under all applicable provisions of the bylaws), and non-voting members. Voting restrictions to "active" members may be limited to more significant business issues such as election of LEPC officers or disbursement of funds above a threshold amount, whereas more routin voting includes all members. Consider including a requirement that all LEPC members provide a valid email address to facilitate communication of LEPC business (see comments for Article VI, Section 1).]

Section 4. Vacancies.

Any vacancy occurring in the LEPC by reason of the resignation, death or disqualification of a member shall be filled by appointment in accordance with Article II, Section 1. The Executive Committee may make suggestions for candidates to fill vacant positions to the County Judge, who will make his or her recommendation to the SERC for approval.

[Some LEPCs allow the LEPC Chair or Executive Committee to fill vacancies, decisions that may or may not be subject to approval by LEPC membership. This approval process is especially useful for 501(c)(3) LEPCs. Technically, approval may still need to pass through the lead elected official and the SERC, through which membership updates are to be submitted and approved on an annual basis.]

Section 5. Duties.

The LEPC shall assist established emergency planning offices within the county with planning emergency response and public information as directed by laws.

[Some LEPCs include participation in meetings and standing committees as membership requirements. See Article IV, Section 5.]

Section 6. Meetings.

There shall be at least [XX] regular meetings of the committee per year. The Chairperson may call special meetings of the LEPC at such time and place as the Chairperson may determine. The Chairperson must call a special meeting of the LEPC upon the written request of five members. The special committees shall meet as the work under their groupings proceeds.

[Even some very engaged LEPCs do not hold monthly meetings. This section may specify a frequency (meetings per year) or an interval (monthly, quarterly, etc.). Meeting schedule provisions can include an option to not hold a meeting, for example during holiday seasons with upon approval of members. Minimally, quarterly meetings maintain functional continuity, and many LEPCs find bi-monthly meetings work better than quarterly meetings. Many executive committees,

standing committees, special committees, and workgroup meetings meet more frequently than the whole LEPC, as their work requires. In this way, committees and workgroups carry out the bulk of LEPC business, outside of formal LEPC meetings2, reporting their actions and receiving committee authorizations during regular meetings.

Section 7. Quorum.

The presence of 33 percent of the members of the LEPC at the opening of the meeting shall constitute a quorum for the transaction of business by the LEPC. For the purposes of standing committee meetings, the presence of three members shall constitute a quorum for the transaction of business.

[This is a critical but frequently overlooked stipulation. Many LEPCs maintain out-of-date membership lists along with lists of attendance, participation, and dues, and the cycle of updating LEPC membership lists by lead elected officials and the SERC is annual. If your LEPC has a lot of "in name only" members who seldom or never show up for meetings, it may be difficult to accomplish official business under the Quorum rules. While LEPCs may escape complications for a time for decisions that lacked an official quorum, a lack of an official quorum makes business decisions made by the LEPC invalid and could present the LEPC with legal complications. A common strategy addressing this problem specifies a minimum number, not percent, of members present for a quorum under the bylaws. For example, one very engaged LEPC requires ten members at the opening of an LEPC meeting for obtaining quorum, and they require three members present for committee meetings. This requirement can vary by jurisdiction size, constituents, and activity.]

Article III. Officers.

Section 1. Enumeration of Officers.

The officers of the LEPC shall be a Chairperson, Vice-Chairperson, and Secretary-Treasurer, who are elected by the committee as a whole in the manner herein provided. All officers shall be members of the LEPC.

[Some LEPCs significantly expand descriptions of officer responsibilities from those covered in this template under Sections 4, 5, and 6. Also, see comment under Article II, Section 2. Some LEPCs specify or recommend that Officers, the Information Coordinator, and Committee Chairs shall complete training on EPCRA. Some LEPCs specify a separate LEPC Coordinator as a paid function under a local government agency, with significant organizational duties. See also Module 3 in the 2018 Texas Local Emergency Planning Committee Guide for expanded officer descriptions.]

Section 2. Nomination and Election of Officers.

Prior to the expiration of the officers' terms of service, nomination and election of officers shall occur. Nominations shall be accepted from the floor for the positions of Chairperson, Vice-Chairperson, and Secretary-Treasurer. The election shall be by

ballot, except when there is only one nomination for each office, in which case election may be by voice vote. These officers shall be selected by the majority of the members of the LEPC present and voting at the meeting.

[See comment under Article II, Section 2.]

Section 3. Term of Office.

The term of the officers elected at the organizational meeting shall expire on December 31, ___. Thereafter, the term of the officers shall be for a period of [X] years.

[The organizational meeting referred to here is the initial meeting of a new or resurrected LEPC and refers to the temporary election or nomination of officers at that meeting in order to establish the LEPC. This or a separate section needs criteria that specify conditions and authority for removal from office. Also, consider tying terms of appointment to a specific cycle, such as end of a calendar year, every even or odd year, or to coincide with the LEPC's fiscal year (see Article V, Section 1). Some LEPCs specify a limited number of terms of service in each position, others specify no term limits (see Article II, Section 3).]

Section 4. Chairperson.

The Chairperson shall preside at all meetings of the LEPC, shall serve as an ex officio member of all committees, and shall perform such duties and acts as necessary to accomplish the goals of the LEPC. The Chairperson shall be empowered to create such other ad hoc committees as necessary to accomplish the goals of the LEPC.

[Some LEPCs provide for a Chairperson Emeritus position. This individual provides advice and counsel to the Executive Committee as a non-voting member for a limited term and serves as an ex officio member of all committees. LEPCs may wish to expand the duties and job description contained in this section, see comment under Article III, Section 1.]

Section 5. Vice-Chairperson.

Upon resignation or death or in the absence of the Chairperson, the Vice-Chairperson shall perform the duties of the Chairperson. The Vice-Chairperson shall perform such other duties as may be assigned by the Chairperson.

[LEPCs may wish to expand the duties and job description contained in this section, see comment under Article III, Section 1.]

Section 6. Secretary-Treasurer.

The Secretary-Treasurer, in cooperation with the Information Coordinator, shall be the custodian of all books, papers, documents and other property of the LEPC. The Secretary-Treasurer shall keep a true record of the proceedings of all meetings of the LEPC. Additionally, the Secretary-Treasurer, in conjunction with the Information

Coordinator, shall attend to the business needs of the LEPC and shall maintain an accurate record of all monies received and expended for the use of the LEPC.

[Some LEPCs designate separate Secretary and Treasurer positions. LEPCs may wish to expand the duties and job description contained in this section, see comment under Article III, Section 1.]

Section 7. Information Coordinator.

The LEPC shall appoint an Information Coordinator. The Coordinator shall process requests from the public for information under Section 324, including Tier II information under Section 312. Additionally, the Coordinator shall assist the Secretary-Treasurer in records management and financial matters. The Information Coordinator shall be a non-voting member of all committees and the LEPC.

[It is unclear why the Information Coordinator is a non-voting member of committees and/or the LEPC in the sample bylaws. Non-voting status is not a requirement of EPCRA but may streamline official business proceedings of the Executive Committee or standing committees, or it may relate to the handling of certain LEPC business functions and conflicts of interest. Some LEPCs do not restrict voting for the holder of this position. Some LEPCs designate a member of the jurisdiction's emergency management staff as Information Coordinator, which facilitates handling of LEPC records or facility records via state and local agencies for public right-to-know requests. LEPCs may wish to expand the duties and job description contained in this section, see comment under Article III, Section 1.]

Article IV. Committees.

[Some LEPCs specify provisions for resignation or removal from committees that are distinct from those used for officers (see comment for Article III, Section 3) or members (see comment for Article V, Section 4). The word "Committee(s)" as used in this template and by most LEPCs is understood to refer to what are technically "Subcommittee(s)", since each is under the Local Emergency Planning *Committee*. LEPCs should consider expanding the descriptions below and incorporating additional Sections if needed to establish standing committees that meet the needs of their jurisdiction and the LEPC goals. See Module 3 of the 2018 Texas Local Emergency Planning Committee Guide for ideas.]

Section 1. Executive Committee.

The Executive Committee shall consist of the Chairperson, Vice-Chairperson, Secretary-Treasurer and chairpersons of the standing committees as described below. The Information Coordinator shall serve as a non-voting member of this Executive Committee. The duties of the Executive Committee shall be to coordinate activities of the standing and ad hoc committees.

[See comments under Article III, Section 4 (Chairperson) and Section 7 (Information Coordinator) regarding membership and voting rights. Some LEPCs specify a Facilities/Plant Managers' Liaison position as a non-voting member of the Executive Committee, or as an Officer position (See Article III). See Module 3 of the

2018 Texas Local Emergency Planning Committee Guide for more duties of an Executive Committee or Subcommittee.]

Section 2. Standing Committees.

The following standing committees shall be established:

A. Right-to-Know Committee. This committee shall be responsible for the formulation of all policies and procedures concerning the public's right-to-know program; the formulation of all chemical release reporting procedures; the establishment of trade secret protection procedures; and the formulation of all record keeping and information dissemination procedures for the LEPC.

B. Public Education and Information Committee. This committee shall be responsible for the review of the public alert and notification program; the public relations with affected communities and the public at large; all publicity of the LEPC; and the development of the public education and information program.

C. Hazardous Materials Facilities Liaison Committee. This committee shall be responsible for the procedures for identifying and communicating with affected facilities. This committee shall work with the Emergency Response and Resources Committee and with affected facilities to review and help the local emergency management office(s) test a hazardous substance emergency response plan for the planning district as required by law.

[Some LEPCs include a responsibility for this or similar committees to work with facilities and hazmat transport carriers to ensure compliance with EPCRA.]

D. Emergency Response and Resources Committee. This committee shall work with the Hazardous Materials Facilities Liaison Committee and with existing emergency response organizations in jurisdictions within the planning district to review and help the local emergency management office(s) test a hazardous substance emergency response plan for the planning district as required by law. This committee shall review existing federal, state and local plans for coordination with the LEPC planning process.

[Add to, modify, or combine committees on this list as necessary. See also Module 3 of the *2018 Texas Local Emergency Planning Committee Guide* for more ideas on Committees or Subcommittees, including those for: Planning; Training and Exercises; Resource Development; Membership; Finance; and Transportation.]

Section 3. Meetings.

The LEPC Chairperson or the chairperson of the committee will call meetings of the standing and ad hoc committees as deemed necessary.

[LEPCs may wish to modify this section and the subsequent sections to specify more specific meeting guidelines or procedures by which subcommittees conduct their business, perhaps by referencing rules of order, or specifying how often subcommittees must report to the full LEPC or receive authorization for certain actions voted out of their subcommittee at meetings and the quorum, procedures for doing so.]

Section 4. Chairperson of the Standing Committees.

Respective committees will nominate and elect the chairpersons of the standing committees. Committees will conduct voting as described in Article III, Section 2.

[Some LEPCs indicate that Chairpersons will be approved by vote of the LEPC. Alternately, the LEPC may wish to set up a system wherein standing committee chairs are appointed by the Executive Committee or the LEPC Chairperson. Some LEPCs indicate duties of the Chairperson are to report minutes and attendance to the Executive Committee or an LEPC Officer. LEPCs may wish to reference rules of order, quorum, or other considerations in the election of standing committee chairs.]

Section 5. Membership of Standing Committees.

All members must volunteer to serve on at least one standing committee and shall not serve on more than two standing committees. Final membership of the standing committees shall be determined by the chairperson after consultation with the Executive Committee to ensure that all committees have enough staff to carry out their assigned tasks.

[For small LEPCs, requiring all members to serve on at least one committee is useful for meeting committee membership needs. LEPCs with such requirements emphasize this requirement during election and committee assignment periods. For extremely large LEPCs, this requirement can prove excessive. These LEPCs often modify the requirement, making committee service a requirement for members every two out of four years, or some other increment. Additionally, LEPCs may wish to consider establishing membership pre-requisites for some standing committees related to position, training or experience, for example a requirement that Hazardous Materials committee members complete certain hazardous materials training or possess certain competencies or certifications.]

Section 6. Ad Hoc Committees.

The LEPC Chairperson may create ad hoc committees as necessary to perform the functions of the LEPC. The LEPC Chairperson will appoint Chairpersons of ad hoc committees.

[Some LEPCs include a statement limiting ad-hoc committee performance and associated tasks and authorities to specific activities and timelines as specified by the Chairperson or Executive Committee. LEPCs may also modify this position requiring LEPC approval for the creation of ad hoc committees.]

Article V. Miscellaneous Provisions.

[Some LEPCs include section(s) under this article related to dues, fees, and assessments as contributions to the LEPC, with an attachment specifying dues and fees structures for LEPC member organizations, or they require renumeration to the LEPC for expenses incurred during emergencies or events. Some LEPCs (particularly applicable to non-501(c)(3) entities) include in Section 2 or a separate section

under this article the designation of a fiscal agent, typically the primary governmental jurisdiction, that will manage the LEPC's funds, grants, and donations, according to that agent's rules, regulations, and/or procedures. Some LEPCs (particularly applicable to 501(c)(3) entities) include a section on financial accountability covering purchases and payments, accounts, auditing/reviews, use of funds, etc. Some LEPCs include a section on liability, stating that members are not liable for civil damages when performing LEPC duties under the Texas Disaster Act (consult legal counsel regarding whether such provisions may apply to your LEPC).]

Section 1. Fiscal Year.

The fiscal year shall run from October 1 to September 30.

[The time period used here is the federal fiscal year, which may facilitate coordination with some federal grant program cycles. The LEPC could modify the fiscal year cycle according to calendar year, state fiscal year (September 1-August 30), or other 12-month period, as desired.]

Section 2. Indebtedness.

All indebtedness incurred by the LEPC shall be approved by the Chairperson before payment by the Secretary-Treasurer.

[Some LEPCs specify that expenditures over a certain threshold must be approved by the LEPC, a Finance Subcommittee, or the LEPC's Executive Committee.]

Section 3. Approval of Bylaws.

These bylaws become effective upon approval by a majority by those in attendance at the organizational meeting.

[This section applies to only to the initial adoption of the bylaws. See Article VI, Section 1 about provisions for amendments to the bylaws. Some LEPCs indicate that the jurisdiction's lead elected official may approve bylaws, in place of a majority of those in attendance..]

Section 4. Disqualification.

Any member who is unable to attend a regular meeting of the LEPC may notify the Secretary-Treasurer or Information Coordinator. Any member with five or more absences is subject to being disqualified at the request of the LEPC to the County Judge and the SERC.

[The number of allowable absences varies between LEPCs and their meeting frequency. Some LEPCs specify a time limit (before or after the missed meeting) by which a member or officer shall notify the LEPC with a valid reason for non-attendance. The meaning of "disqualification" in this section lacks definition and LEPCs may include further detail, for example, specifying disqualification of membership and/or voting rights. Some LEPCs specify conditions prior to disqualification and under which they send notification of pending disqualification to members (e.g., missing X number of meetings), probation (e.g., missing Y number

of meetings), and full disqualification. Many LEPC members face challenges with regular attendance, and LEPCs generally prefer flexibility in these requirements, while keeping in mind the comments under Article II, Section 7 (Quorum)..]

Article VI. Amendments.

Section 1. Amendments.

A two-thirds vote of members present may amend these bylaws at any meeting of the LEPC, provided that any proposed amendments to these bylaws are submitted in writing to all members with a valid electric mail address at least one week in advance of the meeting.

[The threshold above may not constitute a quorum. While a "member's present" clause helps make necessary changes when an LEPC is in disarray and suffers a lack of participation, such clauses leave the LEPC vulnerable to abuse by a subset of LEPC members. Consider extending the timeline for notification (one month, one quarter, etc.), since LEPC membership is voluntary and usually an additional duty for already busy members. Some LEPCs require submitters propose amendments at a meeting, then distribute them in writing, and that the LEPC then schedule a vote at a subsequent meeting. Some LEPCs allow conditional approval by the LEPC Executive Committee. The Executive Committee then forwards a formal request to the jurisdiction's lead elected official for final approval.]

Article VII. Rules.

EPCRA requires that the LEPC "shall establish rules by which the committee shall function. Such rules shall include provisions for public notification of committee activities, public meetings to discuss the emergency plan, public comments, response to such comments by the committee, and distribution of the emergency plan." The final rules are attached to these bylaws.

[In addition to sections below, some LEPCs include sections under this article related to Public Information Access and Trade Secrets that delineate conditions and procedures. In this template, those sections appear under the LEPC Final Rules, Sections IV and V.]

Section 1. Adoption of Rules; Publication of Proposals.

The LEPC may, as necessary and proper, adopt rules of general application governing the execution of its responsibilities under EPCRA and related applicable regulations. Any such rules must first be published in proposed form not fewer than 10 days prior to final adoption by the LEPC. Publication shall be affected through posting of the proposed rule and a statement of basis and purpose on the public bulletin board located on the _____of [County], Texas. (The proposed rule together with the statement of basis and purpose is hereafter referred to as "notice of proposed rulemaking.") Such notice of proposed rulemaking shall invite written public comment on any aspect of the proposed rule during the 10-day period. The LEPC Information Coordinator is encouraged, but not required, to mail notices of the proposed rulemaking to interested local government officials, industries and citizens.

[Some LEPCs extend the publication/comment period timeline for proposed rule changes and include requirements and procedures for posting proposed changes

electronically and/or printed copies or by placing notices in local media or on a website.]

Section 2. Method of Initiating Proposed Rulemaking.

Any member of the LEPC may recommend the initiation of proposed rulemaking. Any proposed rules shall be initially considered by the Executive Committee, unless otherwise decided by the LEPC. If the Executive Committee, by majority vote, approves a proposed rule, it shall thereafter proceed to publication as provided in the preceding section.

[LEPCs may modify this section if they desire, some may establish a Rules subcommittee instead of an executive committee to deal with rule making, for example, or specify the rules of order for proposing, seconding, and approving proposed rules for consideration and/or amendment.]

Section 3. Method of Adopting Final Rules.

Following the expiration of the 10-day comment period, the Executive Committee shall review all public comments and prepare a statement that responds to comments raised and discusses the basis for any appropriate changes to the proposal. The Executive Committee shall present such statements to the LEPC. The LEPC shall then vote on the adoption of the proposed rule. If the LEPC acts favorably, the rule shall take effect immediately upon the time and date the notice of adoption is first published unless the LEPC determines otherwise.

[See comment for Article VII, Section 1, regarding comment period timeline.]

Section 4. Notice of Adoption.

Upon adoption of any rule by the LEPC, the Information Coordinator shall also publish the LEPC response to comments received and any changes to the proposal made in response to such comments. Publication of the final rule shall be in the same manner as that for the proposed rule. Nothing herein shall require a specific response to each comment received.

Section 5. Emergency Rules.

In emergency circumstances, to be determined, the LEPC may adopt rules without prior public notice and comment, provided that no such rule remains in effect for more than 90 days.

[LEPCs should define emergency circumstances and how they are established to prevent abuse of this section.]

Article VIII. Parliamentary Authority.

Section 1. Parliamentary Authority.

The rules contained in *Robert's Rules of Order, Newly Revised,* shall govern this committee in all cases to which they are applicable and in which they are consistent with these bylaws.

[LEPCs may use other rules, specify an edition, or reference local governmental rules of order or procedure].

Attachment: County LEPC Final Rules

[COUNTY NAME] COUNTY
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)

Final Rules

[MODIFY AS NECESSARY]

I. Definitions

Unless otherwise stated, all terms herein shall be defined in accordance with the definitions provided in Title III of the Superfund Amendments and Reauthorization Act of 1986, Public Law 99-499 (the "Act"), and regulations adopted in accordance therewith.

II. Public Notification and General Participation

A. The LEPC shall publish notice of all its meetings, and all subcommittee meetings, on the public bulletin board located on the _____of the_____ County of___, Texas, at least 72 hours prior to any such meeting. In emergencies, declared by the Chairperson and confirmed by a majority of the LEPC in attendance at an emergency meeting, the 72-hour notice may be waived in accordance with Section 3A(h) of the Texas Open Meetings Act (TOMA), Tex. Rev. Civ. Stat. Ann art. 6252-17.

B. All meetings of the LEPC or any subcommittee thereof shall be open to the public, except under circumstances where the TOMA permits otherwise. The Chairperson shall afford a reasonable period at the beginning of each regular monthly meeting to accept oral public comments on any aspect of the LEPC's mission or functions.

C. Not less than once each calendar year, the Chairperson shall cause to be published in a newspaper of general circulation in [County] a notice that written public comment is invited during a 30-day period on any aspect of the LEPC's organization, membership, functions, planning process or purpose. Such notice shall comply in all respects with Section 324(b) of the Act and present a brief explanation of the LEPC's statutory purpose, the location of LEPC minutes and other records, and the name and address of the person designated by the Chairperson to receive written comments.

D. The LEPC shall review all comments received and shall publish, in the manner described in Subsection A of this section, responses to major issues raised in such public comments. Nothing herein shall require the LEPC to respond to each comment received.

III. LEPC Participation in the Planning Process

A. The Texas Disaster Act of 1975, as amended, requires each local and inter-jurisdictional agency to prepare and keep current an emergency management plan for its area. Additionally, in accordance with a Governor Executive Order, the mayor of each municipal corporation and the county judge of each county in

the state are the designated Emergency Management Directors for each such political subdivision. In Texas, LEPCs are therefore not the primary entity responsible for the composition and maintenance of an emergency management plan.

B. The LEPC shall strive to work with the local governments, which are responsible for the emergency management plans, on the areas of LEPC responsibility within the plans.

   (1) The LEPC shall review such plans once a year or more frequently as changed circumstances in the community or at any facility may require. The primary focus should be with those parts of the plan that cover the following categories: warnings, population protection, emergency public information, resource management, and hazmat response.

   (2) The LEPC shall evaluate the need for resources necessary to develop and implement the emergency plan and shall make recommendations with respect to additional resources that may be required.

C. The LEPC should maintain copies of current plans and annexes of each jurisdiction it serves.

IV. Public Access to Information

A. In accordance with Section 324 of the Act, all information obtained from an owner or operator pursuant to EPCRA and any requested Tier II form or Safety Data Sheet (SDS, formerly Material Safety Data Sheet) otherwise in possession of the LEPC shall be made available to the person submitting the request under this section, provided that upon request of the owner or operator, the LEPC withholds from disclosure the location of any specific chemical identified in the Tier II form.

B. All information requested to be photocopied by any member of the public shall be provided at the sole expense of such persons. The cost of such photocopying shall be set periodically by the Information Coordinator, with the approval of the Executive Committee, at a level that enables the LEPC to recover all reasonable expenses associated with processing the request.

C. Copies of the LEPC bylaws, proposed rules or rules shall be provided at no charge to the public, although the Information Coordinator is authorized to recover reasonable expenses for photocopying in the case of requests for multiple copies made by any single individual or entity.

D. Requests for SDS and other non-confidential information shall be subject to the following:

   (1) Any person may obtain a SDS with respect to a specific facility by submitting a written request to the Information Coordinator.

   (2) Any person may obtain any other non-confidential information in the possession of the LEPC by submitting a written request to the Information Coordinator.

(3) If the LEPC does not have in its possession the SDS or other information requested in Subsections D1 or D2 of this section, it shall request a copy of the SDS from the owner or operator of the facility that is the subject of the request. The LEPC shall only make requests for information it is required to maintain or collect pursuant to applicable law.

E. Requests for Tier II information shall be subject to the following:

(1) Any person may request Tier II information with respect to a specific facility by submitting a written request to the LEPC in accordance with the requirements of this section.

(2) If the LEPC does not have in its possession the Tier II information requested in Subsection E1 of this section, it shall request a submission of the Tier II form from the owner or operator of the facility that is the subject of the request, provided that the request is from a state or local official acting in his or her official capacity or the request is limited to hazardous chemicals stored at the facility in an amount in excess of threshold planning quantities.

(3) If the request under Subsection E1 of this section does not meet the requirements of Subsection E2 of this section, the LEPC may request submission of the Tier II form from the owner or operator of the facility that is the subject of the request if the request under Subsection E1 of this section includes a general statement of need.

V. Trade Secrets

A. Except as provided in this section and the guidance provided by the Office of the Attorney General of Texas in the *Public Information Act Handbook* and other determinations as applicable, all information submitted to the LEPC by facilities pursuant to EPCRA shall be public information.

B. Other than a claim designated in this section or the *Public Information Act Handbook*, the LEPC shall not honor any business confidentially or trade secret claims.

C. Pursuant to Section 312 and Section 214(a) of the Act, the location of specific chemicals requested to be submitted with Tier II information shall be maintained as confidential by the LEPC provided that a claim of confidentiality is submitted with the information and satisfies all applicable requirements for such claims under EPCRA and any regulations promulgated pursuant to the same. Such information shall be exempt from disclosure by the LEPC permanently or until:

(1) An authorized governmental agency–and if applicable, a court or competent jurisdiction in the case of any appeals–makes a final determination that such information is not subject to a valid claim of business confidentiality or trade secret.

(2) The LEPC receives a written notice of such determination.

Appendix D. LEPC Membership Update Form

In addition to formal updates to the Texas Department of Public Safety -Division of Emergency Management (DPS-TDEM) on the attached form, the Texas Commission on Environmental Quality (TCEQ) also requests contact information updates from Local Emergency Planning Committees (LEPCs) as part of its administration of the Tier II reporting system. See https://www.tceq.texas.gov/permitting/tier2/local-emergency-planning-committee.html. LEPCs should therefore email contact information updates to both soc@dps.texas.gov and Tier2Help@tceq.texas.gov though TCEQ does not require the use of the form below, nor its specificity.

Local Emergency Planning Committee
Membership Update Form

State Emergency Response Commission
c/o TDEM Operations Section
Post Office Box 4087 Austin, TX 78773
(512) 424-2208
E-Mail: soc@dps.texas.gov

BOX A Box A must be filled in and signed by the County Judge or an appointed EMC before returning form(s) to the SERC)	
Legal Name of LEPC:	
County/Counties:	Is this your entire LEPC membership listing? ☐ Yes ☐ No
County Judge's First Name:	Last Name:
County Judge's Approval *(signature required)*:	Date:

LEPC Membership Categories

(In accordance with Public Law 99-499, Section 301(c))
Note: SERC may release information to the public under the Texas Open Records Act. Use work address and phone number.

Community Group	CG	Health	HE	Information Coordinator	IC
Emergency Management	EM	Hospital	HO	Print/Broadcast Media	PBM
Emergency Medical Service	EMS	Law Enforcement	LE	State/Local Official	SLO
Facility Owners/Operators	FO	Local Environmental Group	LEG	Transportation Personnel	TP
Firefighters	FF	Health	HE	Other	OTH

Box 1: Chairperson Update Information			
Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Fax Number:	
Organization/Agency:			LEPC Membership Category: **CP**
Address:			
City:		State**: TX**	Zip Code:
Box 2: Vice Chairperson Update Information			
Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Fax Number:	
Organization/Agency:			LEPC Membership Category: **CV**
Address:			
City:		State: **TX**	Zip Code:

Please provide a point-of-contact in the event there are questions about the information contained on these forms.
Thank you.

Contact Name:	Email:	Phone:

LEPC Member Updates

Reproduce this page if necessary.
Always complete Box A and Box 1 on first page when submitting member updates.

Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Is this person a new member?	Yes ☐ No
Organization/Agency:		LEPC Membership Category:	
Did this person replace a previous member? ☐ Yes ☐ No		Previous member's name:	

Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Is this person a new member?	Yes ☐ No
Organization/Agency:		LEPC Membership Category:	
Did this person replace a previous member? ☐ Yes ☐ No		Previous member's name:	

Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Is this person a new member?	Yes ☐ No
Organization/Agency:		LEPC Membership Category:	
Did this person replace a previous member? ☐ Yes ☐ No		Previous member's name:	

Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Is this person a new member?	Yes ☐ No
Organization/Agency:		LEPC Membership Category:	
Did this person replace a previous member? ☐ Yes ☐ No		Previous member's name:	

Salutation:	First Name:	Last Name:	
Job Title:		Contact Phone:	
Contact Email:		Is this person a new member?	Yes ☐ No
Organization/Agency:		LEPC Membership Category:	
Did this person replace a previous member? ☐ Yes ☐ No		Previous member's name:	

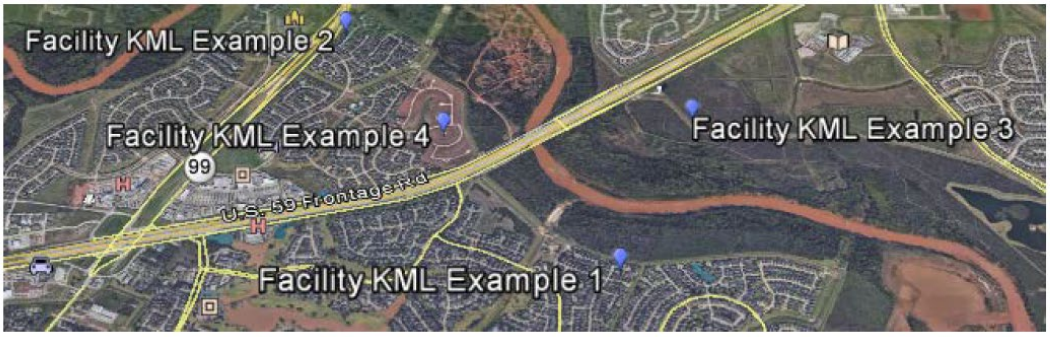
Appendix E. Google Earth KML Files and Tier2Submit

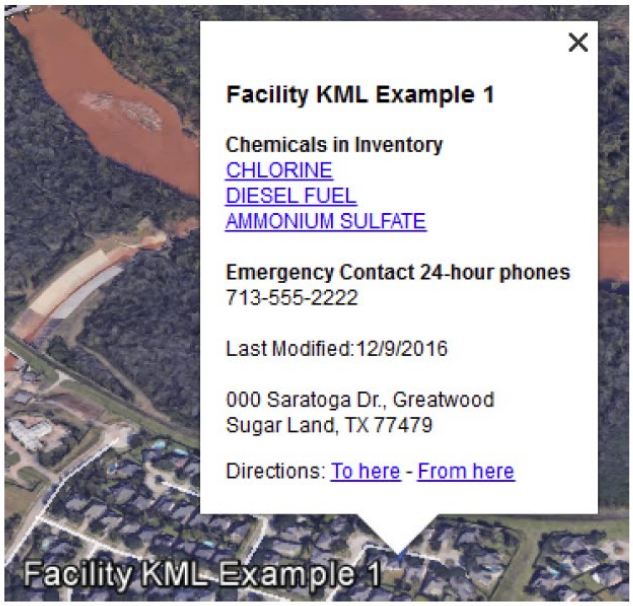
The following is a reprint of guidance from the Texas Commission on Environmental Quality (TCEQ).[1]

Guidance for KML Files

What are KML Files and how can they assist with emergency response?

KML stands for Keyhole Markup Language and is a file format used to display geographic data in Google Earth. Tier2 Submit software can create KML files that are useful for emergency responders to visualize the locations of examples below. Each facility will have a pin that you can select to see the facility's information. See examples below.





Examples of a KLM file opened in Google Earth. Top image show four facilities pinned to their locations for visualizing spatial proximity to each other.

Image on left displays when the pin is clicked on and will show chemicals in inventory, emergency contact, location and directional information for "Facility KML Example 1".

Steps to creating and viewing KML files

1. Download Google Earth: https://www.google.com/earth/
2. Create KML file in Tier2 Submit
    a. Open Tier2 Submit

b. Under the "File" menu on the top left, select "Make a KML File" from the drop-down menu
c. Select "Current Record," "Found Set," or "All Records"
d. Check the "Include Chemicals" tab if you want the chemicals listed
e. Select "Open in Google Earth" (optional)–this will automatically open in Google Earth as soon as the KML file is created.
f. Click "Make a KML" button
g. Save the KML file

3. Open the KML file by double clicking on it; it should automatically open in Google Earth.

---

[1] Texas Commission on Environmental Quality, "Guidance for KML Files," accessed August 3, 2018, https://www.tceq.texas.gov/assets/public/permitting/tier2/KML%20file%20guidance.pdf.

Appendix F. Common Radioactive Sources

Texas communities contain many radioactive sources. The following makes useful handouts that Local Emergency Planning Committees (LEPCs) can use to educate their members, responders and facilities about the dangers related to some of these radioactive sources. The handouts focus on the radioactive sources used most commonly in industry and likely to be involved in accidents or incidents, especially during transportation. LEPCs and communities should modify these pages to include their own unique circumstances, contact information, and logos or other identification.

Note: *In all but the rarest cases, the sources described below pose little to no risk to responders or the public if used as intended and transported safely.*

There is a long history of accidents, incidents and theft involving radioactive sources in the U.S. and internationally. U.S. Government efforts to reduce the number of radioactive sources in circulation and remove older source material from the market is continuing and has achieved some success. However, recent growth of oil and gas activity in Texas has increased the number of radioactive sources in the state and transiting Texas roads, leading to new incidents. LEPCs and local communities must maintain awareness of the risks posed by such hazards and incorporate them into their planning, with a focus on ensuring that Annex D (Radiation) and Annex Q (Hazardous Materials) of their local emergency operations plans incorporate procedures to recognize and address such incidents.

Many Emergency Planning and Community Right-to-Know Act (EPCRA)–regulated industries in Texas employ subcontractors to conduct nondestructive testing and other industrial activities that use radioactive source material. Facility emergency planning must reflect the dangers posed by such activities and include a plan to deal with any incident that might arise because of such activity.

Incidents and dangers occur when source containment or shielding suffers damage, improper use of a source or equipment occurs, or due to improper equipment maintenance. Theft is another issue that can result in exposed source material, when thieves sell stolen equipment for scrap.

For more information on detectors and monitors, refer to the Module 10 of this guide and the *Hazardous Materials Emergency Preparedness Projects for LEPCs* document, which contains projects and advice related to such equipment.

Remember: *The only way to know if radiation is present is to use radiation detectors/monitors.*

Nondestructive Testing Service Vehicles

About: Nondestructive testing (NDT) is the process of inspecting, testing or evaluating materials, components or assemblies for discontinuities, or differences in characteristics, without destroying the serviceability of the part or system.[1] Many methods of NDT exist, but only radiographic testing uses radiation sources. Sources can be powerful but come contained in special devices that shield the source. Incidents occur as a result of vehicle accidents during transport of such devices, the source getting stuck outside the shielding during use, or when source material is stolen or sold and used as scrap metal. For more information, refer to the U.S. Government Accountability Office's Nuclear Non-Proliferation: Additional Actions Needed to Increase the Security of U.S. Industrial Radiological Sources, June 2014, at https://www.gao.gov/assets/670/663917.pdf.

Description: Photos of radiography sources and nondestructive testing vehicles are below. NDT trucks may contain radioactive sources and may or may not have vehicle placards for radioactive materials. Not all NDT trucks have source material, but many do. These vehicles are typically a standard pickup truck with a tall box in the bed and are often white or light colored. These bed boxes resemble a windowless camper shell with a door in the back and usually have an air conditioner unit and/or generator mounted on them. Vehicles may have a company name and/or logo including the words "testing," "NDT," or "inspection."

Nondestructive test vehicle, radiation shipping labels, and industrial radiography camera (Sources: TTI, ndt.org, U.S. GAO).

Caution: If one of these vehicles is involved in a roadway accident, it is important to assess whether the vehicle contains radioactive source material. Many do not, but do not assume that is the case. Usually, these sources are in a shielded device, camera or container that, if intact, poses no threat. However, if an accident breaches the shielding/container, the exposed source may pose a significant radiation hazard.

Case Markings: (see picture above) Labels on source containers and equipment denote their radiation level if intact/undamaged:

- Radioactive White I: 0.5 mrem/hr. max. on surface
- Radioactive Yellow II: 50 mrem/hr. max. on surface; 1 mrem/hr. max. at 1 meter
- Radioactive Yellow III: 200 mrem/hr. max. on surface; 10 mrem/hr. max. at 1 meter

Response: Do not approach exposed material or damaged equipment. Isolate the immediate vicinity of the accident and consult your departmental policy for hazmat response involving radioactive material. See also the Emergency Response Guidebook (ERG), Guide #163 (radioactive material).

Safety: Remember the principles of *time, distance*, and *shielding*:

- **Time:** Limit the time you expose yourself to a radiation source.
- **Distance:** Maintain a safe distance. You do not have to get extremely far away from a source, even a highly radioactive one, to be safe. Remember: Double the distance, quarter the dose. If a source emits 10 rem of gamma radiation 1 foot from the source, the dose will be 2.5 rem at 2 feet. For serious radiological accidents, the ERG initial isolation zone is 100 meters.
- **Shielding:** Position yourself so that solid objects, like vehicles or buildings, are directly between you and the radiation source.

Radioisotope Tracking Pigs

About: The pipeline industry uses pigs to assess its pipelines. For tracking, some pigs incorporate a sealed radioactive source attached to the pig, detected along the pipeline using special sensors. The most frequent use of radioactive tracking pigs is in underwater applications, though any pipeline can use them. In their sealed containers, these pigs do not produce significant amounts of radiation and require sensitive detectors to track.

Description: Pipeline pigs come in a variety of shapes, sizes and materials. Operators attach radioactive sources to the pig just prior to the launching the pig. Sources not in use usually travel separately from pigs and in containment. Confusingly, the lead or depleted uranium lined containers radioactive sources travel in are also called pigs in the industry.

An old form of transport pig containing a radioactive source, and new forms of transport overpack with transport pig inside (Type A) (Source: IAEA)

Caution: If a vehicle transporting the source material used in pig tracking is involved in a roadway accident, it is important to assess whether the source is inside or outside of containment or the containment breached using a radiation detector. If the transport pig is intact, it poses little threat. However, if an accident breaches the shielding/container, the exposed source may pose a significant radiation hazard.

Case Markings: Source containers and equipment have labels denoting their radiation level if intact/undamaged:

- Radioactive White I: 0.5 mrem/hr. max. on surface
- Radioactive Yellow II: 50 mrem/hr. max. on surface; 1 mrem/hr. max. at 1 meter
- Radioactive Yellow III: 200 mrem/hr. max. on surface; 10 mrem/hr. max. at 1 meter

Response: Do not approach exposed material or damaged equipment. Isolate the immediate vicinity of the accident and consult your departmental policy for hazmat response involving radioactive material. See also the Emergency Response Guidebook (ERG), Guide #163 (radioactive material).

Safety: Remember the principles of *time, distance*, and *shielding*:

- **Time:** Limit the time you expose yourself to a radiation source.
- **Distance:** Maintain a safe distance. You do not have to get extremely far away from a source, even a highly radioactive one, to be safe. Remember this: Double the distance, quarter the dose. If a source emits 10 rem of gamma radiation 1 foot from the source, the dose will be 2.5 rem at 2 feet. For serious radiological accidents, the ERG initial isolation zone is 100 meters.
- **Shielding:** Position yourself so that solid objects, like vehicles or buildings, are directly between you and the radiation source.

Density Gauges

About: Industry, oil and gas exploration and extraction, and the building trades use several different density gauges and not all use radioactive material. Soil density gauges are common in the oil and gas industry and in certain road and construction trades. Construction crews may use asphalt, concrete and rooftop moisture gauges. Collectively, density gauges that use radioactive material are known as nuclear density gauges. There are four primary manufacturers in the U.S.: CPN/InstroTek, Humboldt, Seaman and Troxler.

Description: Density gauges contain a source, confined within a shield inside the instrument housing. On the instrument housing is a handle with a source/depth rod that extends the radioactive source outside the housing and into the ground or material measured, through a predrilled hole. The source rod encapsulates and seals the source material inside the rod. During transport, gauges should be inside a padded container to prevent damage, though this is not always the case. For more information, refer to www.apnga.com.

A density gauge used to measure foundation base compaction (Source: U.S. Department of Defense) and different nuclear density gauges (Source: American Portable Nuclear Gauge Association).

Caution: If a vehicle transporting a soil density gauge containing radioactive source material is involved in a roadway accident, it is important to assess whether the source material remains in containment using a radiation detector. If the gauge and/or its case is intact, it likely poses little threat. However, if an accident breaches the shielding/container, the exposed source may pose a significant radiation hazard.

Case Markings: Source containers and equipment have labels denoting their radiation level if intact/undamaged:

- Radioactive White I: 0.5 mrem/hr. max. on surface
- Radioactive Yellow II: 50 mrem/hr. max. on surface; 1 mrem/hr. max. at 1 meter
- Radioactive Yellow III: 200 mrem/hr. max. on surface; 10 mrem/hr. max. at 1 meter

Response: Do not approach exposed material or damaged equipment. Isolate the immediate vicinity of the accident and consult your departmental policy for hazmat response involving radioactive material. See also the Emergency Response Guidebook (ERG), Guide #163 (radioactive material).

Safety: Remember the principles of *time, distance*, and *shielding*:

- **Time:** Limit the time you expose yourself to a radiation source.
- **Distance:** Maintain a safe distance. You do not have to get extremely far away from a source, even a highly radioactive one, to be safe. Remember this: Double the distance, quarter the dose. If a source emits 10 rem of gamma radiation 1 foot from the source, the dose will be 2.5 rem at 2 feet. For serious radiological accidents, the ERG initial isolation zone is 100 meters.
- **Shielding**: Position yourself so that solid objects, like vehicles or buildings, are directly between you and the radiation source.

Radioactive Well Loggers

About: Two primary types of well loggers used in the oil and gas industry involve radiation: neutron generators and "sealed sources." Older sealed sources used a mixture of Americium and Beryllium, though Californium substituted in some uses. Since September 11, 2001, the Off-Site Source Recovery Program of the National Nuclear Security Administration has focused on reducing the number of sealed sources in public circulation on the resale market or abandoned by businesses that ceased operations. Neutron generators do not usually use a radioactive source and only produce radioactivity while operating like modern medical x-ray machines.

Description: Sealed sources used in well logging *usually* contain 4, 8, or 19 curie Amercium-241/Beryllium or 1.5 or 2 Curie Cesium-137. Licensed source owners and equipment operators transport sources in lead or depleted uranium metal "pigs" that shield the source and reduce exposure when not in use. Usually these sources travel inside well logging trucks (see photo below). Sources travel in a separate pig, with the sealed source inserted in the well logger prior to use at the wellhead. The sealed sources resemble a small stainless-steel tube with a radiation symbol, the contents and the activity stamped, engraved or affixed to a plaque on the side.

Well loggers on truck (Source: IAEA)

Caution: If a vehicle transporting a radioactive well logger containing radioactive source material is involved in a roadway accident, it is important to assess whether the source remains in containment using a radiation detector. If the logger is intact and in an undamaged pig, it poses little threat. However, if an accident breaches the shielding/container, the exposed source may pose a significant radiation hazard. Never handle sealed sources outside of a pig directly, intact or not.

Case Markings: Operators mark source containers and equipment with a label denoting their radiation level if intact/undamaged:

- Radioactive White I: 0.5 mrem/hr. max. on surface
- Radioactive Yellow II: 50 mrem/hr. max. on surface; 1 mrem/hr. max. at 1 meter
- Radioactive Yellow III: 200 mrem/hr. max. on surface; 10 mrem/hr. max. at 1 meter

Response: Do not approach exposed material or damaged equipment. Isolate the immediate vicinity of the accident and consult your departmental policy for hazmat response involving radioactive material. See also the Emergency Response Guidebook (ERG), Guide #163 (radioactive material).

Safety: Remember the principles of *time, distance*, and *shielding*:

- **Time:** Limit the time you expose yourself to a radiation source.
- **Distance:** Maintain a safe distance. You do not have to get extremely far away from a source, even a highly radioactive one, to be safe. Remember this: Double the distance, quarter the dose. If a source emits 10 rem of gamma radiation 1 foot from the source, the dose will be 2.5 rem at 2 feet. For serious radiological accidents, the ERG initial isolation zone is only 100 meters.
- **Shielding:** Position yourself so that solid objects, like vehicles or buildings, are directly between you and the radiation source.

Radioactive Tracers and Taggers

About: The oil and gas industry use radioactive tracers and taggers to trace the movement of an injected fluid in a production well. Use is most common in injection wells or hydraulic fracturing to avoid radioactive contamination reaching the surface or mixing with groundwater. Such tracers determine flow inside the well and/or behind the drill pipe. They can also locate leaking "packers" that companies use to seal the well and show fluid movement between wells.

Description: Radioactive tracers and taggers consist of radioactive elements added to injection fluids in a well. Operators detect and identify (trace and tag) the tracers/taggers to determine the flow properties of the well and detect leaks and fluid movement between wells.

Caution: If a vehicle transporting radioactive tracers or taggers is involved in a roadway accident, it is important to assess whether the material remains contained in its transport container using a radiation detector. If the container for the tracer fluid is intact, it poses little threat. However, if an accident breaches the container and results in a leak or spill, there could be radioactive contamination of the area and any persons exposed. Such spills may pose a threat to groundwater.

Case Markings: Tagger and tracer containers and equipment labels denote their radiation level if intact/undamaged. Vehicles transporting tracers and taggers may also display with radiation placards or labels.

- Radioactive White I: 0.5 mrem/hr. max. on surface
- Radioactive Yellow II: 50 mrem/hr. max. on surface; 1 mrem/hr. max. at 1 meter
- Radioactive Yellow III: 200 mrem/hr. max. on surface; 10 mrem/hr. max. at 1 meter

Response: Do not approach exposed material or damaged equipment. Isolate the immediate vicinity of the accident and consult your departmental policy for hazmat response involving radioactive material. See also the Emergency Response

Guidebook (ERG), Guide #163 (radioactive material). Personnel contaminated by any tracer fluid may require special decontamination that contains run-off. Special precautions to contain run-off and leaking material are necessary to prevent contamination of water sources and soil.

Safety: Remember the principles of *time, distance*, and *shielding*:

- **Time:** Limit the time you expose yourself to a radiation source.
- **Distance:** Maintain a safe distance. You do not have to get extremely far away from a source, even a highly radioactive one, to be safe. Remember this: Double the distance, quarter the dose. If a source emits 10 rem of gamma radiation 1 foot from the source, the dose will be 2.5 rem at 2 feet. For serious radiological accidents, the ERG initial isolation zone is only 100 meters.
- **Shielding:** Position yourself so that solid objects, like vehicles or buildings, are directly between you and the radiation source.

[1] Definition from The American Society for Nondestructive Testing, "Introduction to Nondestructive Testing," https://www.asnt.org/MinorSiteSections/AboutASNT/Intro-to-NDT (accessed May 4, 2018).

Hazardous Materials Emergency Preparedness

Projects for LEPCs

September 2018

Table of Contents

About this Document iv
Record of Changes v
List of Acronyms vi
Overview 1
1. Threat and Hazard Identification and Risk Analysis Projects 3
Project 1.1. Identify and Map Hazardous Materials Transportation Corridors 4
Introduction 4
How to Do It 4
Potential Uses of Outcomes 5
Benefits 5
Project 1.2. Vulnerability Analysis for Hazmat Transportation Corridors 6
Introduction 6
How to Do It 6
Potential Uses of Outcomes 7
Benefits 7
Project 1.3. Conduct a Hazardous Materials Commodity Flow Study 8
Introduction 8
How to Do It 8
Potential Uses of Outcomes 10
Benefits 10
2. Public Relations and Engagement Projects 11
Project 2.1. Create a List of Recent and/or Significant Hazardous Materials Transportation Incidents in the Community/Region 12
Introduction 12
How to Do It 12
Potential Uses of Outcomes 13
Benefits 13
Project 2.2. Develop an LEPC Culture That Requires Active Participation 14
Introduction 14
How to Do It 14
Potential Uses of Outcomes 16
Benefits 16
Project 2.3. Engage the Community 18

Introduction 18
How to Do It 18
Potential Uses of Outcomes 19
Benefits 19
Project 2.4. Engage Tier II Facilities and Supplement Tier II Reporting 21
Introduction 21
How to Do It 21
Potential Uses of Outcomes 22
Benefits 22
3. Emergency Planning and Response Support Projects 27
Project 3.1. Establish an Inventory of Response Resources 28
Introduction 28
How to Do It 28
Potential Uses of Outcomes 28
Benefits 28
Project 3.2. Become Experts on and Sources for Unique and Powerful Tools 29
Introduction 29
How to Do It 29
Potential Uses of Outcomes 30
Benefits 30
Project 3.3. Tier II Report Improvement and Reporting Deadline Reminder 31
Introduction 31
How to Do It 31
Potential Uses of Outcomes 32
Benefits 32
Project 3.4. Review Existing Hazardous Materials Emergency Plans 36
Introduction 36
How to Do It 36
Potential Uses of Outcomes 37
Benefits 37
Project 3.5. Incorporate Multi-Hazard, Multi-Function Planning into Your LEPC 38
Introduction 38
How to Do It 38
Potential Uses of Outcomes 38
Benefits 39

4. Planning for Emergency Response — Training Projects 40
Project 4.1. Evaluate Your Community Hazardous Materials Training Program ... 41
Introduction 41
How to Do It 41
Potential Uses of Outcomes 43
Benefits 43
Project 4.2. Leverage-Free Training Opportunities 45
Introduction 45
How to Do It 45
Potential Uses of Outcomes 47
Benefits 47
Project 4.3. Identify and Use Train-the-Trainer Programs 48
Introduction 48
How to Do It 48
Potential Uses of Outcomes 48
Benefits 49
5. Planning for Emergency Response —Equipment Projects 50
Project 5.1. Obtain Important Hazmat Personal Protective and Response Equipment 51
Introduction 51
How to Do It 51
Potential Uses of Outcomes 52
Benefits of Doing It 52
Project 5.2. Increase the Hazard Detection Capability of First Responders 53
Introduction 53
How to Do It 53
Potential Uses of Outcomes 57
Benefits 57
Project 5.3. Improve Decontamination Capabilities and Coordination 58
Introduction 58
How to Do It 58
Potential Uses of Outcomes 60
Benefits 60

About this Document

This document was developed in 2018 for the Texas Department of Public Safety – Texas Division of Emergency Management (DPS-TDEM) using new content developed by the authors listed below.

To cite this document, please use the following:

Bierling, D.H., Trefz, B.A., and Rogers, G.O. *Hazardous Materials Emergency Preparedness Projects for LEPCs*. Produced by Texas A&M Transportation Institute for Texas Department of Public Safety, Division of Emergency Management. 2018.

The principal investigators for this work were Dr. David Bierling, Research Scientist, Texas A&M Transportation Institute and Associate Director for Transportation and Environmental Hazards, Hazard Reduction & Recovery Center, Texas A&M University; and Dr. George Rogers, Professor, Landscape Architecture and Urban Planning, and Senior Fellow, Hazard Reduction & Recovery Center, Texas A&M University. Brazos County LEPC, La Porte, Morgan's Point and Shoreacres LEPC, and Parker County LEPC shared their experiences and practices that were used for development of Sections 1, 2, and 3 of this document.

TDEM's Director was Chief W. Nim Kidd, TDEM Preparedness State Coordinator was Chuck Phinney, Preparedness Section Administrator was Bryan Becknell, and Hazards Unit Supervisor was Dan Borgeson.

All content in this document is in the public domain unless otherwise noted.
Publication of material was supported by U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration grant funds.

Record of Changes

Number	Date	Description	Initials

List of Acronyms

ALOHA	Areal Locations of Hazardous Atmospheres
CAMEO	Computer-Aided Management of Emergency Operations
CBRNE	Chemical, Biological, Radiological, Nuclear, or Explosives
CST-WMD	Civil Support Team – Weapons of Mass Destruction
DOE	Department of Energy
DPS-TDEM	Texas Department of Public Safety – Division of Emergency Management
DHS	Department of Homeland Security
DSHS	(Texas) Department of State Health Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EHS	Extremely Hazardous Substance(s)
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERG	Emergency Response Guide
ESF	Emergency Support Function
GC/MS	Gas Chromatography/Mass Spectrometry
GIS	Geographic Information System
HHS	(U.S. Department of) Health and Human Services
HMEP	Hazardous Materials Emergency Preparedness (grant program)
IR	Infrared
LEPC	Local Emergency Planning Committee
MARPLOT	Mapping Application for Response, Planning, and Local Operational Tasks
NNSA	National Nuclear Security Administration
NPMS	National Pipeline Mapping System
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPE	Personal Protective Equipment
RMP	Risk Management Program/Risk Management Plan
SDS	Safety Data Sheet (formerly MSDS or Material Safety Data Sheet)
SOP	Standard Operating Procedure
THIRA	Threat and Hazard Identification and Risk Assessment

Overview

Local Emergency Planning Committees (LEPCs) are groups that help protect their communities from hazardous materials (hazmat) emergencies and disasters. They do this by leading emergency planning for what needs to be done when there is a hazmat incident, and making sure the public has a right to know about the hazmat they could potentially be exposed to.

By law[1], every community is supposed to have an LEPC. LEPCs should be made up of representatives from elected offices, agencies, industry, the media, and community groups and the public. Their members are typically volunteers, designated representatives of agencies and industries, or interested citizens and other community members.

LEPCs face a number of practical challenges:

- Many LEPCs struggle to find meaningful ways to enhance emergency planning for chemical hazards in their communities and engage and involve their members.
- Most LEPCs have limited financial resources, and some LEPCs that are technically active meet only infrequently.
- While some fixed facilities are predictable entities in a jurisdiction (at least to emergency responders and managers), others operate under the radar. hazmat transport through a community is often a significant unknown.
- Local or regional response resources (equipment and trained personnel) may be limited, and those that are available are scattered across multiple departments and agencies.

Given these challenges, what can LEPCs do to plan for chemical hazards in their communities?

This publication outlines 17 projects to help LEPCs plan for chemical transport and fixed-facility hazards and engage their members, stakeholders and communities.[2] The five project categories are the following:

- Three Hazard Analysis projects focus on identifying where hazmat is transported (or manufactured, stored, and used), who might be affected, and what the materials are.
- Four Public Relations and Engagement projects outline how to compile incident lists that can be used to enhance public awareness, build an active membership, engage the community, and engage facilities.
- Four Emergency Planning and Response Support projects cover response

[1] The Emergency Planning and Community Right-to-know Act of 1986, or EPCRA.

[2] For additional project ideas or a different take on some of the ideas covered in this report, please refer to the *LEPC Activity Guide: A Guide for Local Emergency Planning Committees, December 2014*

resource inventories, unique and powerful tools for planning and response; multi-hazard, multi-function planning by LEPCs and emergency operations plan reviews.

- Three Planning for Emergency Response: Training Projects cover evaluating training programs, leveraging free training opportunities, using train-the-trainer programs.
- Three Planning for Emergency Response: Equipment Projects cover obtaining important hazmat personal protective and response equipment, increasing responders' hazard detection capabilities and improving decontamination capabilities and coordination.

Some of these projects are already regular activities of successful LEPCs. Others are projects that many LEPCs can implement easily, but few have in the past. Many of the projects have a high return for limited effort. Some projects, particularly public engagement projects, require a more continuous effort but become easier to maintain with time and practice. Many of the projects can also be done at some level with limited or no financial resources, and several others are eligible for grant funding through the Hazardous Materials Emergency Grant Program (HMEP) administered in Texas by the Texas Department of Public Safety - Division of Emergency Management (DPS-TDEM).

LEPCs should identify short and long-term goals for enhancing hazmat planning and preparedness in their communities, and enabling community right-to-know about those hazards. LEPCs can review projects in this document to identify those that match their highest priority goals, and adapt them to their own settings and needs. Successful organizations seldom achieve anything by trying to do everything at once. Over time, LEPCs can significantly contribute to improving emergency and disaster planning and preparedness for their whole community by taking projects one step at a time and on a strategic and consistent basis..

1. Threat and Hazard Identification and Risk Analysis Projects

Project 1.1. Identify and Map Hazardous Materials Transportation Corridors

Introduction

This project involves identifying and mapping the primary hazmat transportation routes in your community. It focuses on important hazmat transportation issues but does not identify specific materials or transport chemical quantities or frequencies (those are covered in a commodity flow study, described in Threat and Hazard Identification and Risk Analysis Project 1.3).

Although it seems simple, communities frequently overlook identifying and mapping hazmat transportation corridors. For example, does Annex Q of your community's emergency operations plan (EOP) include maps of these corridors? The answer in many jurisdictions is no.

Identifying hazardous material transport corridors is a preliminary step in completing the hazards identification for transportation of hazardous materials required for hazard analysis. While this project is described as a stand-alone effort, it is also eligible for Hazardous Materials Emergency Preparedness (HMEP) Grants as part of a vulnerability analysis or emergency operations plan review.

How to Do It

1) Identify existing map resources in the community. Resources could be as simple as a paper map from the county's road and bridge office to more complex geographic information systems (GIS) used by planning and development officials.
2) Use the map resources to identify the following:
    a. Identify the major highways and arterials that service major industrial areas/facilities in your jurisdiction.
    b. Identify the rail lines in your jurisdiction, focusing on through corridors and spur lines to major industrial areas/facilities.
    c. Identify the pipelines in your jurisdiction (the U.S. Department of Transportation's National Pipeline Mapping System public viewer is available at https://www.npms.phmsa.dot.gov/).
    d. Identify commercially navigable waterways.
3) Identify individuals within the community who possess expertise of the hazards present in the community. Try to find a small number (5-10) of emergency response, emergency management, facility managers, transportation and other local officials who have served the community for a long time and possess knowledge of past incidents.
4) Use local expertise to develop relative ranks of expected risk for transport corridors. Ask them to rank corridors from highest to lowest risk (e.g., high, medium, low). Compile, aggregate and average the rankings provided by your

local experts.

5) Use risk rankings to illustrate corridor risk on jurisdiction maps. This can be as simple as color coding for high-, medium- and low-risk corridors (e.g., red, orange and yellow markers on paper maps) to a more advanced integration into existing GIS platforms.
6) Integrate map and corridor risk information into local emergency planning. At a minimum, include map images in attachments to Annex Q of your jurisdiction's emergency operations plan (EOP).

Potential Uses of Outcomes

- Create an inventory of known hazmat transport corridors in the community. This project addresses requirements for chemical hazard emergency plans/local EOPs.
- Create a preliminary hazard ranking based on the experience of local experts. The ranking provides a first step for conducting vulnerability analyses in the community (Threat and Hazard Identification and Risk Analysis Project 1.2).
- Use maps as visuals for recruitment, presentations and public engagement.

Benefits

Identifying and mapping hazmat transport corridors incorporates a review of local knowledge and risk expectations and creates a visual representation of localized risk in the community. This activity can help identify potential gaps in knowledge and enable the community to (re)assess priorities for emergency planning. This project can function as an activity in which local emergency planners develop shared understandings of local risk and ownership.

Project 1.2. Vulnerability Analysis for Hazmat Transportation Corridors

Introduction

This activity helps your LEPC evaluate potential hazmat transport incident impacts on local populations, identify various places where hazardous material incidents can occur, and examine the best ways to reduce impacts and consequences. This project is a step in a threat and hazard identification and risk assessment (THIRA) analysis, discussed in Module 7 of the *Texas LEPC Guide*. Hazmat transport vulnerability analyses are eligible for Hazardous Materials Emergency Preparedness (HMEP) Grants. Although this project outline focuses on transportation corridors, the same approach can be used for fixed facilities.

How to Do It

1) Obtain maps from Threat and Hazard Identification and Risk Analysis Project 1.1 and identify priority hazmat transport corridors.

2) Identify distances for initial isolation and evacuation procedures based on current knowledge of materials and risk.

   - Consider using a half-mile initial isolation distance
   - Use larger initial isolation distances if there are reasons to believe that some materials transported have exceptionally large protective action distances.

3) Identify nighttime, daytime, special and special event populations within the vulnerability corridor area, note weekday versus weekend differences.

   - Nighttime population locations include residential areas (U.S. Census resident populations are nighttime populations).
   - Daytime populations/locations include industrial and office areas, daytime at-home populations and government buildings.[3]
   - Special populations/locations include prisoners, hospitals, elderly/infirm care facilities, schools and colleges/universities.
   - Special events population locations include fairgrounds, churches, racetracks, auditoriums, stadiums, parks and locations with unusual temporary density.

4) Review types of populations and the corresponding warning, notification and mobility vulnerabilities they have, such as the following:

   - Daytime business populations (employees and customers) typically receive notification through those places of business, more so than through mass media.

[3] Note: Daytime population estimates vary in availability and relative accuracy. Daytime populations may require estimation by local jurisdictions where other data is not available. Consult businesses and other organizations (like churches or schools) regarding their estimated daytime populations – include different estimates for weekends and weekdays.

- Nighttime populations receive notification through direct communication and public notification, such as mass media announcements/public broadcasts, alarm systems, reverse 911 and direct notices delivered door-to-door by police or by using mobile loudspeakers.
- Special populations typically have limited mobility and/or the ability to receive, understand or implement protective action notifications and may include the hard of hearing and infirm, or those whose comprehension of English is limited.
- Special event populations have large, often temporary population densities. Providing warnings may not be as significant of an issue as providing enough shelter space or addressing event limitations for rapid and effective evacuation. Evacuations of such areas are complex, requiring preplanning and recognizing the dangers associated with a mass exit that can injure or kill participants during the process.

Potential Uses of Outcomes

- Review transportation corridors and population characteristics to identify areas of high, medium and low vulnerability.
- Develop a list of contacts to gain entry with specific populations (e.g., school principal offices).
- Share lists of vulnerable populations and contacts with key emergency personnel/offices and elected/appointed officials.
- Develop and review processes and procedures to address communication barriers with specific populations.
- Develop exercise scenarios and test procedures for vulnerable populations and special events.

Benefits

Identifying types and locations of vulnerable populations enhances your jurisdiction's ability to respond effectively and rapidly to hazardous material transport incidents. Sharing contact information enhances the social networks of emergency responders and key officials within your community. Reviewing existing processes and procedures identifies potential gaps and overlaps in response coverage.

Project 1.3. Conduct a Hazardous Materials Commodity Flow Study

Introduction

This activity looks at what kinds of hazardous materials move within and through your jurisdiction along transportation routes previously identified in Projects 1 and 2. Because most hazmat incidents occur along or near transportation networks rather than at fixed facilities, commodity flow studies (CFS) provide a significant return on investment in terms of threat and hazard identification. Some jurisdictions segment their commodity flow studies by focusing on a few different transportation routes completed each year in a rolling schedule to provide continuous updates, detect changes over time and keep their information current. Commodity flow studies can inform the THIRA process discussed in Module 7 of the *Texas LEPC Guide*. Commodity flow studies are eligible for Hazardous Materials Emergency Preparedness (HMEP) Grants.

How to Do It

Recommendations below are adapted from the Transportation Research Board's *Guidebook for Conducting Local Hazardous Materials Commodity Flow Studies*.[4]

CFS projects range from simple to complex. If you have not done a CFS before, start simple. The simplest surveys are for hazard identification/hazard awareness.

1) Get pipeline information from the National Pipeline Mapping System (NPMS) public viewer or request the GIS data from NPMS (https://www.npms.phmsa.dot.gov/).
2) Identify the Class I railroads in your community. Class I railroads in Texas are the BNSF Railway, Kansas City and Southern Railway, and Union Pacific Railroad. The Federal Railroad Administration's Safety Map (http://fragis.fra.dot.gov/GISFRASafety/) is a useful GIS that can help you identify these railroads.
3) Contact representatives of major railroads in your community to obtain the latest hazmat data request form from Association of American Railroads Circular OT-55.[5] The LEPC must complete, sign and return the request form to the railroad(s) and agree to abide by data security and distribution limitations. If

[4] Available at https://www.nap.edu/login.php?action=guest&record_id=14559.

[5] You may also be able to find the Circular and form through an Internet search. Scan the whole Circular for the form—the current circular (as of September 2018) has the form on the last page of the document. If you cannot reach or identify your Class I railroad representative, consider contacting the Association of American Railroads (https://www.aar.org/contact-us/), of which all Class I railroads are a member, to help you identify an appropriate point of contact.

you have smaller railroads in your jurisdiction, work with them directly to request hazmat transport data.

4) Because there are few good sources of hazmat truck transport data for application to individual roadways at local or regional levels, jurisdictions must usually obtain the information by conducting a truck traffic survey.
   a) Select one to three roads that the LEPC thinks are the top concerns for the jurisdiction. Criteria to use in selection include:
      - Proximity to major industry where hazardous materials are used
      - Pipeline terminal locations
      - Location of propane or fuel companies and large gas stations
      - Major roadways (interstates, state highways, etc.)
      - Presence of oil and gas exploration and extraction-related activity
   b) Conduct manual counts and observations of truck traffic from one or two locations on each road. Pick safe locations for observers and those that provide good visibility of the road.
   c) Conduct tally counts of the heavy-duty truck traffic and every truck with a hazmat placard.
   d) Write down the IDs of every placard you see. Afterward, use the Emergency Response Guidebook (ERG) to help you identify placards and review their initial response guidelines for small and large spills or vehicles involved in a fire.
   e) Engage LEPC members, affiliated agencies or community organizations to help with data collection. Retirees, school groups, and community service organizations make good observers with the appropriate training and supervision.
   f) Try to spread data collection out over different days of the week, at different times of the day. Limit counts to daylight hours unless you can collect data in a well-lit nighttime location.
   g) Total the number of trucks counted and the number of trucks with placards to get the percent of trucks with hazmat placards.
   h) Total the number of placards by placard ID and identify the top placards for each road. The same applies to rail hazmat data.
   i) Use the ERG and other sources to identify whether any materials require a specialized response (specialized training, equipment, procedures, etc.). These materials can include toxic inhalation hazard, violent polymerization, gas-producing water reactive, explosive, radioactive and other types that your responders might not be familiar with or equipped to handle. The same applies to rail data.

5) Repeat the process for a new set of roads the next year. Work on a schedule where you get updated data for each road every five years or as local conditions change.

6) Integrate the truck, rail and pipeline hazmat transport information into your jurisdiction's EOP and disseminate the information to local agencies and key

decision-makers. Collate map routes and related information into a readily accessible binder or other form and stored in the community Emergency Operations Center (EOC) for ready reference.

Potential Uses of Outcomes

Discover what the truck, rail and pipeline hazmat transport information you gathered means for your community's emergency preparedness and response.

- Can local response and mutual aid agencies respond to hazmat incidents?
- How will your community prepare for and respond to a hazmat transport incident?

Focus on training and exercises for the top hazards in your community, and incorporate the most frequent or the most dangerous hazards in your training and exercise scenarios.

Benefits

This project reduces uncertainty about the types of chemical hazards present in the community and which hazards to plan and prepare for. Sometimes CFS information confirms expectations, while other times reality is quite different from conventional wisdom. Doing the study on a few roads every year helps keep the project manageable, provides a framework for understanding changes in transport hazards over time and engages LEPC members and the community. Traffic observations also help familiarize people with chemical hazard transport and initial response guidelines such as the ERG and can serve as an opportunity for community education and outreach, especially when data collection is completed by community groups like Community Emergency Response Teams (CERT), school groups, or other organizations.

2. Public Relations and Engagement Projects

Project 2.1. Create a List of Recent and/or Significant Hazardous Materials Transportation Incidents in the Community/Region

Introduction

The list of hazardous materials transport incidents includes date, time, place, organizations and people involved, major outcomes and lessons learned. Use this listing for training, promotion, public relations and new member engagement. While LEPCs and their affiliates may express reservations about hyper-vigilance by concerned citizens and publicizing information about hazardous materials in the community, concerns about technological hazards are often based on limited information and lack of context.

The incident list information helps your LEPC accurately identify the historical occurrence of hazmat transport incidents. By better understanding patterns in hazmat incidents, LEPCs and their members can more effectively take steps to address risks and also communicate to community constituents that they are taking steps to address risks and protect residents. Some LEPCs find it useful to review recent hazardous materials incidents at each meeting as a means of information sharing and opportunity for coordination and discussion. The incident list is also useful as part of the Threat and Hazard Identification and Risk Assessment (THIRA) discussed in Module 7 of the *Texas LEPC Guide*.

The project below is a stand-alone effort. It is also eligible for Hazardous Materials Emergency Preparedness HMEP grants as part of a vulnerability analysis or emergency operations plan (EOP) review. Although this project outline focuses on transport incidents, similar concepts and approaches apply to fixed facilities incidents.

How to Do It

1) Review the following sources for information about hazmat transport incidents in your community or nearby areas:
    - Ask long-time emergency response and management personnel for their input.
    - Survey local media and newspaper archives for past reports about incidents.
    - Consult state emergency response and transportation officials.
    - Contact TCEQ and the Environmental Protection Agency (EPA) for any data they may possess.
    - Request information from local transportation carriers, including pipeline companies and railroads.
    - Download data from the PHMSA's Incident Reports Database.
2) Compile an annotated list of incidents. For each, include as much data as is available, preferably the date and time, location, vehicles and personnel involved, type of accident, materials and quantities involved, impacts (property

damage, injuries, fatalities, environmental contamination, etc.), the actions taken by responders and lessons learned.

3) Update/add to list at every LEPC meeting. This task is easily overlooked, either because responders consider some incidents too routine and not important to discuss or because the participating response personnel are not present at LEPC meetings. Ask response personnel in your community for information about hazmat incidents, or your emergency manager can compile and present the information in advance and report it at the meeting. Sharing such information within an LEPC is a highly effective means to coordinate and improve hazmat incident preparedness and response and frequently identifies areas in need of improvement or where better coordination may result in improvements.

Potential Uses of Outcomes

- The incident list provides a tangible list of actual events used to raise awareness about the need for hazmat emergency planning in the community.
- Use the incident list to help recruit new LEPC members and engage LEPC stakeholders. For example, extend a membership request to a local transportation company that was involved in an incident and is not an LEPC member.
- Use the list to motivate continued active participation in your LEPC and community emergency preparedness activities.
- The incident list helps identify the potential for hazards in your community used in the THIRA process. By identifying specific historical events, they can be adapted to other locations along the same or similar transport corridors where similar incidents are likely to occur.
- Modify or reuse information from past incidents in future training or exercise scenarios. This is especially useful for significant incidents that occurred some years in the past where the potential exists for a similar incident and the institutional knowledge regarding the incident is no longer present in the responder community.

Benefits

An incident list enhances understanding hazmat transport risks in the community and is useful for analyzing risk and raising awareness. Maintaining incident awareness also promotes an active LEPC and can increase its overall effectiveness. Incident lists also consolidate the historical record into a single document, used as a reference for scenario development, training and equipment acquisition and may offer insight into future incidents. The list may also identify transportation companies or facilities with troublesome safety records where state and local officials and law enforcement (like weights and measures) may wish to concentrate inspection and enforcement activity.

Project 2.2. Develop an LEPC Culture That Requires Active Participation

Introduction

Developing a culture that requires and encourages active participation in your LEPC is one of the key measures of LEPC success and often the most challenging obstacle that LEPCs face.[6] Involving members in ongoing training sessions, exercises, fundraising and providing an opportunity for industry partners to take public credit for specific activities and tasks can keep members engaged. By providing industry with venues for conducting community outreach and public education, the LEPC, community and industry all benefit.

How to Do It

1) Identify key stakeholders required by the Emergency Planning and Community Right-to-Know Act (EPCRA) to participate in your LEPC. EPCRA requires the following members (see also Figure 1 below):

   - Elected state and local officials.
   - Local law enforcement, civil defense/emergency management, firefighting, first aid, health, local environmental, hospital and transportation personnel.
   - Broadcast and print media.
   - Community groups.
   - Owners and operators of regulated facilities.

2) Identify potential members:

   - Use Tier II reports to identify key facilities and their facility emergency coordinators.
   - Review Emergency Operations Plans (EOP) and local Emergency Operations Center (EOC) representatives to identify key public officials.
   - Consider using a LEPC membership subcommittee for identifying stakeholders and making contacts.
   - Actively engage leaders in your community who can be champions for the LEPC, especially elected officials and agency/department heads.

3) Identify motivating factors for LEPC membership and active participation for key stakeholders, industry participants and elected officials. These can include the following:

   - Acting as a good member of the community (corporate or public stewardship).

---

[6] See Environmental Protection Agency, *2008 Nationwide Survey of Local Emergency Planning Committees*, https://www.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf; and EPA, *Energize Your Local Emergency Planning Committees (LEPC)*, February 2009, https://www.epa.gov/sites/production/files/2015-07/documents/energize_your_lepc.pdf.

- Promoting positive public relations and improved perception of industry and officials in the community.
- Visible public outreach efforts for industry and public and elected officials looking for positive exposure.

4) Consider LEPC bylaws that require members to participate actively in the LEPC to remain as members in good standing. Participation may take a variety of forms, like the following:

   - Providing funding for specific activities.
   - Serving on committees or subcommittees.
   - Staffing or participating in LEPC events like fairs, exercises or training sessions.
   - Conducting public engagement briefings on behalf of the LEPC.

5) Review the LEPC structure to identify and prioritize activities and organization functions to determine which need new or additional insight from new members or various perspectives.

   - Sometimes LEPC functions languish when those in key roles fail to attend on a regular basis. For example, a fire chief responsible for the hazmat incident response subcommittee who never shows up at meetings to report what happened in local responses.
   - If a participant's pattern of behavior affects the LEPC's activity and organization, look for replacements who can step in and fill the gaps or for ways to involve leadership and organizations in achieving better compliance.
   - Remember that LEPC participation is legally mandated for some organizations. A reminder of this fact is often enough to motivate organizational compliance.

6) Develop a list of public awareness activities in the community:

   - Prioritize the list in terms of likelihood of success, cost, ability to implement, need for new resources or other priorities such as new members or funding.
   - Consider the timing of events to build on each other and the way they fit into the overall community calendar of events. Take advantage of any synergies with similar well-established events in the community and avoid conflict with dissimilar events, especially when they are well attended. For example, LEPCs might set up a table during a National Night Out event or brief a Community Watch or Community Emergency Response Team event, but they may wish to avoid scheduling events during major local events like festivals, concerts or school events like homecoming or prom.

7) Encourage members to participate by making participation comfortable and enjoyable. Fun events and special activities create a competitive but collaborative spirit. This may involve asking industry participants to sponsor refreshments or meals served at meetings and encouraging informal networking among LEPC members. Facility visits, training activities, and public speakers are also popular activities with LEPC members.

8) Expect members to be at LEPC functions and participate. Actively inquire with organizations about noticeable and/or continued absences by their representatives. Remind the continually delinquent of their legal obligations.

9) Actively recognize and appreciate the activities of the LEPC and special members, especially when this creates community goodwill for private industry and elected officials.

Potential Uses of Outcomes

- Creates a "whole community" that works to improve hazardous material emergency awareness, planning and response.
- Develops an active working knowledge of the people involved in hazardous materials emergency planning and response community.
- Engages champions among public officials and elected leaders, and generates positive exposure for industry—all of which can lead to increased involvement that typically opens up funding opportunities for the LEPC.

Benefits

A culture of active participation is the bedrock LEPC component in terms of people and funding. It creates a culture of success and activity that encourages continued participation and future success that can unlock funding opportunities for LEPC activities. For more on the linkages between effectiveness and funding, see Module 8 and 9 of the 2018 *Texas Local Emergency Planning Committee Guide*.

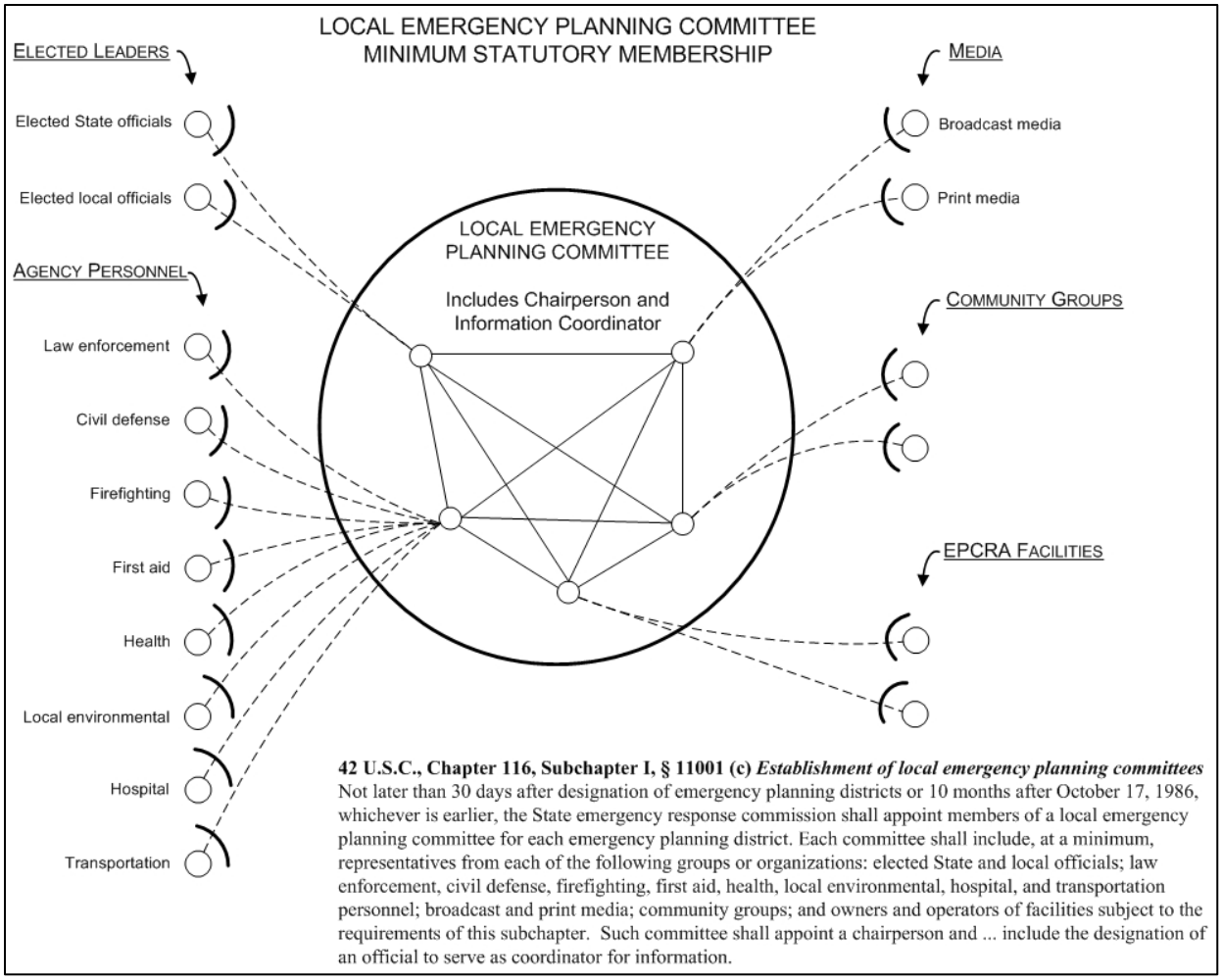


Figure 1 - Local emergency planning committee minimum statutory membership[7]

[7] Bierling, David H., "Participants and Information Outcomes in Planning Organizations," Doctoral dissertation, Texas A&M University, 2012.

Project 2.3. Engage the Community

Introduction

Enhance your LEPC operations and increase community preparedness by developing program(s) to engage your community in hazmat awareness, preparedness and planning. Programs may include special populations, such as schools, hospitals, elderly care facilities and detention centers. Community engagement is a critical component of the whole community approach to emergency management.

How to Do It

1) Identify community groups and citizens with potential interests in LEPC activities.
   - Identify groups and leaders in the community, including social groups (e.g., Jaycees), economic groups (e.g., industry associations, chambers of commerce) and environmental groups (e.g., Sierra Club, Nature Conservancy).[8]
   - Actively engage community and group leaders with LEPC public relations materials, phone calls and invitations to attend LEPC meetings.
2) Identify special population centers and events and engage their leaders.
   - Identify key special populations in the community, including schools, nursing homes, hospitals, prisons and detention centers, and other groups that may

[8] Note: Industry and governmental organizations may have adversarial relations with some environmental organizations in the community and be reluctant to encourage their membership in the LEPC. This is a mistake and runs counter to the goals of EPCRA. While some of the differences between industry and environmental groups are irresolvable, the LEPC can provide a valuable venue for these organizations to increase their understanding of each other and find common ground to work together toward community preparedness for chemical emergencies.

The participation of environmental groups in a LEPC often improves LEPC effectiveness and community support and alleviates some environmental groups' concerns about industry through increased knowledge and participation in chemical safety activities. Likewise, industry benefits from environmental group participation through improved relations and communications and because such participation can improve industry compliance and separate "bad actors" in industry from those who act as good neighbors and participate in the LEPC and its processes. Knowledge of the other, in both cases, usually improves relations.

However, any time an organization has the potential for conflict between its members, it is important to establish ground rules for membership and conduct. These should be part of the LEPC bylaws and rules and enforced fairly and uniformly. Groups and organizations who refuse to participate in a positive way toward achieving LEPC goals should face some sanction under LEPC rules. Such rules can also alleviate both industry and community group concerns about participation by creating a process for them to work out and address conflicts.

need special attention during a hazmat event.
- Identify special events that may take place in the community sufficiently near transportation corridors or facilities.
- For each special population and special event, identify a leader, organizer, or point of contact for LEPC engagement.
- Actively engage these leaders. Help them determine their role in planning and ways they can increase awareness in their community of hazardous materials transportation hazards. Encourage their participation and membership in the LEPC.

3) Look for opportunities to collaborate with community leaders on issues that are of mutual concern, like raising public awareness, supporting emergency planning and response, creating community goodwill and identifying organizations that should be active in the LEPC.

4) Develop a list of public awareness activities in the community (undertaken in Public Relations and Engagement Project 2.2).

   - Prioritize the list in terms of likelihood of success, cost, ability to implement, need for new resources or other priorities such as new members or funding.
   - Schedule the timing of activities to build on each other. Consider how these events can fit into a community calendar of events and how often to repeat them. Take advantage of synergies with similar well-established events in the community (like National Night Out or a Safety Day) and avoid conflict with dissimilar events, especially well attended or popular events like major sporting events, high school proms, etc.

5) Develop an active, ongoing calendar of events that can include training sessions, exercises, community engagement and fundraising. These activities can bring positive public relations to both the LEPC and its members. These activities also help fulfill elements of the community right-to-know responsibilities of EPCRA.

6) Recognize and publicly appreciate the collaboration of participants in the activities of the LEPC through awards, public recognition in local media or special events.

Potential Uses of Outcomes

- Engaging community leadership increases awareness of hazardous materials planning and available resources in the community and activates the appropriate social networks to use these resources. It is a fundamental component of the whole community approach to emergency management.
- Developing a working knowledge of community leadership helps identify those who can actively support the LEPC and are likely to be involved in decisions concerning community risk.
- Public engagement produces public support. Public support increases active involvement in the LEPC, which in turn, increases LEPC effectiveness and unlocks funding opportunities for the LEPC.

Benefits

Engaging the community builds the resource base for the LEPC in terms of people and funding necessary for its operation, thereby creating a culture of success and activity that breeds continued participation and future success.

Project 2.4. Engage Tier II Facilities and Supplement Tier II Reporting

Introduction

Under EPCRA, the LEPC gathers emergency planning information from local facilities they can share with emergency management and first responders to improve community planning and coordinate facility plans with community plans. The EPA Region 6 LEPC Handbook contains a detailed sample questionnaire for this purpose. This project includes a sample questionnaire adapted from that handbook with some modifications. For example, to avoid duplication, LEPCs should not collect information that is already in Tier II reporting but focus on information not covered in Tier II reports or information that clarifies information in Tier II reports. This project focuses on Tier II reporting and EPCRA facility compliance. However, LEPCs can adapt the questionnaire to focus on facilities subject to the Risk Management Plan (RMP) rule and to gather information regarding risk management plans.

How to Do It

1) Following the Tier II reporting deadline (March 1st), prepare a letter and questionnaire for facilities in your jurisdiction. A sample letter and questionnaire are included below. **Note:** The questionnaire should supplement the Tier II report.
2) Provide a copy of each facility's last Tier II report with the letter/questionnaire and ask facilities to verify the information and answer the questionnaire. It is best to wait until the LEPC receives the latest reports from TCEQ following the most recent reporting deadline. While uncommon, errors in reporting do occur and this presents an opportunity to catch them.
3) Ask facilities to clarify the best phone numbers in case of an emergency. Often, Tier II reports include multiple contact points and numbers. LEPCs should find out from the facility which point of contact the fire department should call in an emergency for instructions about process and chemicals, and which point of contact local emergency managers should call with questions about emergency plans and preparedness, as they may not be the same.
4) Whenever LEPCs communicate with facilities, they should also include an explanation of the LEPC, how the LEPC is required under EPCRA and how facilities can participate in the LEPC (including the date of the next meeting). LEPCs should ask facilities to join if they have not already.
5) Note which facilities reported in the past and failed to report in the current year or if there are facilities that fail to report altogether. Under EPCRA Section 303[d], regulated hazmat facilities are *required* to promptly provide, upon request, information to LEPCs that is necessary for developing and implementing local chemical emergency plans. This includes and goes beyond information from Tier II reports. (A best practice for dealing with facilities is that LEPCs should be able to describe clearly to facilities why the information is important for the

community.[9]) Discuss an enforcement letter with TCEQ that can be sent to such facilities in conjunction with the LEPC.

6) Coordinate with local fire and safety inspectors, like fire marshals or fire departments, so that inspectors can review questionnaires and that year's Tier II report with facilities when they conduct inspections or site visits. This allows first responders to learn valuable information. It also associates a real person with the questionnaire. For those facilities that failed to send in their questionnaires, ask fire and safety inspectors to complete them with the facility during their visit, or ask facilities who attend LEPC meetings to complete the questionnaire during a meeting.

Potential Uses of Outcomes

- Questionnaire information helps supplement Tier II reports and information should be shared with local fire departments and emergency management.
- If your LEPC or jurisdiction uses Computer-Aided Management of Emergency Operations (CAMEO), information from the questionnaire can be entered as notes in the database. This is especially useful for CAMEO databases maintained in EOCs or by local emergency management and fire departments. Information must be in the right hands to be used in an emergency!
- Questionnaires and improved Tier II reporting provide important information for the preparation, review, and improvement of local emergency operations plans (EOP), especially related to Annex Q of most local plans.
- Questionnaires and Tier II information reviews provide background for an annual safety and awareness site visit by responders.

Benefits

- Recruits new members and encourage LEPC membership among those legally required to participate.
- Increases LEPC contact with non-compliant facilities who fail to participate in the LEPC and motivate their compliance.
- Helps LEPCs to gather information for emergency planning and help facilities focus their own planning.
- Questionnaires and Tier II information reviews increase contact between the LEPC, facilities and emergency services, especially when conducted in connection with site visits and fire or safety inspections.
- In conjunction with Emergency Planning and Response Support Project 3.3 (below), this project can significantly improve the quality of Tier II reports and reduce errors in reporting.

---

[9] National Association of SARA Title III Program Officials LEPC Guidance Documents, White Paper: The Practical Evaluation of Local Emergency Planning and Preparedness, on page 66 of Environmental Protection Agency, *Region 6 Local Emergency Planning Committee (LEPC) Handbook* (Dallas: EPA Region 6 Emergency Response Team, June 2014), http://www.rrt6.org/Uploads/Files/REGION%206%20LEPC%20Handbook%20--%20July%201,%202014.pdf.

Sample LEPC Facility Letter

[MODIFY ACCORDING TO THE NEEDS OF THE LEPC]

[PRINT ON LEPC LETTERHEAD]

Information provided in these reports is for the exclusive use of the LEPC to carry out its emergency planning functions under the Emergency Preparedness and Community Right-to-Know Act (EPCRA). The LEPC may share information gathered through Tier II or this questionnaire with local fire, police, and emergency management personnel for the purposes of improving their response and planning activities. Some information gathered in the Tier II process is also available to the public under the provisions of EPCRA and state law.

The [INSERT NAME HERE] LEPC asks your facility to review the enclosed Tier II report for accuracy.

Please also fill out and return this questionnaire using the enclosed addressed envelope.

If you are a facility covered by the EPCRA legislation and not participating in our LEPC, JOIN US! EPCRA requires coordination with and participation in LEPCs for all facilities regulated by EPCRA and the Clean Air Act, Risk Management Program (RMP) rule. Contact [Bob/Betty Smith, Somewhere County LEPC Chair, 555-555-1212, bsmith@somewherelepc.org] for more information.

Sample LEPC Facility Questionnaire

Facility Name (please include owner/operator name):

Address:

Emergency Point of Contact(s) for Responding Personnel:

Emergency Point of Contact(s) for Emergency Planning:

Chemical Release Detection and Procedures: (Please, briefly describe your facility's detection procedures for a chemical release or other hazardous materials incident.)

Notification and Response Procedures: (Please, briefly describe your facilities plans for notifying your employees, the public and first responders in the event of an incident. What steps will you take prior to the arrival of first responders as part of your internal response plan?)

Contributing Factors/Adjacent Facilities: (Please describe briefly any adjacent facilities, holding ponds, land features, waterways, waste storage or other hazards not reported on Tier II or factors that may expand or complicate a response in the event of an incident or could pose an immediate threat to the public or the environment in the event of an incident.)

Transportation of Hazardous Materials: (What hazardous materials do you most frequently ship in and out of your facility? How do you ship or receive hazardous materials, for example, truck, rail, waterway, pipeline? What are the approximate quantities in any given month? What routes do these shipments typically take? What are your primary hazmat carriers/shipping companies and who are their points of contact in the event of an incident?)

Utility Information: (Please describe any important information regarding utilities at your location, for example, location and or points of contact to shut off power, water, electricity or gas at the facility. If your facility has plans showing this information, please describe how responders can obtain this information in an emergency or coordinate with those responsible for such action.)

Response Personnel and Equipment: (Please list any responding personnel−including hazardous materials contractors−and equipment you maintain at your facility for use in the event of a hazardous materials incident. For example, three personnel trained in gas monitoring and detection and equipped with four multi-gas monitors; or 5 SCBA and 6 trained employees for response and rescue in the event of an incident; or decontamination showers and eyewash stations at Locations X, Y, and Z inside the facility. Attach sheets if necessary.)

If you have a facility response or emergency response plan, would you be willing to share that with the LEPC and/or have the LEPC review it for consistency with local emergency planning? (If YES, who is the point of contact to discuss this further?)

Are you willing to share equipment and/or technical personnel in the event of a major hazardous materials incident in the community? (If YES, who is the point of contact to discuss this further?)

Do you have questions for the LEPC or wish to further discuss something in this questionnaire or your Tier II report? Please describe below and provide contact information and a member of the LEPC will contact you.

3. Emergency Planning and Response Support Projects

Project 3.1. Establish an Inventory of Response Resources

Introduction

Developing an inventory of response resources available in your area can increase the LEPC's effectiveness. This inventory has two functions. First, it encourages the LEPC to pre-plan for the kinds of resources needed in a hazmat transport or fixed facility event. Secondly, it creates an inventory complete with contact information, so that responders can readily access equipment when needed.

This project also gives LEPCs a way to involve industry partners on an ongoing basis. Much of the information gathered in this project is useful for the resource management component of the community emergency operations plans (EOP), specifically Appendix M of the present EOP structure.[10] Resource identification is also a required component of LEPC and facility emergency planning functions under EPCRA and the Risk Management Plan (RMP) rule. Jurisdictions can perform this project as a stand-alone effort. It is also eligible for Hazardous Materials Emergency Preparedness (HMEP) grants as part of a vulnerability analysis or EOP review.

How to Do It

1) Identify companies, organizations and departments in your area that may have resources that could be useful in response to a hazmat incident.
2) Prioritize the list in terms of those entities most likely to have critical resources.
3) Contact each entity on the potential resources list and identify available critical resources.
4) Compile the list of available resources, along with corresponding contact information and establish formal agreements on conditions of use and implementation procedures. Identify who will operate specialized equipment.
5) Identify critical gaps in available resources and fill gaps where possible.

Potential Uses of Outcomes

Building an inventory of response resources enables those in the community to understand resource utility and their relative importance to emergency response. It also helps establish who will do what in a response situation.

Benefits

Building the inventory list addresses several evaluation requirements for community EOPs and provides a one-stop resource and contact list to use during an incident or disaster.

---

[10] The current format for most Emergency Operations Plans in Texas is undergoing revision by DPS-TDEM to conform to the new Emergency Support Functions format used by the National Response Frameworks.

Project 3.2. Become Experts on and Sources for Unique and Powerful Tools

Introduction

LEPCs must develop the ability to use and train others to use unique and powerful tools that can be used in planning and response to hazardous materials events. One important suite of tools is the Computer-Aided Management of Emergency Operations (CAMEO), which is free to obtain and includes the following:

- CAMEO*fm*
- CAMEO Chemicals
- Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT)
- Areal Locations of Hazardous Atmospheres (ALOHA)

Becoming the CAMEO experts in the community is a major accomplishment for LEPCs because the learning curve can be difficult. By becoming the local experts on a useful tool like CAMEO, the LEPC increases its usefulness and contributions to planning efforts for responses to hazardous materials. CAMEO and its related software suite are also powerful tools when doing a THIRA, as discussed in Module 7 of the *Texas LEPC Guide*.

How to Do It

1) Obtain the CAMEO suite from the corresponding links at the EPA's CAMEO webpage (http://www2.epa.gov/cameo). Download CAMEO*fm*, CAMEO Chemicals, MARPLOT and ALOHA.

2) Obtain Tier II reports for your area from the Texas Commission on Environmental Quality (TCEQ) and directly import them into CAMEO.

3) Learn to use the software to accomplish the following:

   - Identify highest impact facilities and materials and locate corresponding transport corridors.
   - Locate and identify corresponding potentially impacted populations (hot spots).
   - For each hotspot, evaluate emergency preparedness and response tradeoffs under worst-case and most-likely conditions.
   - Integrate outcomes into the EOP.

4) Organize training/exercises for emergency managers, planners, responders and others in the LEPC community.

   - Identify critical players for hazardous materials response who can benefit by using unique and powerful tools like CAMEO. These participants might include emergency responders, industry representatives, elected officials, school officials, hospital administrators, public health officials and community representatives.

- Use projected distances and populations as scenarios for discussions among critical players.
- Develop training exercises among various sets of critical players appropriate for identified hot spots.
- Develop public presentations to increase community awareness of possible hazmat scenarios in hotspot areas.

Potential Uses of Outcomes

Having the ability to use powerful tools like CAMEO in your community is a useful resource for an LEPC. By developing the ability to use powerful tools like CAMEO and training others in their use, LEPCs increase their effectiveness and their usefulness in hazmat planning and response. This demonstrates and solidifies the LEPCs role as a community expert on hazardous materials.

Benefits

Unique and powerful tools like CAMEO or other software can demonstrate the value of the LEPC to both internal and external stakeholders. Using such tools and maintaining expertise about them within the LEPC helps address requirements for community emergency operations planning and fosters the ability to plan and respond more effectively in the community. Training others to use these tools helps those who can benefit from such training and helps emphasize continued and engaged interest in LEPC activities.

Project 3.3. Tier II Report Improvement and Reporting Deadline Reminder

Introduction

This is a good project for the months leading up to annual Tier II submission reports, usually due at the beginning of March each year. LEPCs can send a letter to facilities reminding them of the impending Tier II reporting deadline. They should include instructions for filing Tier II reports based on the TCEQ instructions and can incorporate the following *Common Errors on Tier II Reports* document adapted from TCEQ and EPA guidance and projects conducted by the Texas A&M Transportation Institute for Texas LEPCs. This project is a good fit with Public Relations and Engagement Project 2.4.

How to Do It

1) At least one month prior to the annual Tier II reporting deadline prepare a letter (sample below) and send it to all facilities that filed a Tier II report the previous year.
   - To save costs, consider emailing the letter instead of sending physical mail.
   - Send the letter to all facilities contacts provided in the year's previous Tier II report.
   - When developing the mailing list, use the opportunity to compare it to your LEPC membership roster and identify potential members or non-compliant facilities.
   - Examine previous reporting years (if available), looking for any facilities that stopped reporting—contact them directly and send them a copy of the reporting reminder.
2) Consider conducting a "Preparing Tier II Reports" or other compliance-related training class in the months prior to the deadline and include information about the class in your mailing.
3) If your LEPC has recruiting or informational material, consider including it in your mailing. At a minimum, remind facilities of their obligation to participate in the LEPC and when the next meeting will be conducted.
4) Following the reporting deadline and receipt of the new reports, make note of any non-compliant facilities and follow up with direct contact. Consider enforcement action in conjunction with local and state authorities.
5) Coordinate with local media (which by law should be members of your LEPC) to publicize the deadline. Work with public relations and media personnel to discuss the importance of Tier II reporting and the LEPC through:
   - News releases.
   - Reports or articles in local media discussing Tier II reporting and the LEPC.
   - Interviews on radio and television with LEPC members, facility representatives and local emergency management about Tier II reporting and the LEPC.

- Public events and speeches about the LEPC and Tier II reporting.
- Schedule annual Safety or Industry Days near the Tier II reporting deadline.

Potential Uses of Outcomes

- Provides an opportunity to update LEPC mailing lists and facility contact information.
- Can provide an opportunity to identify non-compliant facilities
- Reminds facilities, especially those with a history of non-compliance, of the impending report deadline.
- Remind members/facilities of their obligation under EPCRA to participate in the LEPC.
- Improved Tier II reporting quality provides better information for EOP improvement and planning activities.
- Provides a springboard for LEPC recruiting and membership activities.
- If the LEPC publicizes the Tier II reporting deadline in local media, it may improve compliance and LEPC participation.

Benefits

- Increases the quality and accuracy of Tier II reports.
- Increases facility compliance with EPCRA and Tier II reporting requirements.
- May increase LEPC membership and active participation.
- Increases LEPC visibility and engagement.

Sample Tier II Reporting Letter

[PRINT ON LEPC LETTERHEAD]

[ADDRESSES, DATE, SALUTATION]

The [LEPC NAME] Local Emergency Planning Committee (LEPC) and your local emergency management remind you that the annual deadline to file Tier II reports under the Emergency Planning and Community Right-to-Know Act (EPCRA) is March 1st, 2018.

According to the Texas Commission on Environmental Quality (TCEQ), facilities should submit their reports using the new Tier II online reporting system. This replaces the Tier2Submit software used in the past. For more information regarding the process, please visit https://www.tceq.texas.gov/permitting/tier2.

We remind facilities that the law requires them to submit their report and coordinate their emergency plans with the LEPC and local fire department and/or emergency management office. You must provide your report to TCEQ, the LEPC and the local fire department.

You can send your report to the LEPC at Someone@SomewhereLEPC.org and the Fire Department at Chiefsomebody@somewherefd.gov. The [Somewhere Office of Emergency Management] also requests a copy be sent to Planning@cityofsomewhere.ci.tx.gov.

In addition to your reporting requirements, EPCRA also requires all facilities subject to the law to participate in their local LEPC. Our next meeting is [DATE/TIME] at [LOCATION]. For further information please contact our membership coordinator at membership@somewhereLEPC.org.

The LEPC is also conducting a Tier II training course on [TIME/DATE] at [LOCATION]. Contact someone@somewhereLEPC.gov for more information or to register.

To assist facilities in meeting this important annual requirement, a *Common Errors in Tier II Reporting* document is attached. Please consult this document and the information provided by TCEQ at https://www.tceq.texas.gov/assets/public/permitting/tier2/commondef.pdf prior to submitting Tier II reports. Accuracy in reporting is essential to our community planning and preparedness for a chemical emergency.

If you have further questions or require assistance in completing your Tier II report please contact someone@somewhereLEPC.gov.

Sincerely,

[SIGNATURE AND TITLE]

Common Tier II Reporting Errors

Recent reviews of EPCRA Tier II reporting revealed some common errors. Please help us improve our community coordination and emergency preparedness by implementing these recommendations. For additional information see the EPA Tier II Tutorial and TCEQ's Common Tier II Reporting Errors documents.[11]

Common Contact Information Errors

Facility Naming: Some reports incorrectly put a "department" name or facility number in the facility name block without listing the company name. [Facility Name] should include both the company name AND the facility name, with the company name *first.* For example: "XYZ Chemicals Somewhere, Texas Plastics Plant." If the facility is a subdivision of the company or another facility, that goes in the department block.

Addresses: There are two separate pages, one for the address where hazardous materials chemicals are present, the other a mailing or corporate address. Do not confuse the two. You must report both.

Latitude and Longitude: It is important these are EXACT, double check coordinates for accuracy on Google Earth or a similar program.

Contacts: Reports *require* at least four contacts for every facility – Owner/operator, Tier II Information Contact, and two (2) Emergency Contacts, one of which must be a 24-hour number. These may list the same contact in some cases. Contacts *must* include an email address and phone number. Facilities subject to Section 302 of EPCRA *must* also provide a Facility Emergency Coordinator contact.

Common Issues in Chemical Reporting

What to Report:

- 10,000 pounds for Hazardous Chemicals that are not Extremely Hazardous Substances.
- 500 pounds or the Threshold Planning Quantity for Extremely Hazardous Substances, whichever is lower.
- 75,000 gallons for gasoline or 100,000 gallons for diesel, if stored underground (UST) at a retail facility.

Chemical Names and CAS#s: This is the most common issue. Please include a CAS# for every chemical with one, if possible. Do *not* use trade names or other ambiguous names when listing the chemical name, whenever possible. Instead, use the name associated with the CAS# or listed in *CAMEO Chemicals* under that CAS#.

- *This is very important.* Incorrect or obscure names or missing CAS#s complicate emergency response and slow response times. They also complicate emergency planning for the LEPC and local community;
- Please make sure you spell the chemical names correctly. Better yet, cut and

[11] https://www.epa.gov/sites/production/files/2017-12/documents/2017_tier2_submit_tutorial_12-14-17.pdf and https://www.tceq.texas.gov/assets/public/permitting/tier2/commondef.pdf.

paste them from *CAMEO Chemicals* or another database that links the chemical to its CAS#.

Chemical Hazards: Since 2017, EPA requires the reporting of hazards *for each chemical*. A checklist appears under a new "Hazards" tab for each chemical under [Physical State, Quantity, and Hazards]. You *must* report these.

Storage Locations: Be as specific as you can. Remember, a first responder with no previous knowledge of your facility may have to locate this area during an emergency response!

Mixture Components: You can report chemicals stored as a mixture by listing their pure chemical components or as reporting them as a mixture, but your reporting must be consistent between Section 311 reporting and Tier II reporting.

- Provide the name of the mixture, the product name, or trade name as shown on the OSHA safety data sheet (SDS). (NOTE: Try *not* to use trade names, whenever possible)
- Enter the CAS number of the mixture or product, if available.
- If the mixture contains any EHS, check the box "yes," and then enter the name, CAS number and amounts of the EHS.
- The EPA does not require facilities to list non-EHSs in mixtures, but you *may* report them. The LEPC recommends you report them.
- Note: If a mixture contains a chemical stored elsewhere in pure form, you must add the quantity from the mixture to the pure chemical to determine Tier 2 reporting requirements. For example, a mixture containing 5000 lbs. of Chemical X and 5000 lbs. of pure Chemical X stored elsewhere is a total of 10,000 lbs. under EPCRA thresholds for that chemical.

Remember: *Your Tier II report is not just a regulatory requirement. It is tool used by your community and emergency responders to mitigate dangers your facility may pose to the community.*

Please, help us protect the community and your employees in the event of an emergency.

Join your LEPC today. It's the law!

Project 3.4. Review Existing Hazardous Materials Emergency Plans

Introduction

This project is an annual review of existing hazmat emergency plans and documents that meets emergency planning requirements in EPCRA. This review should identify areas of concern, especially high-priority areas identified in other projects, exercise reviews or THIRA. Reviews are also useful when significant changes in the hazards and threats to your community occur, such as the development of new hazmat transportation routes or construction of new facilities. Reviews should identify when populations, especially special populations, encroach into hazard zones or when hazardous materials with larger impact zones show up in reports or information about the hazardous materials manufactured, stored or transported through the community. EOP reviews that focus on hazmat transportation are eligible for Hazardous Materials Emergency Preparedness (HMEP) grants.

How to Do It

1) Obtain the complete, most-recent copy of your LEPC's EOP for chemical hazards. This typically is the same as your jurisdiction's EOP, because most EOPs in Texas are all hazards documents. As a consequence, the entire plan includes portions that apply to chemical emergencies, though the hazmat focus is usually in Annex D and Q.
2) Examine the plan for a general sense of its content and completeness. This step does not mean a specific, detailed review of all the plan's content. Rather, it is a "essence" of the plan—an overview.
3) Identify known shortfalls in your current plan. Consult with a variety of stakeholders in the community to identify gaps and use after-action reviews, exercise evaluations and other sources.
4) Identify changes in your community that may have occurred since the last major revision of the plan. These changes may include population growth, facility infrastructure, facility operations, transport corridors, emergency response resources, locations and personnel, key elected officials and agency personnel, communications resources and protocols and more.
5) Prioritize needs and gaps for revising your emergency plan. For hazardous materials, this typically includes identifying appropriate and local emergency contacts; including/updating maps of transportation routes, industrial facilities, critical facilities and populated areas; and including descriptions of the type and nature of chemical hazards, population centers, warnings and key protective actions.
6) Engage key stakeholders in your community to revise and update relevant planning sections. These participants can include agency officials and other

responsible personnel, especially local elected officials. Consider reviewing different sections of the plan at regular intervals (e.g., every other LEPC meeting) or having subcommittees review and update the LEPC on plan content and needs they identify during their meetings and work. This practice facilitates review of the emergency plan as a group and helps keep the plan alive.

7) Reviewers may wish to evaluate plans against different criteria depending on the goals of the review. The best resource for LEPCs and hazardous materials is *NRT-1a Criteria for Review of Hazardous Materials Emergency Plans*. Other resources include *CPG 101 Comprehensive Preparedness Guide: Developing and Maintaining Emergency Operations Plans*, *NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs* and *ANSI/EMAP 4-2016 Emergency Management Standard*.

8) Exercise/test the plan. See Module 8 of the *Texas LEPC Guide*. Hazmat transport emergency response exercises are also eligible for HMEP grants.

Potential Uses of Outcomes

The process of producing and updating the emergency plan is the most valuable outcome of the planning process. The updated plan provides documentation required for a legal framework of your jurisdiction's emergency operations. More importantly for preparedness, the process of review and updating, when it involves all the key participants, is often more important than the plan itself. By discussing the plan, everyone knows the plan and these discussions force participants to examine problems and solutions that might normally not occur to planners and responders. These discussions and group planning forces participants to see outside their lane and understand how their actions affect other parts of the response. Discussions like these enable participants to adapt quickly when a plan fails or circumstances change during an incident. The stakeholders will already have worked through alternatives, and in many cases thought of solutions.

Benefits

Reviewing the emergency plan makes sure that the playbook for emergency operations is current before disasters strike. Done annually, it also helps fulfill EPCRA requirements.

Project 3.5. Incorporate Multi-Hazard, Multi-Function Planning into Your LEPC

Introduction

Incorporating multi-hazard, multi-function planning is especially useful for jurisdictions where other hazards are significant and considered a higher risk than those of hazardous materials. Typically, these will be rural, lower-population jurisdictions that do not have extensive petrochemical manufacturing facilities or resource extraction industries. Multi-hazard, multi-function planning can help your LEPC contribute to emergency preparedness when there are few chemical hazards to focus on. Some larger LEPCs with significant chemical industry also find utility in a multi-hazard, multi-function approach to their operations as part of a whole community approach to emergency management. Such an approach engages LEPC members in the full spectrum of emergency management planning activities that occur in both hazmat and non-hazmat events. Many LEPCs across the U.S. already use an all-hazards approach to planning and review and the EPA advises such an approach as consistent with the guidance provided by the FEMA and other organizations.

How to Do It

1) Identify key preparedness, protective action and response needs in your community.
    - Every community has some priority threat due to non-hazardous materials events (e.g., flooding, tornadoes, wildland fires).
    - The community may have varying levels of hazmat threats, including transportation.
2) Across threats and hazards, identify common needs and gaps in preparedness, protective action and response requirements.
3) Identify activities for your LEPC to help address key gaps—for example, evaluating warning procedures, mass shelter facilities, and logistics for mass evacuations and developing an exercise to test evacuation planning.
4) Identify organizational structures and key roles for people that will help facilitate success in addressing needs and gaps.
5) Recognize successes and contributions both internal and external to the LEPC.

Potential Uses of Outcomes

Identifying gaps in community emergency plans and addressing them, regardless of the specific nature of the hazard, ensures a well-prepared, efficient emergency response.

Benefits

The primary benefit of incorporating multi-hazard, multi-function planning into the LEPC is that it keeps the LEPC current and active in planning. Many of the same principles that apply to hazmat emergencies on transport routes or at fixed facilities apply to other incidents and hazards. Projects like this also provide LEPC members with opportunities to engage in meaningful and relevant emergency planning activities where there are few or no hazmat facilities.

4. Planning for Emergency Response — Training Projects

Project 4.1. Evaluate Your Community Hazardous Materials Training Program

Introduction

Much of hazardous materials response training and exercise support is free to emergency responders and their communities. Training can also occur outside of a classroom because exercises and real-world response can inform training. However, all the training in the world is of no use if it focuses on the wrong areas. Defining purpose and setting goals for training as part of emergency planning helps communities maximize their most precious resources: time, personnel and money.

Task-oriented training identifies individual and collective tasks for all stakeholders and uses training that teaches and practices those tasks or emergency support functions (ESFs). Training is an ongoing process: people come and go and organizations change. To maintain their task proficiency, organizations need continual reassessment about where they stand. Though it may appear daunting, it is easier than it sounds, especially when communities use a simple, three-level task evaluation process: individual training plans, individual training management, and collective organizational training.

How to Do It

1) Through the LEPC, encourage and assist members of industry, government departments, schools, hospitals and medical facilities, and other entities vital to hazmat response to evaluate their current training requirements related to hazardous materials and prepare/update training plans for individuals in their organizations with an emergency-management-related responsibility (*individual training plans*).
2) Identify and track training frequency requirements. For example, note annual training requirements against those with a five-year refresher requirement (*individual training plans*).
3) Ensure those plans incorporate a method of tracking training progress for assigned individuals (*individual training management*).
4) Identify three to five priority organizational tasks or ESFs for individual agencies, industry, governmental departments, schools, hospitals and medical facilities, and other entities vital to hazardous materials response (*organizational collective training*).
    - Examples might include "conduct patient decontamination" for a hospital, or "contain a hazardous material spill" for a fire department. Be specific. Use resources like the National Response Framework (NRF) and FEMA's ESF Annexes as guides.
    - Remember: the public is also a stakeholder, with trainable tasks like shelter-in-place or evacuate.

5) It may help in the beginning to brainstorm longer task lists and then prioritize and select the most relevant tasks. These longer lists can also be useful from year to year because the top three to five priority tasks may change based on conditions within the community.

6) Using these identified tasks, identify training courses and events, like exercises, that allow those organizations to improve their abilities to execute those tasks or ESFs (*organizational collective training*).

   - For example, a fire department and hospital might both benefit from additional training in casualty decontamination. A community might send personnel from both fire departments and hospitals to a training course and follow it up with a community exercise involving contaminated casualties that involves both entities.

7) Training plans should include a training schedule that designates frequency for retraining. For example, annual training requirements or training that is "as needed," like when there is an update to the National Incident Management System (NIMS).

8) Develop a system to track the proficiency of community organizations to perform their critical tasks using three simple criteria: untrained, trained or practiced (*organizational collective training*).

9) Place time limits on the system. For example, if not trained or practiced in a year or another predefined period, a task becomes untrained automatically. Track both status and the date last practiced or trained.

   - If an organization has not carried out formal training in a task, then participates in an exercise or real-world incident that tests that task for the first time in a year, mark it as "trained," not "practiced." A second incident or exercise makes it "practiced."
   - If an organization has trained individuals or groups in a task and has properly executed that task in a real-world or exercise scenario, then mark it as "practiced."

10) Track and talk about these tasks and their proficiency levels within community-wide organizations like the LEPC on a regular basis and note any changes in status. It may help to use a presentation deck or a wall chart to track tasks.

11) Develop a list of three to five emergency management critical tasks for the whole community based on your hazard assessment and track and evaluate it in concert with the organizational lists previously mentioned.

   - For example, in one community, "conduct timely tornado warning" might be critical, while in another "carry out hurricane evacuation" has higher priority. Communities should decide how general or specific they want their tasks to be. For example, a community might have a "conduct timely tornado warning" task while another might choose "implement public warning." The choice depends on the community and its circumstance.

- For much of Texas, "respond to a hazmat incident" is considered a critical task; however, communities may have specific requirements for hazardous materials depending on the specific materials that are present in their community and their mode of transport. One community may have a need to focus on rail car incidents involving crude oil, liquified petroleum gas, or hydrochloric acid while another might need to focus on specific industrial facilities and chemicals.
- Evaluate the organization tasks lists against the community-wide list. Do they match up? If there are disconnects, where are they and why?
- Just as individual training should support organizational collective training, priority organizational training and ESFs should support community priorities. The tasks at each level should mutually reinforce each other.
- If there are disconnects, they may signal a "stove-pipe" or lack of coordination within the community, though in some cases they may reflect organizational priorities associated with routine day-to-day tasks carried out by an organization over those required in a disaster. Such a disconnect presents an opportunity to discuss additional resources and expectations at a community level as well as the role mutual aid or alternate resources can play in community preparedness.

Potential Uses of Outcomes

By reassessing critical organizational tasks on a regular basis (quarterly or annually), particularly following exercises or other training events, organizations can see where to focus their upcoming training and exercises. By setting time limits for tasks and refresher training requirements, communities can budget training activities and courses in advance. The critical task list is a great method for achieving synchronicity between stakeholders. By evaluating what organizations see as emergency management task priorities versus the community's priorities, disconnects are clear and the community can address gaps in capabilities in resources, training, staffing, and equipment.

Benefits

Communities that adopt a task-oriented training approach significantly increase their resilience to disasters. No one does everything perfectly, every time. By focusing on the most critical tasks in emergency management and tracking their training status, communities can balance and adjust their focus as needed and minimize the peaks and troughs in task proficiency across the community.

Task-oriented training at all levels is another form of planning and can significantly improve and inform emergency operations planning. It works the other direction as well. Task-oriented training reinforces emergency operations plans even while they highlight areas for improvement. By working toward consensus so that organizational tasks align with community priorities (tasks), based on the threat and hazard risk analysis, communities pull together in the same direction and increase their focus on the highest priority hazards. Similarly, by synchronizing individual training requirements to collective organizational tasks, organizations

maximize training opportunities and increase efficiencies in their training and exercise programs, potentially realizing cost savings and maximizing their return on investment.

Project 4.2. Leverage-Free Training Opportunities

Introduction

The Texas Department of Public Safety-Division of Emergency Management (DPS-TDEM), the Texas Department of State Health Services-Bureau of Radiation Control (DSHS-BRC), the Federal Emergency Management Agency (FEMA), and the Department of Energy-National Nuclear Security Administration (DoE-NNSA) all offer training programs for responders, health workers and emergency management officials at little to no cost to the community. These programs enhance community preparedness for hazmat transport, fixed facilities and other types of disasters. Some DPS-TDEM programs stipulate that if a rural county (population 150,000 or less) is hosting a class, it may not have to meet the minimum number of students for some classes. Residents of rural counties may also be eligible for travel, lodging and/or per-diem reimbursement to attend Hazardous Materials Emergency Preparedness (HMEP)-funded classes.

How to Do It

1) Visit https://www.preparingtexas.org/TrainingCatalog.aspx to search for training opportunities within DPS-TDEM and other organizations supporting Texas Emergency Management. Look specifically for those events that meet your training needs and are free or low cost. Depending on community requirements, the list below provides a good starting point. Classes are taught by Texas A&M Extension Service (TEEX) either on-site at a host's location or at TEEX's College Station facilities:

   - H-100: HazMat Awareness
   - H-101: Pipeline Emergencies — Awareness
   - H-200: HazMat First Responder Operations
   - H-201: Pipeline Emergencies — Operations
   - H-202: Pipeline Emergencies — Awareness/Operations
   - H-203: Confined Space Safety
   - H-204: HazMat First Responder Awareness/Operations
   - H-301: HazMat Emergency Response Technician
   - H-302: HazMat Refresher Training
   - H-303: Pipeline Emergencies — Technician
   - H-304: Confined Space Rescue
   - H-305: Oil Spill Containment, Protection, and Recovery Tactics
   - H-405: Air Monitoring for Hazardous Materials

2) Encourage individuals to complete the free training offered by the FEMA Independent Study Program, which goes beyond the Incident Command System (ICS) courses required by many jurisdictions (https://training.fema.gov/is). Also, see Module 8 of the *Texas LEPC Guide*.

   - Many of these courses relate to emergency response and planning for all hazards, not just hazmat incidents, such as Radiological Emergency

Management (IS-3) and Introduction to Hazardous Materials for Fire, Police, and EMS (IS-5a).

- Consider encouraging community participation through courses like Household Hazardous Materials — A Guide for Citizens (IS-55a) or Protecting your Home or Small Business from Disaster (IS-394.a).
- For agricultural communities, consider Livestock in Disasters (IS-111.a).
- Medical professionals may find Applying ICS to Healthcare Organizations (IS-200.HCa) or An Orientation to Hazardous Materials for Medical Personnel (IS-346) valuable.
- Rural and urban communities alike may rely on volunteers in a major disaster, and Developing and Managing Volunteers (IS-244.b) can help.
- Communities in which significant oil field activity exists or those along nuclear waste transportation routes may find Radiological Accident Assessment Concepts (IS-303) or Modular Emergency Radiological Response Transportation Training (IS-302) helpful, especially if they are considering the classroom version (see below).
- Schools and other community organizations can benefit from Preparing for Mass Casualty Incidents: A Guide for Schools, Higher Education, and Houses of Worship (IS-360), Multi-Hazard Emergency Planning for Schools (IS-362.a) and Planning for the Needs of Children in Disasters (IS-366).
- Public works personnel, an essential part of emergency management and disaster recovery, can benefit from The Public Works Role in Emergency Management (IS-552), Emergency Planning for Public Works (IS-554), Damage Assessment for Public Works (IS-556), Public Works and Disaster Recovery (IS-558), Local Damage Assessment (IS-559) and An Introduction to Debris Operations (IS-632).
- Businesses and other community organizations can take Workplace Security Awareness (IS-906) and Active Shooter: What You Can Do (IS-907).
- Elected officials find Emergency Management for Senior Officials (IS-908) useful.
- Planning and zoning organizations can benefit from Applications of GIS for Emergency Management (IS-922).

3) Contact the Texas DSHS for training opportunities dealing with public health and radiation hazards.

- Visit https://www.train.org/texas to search for training.
- Contact the DSHS Bureau of Radiation Control for First Responder Radiological Training and other training opportunities.
- For communities seeking additional radiological response training, contact Ella McNeil, Department of Energy Transportation Emergency Preparedness Program manager, at Ella.McNeil@em.doe.gov. For more information, refer to the DoE website at http://www.energy.gov/em/services/waste-management/packaging-and-

transportation/transportation-emergency-preparedness.

- The National Nuclear Security Administration also provides free training in radiological response. Refer to http://www.ctosnnsa.org for more information.

4) Leverage training opportunities provided by local industry, university or college subject matter experts, or other state organizations.

   - The 6th Civil Support Team-Weapons of Mass Destruction (CST-WMD) and the Texas National Guard provide training and support to communities throughout the state. Contact the 6th CBRNE Enhanced Response Force Package at (512) 388-6329 or the 6th CST-WMD at (512) 782-1900.
   - TCEQ maintains regional and statewide strike teams that support communities and local emergency management in the event of a hazardous materials incident. Contact the TCEQ Emergency Management Support Team at (512) 239-1510 for more information.

5) TRANSCAER and the railroad industry also offer training opportunities for communities at little or no cost.

   - Union Pacific Hazmat
   - BSNF Hazmat
   - Kansas City Southern Safety and Security

Potential Uses of Outcomes

By utilizing both individual and collective training activities that come at little or no cost to the community other than the time necessary to complete them, communities can improve their knowledge base across the entire emergency response and management enterprise. Many of the free training programs are in areas traditionally outside the first responder and emergency management community, like schools and animal shelters, which play an important role in the resiliency of communities to events like hazardous materials incidents that may affect them.

Benefits

Training at little or no cost is an obvious benefit for any community, especially when that training increases the community's resilience to disaster. By expanding the focus of training to include non-traditional partners and the public, communities increase public awareness of emergency management activities and better prepare citizens. Many of the opportunities identified above allow communities to form connections with state agencies and responders. By developing these relationships, communities build connections that can prove extremely valuable when disaster strikes.

Project 4.3. Identify and Use Train-the-Trainer Programs

Introduction

Many of the most requested training programs have train-the-trainer programs that can certify local or regional instructors. Having certified trainers within a community allows that community to train both its own responders and those of neighboring communities. Such training generates goodwill and builds relationships essential to mutual aid or when facing a large disaster that requires coordination across multiple communities.

How to Do It

1) Evaluate your training needs (see Planning for Emergency Response – Training Project 4.1). Which training needs require the most frequent and largest numbers of trained personnel? These may be areas where you need local trainers.
2) Consult with your community; you may already have trained trainers in community organizations or agencies.
3) Police and fire departments often have dedicated trainers and facilities; find out what they can teach.
4) Consult with local or regional institutions of higher learning, community colleges, or others that may have trainers who reside in your community.
5) Consult with your neighboring jurisdictions. Find out if they have trainers available in their community or wish to pool resources through a cooperative training program.
6) Consider pooling your needs with regional or adjacent organizations. For example, one community might focus on police-related hazmat training while the other focuses on fire departments.
7) If communities share a need, coordinate your actions. Consult with your region's council of government (COG). See https://txregionalcouncil.org/ for more information.
8) If training requirements remain unmet, communities should contact or visit the training providers listed in the Planning for Emergency Response - Training Project 4.2. Search or inquire about train-the-trainer opportunities in the areas you identified in Step 1/Project 4.1.

Potential Uses of Outcomes

Having trainers on the payroll for frequently-required training is another form of free training that communities can leverage. In some cases, train-the-trainer programs come at no or low cost to small or rural communities or through grant programs. By coordinating and sharing trainers with adjacent communities and

jurisdictions, communities can build and reinforce important mutual aid relationships.

Benefits

Having trainers on the payroll reduces training costs and eliminates travel and lodging expenses for individuals who might otherwise have to travel to attend required training courses. Coordinating and sharing training and trainers with adjacent jurisdictions builds important relationships necessary for mutual aid. Certified trainers are subject matter experts in their fields and can serve as a valuable resource in their areas of expertise and make great LEPC members. Employees who certify as trainers benefit professionally and personally. LEPCs that include trained trainers within their membership, especially in courses delivered to the public, create a platform for community engagement and outreach.

5. Planning for Emergency Response — Equipment Projects

Project 5.1. Obtain Important Hazmat Personal Protective and Response Equipment

Introduction

When a hazmat incident occurs, a community's level of response depends on its training and equipment. Even if a community does not have a hazardous materials response team, it must still protect people until mutual aid hazmat specialists and technicians arrive at the incident. Some basic personal protective resources are useful for communities in responding to hazardous materials and public health emergencies, even if the community does not have a dedicated hazmat response team. These resources may be useful to have on hand in a variety of scenarios. Communities should look for inexpensive resources that do not expire that they can store for extended periods in climate-controlled conditions without taking up large amounts of space. Some of these may already be on hand within the community.

How to Do It

1) Identify personal protective and response equipment already on hand within the community. Look specifically for the following items that may be stockpiled at a community level or within a fire, police, EMS or public works department. Industries located in the community may also have small stockpiles of some or all this equipment. In addition, consult with area hospitals and medical facilities, which may stockpile some, or all, of the following list:

    - Tyvek suits with hood and boots (stockpile more of the larger sizes—a suit that is too big can be made to fit with tape, but a suit that is too small is useless).
    - Type N, R or P 95, 99 or 100 filter masks (Mask type depends on need; N-95 is good enough for most basic public health situations and is also the least expensive).
    - Chemical and slip resistant shoe/boot covers (again, stock more of the larger sizes, tape can make larger covers fit with smaller shoes).
    - Nitrile gloves (various sizes/thicknesses—stock more of the larger sizes).
    - Rubber dish gloves or similar (varies sizes/thickness, stock more of the larger sizes).
    - Chemical resistant duct tape.
    - Kiddie pools.
    - Long-handled bristle brushes.
    - Garden sprayers.
    - Tarps/plastic sheeting.
    - Heavy-duty, extra-large construction trash bags.
    - Sorbent booms, socks, pads or other media (vermiculite/kitty litter/powdered lime).
    - 55-gallon plastic drums.

2) Once you establish the current community resource inventory, evaluate additional needs. For example, a hospital with basic protective equipment and a small decontamination setup may be adequate, but a fire department might be lacking similar resources. Also, consider centrally stockpiling resources beyond the regular needs of individual departments or agencies for use during major disasters or larger incidents.
3) Prepare a list of the equipment that is on hand, its location, and the point of contact for its control and include it in your EOP, cross-referencing it in the appropriate annexes, especially Annexes D, M, Q, and V.
4) Grant funding may be available to support the purchase of additional supplies like those identified in Step 1, including DPS-TDEM, TCEQ and Department of Homeland Security (DHS) grant programs.

Potential Uses of Outcomes

During major hazardous materials or public health incidents, the consumable items listed above are critical to a timely response and the ability of responders to contain an incident before mutual aid hazardous materials response teams respond to mitigate it. This equipment allows any community to conduct decontamination of responders or casualties and for rescue personnel to operate in the warm zone to assist with casualty rescue, if necessary. Finally, stationing some of this equipment at medical facilities allows them to act as first receivers of contaminated casualties and conduct decontamination of those casualties, preventing the contamination of their facilities and their personnel.

Benefits of Doing It

The basic equipment outlined in Step 1 can significantly increase the ability of a community to contain a hazardous materials incident or public health emergency. Having adequate supplies on hand lengthens the time a community can hold its own in an incident until mutual local or state aid arrives. Industrial facilities may already stockpile some of these resources. In those cases, this project offers another opportunity to coordinate and integrate facilities into community response planning.

Project 5.2. Increase the Hazard Detection Capability of First Responders

Introduction

A community does not need a hazmat response team to conduct basic hazard detection. Personnel trained on the proper protective equipment can carry out basic hazard detection and identification. Some of this equipment may already be on hand within the community and in the private sector, where personnel may already be familiar with its use.

The following hazards can be present in hazmat incidents and require special equipment for detection:

- Gamma radiation (from a distance)
- Source location for alpha, beta and gamma radiation (up close)
- Reduced or elevated oxygen levels
- Flammable gases and vapors
- Corrosive gases and vapors
- Toxic gases and vapors

Placards, shipping labels or other markings can tell a first responder what hazards *might* be present in an incident. Hazard detection tells responders if they *are* present and to what level. Liquid spills are self-evident. Gases, vapors and radiation are not. Gases and vapors detected through our senses (smell, burning eyes, etc.) at the concentrations necessary to detect them are usually hazardous to human health. Therefore, detection equipment is a requirement for protection of life safety; specifically, air monitoring instruments for gases and vapors and radiation monitors/detection equipment for radiological hazards.

How to Do It

1) Inventory what detection capabilities are already present in the community; consider sources outside of just fire and police departments.

2) Include the private sector in this effort, through the LEPC. Chemical facilities often have some of the monitoring equipment communities need and have experience and training in using it.

3) Search for unused or forgotten equipment. For example, for several decades the Texas DSHS Bureau of Radiation Control provided radiation monitors and detection equipment as well as training to nearly every community in the state. Such detectors could be gathering dust or forgotten in some far corner of an office or inventory room. Finding that equipment and having DSHS calibrate it is a no-cost solution for many communities that immediately increases their ability to respond to incidents involving radiological materials that are present in many areas of Texas.

4) Prepare a list of the equipment that is on hand, its location and the point of contact for its control and include it in your EOP, cross-referencing it in the appropriate annexes, especially Annexes D, M, Q and V.

5) Using data from past hazardous materials incidents, industry reports (e.g., Tier II, EPA Risk Management Program, or Toxic Release Inventory) and/or hazardous materials commodity flow studies, examine gaps in your first responders' detection capabilities based on your current resources.

6) Having identified the gaps, consider purchasing equipment to meet those gaps, based on the following three criteria:

   - *Funding:* Funding for equipment may be available via DPS-TDEM, TCEQ and DHS grant programs. **Note:** Some detection equipment may be low enough in cost to fund out-of-pocket (see list below).
   - *Training*: Do not consider complex equipment requiring extensive training and experience to use properly, except for communities that are able to support such commitments. Focus on equipment that is easy-to-use and is easy-to-train. For example, it is possible to train someone to use a radiation monitor/detector safely in a matter of a few hours. The same is true of colorimetric tubes. More advanced air monitoring equipment, like photoionization detectors or multi-gas monitors, requires a lot more training to use and interpret properly. No matter the level of training needed, repeat training regularly, so that response personnel maintain familiarity with equipment operation, especially if they do not use it often. More complex equipment is often more expensive and requires more maintenance as well (see Funding, above).
   - *Maintenance:* Consider the maintenance cycle and expenses when evaluating any piece of equipment for purchase. Even colorimetric tubes expire eventually. Air monitoring instruments need regular calibration (and require special calibration gases), and their sensors also wear out quickly and can be expensive to replace. Radiation detection and monitoring equipment requires calibration, usually annually. Include maintenance expenses when evaluating funding since they may be a recurring cost beyond any grant money. Identify who will be responsible for maintenance (in-house, contractor, state or other agency, etc.) and who will fund recurring maintenance and resupply.

7) The following equipment is the most basic and easiest to acquire and use, with the lowest training and maintenance thresholds:

   - Colorimetric Tubes: The two major manufacturers of colorimetric tubes are Drager and Sensidyne. Several smaller firms exist like RAE Systems sell similar products, though Drager and Sensidyne are the largest and most widely used. These devices use a "colorimetric" medium inside a slender

glass tube.[12] To operate colormetric devices, a user breaks off the ends of the tube, exposing the media to air, and a hand-operated or electric pump draws air through the tube. The media changes color, showing the presence of the chemical of concern and its rough concentration. Tubes sizes vary by manufacturer and usually are usable only with a pump provided by that manufacturer. Tubes have a specified shelf life that can vary according to the manufacturer and the media used. Kits are available that combine a pump with specific tube sets used to identify chemicals, and thousands of different tubes exist that can detect everything from propane to chemical warfare agents. Initial cost varies depending on manufacturer and tubes/kits desired.

- Radiation Detectors/Monitors: The DSHS Bureau of Radiation Control provided free repurposed radiation kits originally used for Civil Defense during the Cold War to most communities in Texas. These Civil Defense Kits typically include the following:
- A CDV-700 Geiger-Mueller Meter, which can detect gamma and beta radiation from 0.1 to 50 milliroentgens per hour (mr/hr) +/- 15 percent (if properly calibrated)
- A CDV-715 High Range Gamma Detector able to detect gamma radiation between 0.1 to 500 roentgen per hour (r/hr) +/- 20 percent (if calibrated)
- A CDC-750 Dosimeter Charger with two to five CDV-742s or other dosimeters
- The CDV-700 is the most versatile and useful instrument in the set for first responders. For more information regarding this equipment, contact the Texas DSHS — Bureau of Radiation Control. If DSHS cannot support your community, but you still have the detectors, private-sector firms can offer calibration services.
- Additional radiation detectors/monitors: Many different radiation detectors exist, each using various forms of detection technology, from radiation pagers used by some police departments to complex spectrographic devices capable of detection and identification of sources. Training, maintenance and expense vary widely depending on the device. For most jurisdictions, the key is to determine if radiation is present and to what level, so they can cordon off an area where an unshielded source is present. Therefore, simpler devices are usually better. However, some of the many vendors in this area are not reputable. Jurisdictions considering purchasing additional radiation detection capability beyond that provided by Texas DSHS are advised to seek additional information/conduct research and stay with the most well-known and oldest manufacturers

[12] Colormetric here means the medium changes color in the presence of certain chemicals. Some colormetric mediums are strictly "pass/fail" – they detect the presence of a chemical, others can be used to determine approximate concentration levels based on the degree of color change or from markings on the tube.

(Ludlum, Thermo-Fisher Scientific, etc.).[13]

8) Many advanced monitoring instruments are available, including combustible gas indicators, flame ionization detectors (which may include basic chromatography), portable infrared (IR) spectrophotometers, ultraviolet photoionization detectors, ion mobility spectrometers and oxygen meters. Manufacturers frequently incorporate these detectors into multi-gas devices that may include some combination of two or more of these detectors.
   - All of these require significantly more training, maintenance and expense than the more basic equipment identified in Step 6 (above).
   - Jurisdictions considering purchasing such devices will typically have response personnel trained to higher levels of hazardous materials response — at least the NFPA 472 Operations level, but more likely the Technician level.
   - Because this equipment requires frequent maintenance and calibration, it is best suited for communities who will be using such equipment on a regular basis and have a need to do so.
9) Some distributors, vendors and manufacturers of chemical detection equipment are not reputable.[14] Jurisdictions requiring more advanced detection capabilities must gather additional information/conduct research. Communities should stay with the more well-known and established manufacturers (MSA, RAE Systems, Ion Science, Thermo-Fisher Scientific, Smiths Detection, Bruker, etc.).
10) Some of this equipment is already in use by the private sector in areas where extensive oil and gas field activity, pipelines or industry exists. Consider agreements with private-sector entities to assist or provide support for such equipment in an emergency.
11) Field portable analytical equipment also exists and is becoming less expensive and more widely used. The three most popular are devices based on IR spectroscopy, Raman IR spectroscopy or gas chromatography/mass spectrometry (GC/MS). All of these are significantly more expensive, require

[13] Because of the interest of "preppers" and survivalists in radiation detection, the number of bogus devices and unscrupulous companies operating in this area increased in recent years, especially following the Fukushima disaster. Bidders and vendors must be vetted. Even otherwise reputable equipment in this area is sometimes resold in an unusable condition. It is always preferable to make manufacturer direct purchases or purchase via manufacturer approved vendors.

[14] There are several "scam" devices and non-functional equipment made to look real on the market, especially associated with explosives detection. It is important to properly vet any contract bidders or vendors of equipment prior to purchase and perform due diligence and research of any equipment, especially when vendors make exaggerated claims regarding its capability. Purchasing from well-known and established vendors and manufacturers can limit the potential for fraud.

highly trained and knowledgeable users, and are available through state response resources. Only the most advanced hazardous materials response teams or major metropolitan areas typically require such devices.

12) Some of these devices have found use in law enforcement, especially in drug and/or explosives investigations. Consult with regional assets regarding their capabilities in this regard.

Potential Uses of Outcomes

- By using basic colorimetric tubes and simple radiation detectors, first responders to a hazardous materials incident can safely determine if a leak has occurred or if a radiological source is outside of its shielding. For example, the use of radiography in pipeline and oil field applications around the state of Texas increases the chances of a radioactive roadway incident. Radiation detection capability is the difference between determining whether an individual receiving a dangerous dose of radiation or determining that the shielding of such a device is intact and does not pose a threat. Such basic equipment allows first responders to monitor their situation and adjust their cordon accordingly.
- More advanced equipment is only useful for jurisdictions with dedicated hazmat response personnel, advanced training, funding and capability. For those jurisdictions, advanced air monitoring instruments and field analytical capabilities significantly increase their ability to respond to and mitigate a greater variety of hazardous materials while maintaining increased personnel safety.
- In both cases, detection capabilities provide more information to incident commanders and emergency management upon which to base decisions like evacuation or shelter-in-place for the community, as well as decisions on personal protective equipment for responders.

Benefits

Increasing the basic detection capability of jurisdictions where hazmat response is distant, takes time to assemble/gather, or is available only via mutual aid increases the immediate capability of that jurisdiction to respond, contain and identify hazards associated with a hazmat incident at low cost and often with only a few hours training.

Larger jurisdictions that are increasing or improving their detection capability with advanced air monitoring instruments or field analysis can also decrease their reliance on mutual aid or state resources in some circumstances and increase the variety of hazards they can respond to safely.

Project 5.3. Improve Decontamination Capabilities and Coordination

Introduction

Conduct this project after or in conjunction with the Planning for Emergency Response – Equipment Project 5.1. Decontamination planning and coordination are essential for any hazardous materials incident where victims or responders become contaminated by hazardous materials. Every year in Texas, a few hospitals close their emergency rooms and conduct expensive decontamination of the facility due to contaminated victims entering the Emergency room (ER). EOP reviews have found this to be a common deficiency across jurisdictions, regardless of their size. However, improving this situation is relatively easy and often requires little or no cost.

How to Do It

1) If your local fire department does not have a standard operating procedure (SOP) for routine, small-scale (one or two patient) decontamination and/or mass casualty decontamination, encourage them to implement and practice one. If your jurisdiction has chemical industry, hazardous materials transportation corridors or oil-gas activity that produces contaminated casualties on a more frequent basis, examine those incidents to reevaluate any decontamination SOPs. The standard quick/mass casualty decontamination setup used across many jurisdictions is listed below. Use this as a basis to discuss how your jurisdiction conducts decontamination and brainstorm improvements.

    - The first responding fire truck sets up a line with a 2.5-inch fog nozzle set at a wide fog pattern and directs ambulatory individuals who are suspected of being contaminated to rinse off in it and remove their outer clothing. Line operators and first receivers should wear bunker gear and SCBA, upgrading to Tyvek suits and Nitrile or rubber gloves/boots as time permits. For small numbers of victims, this procedure may be all that is required. Avoid or minimize all contact with casualties until decontamination is complete. **Note:** Initial responders may require decontamination themselves!
    - Provide high-volume, low-pressure showers for all ambulatory victims after they remove their outer clothing. After casualties remove clothing and undergo a rinse, direct them to a medical triage and provide blankets or other covering.
    - Expand the operation as necessary from this point. For larger events/mass casualty scenarios, the second responding engine company sets up approximately 20 feet away from the first company, facing the opposite direction, thus forming a corridor between their trucks. Mount 2.5-inch fog nozzles to the pump discharges, set at a wide fog pattern. **Note:** Avoid overpressure; hydrant pressure may be sufficient.
    - If a ladder truck is available, place it in-line with one of the other trucks and use a fog nozzle on the ladder pipe to create a downward fog pattern over

the corridor.
- An exception to this procedure involves contamination by any radiological material or certain biological materials (e.g., anthrax). In those circumstances, runoff containment is a priority that is implemented into the overall procedure from the very start. Containment is less of a concern in chemical events.

2) More involved procedures are necessary for non-ambulatory casualties or in complex scenarios. Large mass casualty events may require a decontamination triage and a medical triage. However, the above can be adequate for small hazmat incidents because outer clothing removal and a high-volume rinse generally removes most contamination. Additional information on these and other procedures is available from a variety of online sources (see below). **Note:** Many of these resources focus on chemical, biological, radiological or nuclear terrorist events. However, the procedures for decontamination they describe are useful for a wide variety of hazardous substances and circumstances. Use these as a basis for determining what best suits your community.

   - For more information consult the Department of Homeland Security (DHS) and Department of Health and Human Services (HHS) joint document Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities.
   - Communities and hospitals may find the Massachusetts Department of Public Health's Hospital Decontamination Self-Assessment Tool useful for planning and evaluating capabilities.
   - The U.S. Army Edgewood Chemical Biological Center publications Guidelines for Mass Casualty Decontamination During a Hazmat/Weapon of Mass Destruction Incident: Volumes I and II provide detailed information on patient decontamination for a significant number of hazards.
   - Jurisdictions with nuclear or radiological hazards may wish to consult the U.S. HHS Radiation Emergency Medical Management Decontamination Procedures pages on the internet.

3) Determine which medical facilities in your area possess decontamination capabilities and what those capabilities are, specifically the following:

   - What can they decontaminate (chemical, biological, radiological)?
   - How many people can they decontaminate at any given moment?
   - How quickly can they decontaminate that number of people?
   - Can they expand their capability if needed? How? Under what circumstances?
   - How long will it take for them set up additional capacity in an emergency?

4) Prepare a list of each medical facility, including urgent care and other clinics, in your community and note its decontamination capability and throughput (number of people per iteration/time to decontaminate).

   - Include this list in your EOP Annex H, and cross-reference in Annexes D, M, Q and V.

- Some industry and EPCRA/RMP-regulated facilities may have their own decontamination capabilities. Involve facilities in the project through the LEPC and include them in your lists of decontamination capabilities.

5) Examine your jurisdiction's procedures for reporting and coordinating hazardous materials response and contaminated casualties. They should account for all the following:
   - In the event of a hazmat incident, there should be a process for the dispatcher to notify all responding police, fire and Emergency Medical Services (EMS) units of the possibility of contaminated casualties at the scene of a hazardous materials event.
   - Notify all responding units of wind speed and direction at suspected hazardous materials events.
   - Notify medical facilities in the area that a hazardous materials event has occurred and contaminated casualties (especially self-evacuating contaminated casualties) may be arriving at their ERs. **Note:** In major hazmat, biological or radiological incidents, many casualties self-evacuate and subsequently contaminate medical facilities. Additionally, in radiological incidents and terrorist attacks, the number of "worried well" reporting to medical facilities usually outnumber actual casualties by a factor of 10 to 1. Have a procedure to deal with these.
   - Are there hospital/clinic procedures in place, especially during mass casualty events involving hazardous materials, to secure the facility and control access? Under what notifications and authority do they implement those procedures and establish their own decontamination lines?
   - Establish procedures that identify victims' decontamination status to fire, EMS and receiving medical facilities and establish how information about the contaminant, decontamination process and time exposed is communicated between each. Consider including EPCRA facilities in this, especially those with decontamination or medical facilities on-site.
   - Maintain a list that identifies facilities designated to receive contaminated casualties, the number they can receive (per hour), and alternate facilities in case the primary facility becomes contaminated itself.

6) Ensure these procedures are consistent across departmental and medical SOPs and incorporated into your EOP where appropriate.

Potential Uses of Outcomes

Using communication procedures and breakdowns as a basis, communities can use this project as a springboard to a broader discussion about coordination and communication in emergencies. This project provides information that allows communities and facilities to update SOPs, EOPs and resource lists.

Benefits

The key breakdown in most jurisdictions that results in contaminated ERs is lack of communication. Identification of the contamination is critical for patient treatment,

and any delay in relaying that information to medical personnel can delay treatment. By working out how your community handles contaminated casualties from hazmat events in both small and large numbers, you facilitate communication between the constituent elements of the response about how they share information, and that pays benefits well beyond hazmat and decontamination concerns.

Preventing the contamination of important medical facilities and exposure of medical and EMS facilities/equipment/personnel to contaminants is a critical outcome of this project. This project acts as a springboard to facilitate improved communication between fire, police, EMS and medical facilities across a range of issues outside of hazardous materials response and decontamination. Finally, by improving the decontamination planning, procedures and process within a jurisdiction, a community can significantly improve its ability to respond to hazmat incidents and save lives.