

HAZARDOUS MATERIALS ROUNDTABLE MAY 9–10, 2023

National Fire Academy (NFA)

**16825 S. Seton Ave.
Emmitsburg, MD 21727**

Sponsored by the United States Department of Transportation (USDOT) Pipeline and Hazardous Materials Safety Administration (PHMSA), the Federal Emergency Management Agency (FEMA) U.S. Fire Administration (USFA), and the International Association of Fire Chiefs (IAFC)



The Roundtable's positions do not necessarily reflect the views of PHMSA, USFA, or the IAFC.

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1 Executive Summary

Each year in the United States, hazardous materials are released into the environment as a result of accidents and natural disasters. These hazardous materials cause potential harm to people, the environment, critical infrastructure, and property. To further complicate matters, according to the U.S. Environmental Protection Agency (EPA), extreme weather conditions are likely to become more frequent and more intense with human-induced climate change. Therefore, it is more important than ever to ensure that Hazardous Materials (HazMat) professionals, first responders, and communities learn how to mitigate the risks associated with hazardous materials and be better prepared to respond when natural disasters or accidents occur. The need to improve preparedness falls upon all community members and requires foundational elements such as Local Emergency Planning Committees (LEPCs) and Tribal Emergency Response Commissions (TERCs).

The HazMat Roundtable was formed to identify critical issues and suggest plans of action to strengthen HazMat preparedness throughout the United States. Comprised of technical specialists and Subject Matter Experts (SMEs), the Roundtable meets annually to address pressing challenges and, consequently, help improve the nation's public safety.



On May 9–10, 2023, the 2023 HazMat Roundtable was hosted by the National Fire Academy (NFA) in Emmitsburg, Maryland. Sponsored by the United States Department of Transportation (USDOT) Pipeline and Hazardous Materials Safety Administration (PHMSA), the U.S. Fire Administration (USFA), and the International Association of Fire Chiefs (IAFC), the event was attended by HazMat technical specialists and practitioners from over 20 organizations including its host, sponsors, and other organizations. Organizations in attendance included the EPA, CHEMTREC, the National Fire Protection Association (NFPA), the

National Volunteer Fire Council (NVFC), the National Volunteer Fire Council (NVFC), the International Association of Fire Fighters (IAFF), the National Association of SARA Title III Officers (NASTTPO), and the Federal Emergency Management Agency (FEMA), to name a few.

The goal of the Roundtable was to discuss challenges in HazMat preparedness, offer recommendations and solutions to these challenges, and review the accomplishments and best practices that the Roundtable members and their organizations have been doing in the HazMat arena since the 2021–2022 Roundtable meetings.

The objectives of the Roundtable included:

- Prioritizing HazMat preparedness issues that have been previously identified and discussed at prior Roundtable sessions,
- Determining ways and processes to leverage the work that is currently being done, and
- Discussing new HazMat preparedness issues and challenges, as well as emerging trends and technologies that can be used to help address these challenges.

The agenda included discussions about the issues, recommendations, and solutions captured during previous HazMat Roundtable meetings (2020–2022), Roundtable Member and Federal Partner updates and presentations, and an open discussion session to review the results of the *Issue Prioritization Survey* to help the group determine if:

- They agreed with the survey results in terms of prioritization with a focus on the critical or high priority issues,
- There were issues that could be removed or consolidated, and
- There were new issues that should be added to the list.

During the open discussion session, the importance of communication, information sharing, and funding took center stage due to their impacts on Local Emergency Planning Committee/Tribal Emergency Response Commission (LEPC/TERC) performance, risk-based response (RBR), and other issues.

This report describes the Roundtable discussions, provides high-level summaries of the Roundtable member presentations and updates, and details the HazMat Roundtable’s feedback, recommendations, and suggested plans of action.

2 Meeting Participants

2.1 Special Acknowledgements

- Gregory Noll, member and past chairperson of the National Fire Protection Association (NFPA) Technical Committee on Hazardous Materials/Weapons of Mass Destruction Emergency Response (NFPA 470) and adjunct member of the IAFC Hazardous Materials Committee, who served as the meeting leader and facilitator.
- Eriks Gabliks, the NFA and Superintendent, hosted the event at the NFA facility in Emmitsburg, Maryland.
- PHMSA, NFPA, and IAFC, without whose sponsorship and support, this Roundtable meeting would not have been possible.

2.2 Names of Participants

A complete list of participants can be found in [Appendix A](#) of this document.

3 NFA Welcome

Eriks Gabliks welcomed the Roundtable members by providing the history and purpose of the NFA, sharing important statistics related to fires and firefighters and describing current and future initiatives at the NFA.

3.1 NFA Updates and Initiatives of Importance to the HazMat Preparedness Community

- **America Burning Anniversary:** This is the 50th Anniversary of the America Burning report, which was published in 1973.



- **Line-of-Duty Deaths (LODD):** The number of line-of-duty deaths has decreased, but the number of deaths after responses is on the rise. For example, the number of deaths caused by diseases contracted from working at the World Trade Center will soon surpass the number of LODD deaths on 9/11/01.
- **New Fire Data Collection System:** Dr. Lori Moore-Merril, United States Fire Administrator, wants to replace the National Fire Incident Reporting System (NFIRS) in 2023 with a user-intuitive system. An announcement will be coming out soon regarding the selected vendor that will implement the new system. It should be noted that this project was of great interest to the Roundtable members as it directly relates to current issues within the HazMat community.
- **Administrator Summit in October 2022:** Dr. Moore-Merril asked for the top concerns of America's fire service today and into the future. Twenty-five issues were identified under the following categories:
 - Cancer: According to the World Health Organization (WHO), firefighting is a carcinogenic profession and industry.
 - Behavioral Health: Suicide is another cause of death that needs to be addressed.
 - Climate Change: Wildfires are no longer just seasonal, and there are more responses related to climate-related incidents than ever before.
 - Building Codes and Standards: Rolling back fire codes to make homes more affordable should not be an option.
 - Recruitment and Retention: To improve recruitment and retention, the recommendation was made to create an apprenticeship program in which men and women can go into an apprenticeship program, learn to be firefighters, and then be hired as firefighters.
 - Elevate Firefighting: On a congressional level, firefighting needs to receive the same funding levels and priorities as law enforcement.
- **Aqueous Film Forming Foam (AFFF):** This Class B firefighting foam poses health risks to emergency responders due to the presence of per- and polyfluoroalkyl substances (PFAS). The NFA is working with the Secretary of the Department of Homeland Security (DHS), partners within FEMA, and other fire service partners to address important questions such as:
 - What are possible alternatives to AFFF?
 - How should we replace it?
 - How and where do we dispose of it?



4 Historical Reviews & Perspectives (2020-2022)

4.1 Roundtable Preparation

In preparation for this year's Roundtable, the issues, recommendations, and solutions (if applicable) captured during the previous Roundtable meetings were reviewed and analyzed.

Duplicate issues were consolidated, and issues were reevaluated to determine if they could be categorized under more than one of the following improvement areas:

- 1) Planning & LEPC/TERC Performance
- 2) Risk-based Response & Preparedness
- 3) Funding
- 4) HazMat Training
- 5) HazMat Standard of Care
- 6) Information Sharing
- 7) Prevention/Mitigation

Several issues that could be categorized under more than one improvement area were identified and tagged as such. For example, an issue that originally fell under **Funding** but also relates to **HazMat Training** was categorized as both a funding and training issue. Identifying issues that involve multiple improvement areas could support the HazMat Roundtable's prioritization discussions (i.e., those issues that fall under more improvement areas may be good candidates for receiving a higher priority than those that do not).

An online survey (see [Appendix E](#) for questions and results) was distributed to the Roundtable members which asked participants to assign a priority to each issue identified during previous Roundtables as follows:

- Critical: Address within the near term (CY 2023)
- High: Address within the next 12-18 months
- Medium: Address within 24 months
- Low: Address after 24 months

The purpose of the preparation activity was to help refresh the participants' memories regarding what was discussed and agreed upon during previous Roundtable discussions, reevaluate the importance of previously identified issues within the context of current-day challenges, and prepare them for breakout discussions.

The screenshot shows a survey titled "HazMat Roundtable Issue Prioritization". It includes a legend for priority levels: Critical (right away, FY 2023), High (next 12-18 months), Medium (within 24 months), and Low (after 24 months). Two survey questions are visible, each with radio button options for Critical, High, Medium, and Low. The first question is about initial operations-level responses at the local level, and the second is about Hazmat response capabilities and services at the local/regional level. A red asterisk indicates that the "High" option is required for both questions.

4.2 Review of Improvement Areas with SMEs

Roundtable leadership members emphasized that the *HazMat Roundtable Report* has evolved from a snapshot in time to a living document. The issues and recommendations for each improvement area, which were discussed during previous Roundtables, were presented to the participants to drive discussion and elicit feedback from the SMEs. Each sub-section that follows includes a snapshot of the previous HazMat Roundtable recommendations and a summary of the Roundtable’s feedback.

4.2.1 Improve LEPC/TERC Performance

Previous HazMat Roundtable Recommendations

- Assist the LEPCs in their transition to all-hazard preparedness.
- Improve community awareness and education.
- Improve LEPC membership and leadership.
- Improve metrics of success for LEPC performance.
- Strong concurrence and better integration of LEPC into local planning processes.
- Ensure that the Authority Having Jurisdiction (AHJ) and community leaders are responsible for determining the level of HazMat services to be provided.
- Improve integration of environmental issues into the FEMA Threat and Hazard Identification and Risk Assessment (THIRA) process.

In today’s society, there is a very high expectation from the public on the performance of emergency preparedness organizations. The media often turn high expectations into unrealistic ones in terms of what emergency responders can and cannot do in the event of real emergencies. In most communities, there is a lack of understanding regarding the risks and capabilities of the community to respond to those risks, often because emergency response agencies have not educated the public on the limitations of their capabilities.

The well recognized “civil right” to adequate emergency planning, as articulated in FEMA guidance documents¹ and other sources, has made community members willing to criticize response activities in 20/20 hindsight. As a result, people often pursue legal action against communities when things don’t go well. A review of these cases shows that the failure to inform and involve the public is often the key element in determining whether a person’s civil rights have been violated. This emphasizes the importance of community organizations such as LEPCs/TERCs in community preparedness.

Low public awareness of the need for preparedness can undermine local governmental support for preparedness programs, foster lower attention to individual safety at home and in public

¹ Community Preparedness Guide 101, Version 3; Continuity Guidance Circular; Local Elected and Appointed Officials Guide.

spaces, and decrease safety precautions in the workplace. The point of preparedness is to minimize the impact of a chemical accident through the actions of all community members, rather than the actions of only facility and response agencies. In addition, the public and local officials are not being informed enough about their areas' needs, capabilities, risks, and gaps, and emergency responders and community leaders are often not aligned.

Members of the public are entitled to know whether emergency response authorities are capable of effectively responding to chemical accident risks in their communities. If not, then filling this capability gap becomes a process of educating the public on the steps they must take to protect lives and property.

The key approach to creating a community involved process is to have LEPCs, in conjunction with local emergency managers and response organizations, be active leaders in local preparedness planning. The object is to create a process that broadly involves community members in a conversation about prioritizing and filling capability gaps and details the role of all community members in that effort. This creates a process that will encourage community engagement, build a shared understanding on how the community can fill capability gaps, prevent litigation, and make citizens feel safe in their homes.

According to the *2022 EPA LEPC Handbook*, LEPCs and the Tribal Emergency Planning Commission (TEPC) serve as the focal points in the community for information and discussion about hazardous chemical emergency planning and health and environmental risks.

There are several actions that can be taken to encourage community engagement, improve emergency planning, and fill capability gaps:

- **Increase awareness and educate all community members:** Adopting a customer service approach, LEPCs can improve communication and information sharing to educate their communities on the need for preparedness and the limitations of their emergency response agencies. For the State Emergency Response Commissions (SERCs), it's important to communicate more frequently and in person, when possible, and remind them why they and LEPCs do what they do.
- **Improve emergency planning:** LEPCs and TERCs can encourage communities to become involved in planning activities (e.g., seeing and participating in HazMat training exercises to better understand what's truly involved in preventing, responding to, and handling emergencies). While these efforts should be led by an emergency manager or local emergency planning committee, the key to successful preparedness planning is broad coordination and cooperation involving all community members. Management of facilities must be part of the preparedness effort because communities know about the hazardous chemicals present, operating systems and procedures, hazard assessments, emergency plans, and emergency response capabilities at their plants. It's important to remember that the fundamental structure and authority of SERCs differ depending on the state that they're in.
- **Fill capability gaps:** Strategic planning is needed to fill capability gaps, which are prevalent in all communities. When planning, prioritization for these efforts should be

developed by the community members. Filling capability gaps requires the use of all the regulatory and social tools available to the community and its partners. Addressing the identified capability gaps can include a broad range of options, such as accident prevention and the creation of expected actions for community members to take to be able to shelter, evacuate, and provide aid to others. It's important to emphasize with SERCs how measuring success in terms of capability gaps is a more effective way to defend themselves and their elected officials from legal challenges.

- **Utilize the THIRA process:** This process is used by FEMA and DHS for emergency management and Homeland Security processes. HazMat issues are also managed using this process. Because of how comprehensive the THIRA process is, LEPC/SERC performance would be improved by using its integrated approach.
- **Measure success:** Measuring the success of preparedness planning efforts must be based on both how the last emergency response was conducted and the community's success in filling capability gaps. Efforts to fill capability gaps must be married with the appropriate metrics.

4.2.2 *Improve Risk-Based Preparedness & Response (RBR)*

Previous HazMat Roundtable Recommendations

- Strengthen national recognition and support for RBR.
- Improve science and evidence-based data for RBR.
- Strengthen emergency response systems.

Integrating procedural responses with RBRs (e.g., Eight-step Process) and improving data analysis should be completed to make RBR more visible and accepted within the emergency preparedness community.

RBR involves the analysis of incidents to determine how their associated risks can be mitigated, but this analysis is often based on anecdotal information. For example, some claim that HazMat incidents are increasing, and others claim that they are decreasing. The nature, scope, and number of HazMat incidents need to be better defined to ensure that this analysis is based on the right data. For example, although there may be circumstantial proof to support an increase of approximately 10,000 HazMat transportation incidents from ten years ago, there is insufficient data to support that claim because:

- There's not a mutually accepted definition of what constitutes a HazMat incident.
- HazMat incidences are underreported or not reported. Some examples include:
 - Ammonia incidents were not previously reported.
 - Fire departments often report fires but not hazardous materials.
 - Industry has reduced the volume of shipping containers to avoid reporting.
 - With changes in e-commerce, small companies shipping products may not know how to report.

- Structural fires take precedence in the data gathering and analysis process, which results in critical data points associated with HazMat components either not being collected or getting lost in the process.
- HazMat’s involvement in fixed facilities is more recognized than in transportation.
- There is a paradigm shift regarding the operational capabilities that HMRT’s provide (i.e., they are no longer viewed merely as a chemical HazMat resource but are also viewed as a health and safety resource).

Interpretations of the data vary because it is difficult to determine:

- What is driving higher numbers (e.g., are there are more fixed facility incidents or more fixed facilities).
- What constitutes a HazMat incident from a health and safety perspective (e.g., every structure fire could be treated as a HazMat incident with the recent declaration that firefighting is both a carcinogenic profession and industry).
- What data should be collected in light of an ever-changing HazMat landscape (e.g., increased shipments of lithium-ion batteries due to expanding e-commerce).

4.2.3 *Prevention/Mitigation*

Previous HazMat Roundtable Recommendations

- Improve local HM prevention/mitigation policies and metrics.
- Mitigate risks caused by natural disasters.
- Improve HazMat facility operations, inspections, and code enforcement activities.

“Credibility is not a renewable resource.” This is why risk assessments are essential for effective community prevention and mitigation as a part of national planning guidance. Risk reduction priorities should expand to all levels (Federal, state, local, and Tribal). To prove that these assessments and priorities are impactful, their performance must be measured via meaningful metrics that can be shared with Federal agencies and stakeholders. Some potential ways to mitigate HazMat incidents include the following:

- Make the pre-notification of hazardous material shipments being transported through communities more effective and consistent. (This concept is being discussed in some states following the East Palestine, OH train derailment.)
Improve local zoning, transportation routing, and land-use planning.
- Improve RBR training strategies similar to the Incident Command System (ICS)/National Incident Management System (NIMS) concept.
- Enhance the technical skills and capabilities of community code enforcement personnel when it comes to assessing the impacts of natural disasters on HazMat facilities.

- Train inspectors and code enforcement personnel in HazMat risk recognition and identification and proper application of hazardous materials codes.
- Promote the integration of code enforcement personnel, first responders, and HMRTs so that they know each other and work together.

4.2.4 HazMat Training

Previous HazMat Roundtable Recommendations

- Enhance state and national-level training efforts for LEPC members.
- Look for opportunities to use advanced and immersive simulations in training (considering the growth in artificial intelligence capabilities).
- Develop curricula and delivery methods that address the challenges of volunteer organizations, especially those in rural areas.
- Develop curricula based on local/regional threats as well as advanced or region-specific standards.

Despite significant investments in emergency response training through various grant programs, some first responders are struggling to follow basic response principles, and communities are unaware of response agency efforts to conduct full-scale exercises every two years for significant hazards (e.g., nuclear power plants and chemical warfare agent storage sites). From a program management perspective, it's unclear where the breakdown is occurring (e.g., are the training opportunities not shared, are training opportunities not convenient or accessible, or are states not doing proper audits of the training)? Good starting points to address these issues include the following:

- Ensuring that all NIMS 300 offerings meet the course length requirements (i.e., number of required hours)
- Making refresher training an integral element of the overall training program and process, including the emergency responder certification process
- Implementing polling to determine the best times for providing training
- Making training times more flexible to accommodate people's schedules
- Implementing micro-learning opportunities (e.g., short, YouTube-type videos less than an hour in length)
- Ensuring that training providers are easy to contact
- Informing people when training exercises are taking place in their communities

4.2.5 Standard of Care

Previous HazMat Roundtable Recommendations

- Encourage the updating of Federal regulations for HazMat emergency response (OSHA 29 CFR 1910.120.q) to more accurately reflect current response issues, scenarios, and related challenges.

The number of civil rights lawsuits over incident failures, emergency preparedness, and environmental justice issues has been exploding due to an increasing perception that local communities have not adequately addressed HazMat preparedness issues for the whole community. Therefore, communities, as well as HazMat businesses and industries, must share the responsibility for HazMat community preparedness in terms of updating, providing feedback on, and complying with regulations.

4.2.6 Funding

Previous HazMat Roundtable Recommendations

- Look for opportunities to provide enhanced flexibility on the application and use of grant funds.
- Consider the Georgia experience of providing a playbook for each type of grant funding available. The federal equivalent can be found at [grants.gov](https://www.grants.gov).
- Improve LEPC funding and access to hazard mitigation grants.

The amount of money that was initially allocated when the Emergency Planning and Community Right-to-Know Act was originally passed in 1990 is not covering the cost of things today because the legislation is based on what reporting facility inventory quantities were 30+ years ago. Although people have become creative in supporting their HazMat preparedness and response programs (e.g., industry provides equipment or support for specific needs), HazMat stakeholders need to find better ways to access grants and sources of alternative funding. Often times, the issue is not the absence of funding, but rather how the grant funds are appropriated. To address some of these funding challenges, some potential solutions include:

- Increasing the amount of money allocated to emergency planning,
- Changing the policies that dictate how grant funds are appropriated,
- Changing FEMA policy to enable communities to access mitigation funds for HazMat (similar to what is done for natural disasters), and
- Ensuring that communities adequately fund HM prevention and response efforts as part of their commitment to maintaining community health and safety.

4.2.7 Information Sharing

Previous HazMat Roundtable Recommendations

- Consider designating one organization as the HazMat Roundtable Secretariat to facilitate long-term continuity of the observations, findings, and recommendations.
- Support the timely and effective dissemination of critical information on emerging threats, risks, and agency capabilities to facilitate both short-term and long-term HazMat/Weapons of Mass Destruction (WMD) emergency preparedness activities.

Information sharing could be considered one of the most important improvement areas because it directly or indirectly relates to all of the other HazMat-related areas. Considering the recent history of both COVID and Ebola, public health emergencies are being increasingly viewed as HazMat incidents from a health and safety perspective. This changing paradigm, coupled with the increased politicization of critical information, misinformation, and disinformation (e.g., COVID and East Palestine, OH), creates more challenges for first responders and the communities that they serve. To support information sharing, it's important to provide the following:

- Real-time data and information to communities during HazMat incidents so they see the same data as first responders (the concept of a HazMat Information Center needs to be revisited with an emphasis on sharing critical data across all boundaries)
- Pre-incident awareness, training and education activities which help establish relationships among communities, emergency preparedness officials, and industry

5 Roundtable Member and Federal Partner Updates and Presentations

After the Roundtable participants reviewed and discussed issues captured at previous Roundtables, select Roundtable members and Federal Partners provided updates regarding their recent HazMat efforts, emerging trends, and industry topics. Below is a list of those who presented at the HazMat Roundtable:

- David Donohue, NFA
- Sicy Jacob, EPA
- Thomas Warnock, FEMA
- Bob Royall, IAFC
- Pattie Martello, Bloomsburie
- Nicole Zawadzki, HAMMER Federal Training Center
- Joe Milazzo, CHEMTREC
- Rick Edinger, NFPA
- Tim Gablehouse, NASTTPO

- Adam Leary, Department of Homeland Security (DHS) | Countering Weapons of Mass Destruction (CWMD) Office
- Chuck Lineback and Ward Quayle, FEMA
- Tom Miller, NVFC
- Jamie Burgess, IAF

5.1 David Donohue, NFA Updates

Topic: NFA Updates

Overview: The NFA is conducting an unofficial survey of on-campus students to determine training and capability gaps and the types of training for which they are looking. From a strategic perspective, RBR principles are being incorporated into NFA’s curriculum. Below is a listing of new courses and course updates planned for 2023 and 2024.

FY 2023	Proposed FY 2024
Hazmat Code Enforcement Updated and released	Introduction to LEPCs (self-study) and Best Practices for LEPC’s (2-day)
Planning for Unusual Events and Catastrophic Incidents Pilot scheduled for August 2023.	Four (4) two-day chemistry courses Covering topics such as chemistry basics, hydrocarbons and their derivatives, salts and non-salts, and WMD poisons and corrosives
Special Operations Program Management Leadership All-hazards course with pilot scheduled for July 2023.	Terrorism Curriculum Update
Initial Response to Terrorism: Basic Concepts Updated with concepts like fourth-generation nerve agents, as well as active shooter and hostile events	Ten (10) short online self-studies (e.g., commodity flows, what is risk-based response, fire scope, hazard classes, SOP writing, writing risk assessments, new trends in decontamination, and public education on HazMat (suicides))
Safety in Response to Hazardous Materials Created to focus on the safety officer’s role	
Self-Study Courses Short introductory courses that are less than two hours each (Introduction to Cost Recovery for Hazardous Materials and Introduction to Electrical Storage Systems)	Funding course
Advanced Science of Hazardous Materials/WMD Response Updating content on detection capabilities and limitations of monitoring devices, as well as adding new technologies and chemicals	

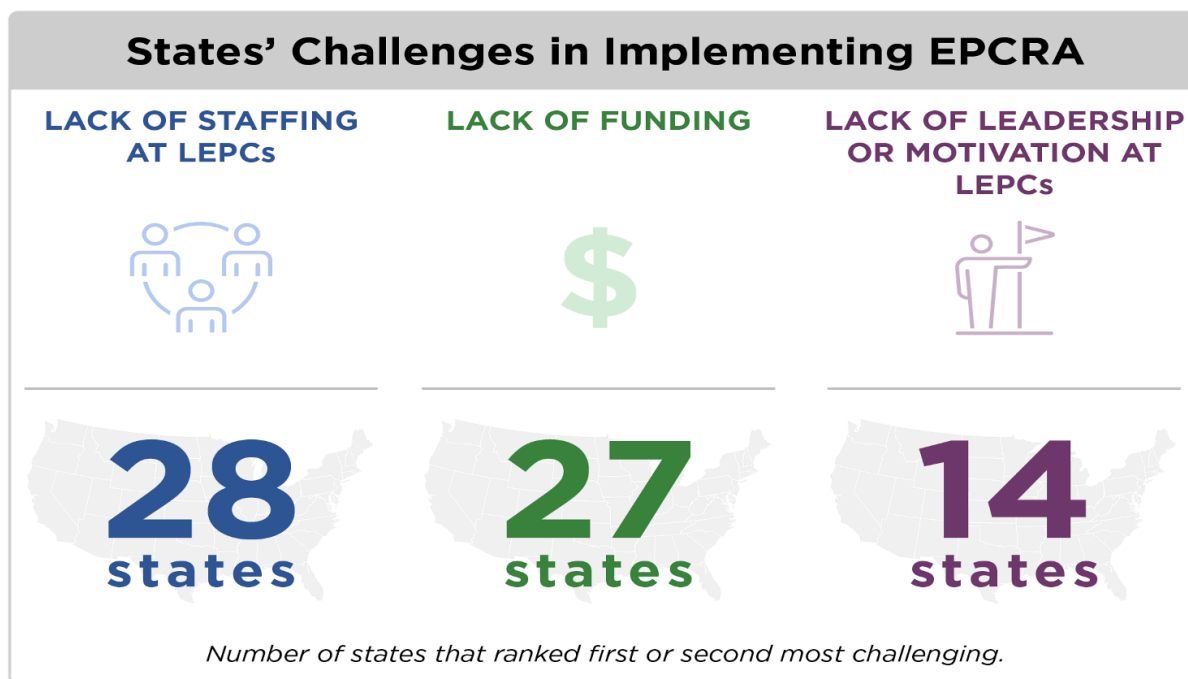
Table 1: New Course and Course Updates

5.2 Sicy Jacob, EPA

Topic: EPA Updates

Overview: The Office of Emergency Management manages six regulatory programs for chemical and oil releases. To support the management of these programs, the EPA conducted a state survey, published a rule to make communities safer, and is in the process of finalizing several rulemaking efforts for reporting releases of hazardous substances.

State Emergency Response Commission (SERC) Survey



Over the last year, EPA conducted its first SERC survey in 35 years since the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted. The 86-question survey included an LEPC spreadsheet for the states to indicate which LEPCs are active or inactive and provide if their LEPCs have updated emergency response plans for their communities (part of all-hazard or stand-alone plans).

The survey captured the attention of the states (i.e., several noted that they didn't recognize all of the tasks for which they are responsible). Highlights of the survey results are as follows:

- Fifty (50) states and two territories responded.
- The top-three state priorities are to assist LEPCs with the following:
 1. Developing and/or exercising response plans
 2. Performing facility inspections
 3. Communicating risk to the public

- The top-three challenges in implementing EPCRA include the following:
 1. Lack of funding: Most states are operating with little or no budget and, therefore, are unable to assist LEPCs.
 2. Lack of staff
 3. Lack of leadership
- The number of LEPCs has greatly reduced over the years for reasons such as lack of leadership motivation. Other reasons for the reduction from the inception of the program are that few individual counties have combined to form multi-county or regional LEPC's (e.g., Vermont had ten in the 1980's and now has just one).
- Two states did not have their Tier-2 facility data at the time of the survey. There are approximately 670,000 Tier-2 facilities.

Safer Communities by Chemical Accident Prevention Proposed Rule

Published by the EPA, this rule proposes revisions to the Risk Management Program regulation to further protect vulnerable communities from chemical accidents. Comments were collected and are currently being adjudicated, and the target date for publishing the final rule is in the late summer or early fall of 2023.

Rulemaking for Facility Response

The Natural Resources Defense Council (NRDC), on behalf of the Environmental Justice Health Alliance for Chemical Policy Reform and Clean Water Act (CWA), filed a suit to compel the EPA to initiate rulemaking for facilities to prepare and submit plans for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge, of CWA hazardous substances. The EPA must sign a final action by September 28, 2024.

5.3 Thomas Warnock, FEMA

Topic: FEMA's plan for addressing the Technological Hazards Preparedness Technical Assistance Program

Overview: The Technological Hazards Preparedness and Training Act of 2022 was passed in December 2022 as part of National Defense Authorization Act which tasks the Administrator to "maintain the capacity to provide States, local, and Indian Tribal governments with technological hazards and related emerging threats technical assistance, training, and other preparedness programming to build community resilience to technological hazards and related emerging threats." There are several challenges in completing this task including:

- Siloed resources (e.g., according to Health Business Journal, people must go to three different places for radiological information),
- Rural and under-resourced communities need technical assistance,
- Resources often do not reach the local level, and
- Capacity building is challenging.



To help address these challenges, FEMA serves as a broker by:

- Meeting communities where they're at (e.g., addressing some of the issues for volunteer firefighters mentioned during this Roundtable),
- Identifying and analyzing the most vulnerable communities,
- Taking the Center for Domestic Preparedness (CDP) courses on the road, and
- Expanding collaboration with other Federal agencies including the EPA, DOT, and DOE.

5.4 R. W. "Bob" Royall, IAFC

Topic: IAFC HazMat Committee Update

Overview: There are a number of initiatives in which the IAFC has been actively involved, including those related to information sharing via the buildout of the HazMat Data Analysis and Information Center (previously known as Fusion Center), PFAS issues concerning Class B firefighting foam and personal protective equipment, and enhancements to the Association of American Railroads' (AAR's) AskRail Program to address issues discovered during the aftermath of the East Palestine, OH event.

"If you don't know what's in your community, how do you plan or prepare for it?"

The IAFC is collaborating and engaging with several agencies including the following:

- **Transport Canada:** Pipeline emergency response training in Mexico
- **PHMSA:** Rail safety, transportation of liquified natural gas (LNG), grants, and a national strategy to address planning, preparedness, and responder training for rail incidents
- **Texas A&M Transportation Institute:** Electric powered vehicle fires consequence management
- **Senate and House:** Legislation concerning rail safety and the transportation of hazardous materials including state, Tribal, and local planning, preparedness, and responder training

There is a written authorization to raise IAFC grants to about \$47–48MM, which would double the grants program and make it the most significant increase in history; therefore, using that money in the most effective way is imperative (e.g., may consider going down to the local level). The IAFC requested additional discretionary grants that would be available to Tribal and local governments without needing to go through state control, but the legislative leaders decided to keep the grants under state control but requested that safeguards be put in place to ensure that the funds don't get stuck at the state level.

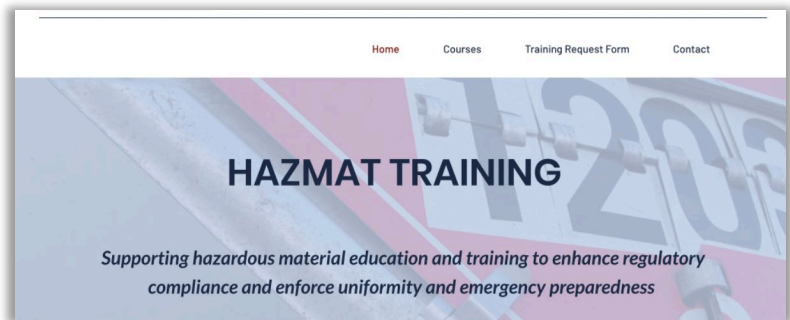
The IAFC is also involved in discussions about HazMat challenges on the horizon including:

- Movement of household goods (e.g., knowing if new delivery services are doing it right)
- Utilizing drones and other types of unmanned vehicles for deliveries
- Space cargo that uses HazMat (i.e., who should have regulatory control, how to move radioactive sources and generators into outer space, and how to survive a lunar night)

5.5 Pattie Martello, Bloomsburie

Topic: HazMat Online Course Catalog

Overview: During previous Roundtable meetings, the creation of an online course catalog was recommended (i.e., a one-stop shop where people could find training at the Federal, state, and local levels). Therefore, a prototype of an online course catalog was created to help elicit requirements from stakeholders to address the following questions:



- Who will be responsible for owning and managing the site?
- What information should be included on the site?
- How will the site and its information be managed?

The prototype addresses four user groups, includes seven features, and provides users the ability to contact the prototype owner via an online form or via the provided contact information. Curriculum developers could be added as a potential user group.

There is currently a mechanism for training providers to submit training requests to add their training offerings on the site and for someone to approve or deny those training requests; however, training data from providers could be shared with the site via different mechanisms (e.g., an online form or an API (Application Programming Interface)).

A survey regarding the online catalog will be distributed to the Roundtable participants to help answer some of the preliminary questions about who should own and manage the site, the training approval process, and the scope of training topics and data.

Other groups are doing similar work (e.g., FEMA); therefore, we need to decide how stakeholders are going to work together and help leverage each other's efforts.

5.6 Nicole Zawadzki, HAMMER Federal Training Center

Topic: HMEP Grant Program Analysis

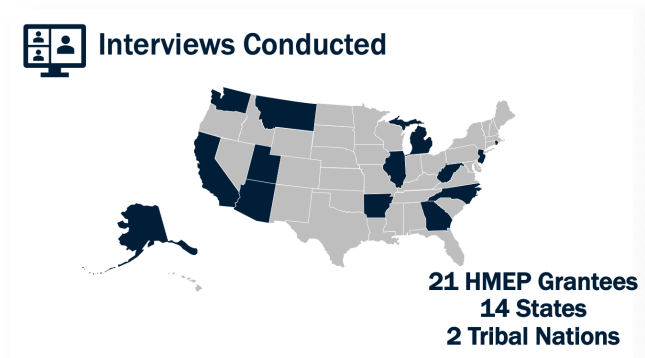
Overview: In August of 2022, HAMMER started interviews with grant managers to better understand how funds are being utilized and elicit feedback regarding grant cycle changes, best practices, opportunities for improvement, and other things that could be done if additional funds were available. To get a sample set, interviews were conducted with 21 HMEP grantees, 14 states, and two Tribal nations, and efforts are being made to engage with American Samoa Guam. Key insights from these interviews are noted below.

- **Best Practices:**

- Utilize HazMat community committees to determine what needs to be submitted to the grant program for the cycle to meet local needs.
- Determine if the grants are being utilized at the local level.
- Use commodity flow studies which are submitted at the state level.
- Purchase prop software training apparatuses (e.g., traveling training trailers to bring HazMat training and education to underserved, rural communities).
- Provide stipends to provide training to individuals.
- Perform multi-agency exercises.
- Have a centralized training location.
- Provide opportunities for hands-on training/exercises for underserved or at-risk communities that typically don't do them.
- Allow states to flow down the HMEP grant funds to underserved or high-risk communities like the rural or tribal groups that have hazardous materials being transported through their lands.

- **Opportunities for Improvement:**

- Define “underserved” from a HazMat perspective.
- Encourage grant extensions, help states use their funds, and give unused grants to those who need them.
- Provide assistance to rural frontier tribes.
- Streamline the reporting and application processes.
- Provide grantee network sharing best practices (e.g., a two-year workshop to share information with other grantees and provide regular training and webinars).



- **Additional Recommendations (if funds were available):**

- Conduct additional commodity flow studies.
- Continue to provide rural frontier locations with training exercises.

- Conduct multi-state, regional HazMat training exercises (e.g., training across state lines could improve capacity).
- Improve crisis communication.
- Make underserved communities a priority.
- Balance fire and HazMat training topics.

Questions and comments are being gathered to complete the report by June or July 2023.

5.7 Joe Milazzo, CHEMTREC

Topic: HazMat Training Initiatives

Overview: Volunteer fire departments are often lacking the staff and resources they need to support HazMat training, especially modal or container specific training, which is why CHEMTREC established the CHEMTREC HELP Award Program in 2019. To apply for funds, volunteer fire departments are asked to complete and submit a form which is peer-reviewed by CHEMTREC and the NVFC. Three volunteer fire departments will be selected this year to receive \$10,000 each.



TRANSCAER is a vital program that is focused on increasing the number of railroad, highway, and HazMat trainings offered annually across the United States, and each state has a TRANSCAER point of contact.

Because some fire departments are not paying people to attend training, CHEMTREC is offering 16 free online courses which are available 24/7 for which certificates are provided. CHEMTREC is also developing lithium-ion battery training and creating an augmented reality mobile application which is currently in production.

5.8 Rick Edinger, NFPA Hazardous Materials Response Personnel Committee

Topic: National Fire Protection Association (NFPA) HazMat/WMD Standard for Responders Committee Update

Overview: The NFPA's second largest standards-making committee, the HazMat Standards Committee, is a very diverse committee with approximately 50 members who are responsible for writing documents that allow the HazMat response training community to train responders. This Committee is also responsible for publishing the following two documents every five years:

1. **NFPA 470:** A consensus standard document that outlines training competencies and professional qualifications for HazMat responders. This document is now open for public comment with a revision cycle publishing date of early 2027.
 - A recent document consolidation effort resulted in three former stand-alone HazMat standards (472, 473, and 1072) being published as one document in 2022. That document is NFPA 470.
 - Work in previous revision cycles resulted in Job Performance Requirement (JPR) language being added to the competency-based standard.

- The 2022 revisions included information about backup and rescue teams. This was challenging because there are many types of HMRTs.
 - During the current revision cycle, the committee is challenged with continual changes in threats, hazards, and risks with changes in the energy storage and battery technology fields being at the forefront right now.
 - There is current discussion about adding chapters pertaining to HazMat training officer knowledge, skills, and abilities. Other discussions involve the possibility of providing recommendations on the delivery of HazMat refresher training.
 - During the upcoming document revision cycle the committee will assess other topics to be added based on the HazMat Roundtable outcomes including program management, budgeting, staffing, and political connections.
2. **NFPA 475 (formerly 472):** A recommended practice document that is used to guide overall management of HazMat response programs. It will be updated in 2025.

The content of the above-mentioned documents cannot be too prescriptive (i.e., they cannot explain how to respond to a HazMat event). The mission of the committee is to provide guidance on training competencies and professional qualifications for all levels of HazMat response.

The NFPA Research Foundation recently worked on a project funded by Transport Canada to assess the hazards and response information provided in the current edition of the *Emergency Response Guidebook* to compare the guidance for LPG vs. LNG and to provide recommendations. The decision was made to not create a separate guide sheet for LNG as the current *Emergency Response Guidebook* covers the required information and creating a guide sheet for one specific chemical would prompt the need for guide sheets for all other chemicals. The findings of this project will be published after it's approved by Transport Canada.

5.9 Tim Gablehouse, NASTTPO

Topic: NASTTPO Issues/Initiatives

Overview: Adequate emergency planning is a civil right (Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d et seq) and states and local governments are targets of litigation when HazMat incidents occur. There are approximately ten new cases a month filed primarily against local government, and litigation is often linked with claims under the Americans with Disabilities Act (ADA). Cases that talk about environmental justice, civil rights, as well as zoning and land use policy, are starting to surface.

The Department of Justice provides specific expectations under the ADA regarding emergency management and the planning process. Failure to consider and endeavor to implement these expectations can result in liability for local governments. If there's a credible preparedness planning effort in place that involves community members (even if it's not perfect), then the risk of liability is much lower. LEPCs play a key role in helping states and local governments defend themselves and meet these expectations; therefore, they need to:

1. Move to all-hazard planning and create a community-involved process to create and implement a strategic plan for filling capability gaps;

2. Engage with their communities from an education and awareness standpoint;
3. Inform their communities about what the risks are and what capabilities are not in the community to create realistic expectations;
4. Provide communities with opportunities to participate (e.g., inform them about the emergency plan, elicit feedback about the plan, participate in bottom-up planning activities, and ask them to participate in exercises); and
5. Establish metrics to measure success and evaluate whether funding and other resources are being used appropriately on projects.

To help LEPCs, NASTTPO writes guidance documents and updates these documents on nasttpo.com regularly and creates “SERC Days” and community awareness presentations. Training on more advanced issues is being developed and will be offered. Although NASTTPO doesn’t have the bandwidth or capabilities to develop or deliver this training across the country, training should be developed at the Federal or state level. NASTTPO is eager to cooperate with any entity that seeks to work on the type of guidance and training to be provided to LEPCs and SERCs (e.g., state-specific YouTube-type videos).

5.10 Adam Leary, DHS Countering Weapons of Mass Destruction (CWMD) Office

Topic: ChemPREP Overview

Overview: DHS CWMD works with local jurisdictions to enhance their preparedness to chemical threats by assessing and recommending actions to optimize their existing systems. Prevention is key to ensuring that an event doesn’t happen (e.g., identifying warnings to disrupt attacks). However, when events do occur, shortening the time between recognizing that there’s a problem to making a decision can have a positive impact on mortality and morbidity (e.g., public protective actions, including evacuation and sheltering in place).



Shortening this time depends on two focus areas: information flow and decision-making. These focus areas help determine what information is required to make decisions, if decision makers know that they need to make decisions, and how decisions are translated into actions. The ChemPrep process, which aligns with the National Preparedness System outlined in Comprehensive Preparedness Guide (CPG-101), was created to support these focus areas and critical applications to help DHS:

- Work with communities to identify their threats,
- Have communities determine which threats that they’d like to address first (e.g., those threats that they think they’re not really prepared for),
- Identify key areas where the response system can be optimized,
- Identify gaps in capability areas and help communities address those gaps,
- Validate functional or full-scale exercises after the communities have done their work to address the gaps, and

- Collect data to inform the grant process for communities; especially those with a lot of chemical industry that do not get a lot of grant money.

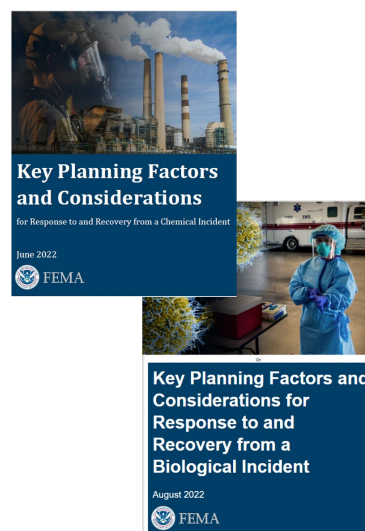
The critical applications that support these processes need to be optimized in four areas:

1. Deterring and disrupting an incident
2. Early recognition
3. Mitigating exposure
4. Treating the casualties

5.11 Chuck Lineback & Ward Quayle, FEMA

Topic: Chemical and Biological Incidents

Overview: One of FEMA’s goals is to help agencies communicate with each other when it comes to addressing unique chem/bio challenges and other important issues. There are Federal interagency frameworks for disaster preparedness, prevention, mitigation, response, and recovery provided through a suite of documents (i.e., the Federal Interagency Operating Plans (FIOPs)). Incident type-specific guidance is available through specialized annexes (e.g., Oil & Chemical Incident Annex (OCIA) and Biological Incident Annex (BIA)) which are awaiting review at the Administration level).



FEMA is currently working on a course about key planning factors (KPFs). These KPFs were designed to address unique chem/bio challenges (e.g., you do not respond to a house fire the same way in one place versus another). KPFs provide the following benefits:

- Informing critical pre-event response and recovery planning including considerations for planning that may occur after the incident onset
- Leading to knowledge that can influence the response and recovery process (e.g., reduce cost or increase speed)
- Explaining how chemical or biological incidents differ from more traditional emergencies

Another goal of FEMA is to change the mindset of people waiting for the government to step in by offering citizens the proper tools, some of which can be found on ready.gov.

“Resiliency is more than just strengthening our buildings and other infrastructure. It’s making sure that our citizens have the proper tools and skill sets to reduce the impacts of disasters.”

FEMA published a newsletter that informs people what to do with unspent COVID assistance funding. In the history of FEMA and the provision of Federal support, COVID is the longest public assistance emergency, costing \$62 Billion.

5.12 Tom Miller, National Volunteer Fire Council (NVFC)

Topic: NVFC Partners in Training (P.I.T.) Crew Training Program

Overview: After the West Texas incident in 2013, a HazMat response sub-committee was formed. In response to requests from the National Transportation Safety Board and Chemical Safety Board, a NVFC committee was established in 2017. The NVFC has trained over 8,000 first responders in 22 states on lithium-ion batteries, Energy Storing Systems (ESS), and Battery Energy Storage Systems (BESS).

With a PHMSA grant and the help of people like Dr. Christina Baxter, the NVFC has been developing 15 trainings in “train-the-trainer” format which will be delivered across the country: eight (8) regional and seven (7) local.

Students can select which of the 15 courses they want to take, and they receive a toolkit with 47 different tools including all the Class 1 Railroad Emergency Response Guidebooks (ERGs) and emergency response plans and guides. If students’ training needs cannot be met by one or more of the 15 courses, the NVFC determines if there’s training available to meet their needs. When training is not available and needs to be developed, students help design their training models and the NVFC helps them determine if the training can be used for a wider audience.

In addition to the 15 required trainings, 9 additional courses under a Supplemental Public Sector Training (SPST) grant are being created. These courses are:

- Product specific or container specific
- In the train-the-trainer format and based on RBR
- Incorporating the BEST (Behavior, Equipment, Standards, and Training) model
- Adapted to include both NFPA 470 and OSHA standards

5.13 James Burgess, International Association of Firefighters (IAFF)

Topic: IAFF’s HazMat Training

Overview: The IAFF has 335,000 members across the United States and Canada and protects over 85% of the population. The HazMat training program, which is federally funded, has been in existence since 1987 and is responsible for training both career and volunteer response organizations. All facets of the program in terms of curriculum development and grants management are overseen by an advisory board that comprises firefighters and technical experts. Dr. Christina Baxter and Dr. Donald Stewart help ensure that these programs stay on track. For example, last year the IAFF delivered 522 classes and trained over 6,000 firefighters and made important enhancements to their program including the following:

- The HazMat Technician program has been updated to be compliant with NFPA 470 and specialty courses in drug-related incidents are being offered.

- Training on emergency response to liquefied natural gas (a joint effort with the DOT) is being rolled out with an upcoming pilot and deliveries throughout June, July, and August 2023.
- To accommodate growing demand, the IAFF increased its recruitment by bringing on an additional 16 instructors last year which brings the total instructor cadre to approximately 90 instructors.

Key characteristics of the IAFF training programs include the following:

- They are accredited by the National Pro Board. Certifications can be used in other states that offer reciprocity for the training.
- Instructors are top notch (i.e., best-in-the-business instructors such as highly decorated special operations unit leaders and chiefs from New York, Boston, Chicago, and Miami).
- All programs meet or exceed the relevant NFPA standards.
- The IAFF is pursuing dual accreditation with the International Fire Services Accreditation Congress (IFSAC).

6 Open Discussion Session

There is a significant gap in emergency preparedness planning across the country right now; therefore, the HazMat Roundtable needs to recalibrate based on recent events and its current priorities. The purpose of this open discussion session was to reevaluate issues and assign priorities to them.

The survey results were reviewed with the participants and those issues with priorities of critical and high were discussed to determine if they are still as important and relevant today as they were when captured at previous Roundtables. While the sample size for the survey was small—only 12 people (i.e., fewer than half of the participants) completed the survey—the level of discussion was quite high.

6.1 Critical Issues

6.1.1 Information Sharing

The Roundtable participants agreed with the content and prioritization of survey questions #13 and #14 and believed that the time and effort put into resolving these issues would result in many rewards.

Survey Question #	Improvement Area	Issue
13	Information Sharing	Federal agencies (e.g., PHMSA, EPA, USFA, and FEMA) and key stakeholder groups (e.g., IAFC, IAFF, and NVFC) involved with emergency preparedness need consistent and sustainable ways to share critical information.

Survey Question #	Improvement Area	Issue
14	Information Sharing	Both short-term and long-term processes for sharing critical information on emerging trends and issues among stakeholders are needed.

Table 2: Information Sharing Issues

Challenges and Recommendations

Challenge	Recommendation(s)
The world is changing and evolving, and new HazMat-related issues and challenges are being raised every day.	<ul style="list-style-type: none"> Conduct a strategic-level HazMat information gap analysis that identifies and prioritizes the information needs of the HazMat planning and response communities.

Challenge	Recommendation(s)
<p>Information overload—people are continually being bombarded with email and social media; therefore, critical information can be overlooked or ignored.</p>	<ul style="list-style-type: none"> • Create a marketing plan that defines more effective ways of collecting, assessing, and disseminating information so that it reaches a wider but more targeted audience. • Communication vehicles: <ul style="list-style-type: none"> ○ Talk directly to elected officials and agency representatives. ○ Publish articles in more widely read newsletters and magazines (e.g., association publications). ○ Get on the agenda at the National Homeland Security Conference and other relevant events. ○ Create a HazMat Center of Excellence. • Messaging: <ul style="list-style-type: none"> ○ Pick the right messenger with the right credibility to deliver the messages. ○ Create communication that gets the attention of groups and stakeholders who do not recognize the value of this information (i.e., show them how a HazMat incident CAN happen to them). ○ Change the paradigm so that people are “beating down our doors for information.” Messaging should go beyond the traditional constituencies such as state and local officials and the radiological and environmental communities.
<p>A lot of HazMat-related organizations (e.g., volunteer fire departments) aren’t aware that there’s training and related critical information readily available.</p>	<ul style="list-style-type: none"> • Investigate where the information breakdown is occurring. • Create a repository for Federal and emergency response information that is available to the public (i.e., a one-stop shop of information and resources). • Perform information triage to ensure that the information is posted by a trusted entity.

Challenge	Recommendation(s)
Federal government websites are very hard to navigate and can be cost-prohibitive (e.g., much of the budget is allocated to compliance, security, and paperwork). In addition, information repositories require money for operations and maintenance.	<ul style="list-style-type: none"> • Use non-governmental third-party vendors to build and host the data repository. • Evaluate the potential use of longer-term funding sources to support activities. • Implement a process for permanent funding to cover recurring maintenance costs.
Homeland Security-related grant funding is often obtained through the Threat and Hazard Identification and Risk Assessment (THIRA) process, while firefighter grant programs tend to focus upon basic firefighting training, not for hazardous materials threats.	<ul style="list-style-type: none"> • Find alternative sources of funding that do not involve grants. • Assess the potential to modify or broaden grant requirements

Table 3: Information Sharing Challenges and Recommendations

6.1.2 HazMat Training & Funding

The Roundtable participants agreed with the content and prioritization of survey question #20. They recommended that it be combined with #19 and #24. They also recommended that #24 be combined with #12 and #21 and that emergency preparedness activities be added.

Survey Question #	Improvement Area	Issue
20	HazMat Training & Funding	The process for applying for grants can be confusing and challenging, especially for volunteer organizations.
19	HazMat Training & Funding	The use of grant funding is often limited.
24	Funding and Planning & LEPC/TERC Performance	Local elected officials are not informed enough about their area's operational needs and capabilities, HazMat risks, and gaps.
12	Planning & LEPC/TERC Performance	Underperforming LEPCs are lacking strong leadership and have low membership.
24	Funding and Planning & LEPC/TERC Performance	Local elected officials are not informed enough about their area's operational needs and capabilities, HazMat risks, and gaps.

Table 4: Training and Funding Issues

Challenges and Recommendations

Challenge	Recommendation(s)
<p>Grants.gov can be intimidating for some stakeholders and it's very difficult for nonprofits to navigate the grants process.</p>	<ul style="list-style-type: none"> • Create a grants process similar to Georgia's Grant Playbook.
<p>States have their own processes and vary in their level of sophistication when applying for grants (e.g., some states use professional grant writers).</p>	<ul style="list-style-type: none"> • Obtain grant money without going through the state (i.e., going through the state is not technically a requirement). • Implement processes and procedures to ensure that the grant money is spent properly.
<p>Volunteer fire departments are organized differently (e.g., some fall under the county government or under the sheriff) and most of them are classified by the IRS as 501(c)(3) nonprofit organizations, which means that they can't apply for Federal grants.</p>	<ul style="list-style-type: none"> • Apply directly for grants without going through the states (i.e., technically, fire departments don't need to go through the states). • Recommend to Congress that a HazMat program like the Assistance to Firefighters Grants (AFG) is needed because the HazMat problem is becoming too much for local agents to handle. • Find alternative sources of funding such as raising money locally (e.g., big box stores and foundations): <ul style="list-style-type: none"> ○ The advantage of going locally is that there aren't a lot of criteria to qualify for the money and the fire department is only answerable to the foundation (i.e., the people who gave you the money). ○ Using local nonprofits to support LEPCs works much better in rural areas than urban areas because people in urban areas assume that there must be government money for it. • Utilize best practices for doing crosswalks of grant programs across organizations to ensure that they are in alignment (e.g., CDC did something similar for its public health emergency preparedness grants by using a streamlined process to ensure that both the population-based health public grants and the healthcare coalition grants were aligned).
<p>It's difficult to identify who needs help and guidance at the local level.</p>	<p>Have NASTTPO talk to SERCs on a state-by-state basis.</p>

Table 5: Training and Funding Challenges and Recommendations

6.1.3 Funding & Prevention/Mitigation

The participants suggested that #25 and #9 be merged.

Survey Question #	Improvement Area	Issue
25	Funding Prevention/Mitigation	Disaster preparedness efforts often underestimate the risks of local HazMat releases during disasters.
9	Prevention/Mitigation	More HM emergencies could be avoided if local HM risks were better managed.

Table 6: Funding & Prevention/Mitigation Issues

Challenges and Recommendations

Challenge	Recommendation(s)
It's difficult to define mitigation for local governments (i.e., is mitigation applying for FEMA grants or is it taking money to mitigate each potential hazardous incident).	Have local governments exercise control via their local regulatory boards—it's a local choice to determine if they want zero risk at a higher cost.

Table 7: Funding & Prevention/Mitigation Challenges and Recommendations

6.2 High Issues

6.2.1 Risk-Based Response & Preparedness

The participants suggested that #4 and #5 be combined.

Survey Question #	Improvement Area	Issue
4	Risk-Based Response & Preparedness	Information and guidance addressing emerging threats and risks are not released in a timely manner.
5	Risk-Based Response & Preparedness	RBR decision making does not include controlling impacts on critical infrastructure systems.

Table 8: Risk-Based Response & Preparedness Issues

Challenges and Recommendations

Challenge	Recommendation(s)
We do not have the data to illustrate what the HazMat problem looks like in the United States.	Survey various HazMat stakeholders (e.g., North American Fire Training Directors, National Association of Emergency Manager, and NASTTPO) to look at issues from different perspectives.
Technician levels are going down due to retirement and despite very robust incentives, recruiting people is still challenging.	Survey various HazMat stakeholders to determine if there are other ways to improve recruitment.
It's difficult to bring the right people together (i.e., regulators and responders as well as those who look at it from a community and commercial process versus the research and development process).	Have NASTTPO talk with anyone about LEPCs.

Table 9: Risk-Based Response & Preparedness Challenges and Recommendations

6.3 Other Discussion Items

The floor was opened to elicit other observations and recommendations:

- Just because an issue isn't prioritized as high or critical doesn't mean that it's not important. We don't want to lose sight of the other issues (e.g., RBR).
- Many of the challenges and recommendations seem to be related to LEPCs and not directly to the emergency management agencies.
- The money follows the "flavor of the week" which interferes with providing emergency responders with the basic knowledge that they need.
- How LEPCs can best integrate with local emergency management agencies to follow an all-hazards approach must be determined.

7 Next Steps

The following information will be shared with the Roundtable members:

- The PowerPoint presentation
- A link to the online training catalogue survey
- Other documents that members would like to share with the Roundtable

A draft of the report will be provided to the group in late June/early July for comment and feedback. After the comments and feedback are adjudicated, the report will be published and posted on the PHMSA website by the end of July 2023.

Appendix A: List of Participants

The following table includes the 2023 HazMat Roundtable participants listed in alphabetical order (based on first name).

Name	Agency/Company
Briant Atkins	Virginia Dept. of Fire Programs
Jamie Burgess	International Association of Fire Fighters
Andy Byrnes	Utah Valley University Emergency Services
Dugger Camp	Federal Emergency Management Agency (FEMA)
Nicole Cassels	National Fire Protection Association
Lorraine Churchill	Ammonia-Safety & Training Institute
Nicole Comeau	IAFC Director for Safe Energy Transportation & HazMat
Deirdre Dockery	International Association of Fire Chiefs
David Donohue	National Fire Academy
Rick Edinger	National Fire Protection Association (NFPA) Technical Committee for Hazardous Materials/WMD Response
Rick Emery	Emery & Associates Inc.
Timothy Gablehouse	National Association of SARA Title III Officers (NASTTPO)
Eriks Gabliks	National Fire Academy, Superintendent
Sicy Jacob	Environmental Protection Agency (EPA)
Scott Lancaster	Washington State Patrol
Christopher Lawver	OSHA - Office of Emergency Management and Preparedness
Chelsea Lear	International Association of Fire Chiefs
Adam Leary	DHS Countering Weapons of Mass Destruction (CWMD) Office, Operations Support, Chemical Support Chief
Kinha Lester	Bloomsburie
Chuck Lineback	Federal Emergency Management Agency (FEMA)
Pattie Martello	Bloomsburie
Mark Mayday	Department of Transportation, Federal Railroad Administration

Name	Agency/Company
Janis McCarroll	Federal Emergency Management Agency (FEMA)
Joe Milazzo	CHEMTREC® American Chemistry Council
Thomas Miller	National Volunteer Fire Council (NVFC)
Aaron Mitchell	Department of Transportation, Pipeline and Hazardous Materials Safety Administration
Eddie Murphy	Department of Transportation, Pipeline and Hazardous Materials Safety Administration
Greg Noll	Senior Planning Specialist, South-Central PA Regional Task Force (SCTF)
Philip Oakes	National Association of State Fire Marshals
Ward Quayle	Federal Emergency Management Agency (FEMA)
James Rist	International Association of Fire Chiefs
Bob Royall	International Association of Fire Chiefs (IAFC), Hazardous Materials Committee and Harris County (TX) Fire Marshal Office (retired)
Bill Schoonover	Department of Transportation, Pipeline and Hazardous Materials Safety Administration
Joshua Smith	International Association of Fire Fighters
Thomas Warnock	Federal Emergency Management Agency (FEMA)
John Woulfe	International Association of Fire Chiefs
Nicole Zawadzki	HAMMER Federal Training Center

Appendix B: Acronyms

Acronym	Definition
AAR	Association of American Railroads
ADA	Americans Disabilities Act
AFFF	Aqueous Film Forming Foam
AHJ	Authority Having Jurisdiction
API	Application Programming Interface
BESS	Battery Energy Storage Systems
BIA	Biological Incident Annex
CDP	Center for Domestic Preparedness
CFATS	Chemical Facility Anti-Terrorism Standards
CPG	Comprehensive Preparedness Guide
CWA	Clean Water Action
CWMD	Countering Weapons of Mass Destruction
DHS	Department of Homeland Security
EMS	Emergency Medical Services
EPCRA	Emergency Planning and Community Right-to-Know Act
ERGs	Emergency Response Guidebooks
ESS	Energy Storing Systems
FEMA	Federal Emergency Management Agency
FIOPs	Federal Interagency Operating Plans
HHFT	High Hazard Flammable Train
IAB	Interagency Board
IAFC	International Association of Fire Chiefs
IAFF	International Association of Fire Fighters
IAFF	International Association of Firefighters
IFSAC	International Fire Services Accreditation Congress
KPFs	Key Planning Factors
LNG	Liquid Natural Gas
NASTTPO	National Association of SARA Title III Officers
NFA	National Fire Academy

Acronym	Definition
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NIMS	Incident Command System (ICS)/National Incident Management System
NRDC	Natural Resources Defense Council
NVFC	National Volunteer Fire Council
OCIA	Oil & Chemical Incident Annex
PFAS	per- and polyfluoroalkyl substances
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIT	Partners in Training
RBR	Risk-based Response
SERC	State Emergency Response Commission
SME	Subject Matter Expert
SOC	Standard of Care
SPST	Supplemental Public Sector Training
TERC	Tribal Emergency Response Commission
THIRA	Threat and Hazard Identification and Risk Assessment
US DOT	United States Department of Transportation
USFA	U.S. Fire Administration
VR	Virtual Reality
WHO	World Health Organization
WMD	Weapons of Mass Destruction

Appendix C: May 2023 HazMat Roundtable Slides



2023 Hazardous Materials Roundtable

May 9–10, 2023

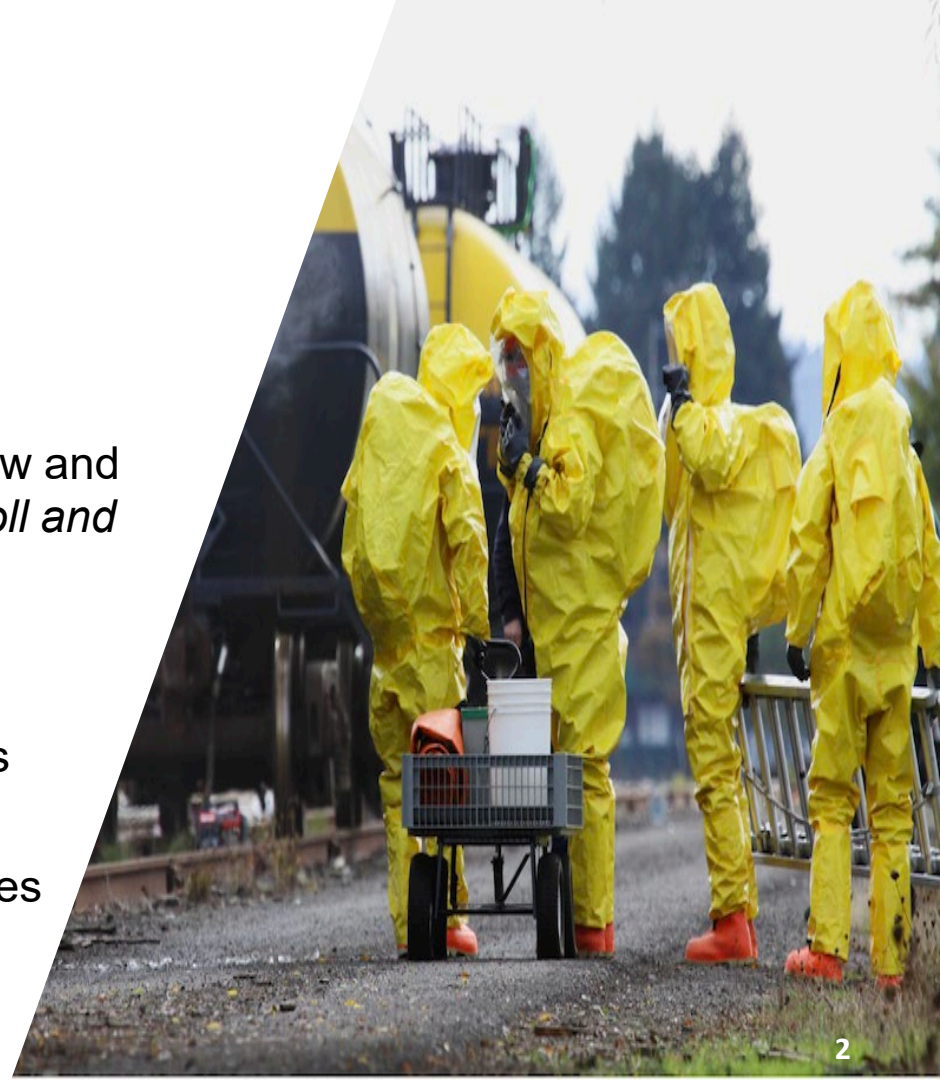
**National Fire Academy (NFA)
16825 S. Seton Ave.
Emmitsburg, MD 21727**

Welcome

- Opening Comments
- Participant Introductions

Agenda

- HazMat Roundtable: Historical Review and Perspectives (2020–2022) – *Greg Noll and SME Participants*
- Roundtable Member and Federal Partner Updates and Presentations
- Breakout Sessions and Report Backs
- Emerging Trends and Issues
- Improvement Plan and Tracking Issues
- Next Steps
- Final Comments/Closing



Historical Reviews & Perspectives (2020–2022)

2021 & 2022 Roundtable Reports

[2022 Hazmat Roundtable Report](#)

[2021 Hazmat Roundtable Report](#)

Seven Key Improvement Areas

1. **Planning & LEPC/TERC Performance**
2. **Prevention/Mitigation**
3. **Risk-based Response & Preparedness**
4. **Hazmat Training**
5. **Hazmat Standard of Care**
6. **Funding**
7. **Information Sharing**

United States Department of Transportation

U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

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Hazardous Materials Grants Program Overview

Hazardous Materials Emergency Preparedness (HMEP) Grant

Assistance for Local Emergency Response Training (ALERT)

Hazardous Materials Instructor Training (HMIT) Grant

Supplemental Public Sector Training (SPST) Grant

Community Safety (CS) Grant

Reports to Congress

Hazardous Materials Emergency Response Roundtable

Hazmat Incident Response Training Resources

Hazardous Materials Emergency Response Roundtable

Overview

The purpose of the November 12, 2022, virtual Roundtable meeting was to review the issues and action recommendations made in the 2019 and 2021 Roundtable meetings, to report on ongoing work that has been done since 2021 to address those issues, and to thereby help prepare Roundtable members for the work to be done in the next in-depth Roundtable meeting that is planned for spring 2023. Included below in this report are:

1. A summary of the action recommendations from the 2019 and 2021 Roundtable meetings that were reviewed in this meeting
2. Summaries of the reports from Roundtable attendees and participating federal agencies on work that has been ongoing since 2021 to address the 2019-2021 recommendations
3. Emerging hazmat issues that need to be addressed in future Roundtable discussions
4. Next steps in the continuous Roundtable initiative

Reports

[2022 Hazmat Roundtable Report](#)

[2021 Hazardous Materials Emergency Response Roundtable Report](#)

[2019 Hazardous Materials Emergency Response Roundtable Report](#)

2022 Hazmat Roundtable Meeting

- Virtual meeting was held on November 8, 2022 with the following Federal agencies:

- Environment Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- Department of Transportation (DOT)
- Department of Homeland Security (DHS)
- United States Fire Administration (USFA)
- Department of Labor (DOL)/Occupational Safety and Health Administration (OSHA)
- Other Partners



- Attendees reviewed and concurred with findings from the 2019–2021 Roundtables.
- Work being done following the 2021 Roundtable was presented and discussed.

Improve LEPC/TERC Performance (1 of 4)



Issue	The transition from hazmat-only to all-hazard preparedness is slow, and more support is needed.
Recommendation(s)	Assist LEPCs transition to all-hazard preparedness (as appropriate).
Solution(s)	<ul style="list-style-type: none">• Increase Federal support/endorsement for LEPC transition.• Provide all-hazard guidance and training programs for SERCs and LEPCs on how to undertake an all-hazards preparedness process.• Provide guidance and training programs to improve assessment of risks and to assist LEPCs on the special challenges of identifying prevention and mitigation concerns regarding Tier II materials.

Improve LEPC/TERC Performance (2 of 4)



Issue	Increased community awareness and education regarding HM, all-hazard risks, and the LEPC's role improve preparedness.
Recommendation(s)	Improve community awareness and education.
Solution(s)	<ul style="list-style-type: none">• Provide guidance and training programs to instruct LEPC members on how to set up and manage an LEPC public education program.• Provide public education materials and media kits to SERCs and LEPCs to raise public awareness of the need for all-hazard preparedness. Materials could accompany grants to help fund informational campaigns.• Ensure Federal public messaging includes emphasis on LEPCs.

Improve LEPC/TERC Performance (3 of 4)

Issue	Underperforming LEPCs are lacking strong leadership and have low membership.
Recommendation(s)	Improve LEPC membership and leadership.
Solution(s)	<ul style="list-style-type: none">• Provide Federal guidance to SERCs on strategies and best practices to increase the commitment and involvement level of LEPC members.• Provide best practices examples, guidance and training materials for LEPC leaders on best practices and tips/techniques to improve the effectiveness of LEPC activities.

Improve LEPC/TERC Performance (4 of 4)

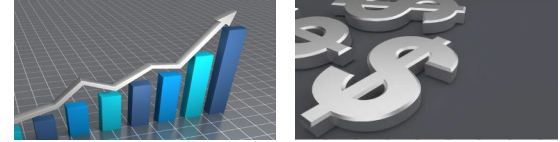
Issue	Underperforming LEPCs are lacking strong leadership and have low membership.
Recommendation(s)	<ul style="list-style-type: none">• Improve metrics of success for LEPC performance.• Strong concurrence and better integration of LEPC into local planning process.
Solution(s)	Re-evaluate LEPC/TERC doctrine to reflect current community HM preparedness expectations and experience.

Improve LEPC/TERC Performance | Funding



Issue	Additional funding is needed to support the transition from hazmat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.
Recommendation(s)	Improve LEPC funding and access to hazard mitigation grants.
Solution(s)	<ul style="list-style-type: none">• Ensure that hazardous materials is an eligible risk under FEMA mitigation grants and LEPC coordination is a requirement in Federal mitigation planning.• Provide guidance and training for LEPC members on how to best to incorporate hazardous materials risks into the FEMA hazard mitigation grant application process.

Improve LEPC/TERC Performance | Funding (1 of 2)



Issue	Additional funding is needed to support the transition from hazmat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.
Recommendation(s)	Improve LEPC funding and access to hazard mitigation grants (<i>continued...</i>).
Solution(s)	<ul style="list-style-type: none">• Provide guidance to LEPCs on combining all-hazard preparedness efforts with other local preparedness groups to access disaster preparedness funding for some LEPC activities.• Provide alternative funding best practices examples and guidance for LEPCs on techniques for securing alternative funding for programs.

Improve LEPC/TERC Performance | Funding (2 of 2)



Issue	Local elected officials are not informed enough about their area's operational needs and capabilities, hazmat risks, and gaps.
Recommendation(s)	Ensure that the Authority Having Jurisdiction (AHJ) is responsible for determining the level of HM services to be provided.
Solution(s)	TBD

Funding | HazMat Training | Improve LEPC/TERC Performance



Issue	Supplemental funding is needed to support the transition from hazmat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.
Recommendation(s)	Enhance state and national–level training efforts for LEPC members.
Solution(s)	TBD

Funding | HazMat Training | Improve LEPC/TERC Performance



Issue	Community awareness and education regarding hazmat and all-hazard risks and the LEPC role in preparedness need to be increased to improve preparedness.
Recommendation(s)	Improve integration of environmental issues into the FEMA Threat and Hazard Identification and Risk Assessment (THIRA) process.
Solution(s)	TBD

Improve Risk-Based Preparedness & Response (1 of 3)



Issues

- Initial operations-level responses at the local level are reduced because of the decreased number of firefighters and staffing challenges of emergency services personnel.
- There are different perspectives of what RBR is and how it can be applied in planning, prevention and response situations.

Recommendation(s)

Strengthen national recognition and support for risk-based response (RBR).

Solution(s)

- Ensure RBR is included in all Federal and association references and guidance regarding emergency preparedness.
- Develop consensus clarification of the definition of RBR in NFPA 470 — Standard for Hazardous Materials Emergency Response.

Improve Risk-Based Preparedness & Response (2 of 3)



Issues	<ul style="list-style-type: none">Information and guidance addressing emerging threats and risks are not released in a timely manner.RBR decision making does not include controlling impacts on critical infrastructure systems.
Recommendation(s)	Improve science and evidence-based data for RBR.
Solution(s)	<ul style="list-style-type: none">Establish a single online point-of-access website for information on current Federal, industry and academic research activities .Establish a technical expert body associated with the single point-of-access that will apply a consensus process to translate emerging scientific findings into brief and concise protocols.

HazMat Training | Improve Risk-Based Preparedness & Response



Issue	RBR training and curricula delivery strategies need to be improved through better instruction and modernization.
Recommendation(s)	Improve RBR training strategies similar to the ICS/NIMS concept.
Solution(s)	<ul style="list-style-type: none">• Establish an online RBR curriculum center in which instructors, curriculum designers, and training system managers can share ideas, lessons learned, and information about available resources.• Ensure that RBR training includes high-quality realistic incident scene simulations with extensive size-up drill and practice.• Ensure that RBR training includes an appropriate variety of methodologies.• Ensure all online Federal training deliveries are properly coordinated with state and dept training officials.

Prevention/Mitigation



Issues	<ul style="list-style-type: none">• Opportunities for hazmat prevention and mitigation are often being missed at the local level.• Hazmat prevention and mitigation measures are not included in Federal disaster funding programs as much as they should be.
Recommendation(s)	Improve local HM prevention/mitigation policies and metrics.
Solution(s)	<ul style="list-style-type: none">• Ensure that Federal agencies with missions that include hazmat preparedness collaborate to establish parallel policies for measurable local hazmat prevention and risk-reduction initiatives.• Provide guidance for local community leaders that offers simplified metrics and hazard risk indicators to help them better understand the hazmat risks in their communities.

Prevention/Mitigation (1 of 2)



Issue	Few jurisdictions fund HM prevention efforts because funding tends to go to activities that are viewed as higher priorities due to their immediacy or perceived risk exposure.
Recommendation(s)	Improve local zoning, transportation routing, and land-use planning.
Solution(s)	<ul style="list-style-type: none">• Develop new online and hands-on training and informational programs on commodity flow studies, how to conduct them, and how to use the data results in hazmat preparedness.• Provide guidance for local zoning and land use boards on how to evaluate hazmat risks in local zoning and land use decisions using Tier II/RMP and other data sources.

Prevention/Mitigation (2 of 2)



Issue	More HM emergencies could be avoided if local HM risks were better managed.
Recommendation(s)	<ul style="list-style-type: none">• Expand risk reduction priorities include prevention and mitigation at all levels (Federal, state, local, and Tribal).• Recognize that risk assessment is essential for effective community prevention and mitigation as a part of national planning guidance.• Train inspectors and code enforcement personnel in HM risk recognition and identification.
Solution(s)	TBD

Funding | Prevention/Mitigation



Issue	Disaster preparedness efforts often underestimate the risks of local hazmat releases during disasters.
Recommendation(s)	Mitigate risks caused by natural disasters.
Solution(s)	Expand Federal disaster recovery and mitigation grant requirements and instructions to include risk reduction and mitigation measures pertinent to hazardous materials facilities and related infrastructure.

Funding | Prevention/Mitigation



Issue	There are lost opportunities for avoiding hazmat emergencies due to the absence of prevention and mitigation efforts.
Recommendation(s)	Improve HM facility operations, inspections, and code enforcement activities.
Solution(s)	<ul style="list-style-type: none">• Foster Federal risk mitigation grant funding to small local hazmat facilities. FEMA, EPA, USDOT and other Federal agencies with hazmat risk reduction missions could work with the Small Business Administration and industry professional associations to explore strategies for Federal risk mitigation grant funding support to small local facilities.• Using consensus-based processes, develop competency-based standards and training for inspectors and code enforcement professionals on performing identification and assessment of hazmat risks during inspections.

HazMat Training | HazMat Standard of Care (SOC)



Issues	<ul style="list-style-type: none">• An increasing number of emergency responders have limited time for hazard specific training due to the myriad of training requirements already in-place.• Training has not been focused on volunteer organizations and their challenges.• Most curricula and training requirements focus on baseline standards, not region-specific standards.
Recommendation(s)	<ul style="list-style-type: none">• Include more advanced and immersed simulations in training.• Develop curricula that addresses the challenges of volunteer organizations.• Develop curricula based on local/regional threats and advanced or region-specific standards.
Solution(s)	TBD

HazMat Training | Funding



Issues	<ul style="list-style-type: none">• The use of grant funding is often limited.• The process for applying for grants can be confusing and challenging, especially for volunteer organizations.
Recommendation(s)	<ul style="list-style-type: none">• Look for opportunities to provide enhanced flexibility on the application and use of grant funds.• Consider the Georgia experience of providing a playbook for each type of grant funding available (the Federal equivalent can be found at grants.gov).
Solution(s)	TBD

Information Sharing

Issues	Federal agencies (e.g., PHMSA, EPA, USFA, and FEMA) and key stakeholder groups (e.g., IAFC, IAFF, and NVFC) involved with emergency preparedness need consistent and sustainable ways to share critical information.
Recommendation(s)	Consider designating one organization as the secretary to facilitate long-term continuity.
Solution(s)	The Hazardous Materials Roundtable should be conducted annually, and the Roundtable Report should be viewed as a "living" document.

Information Sharing



Issues	Both short-term and long-term processes for sharing critical information on emerging trends and issues among stakeholders are needed.
Recommendation(s)	Support the timely and effective dissemination of critical information on emerging threats, risks, and agency capabilities to facilitate both short-term and long-term hazmat/WMD emergency preparedness activities.
Solution(s)	Follow examples including alternative emergency sources, labeling and placarding of used EV batteries, impact of international events on US concerns as ways to disseminate critical information and emerging threats.

Information Sharing



Issue	The concept of the Hazmat (HM) Information Center (Fusion Center) should be revisited as a tool for information sharing between Federal agencies and the emergency preparedness community.
Recommendation(s)	Revitalize the concept of an HM Information Center (Fusion Center) with greater emphasis on sharing of critical information.
Solution(s)	The initial focus of the HM Information Center was too broad and should be focused on information sharing both to/from the emergency preparedness community to federal agencies with an initial focus on HM transportation and response information.

HazMat Standard of Care



Issues	Regulations do not accurately reflect a number of current emergency response and health, and safety issues including the selection of PPE, decontamination practices, and the utilization of risk-based response processes.
Recommendation(s)	Encourage the updating of Federal regulations for hazmat emergency response (OSHA 29 CFR 1910.120.q) to more accurately reflect current response issues, scenarios, and related challenges.
Solution(s)	TBD



Summary of Work

being done following
the 2022 Roundtable

*Roundtable Member and Federal
Partner Updates and Presentations*

USFA—NATIONAL FIRE ACADEMY UPDATE

David Donohue, Training Specialist/Curricula Manager, National Fire Academy

US EPA UPDATE

Sicy Jacob, Chemical Engineer | Regulations Implementation Division,
Office of Emergency Management, EPA

2023 Hazmat Roundtable

May 9–10, 2023


Sicy Jacob
Office of Emergency Management
EPA-HQ

Today's Topics

EPA SERC Survey Analysis & Results

On-going Rulemakings: Risk Management Program and CWA HS WCD

- Hazmat Planners and Responders
- Environmental Justice



Survey:
State Emergency
Response
Commissions
(SERCs)



Signature

Date

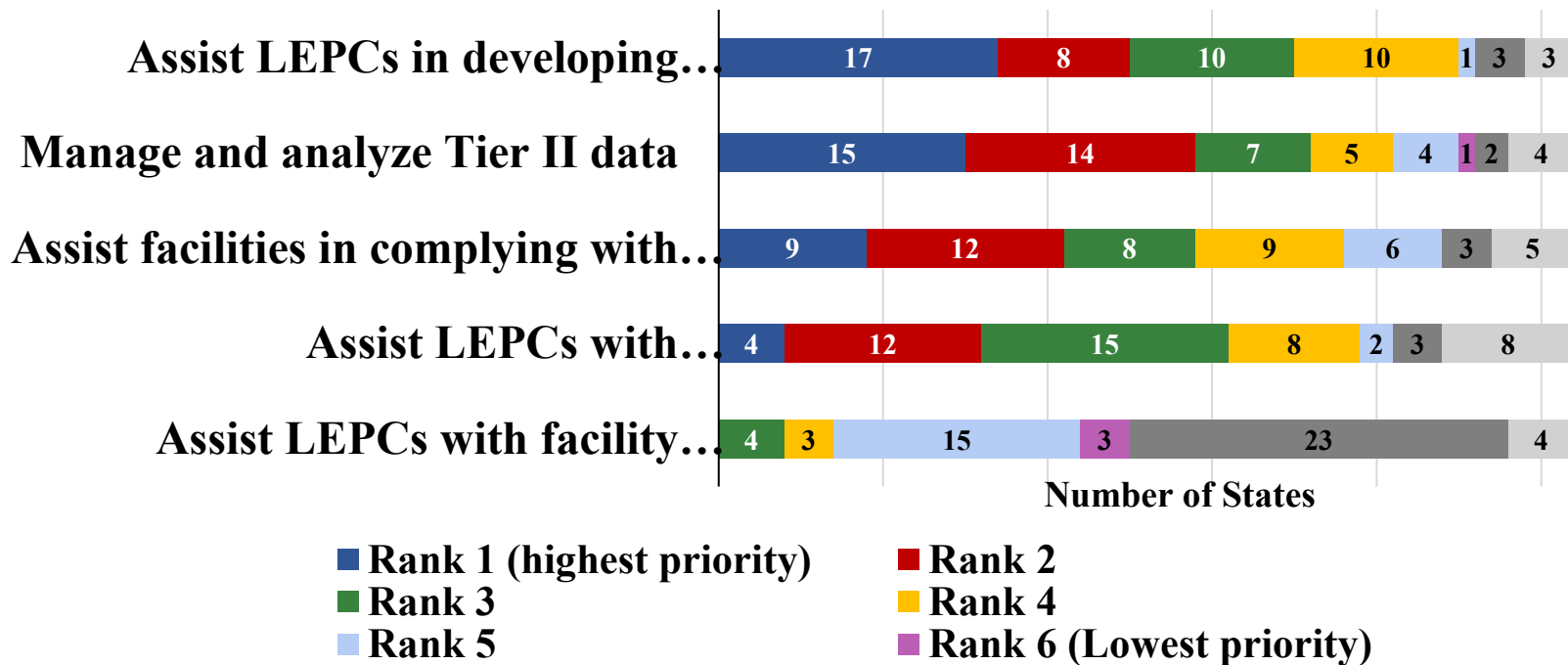
SERC Survey

EPA's first SERC survey in 35 years of the enactment of EPCRA

- States' priorities, successes, and challenges in implementing EPCRA
- 50 States and 2 Territories responded to the survey
- 86 questions (only a few states omitted a few questions)
- LEPC spreadsheet – Existence (Active/Inactive/Reasons for Inactive) Activities

Conducted two LEPC surveys (1999 & 2008)

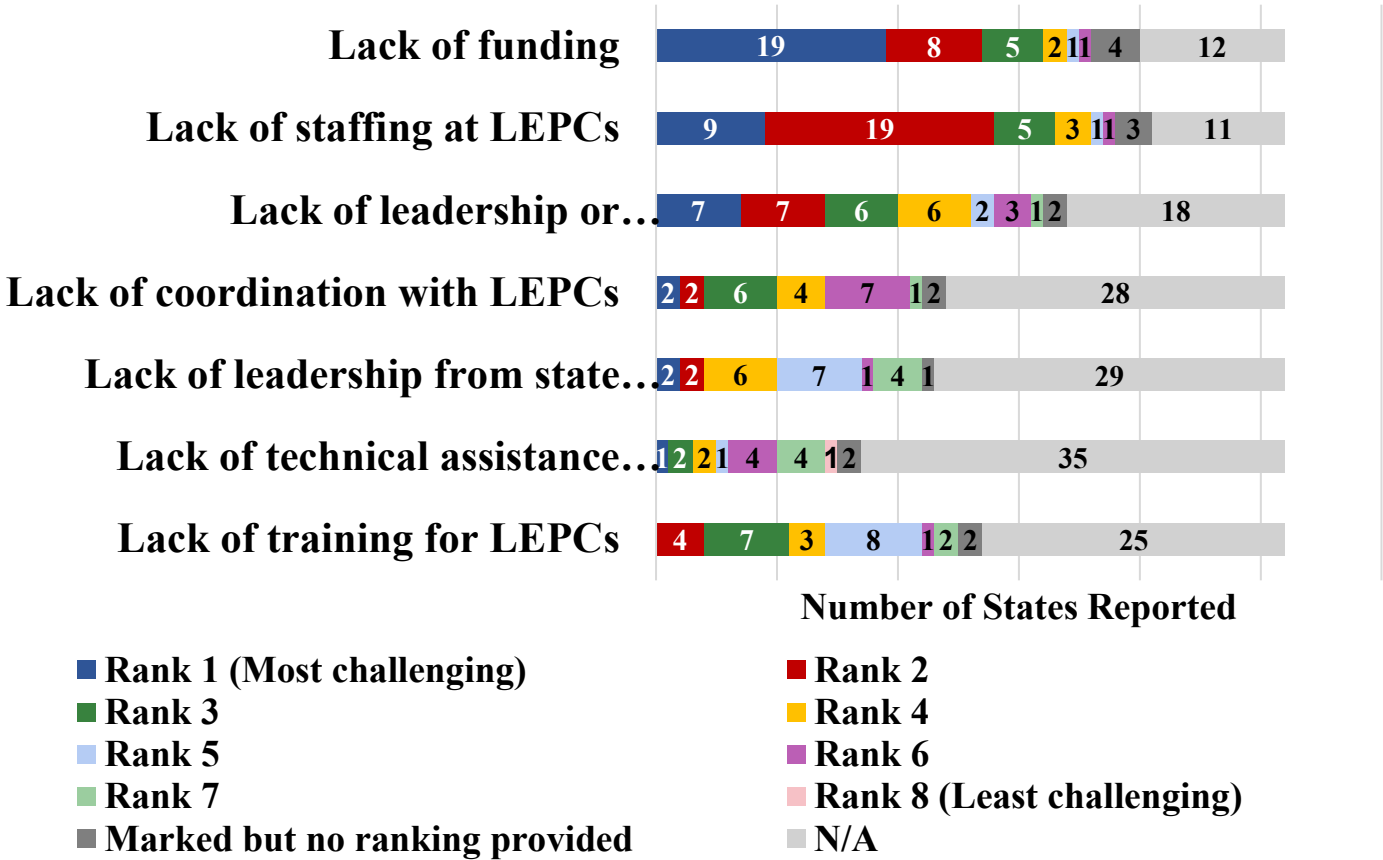
States' Priorities for Implementing EPCRA



Other Priorities Noted by States (Choices not Provided in the Survey)

Highest Priority (Ranked 1)	<ul style="list-style-type: none">• Enhance public safety and environmental protection.• Train first responders.• Properly fund and organize a good solid SERC and LEPC structure.• Provide hazardous material (hazmat) response training and administration of grant funds• Emphasize participation by the LEPC in community preparedness planning and utilize the APELL process and strategic planning to fill capability gaps.
Medium Priority (Ranked 2, 3, or 4)	<ul style="list-style-type: none">• Train first responders (Ranked 2).• Teach first responders how to access Tier II data; assisting facilities with answering EPCRA questions, and training First Responders how to access Tier II information. (Ranked 3)• Respond to Freedom of Information Law (FOIL) requests for Tier II data. (Ranked 4)
Lowest Priority (Ranked 5)	<ul style="list-style-type: none">• Review after-action reports; provide additional technical assistance as needed.
Unranked Priority	<ul style="list-style-type: none">• Fulfill state statues, and to ensure that the state has access to locally developed hazmat teams that may respond across the state upon an approved resource request through the State Emergency Coordination Center.

States' Challenges in Implementing EPCRA



States' Challenges in Implementing EPCRA

LACK OF STAFFING
AT LEPCs



LACK OF FUNDING

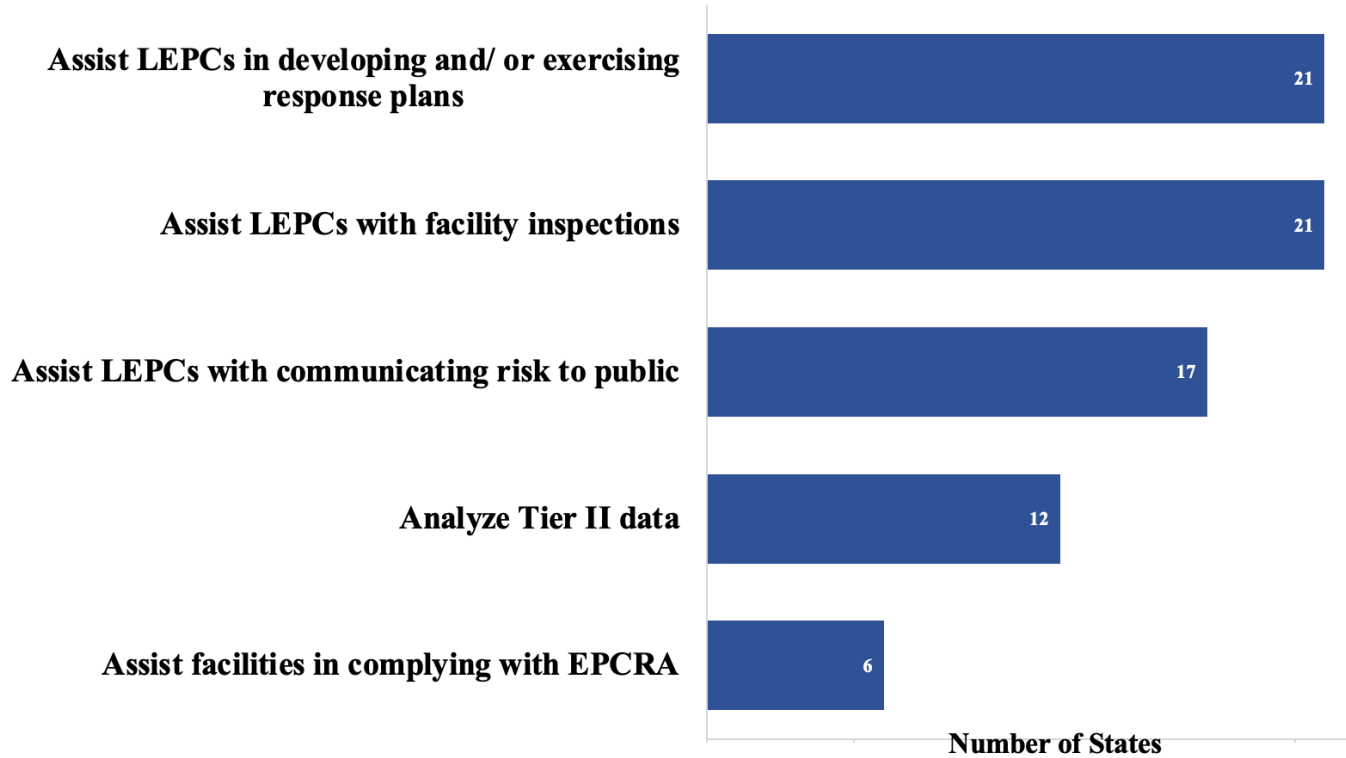


LACK OF LEADERSHIP
OR MOTIVATION AT
LEPCs



Number of states that ranked first or second most challenging.

States Priorities Not Met Due to Lack of Funding



A Lack of Funding Limited SERCs' Ability to Meet Priorities

21

states not able to

**ASSIST LEPCs IN
DEVELOPING
AND/OR
EXERCISING
RESPONSE PLANS**



21

states not able to
**ASSIST LEPCs WITH
FACILITY INSPECTIONS**



12

states not able to
ANALYZE TIER II DATA



17

states not able to
**ASSIST LEPCs WITH
COMMUNICATING RISK
TO PUBLIC**



6

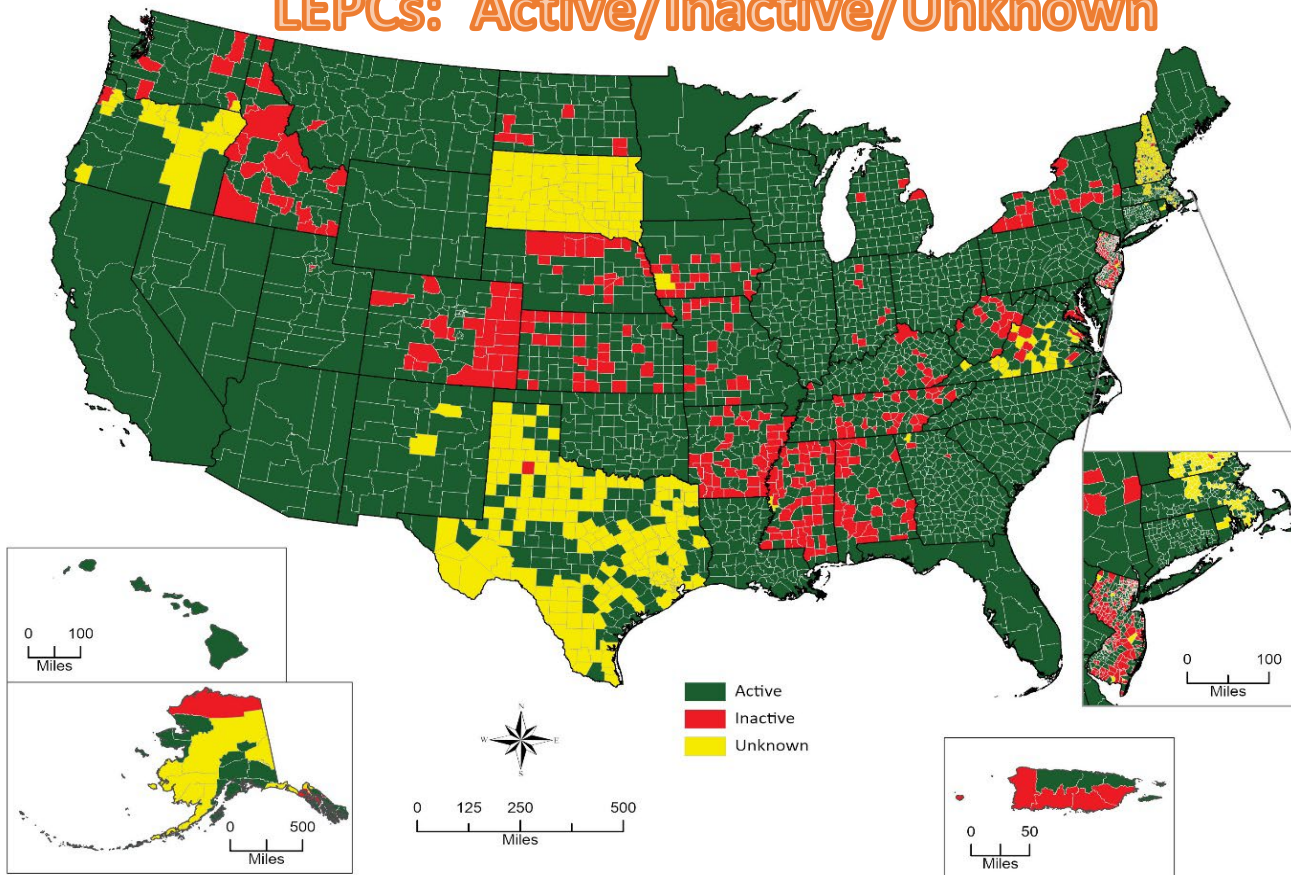
states not able to
**ASSIST FACILITIES IN
COMPLYING WITH EPCRA**



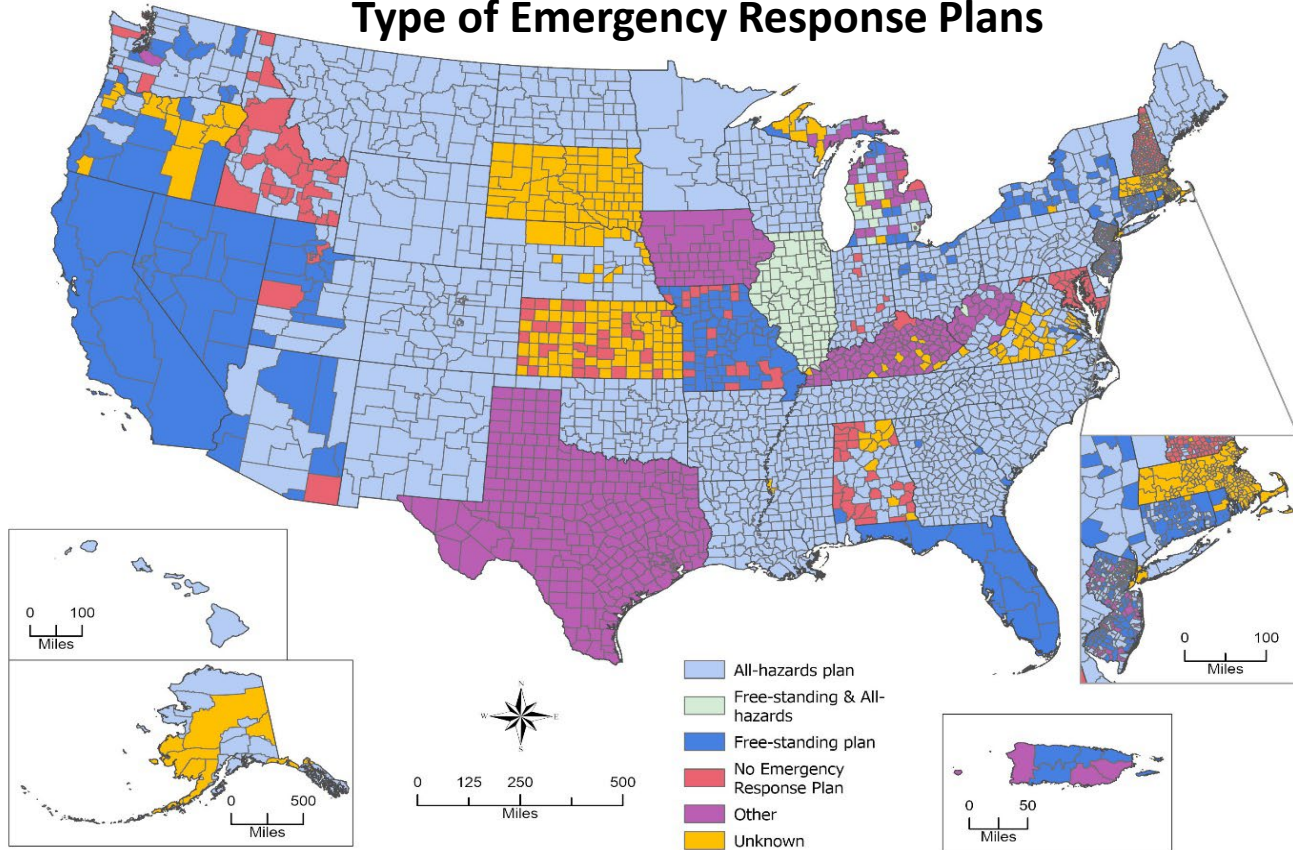
EPCRA Key Stakeholders LEPC & TEPC

Elected State and Local Officials	Law Enforcement	Civil Defense	Transportation
Broadcast and Print media	Hospital	Fire Fighters	First Aid
Local Environmental	Health	Community Groups	Facility Owners and Operators

LEPCs: Active/Inactive/Unknown



Type of Emergency Response Plans



What we learned from the Survey?

- Most states are operating with little or no budget—unable to assist LEPCs with plans or exercises
- 1986–1987: Approximately 4,000 LEPCs were established.
 - Recent years, some states formed regional LEPCs
- Survey: 3,790 LEPCs* (1,236 LEPCs reported as Inactive or Unknown)
- Survey: Approximately 664,000 Tier II facilities** (109,000 facilities handle EPCRA EHSs)

*one state reported not having resources to determine their LEPC activities

**facilities that handle hazardous chemicals

Reports: SERC Survey & Past LEPC Surveys

<https://www.epa.gov/epcra/nationwide-survey-epcra-implementing-agencies>

Risk Management Program (RMP)





RMP

BACKGROUND

- December 2019: EPA published the RMP Reconsideration final rule, finalizing changes to the January 2017 RMP Amendments rule.
- EPA **rescinded** amendments relating to:
 - Safer technology and alternatives analyses,
 - Third-party audits,
 - Incident investigation root cause analysis,
 - Information availability, and
 - Several other minor regulatory changes.
- EPA **modified** amendments relating to local emergency coordination, emergency exercises, and public meetings, and changed the compliance dates for some of these provisions.



RMP

UPDATE

- August 31, 2022: EPA published the Safer Communities by Chemical Accident Prevention Proposed Rule, which proposes revisions the Risk Management Program regulation. **The proposed rule is designed to further protect vulnerable communities from chemical accidents, especially those living near facilities with high accident rates.**
- The proposal includes new provisions for:
 - Safer technology and alternatives analysis;
 - Third party audits;
 - Incident investigation root cause analysis
 - Employee participation;
 - **Public information availability;**
 - **Modifications to strengthen the rule's existing hazard analysis provisions to better address natural hazards and climate change, power loss, and stationary source siting; and**
 - **Modifications to strengthen the rule's existing emergency response and emergency exercise program provisions.**



RMP

- EPA held a series of virtual public hearings on September 26, 27, and 28, 2022, to solicit comments on the proposal.
- The public comment period on the proposal closed October 31, 2022.
- The Agency plans to publish a final rule by late summer/early fall 2023.
- For more information, contact Deanne Grant: grant.deanne@epa.gov, (202)564-1096



CWA HS WCD FRP
Rulemaking



CWA Hazardous Substance FRP Rulemaking

BACKGROUND

- 2019: NRDC, on behalf of the Environmental Justice Health Alliance for Chemical Policy Reform and Clean Water Action, filed suit to compel EPA to initiate this rulemaking and issue worst case discharge facility response planning regulations for CWA hazardous substances [311(j)(5)(A)(i)].
- EPA entered into a consent decree requiring signature on a proposed action by March 12, 2022, and signature on a final action 30 months later.
- EPA signed a Notice of Proposed Rulemaking on March 10, 2022:
 - New requirements for facilities that could reasonably be expected to cause substantial harm to the environment, to prepare and submit a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge, of CWA hazardous substances.
 - **The proposed action considers increased risks of worst-case discharges from climate change as well as impacts to communities with environmental justice concerns and solicited comment on additional strategies to take these concerns into account.**



CWA Hazardous Substance FRP Rulemaking

UPDATE

- In response to public requests, EPA extended the comment period to 120 days, closing on July 26, 2022.
- EPA conducted a Tribal engagement session on April 6, 2022.
- EPA received nearly 30,000 comments on the proposal and the Agency regulatory workgroup is in the process of analyzing and considering them.
- Under the consent decree, EPA must sign a final action by September 28, 2024.

Proposed Rule: (see page 17915 – LEPC and TEPC Coordination):

<https://www.govinfo.gov/content/pkg/FR-2022-03-28/pdf/2022-05505.pdf>

For more details, please visit EPA website at:

<https://www.epa.gov/hazardous-substance-spills-planning-regulations/proposed-rulemaking-clean-water-act-hazardous>

Questions?

Sicy Jacob

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FEMA TECHNOLOGICAL HAZARDS PREPAREDNESS AND TRAINING ACT

Thomas Warnock, Branch Chief | Radiological Emergency Preparedness
Program | National Preparedness Directorate, FEMA

Technological Hazards Preparedness Technical Assistance Program

Concept and Implementation Plan | April 28, 2023



FEMA

Purpose and Agenda

Purpose:

- Describe what led to the Technological Hazards Preparedness and Training Act of 2022
- Describe the Act and its focus
- Articulate FEMA's initial plan for implementation.
- Seek feedback and input

Agenda:

- Refresh: Technological Hazards Preparedness and Training Act of 2022
- Concept: Technological Hazards Preparedness Technical Assistance Program
- Discussion



Technological Hazards Preparedness and Training Act of 2022

- Became law in December 2022 (incorporated into NDAA for FY2023)
- Tasks the Administrator to “maintain the capacity to provide States, local, and Indian Tribal governments with technological hazards and related emerging threats technical assistance, training, and other preparedness programming to build community resilience to technological hazards and related emerging threats”
- Technological Hazards: Involves materials created by humans that pose a unique hazard to the general public by accident, collateral to another hazard, or by ill intent and includes a chemical, radiological, biological, and nuclear hazard
- Authorizes \$20M in FY2023 and FY2024. No appropriation.



Intent of the Act

“...the threats we face today are different than what we faced 10 years ago. And they will be different than what we will encounter 10 years from now. That’s why we must make generational investments to build a more resilient nation against all hazards. Not just the hazards that are familiar or what we’ve experienced in the past...” – Administrator Criswell

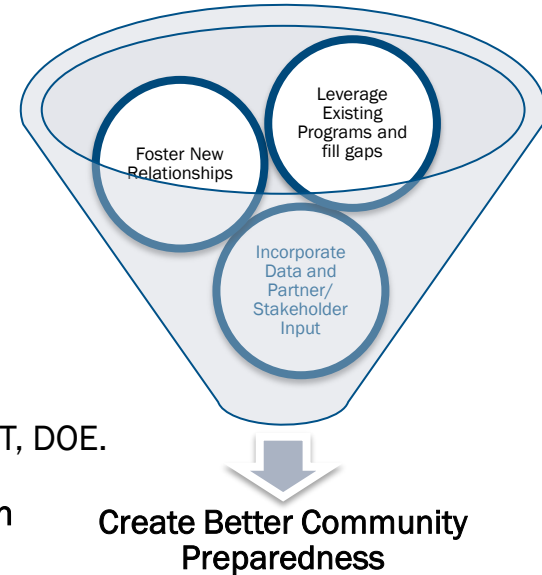
- Provide FEMA resources to prepare **communities** for both current and future technological hazards
- Due to the technical knowledge and capability required, adequate preparedness is often beyond the ability of emergency managers in rural or disadvantaged communities.
- Lack of a holistic approach and ad hoc funding have limited reach and impact of Federal assistance.
- Similar to natural disasters, the frequency and severity of emergencies related to technological hazards is increasing.



FEMA

What We Heard From Stakeholders

- Rural and under-resourced communities need technical assistance.
- The Federal government has many resources:
 - They are often **siloed**.
 - They are often **not accessible in one place**.
 - They are often **inflexible** in application and do not reach the local level.
- Capacity building is a continuing challenge.
- FEMA should **expand collaboration** with other Federal agencies including EPA, DOT, DOE.
- **Solution:** Play to our strengths—**Technical Assistance, Coordination, Collaboration**
 - FEMA is **valued as a convener** across the Federal government.
 - FEMA’s THD has a **40+ year history of community-focused partnership** on technological hazards—**robust and effective but currently limited in scope**.



Intended Program Approach

Technical Assistance, Coordination, Collaboration

- Intent: **Move preparedness forward** in some manner for every community seeking assistance
- Key program tenet: **Resource identified needs wherever a method to meet them exists**, internally or externally
- To do this: **We will meet stakeholders where they are** and help them build their unique solutions:
 - **FEMA THD's current programs are siloed by law and regulation to limited places and hazards.**



FEMA

Approach, continued

- Identify populations and jurisdictions with existing technological hazards risks that have **high levels of vulnerability and capability gaps**.
 - Data sources from across government and partners combine to show risk picture
- Liaise with other Federal, SLTT, academic, and private sector partners to establish baseline capability requirements and resources.
- Inventory and document preparedness and resilience assistance (financial and technical) across government and partners to gain a complete picture of the resources available to communities. **Goal: Leverage Whole of Government**
 - Existing Federal agency partnerships and working groups (FRPCC, NRT, others)



Matching Communities and Resources

- **Meet Communities Where They Are:** Provide preparedness assistance, through direct support and through connecting those in need with available resources:
 - Unique solutions are needed in each instance. **One size does not fit all.**
 - Self-nomination through methods already in use by NED and other FEMA programs
 - Nomination by states and Tribes
- Document what we find and do to provide continuously updated references and guidance.
- Build continuing relationships.



FEMA

Possible Program Deliverables

- Technical assistance
- Training compendium (DRRA 1236 deliverable)
- Incident Resource Guidebook
- Relationships and networks
- Potential longer-term deliverables past 2-year initial period



FEMA

Discussion

- We do not want to impinge on existing authorities and efforts:
 - Connect and fill in the gaps
- We want to move the preparedness bar forward, build community resilience, and work toward a common standard of care for technological hazards.
- We see opportunity to work toward gaps and needs that the Roundtable has identified and recommended.



FEMA

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Federal Emergency Management Agency
Fema.gov



FEMA

IAFC HAZMAT COMMITTEE UPDATE

R. W. “Bob” Royall, Assistant Chief (Retired), Harris County Fire Marshal’s
Office | Chairman, IAFC HazMat Committee

HazMat Roundtable

2023

R. W. “Bob” Royall, Jr.
Assistant Chief (Retired)
Harris County Fire Marshal’s Office
Chairman, IAFC HazMat Committee

On behalf of Chief Donna Black and the entire IAFC Leadership Team, we would like to express our most sincere appreciation to all of our partners, stakeholders, and participants for your continued support of the HazMat Roundtable. We are very grateful to PHMSA and the U.S. Fire Administration for your outstanding leadership and to the National Fire Academy for hosting this year's meeting.



IAFC HazMat Committee Update

- Work continues on the buildout of the HazMat Data Analysis and Information Center (Fusion Center)
- Work continues on the PFAS issues concerning firefighting foam and personal protective equipment
- Actively engaged with the AAR concerning AskRail enhancements

IAFC HazMat Committee Update

- Working closely with PHMSA on several issues, including rail safety, LNG transportation, grants, and a conversation about a national strategy addressing planning, preparedness, and responder training for rail incidents.
- Working closely with Transport Canada providing pipeline emergency response training in Mexico

IAFC HazMat Committee Update

- Actively engaged with the Senate and House on legislation concerning rail safety and the transportation of hazardous materials, including state, Tribal, and local planning, preparedness, and responder training
- Co-chairing a working group with Texas A&M Transportation Institute on electric powered vehicle fires consequence management

IAFC HazMat Committee Update

- Consulting on the next edition of the DOT Emergency Response Guidebook
- High level participation on NFPA 470 and 475 Technical Committees
- Preparing for the opening of the 40th Annual Hazardous Materials Response Teams Conference in Baltimore on June 8, 2023

IAFC HazMat Committee Concerns

- Potential Legislation:
 - Multiple rail safety bills
 - Cantwell/Cruz: Uses the Roundtable report to craft bill
 - Fighting hard to avoid FACA
 - Fighting for discretionary grants
 - Senate pushing for passage, House may kill it.
- Proposed rules in the Federal Register on LNG

IAFC HazMat Committee Concerns

- PFAS—where do we go from here?
 - NextGen foam
 - Personal protective equipment
 - Training facility cleanup
- Electric powered vehicles from scooters to ocean going vessels:
 - Emergency Response
 - Consequence Management
- Effective state, Tribal, and local community RBR planning, preparedness, and responder training

Questions?



HAZMAT ONLINE COURSE CATALOG

Kinha Lester & Pattie Martello | Bloomsburie

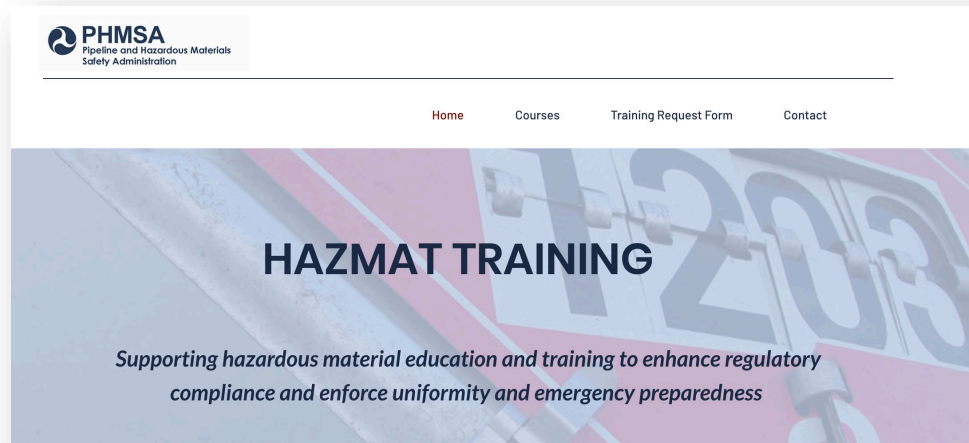
Approach for Creating Initial Prototype

- Evaluated other online course catalog examples:
 - *National Fire Academy*
 - *Learning Tree International*
 - *EMI*
 - *Open Sesame*
 - *Udemy*
- Documented online course catalog requirements based on evaluation of examples
- Created initial prototype and questions for roundtable

Purpose of the Initial Prototype

The purpose of the prototype is to elicit requirements and help stakeholders make decisions regarding the following:

- Who will be responsible for owning and managing the site?
- What information should be included on the site?
- How will the site and its information will be managed?



User Groups

There are four basic user groups:

1. **Potential enrollees** (i.e., people interested in enrolling in Hazmat-related training courses)
2. **Training providers** who want to include their training offerings on the site
3. **Training approvers** who review/approve training requests from training providers who want to add, modify, or delete their training offerings from the site
4. **Administrators** who maintain the system and update the database with training information

Key Features

The site has seven key features:

1. Searching the online catalog for HazMat courses
2. Providing users with HazMat course information
3. Redirecting users to training provider websites to learn more details about and enroll in the courses
4. Submitting training requests to add, update, or remove training information from the online catalog
5. Approving or denying training requests
6. Updating the website's database with relevant training data
7. Providing users with the ability to contact the website's host via an online contact form or the contact details provided on the site

Key Features

1 Search the online catalog

Delivery Type

Duration

Course Level

Training Provider Type

Reset

2 Provide course Information

TEEX

Less than 1 day



Online/Distance Learning



Foundation

AWR-111-W

Basic Emergency Medical Services (EMS) Concepts for Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Events

State


This web-based course introduces participants to medical knowledge relating to CBRNE events. Participants learn the importance of organizational structures used during Multi-Casualty Incidents (MCI) and the role of the Emergency Medical Services (EMS) branch and the functions of triage, treatment, and transport units. The course addresses responder precautions and initial actions when responding to CBRNE incidents, emphasizing information gathering and responder safety concepts and methods and tactics to mitigate risks and minimize known hazards. The course covers medical implications of a CBRNE agent, and the potential medical signs, symptoms, and blast patterns resulting in injuries and the various levels of a triage method, Sort, Access, Life-saving interventions, and Transport (SALT) and its application during an MCI. The course is recommended before attending a PER-211 Medical Management of CBRNE Event course, or it can be completed by someone looking for an introduction into this topic.

3 Redirect users to training providers

Read More...

Key Features

4 Submit training requests



Hazmat Training Request Form

Complete and submit the form below if you want to add new, updating existing, or remove training information to/from the Hazmat Training Website.

Please complete one form per course or complete the fields under the General Information section and attach a completed spreadsheet, the template for which can be found [here](#).

Upon submission, it takes approximately 48-72 hours for the changes to be reflected on the website.

General Information

Name of Submitter *
Please enter your full name

Email Address *
Please enter your email address

Training Provider Name *
What is the name of your organization?

5 Approve/deny training requests



Notify Submitter of Training Request Approval

Trigger: When rows are added or changed AND when 'Decision' changes to 'Approve'

Actions: Alert someone

Recipients: Pattie Martello

Last modified by Pattie Martello on May 4, 2023, 6:00 PM



Notify Submitter of Training Request Denial

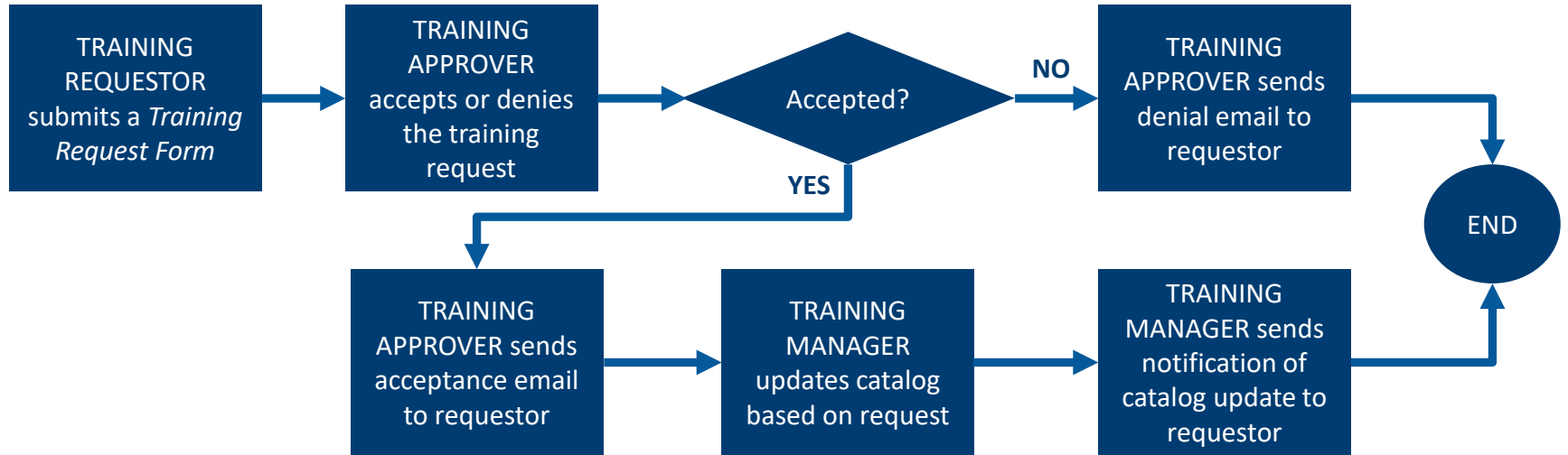
Trigger: When rows are added or changed AND when 'Decision' changes to 'Deny'

Actions: Alert someone

Recipients: Pattie Martello

Last modified by Pattie Martello on May 4, 2023, 6:01 PM

Proposed Approval Workflow



Key Features

6 Update database with new information

Default view Table Manage Fields Sort Filter Search

<input type="checkbox"/>	T Course ID	T Title	T Training Prov...	T Course Level	T Course Descripti...	🔗 Course Link	📄 Courses 2 (Title)	📄 Courses 2 (All)
1	AWR-111-W	Basic Emergency Medical ...	TEEX	Foundation	This web-based course int...	https://teex.org/class/awr...	/items/basic-emergency-...	/items/
2	AWR-160-W	WMD/Terrorism Awarene...	TEEX	Foundation	This online course focuses...	https://teex.org/class/awr...	/items/wmd%2FTerrorism...	/items/
3	AWR-187-W	Terrorism and WMD Awar...	RDPC	Foundation	Terrorism and WMD Awar...	https://ruraltraining.org/c...	/items/terrorism-and-wm...	/items/
4	MGT-317	Disaster Management for ...	TEEX	Foundation	The Disaster Managemen...	https://teex.org/class/mgt...	/items/disaster-managem...	/items/
5	MGT-341	Disaster Preparedness for...	TEEX	Foundation	This course brings togeth...	https://teex.org/class/mgt...	/items/disaster-prepared...	/items/
6	MGT-342	Strategic Overview of Dis...	TEEX	Foundation	This course is designed to...	https://teex.org/class/mgt...	/items/strategic-overview...	/items/
7	MGT-343	Disaster Management for ...	TEEX	Foundation	The Disaster Managemen...	https://teex.org/class/mgt...	/items/disaster-managem...	/items/
8	MGT-345	Disaster Management for ...	TEEX	Foundation	The Disaster Managemen...	https://teex.org/class/mgt...	/items/disaster-managem...	/items/
9	MGT-348	Medical Preparedness an...	TEEX	Foundation	This course addresses the...	https://teex.org/class/mgt...	/items/medical-prepared...	/items/
10	MGT-449	Community Based Planni...	RDPC	Foundation	This course provides Triba...	https://www.firstresponde...	/items/community-based-...	/items/
11	MGT-483	Crisis Leadership: Acceler...	GTRI	Foundation	This course provides a fra...	https://www.firstresponde...	/items/crisis-leadership%...	/items/

Key Features

7 Provide users the ability to contact us

Get in Touch

U.S. Department of Transportation,
Pipeline and Hazardous Materials
Safety Administration
3700 South MacArthur Blvd.
Oklahoma City, OK 73179
United States

405-686-2310
PHMSAPipelineTraining@dot.gov



First Name *

Last Name

Email *

Message *

Choose an option

Choose an option



Send

Questions for Discussion

- Who will be the site's sponsor?
- Will the site's sponsor be responsible for managing the system on which the catalog resides (e.g., general maintenance and technical updates)?
- Who will manage the catalog in terms of general content and course updates (e.g., site sponsor, other government agency (Fed or non-Fed), or third-party vendor)?
- Who will be responsible for approving course updates?
- Will training managers have access to the system to make updates for their courses or will this be centrally managed?
- What is the scope of the following:
 - *Training topics (HazMat only)*
 - *Training providers*
 - *Training data*
- Do we anticipate the need for having users sign up directly on the site in the future or will we always redirect them to the provider's website?

Next Steps

- Complete **Online Course Catalog Survey** (*should take less than 10 minutes to complete*):
 - A link to the survey will be emailed to the HazMat Roundtable participants

Survey: Online Course Catalog

- Stand up a working group to make key decisions and provide feedback and additional requirements.
- Update and test prototype.
- Release to a select group of people (Beta Version).
- Deploy to the general population.

HAMMER – HMEP GRANTS ANALYSIS

Nancy Ness & Nicole Zawadzki, National Programs Manager, HAMMER
Federal Training Center



HMEP Grant Gap Analysis

PHMSA has partnered with HAMMER to conduct a HMEP grant program analysis with a special focus on:

- Utilization of funds to support needs for Hazmat response and training
- Feedback on utilization funds in underserved communities
- Program gaps
- Sharing of best practices

Process For the Analysis

1

Define the need for the analysis

2

Identify sample selection

3

Conduct interviews to collect data

4

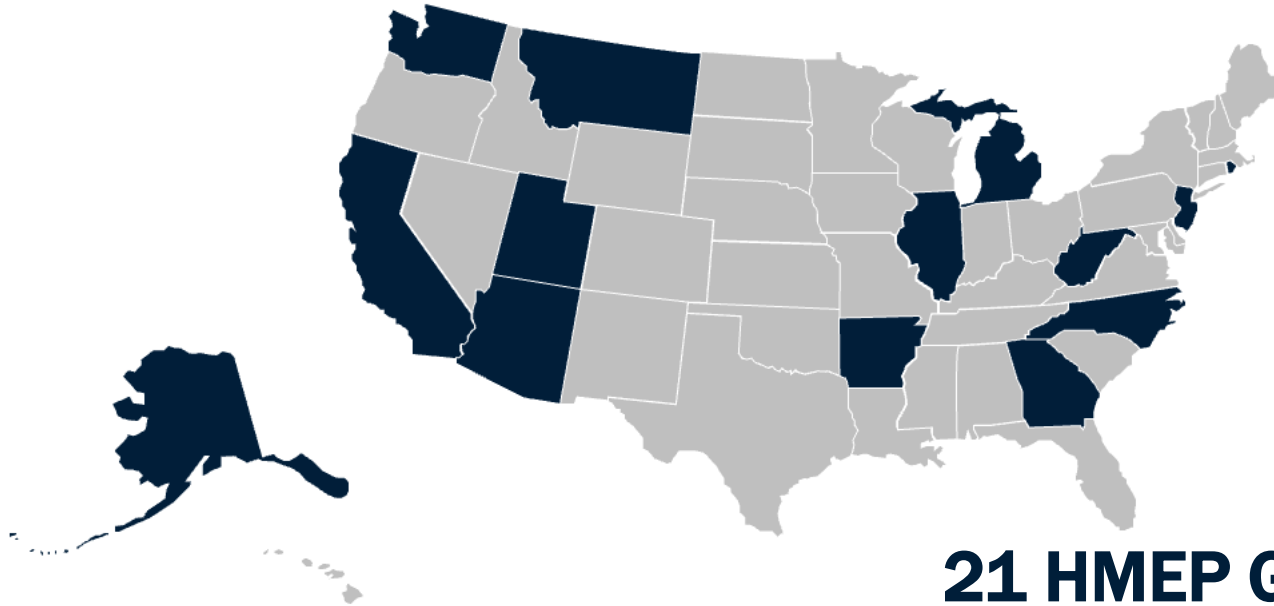
Analyze the data

5

Interpret results



Interviews Conducted



21 HMEP Grantees
14 States
2 Tribal Nations

Good Practices of Grantees and PHMSA

HazMat	Utilizing state Hazmat Committees to help guide their training strategy and priorities.
Surveys	Conducting surveys with their LEPC's, SERC's, Counties or Tribes to accurately estimate needs for training by course or planning needs including commodity flow studies.
Purchasing	Purchasing props, software and other training apparatus that can be used by multiple LEPC's or sub-grantees.
Workshops	Holding pre-application workshops for potential sub-grantees to educate them on priorities, reporting requirements and eligible uses of funding.
Reaching Out	Reaching out to other agencies to help identify underserved communities as well as environmental justice mapping if practical.
Stipends	Providing stipends to encourage participation from rural areas, as well as providing travelling training teams to reach rural or frontier areas.
Exercises	Conducting multi-agency exercises.
Training	Providing centralize training centers for smaller states to consolidate services.

Good Practice

Underserved At Risk Communities



Conducting training and exercises in rural and frontier communities to ensure that volunteer organizations improve response capabilities



The matching requirement allows states to flow down the HMEP grant funds to underserved or high-risk communities like the rural or tribal groups that have hazardous materials being transported through their lands



Opportunities for Improvements

Encourage longer grant extensions

Rollover of unused grant funds after the first year to the next two easily

Assistance to rural, frontier and Tribes to train first responders and volunteers

Streamline reporting and application processes

Shorten the application process for years two and three of the three-year cycle

Form grantee network to share best practices for plan development, training, or commodity flow studies

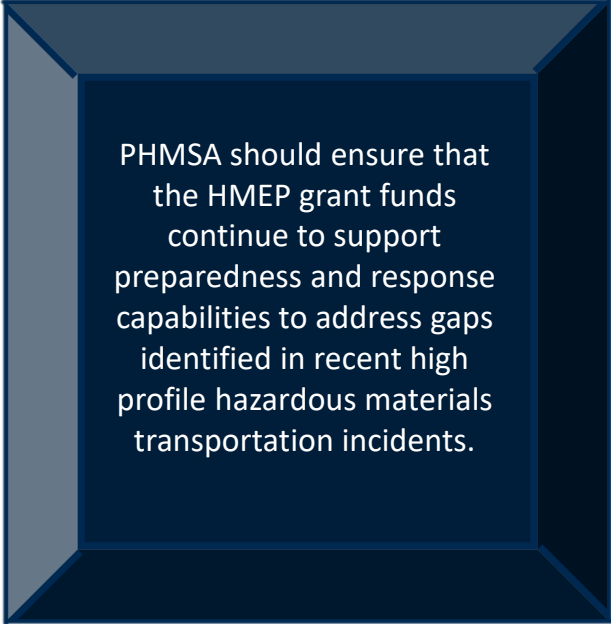
Provide regular grant management training or webinars on topics to help grantees with management issues

PHMSA could provide criteria on how to define underserved from a Hazmat perspective

Preliminary Findings

Some of the HMEP funded activities that could be expanded include:

- Commodities flow studies
- Provide rural or frontier locations with training and exercises with a special focus on locations that have volunteer fire and law enforcement organizations
- Funding multi-agency hazmat response exercises with multiple states to practice response to hazmat transportation incidents across state boundaries
- Crisis Communications training for transportation hazmat incidents
- Increased participation to prioritize underserved communities and high-risk areas
- Include law enforcement agencies in HMEP funded training and exercises
- Continue to provide venues such as the HMEP Grant workshops and working groups



PHMSA should ensure that the HMEP grant funds continue to support preparedness and response capabilities to address gaps identified in recent high profile hazardous materials transportation incidents.

Contact Information



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HAZMAT TRAINING INITIATIVES

Joe Milazzo, Operations Center Director, CHEMTREC[®] | American Chemistry Council

Hazmat Training Initiatives & Emergency Responder Engagement

PHMSA HAZMAT Roundtable
Emmitsburg, MD
May 9 & 10, 2023

CHEMTREC[®]

TRANSCAER[®]

CHEMTREC HELP Award Program

- Annual award established in 2019.
- Awards are intended to **help fire departments**:
 - Enhance their response capabilities
 - Increase local preparedness to respond to and prepare for hazardous materials incidents
- CHEMTREC will continue our partnership with the National Volunteer Fire Council (NVFC) to provide **\$10,000 each to three volunteer fire departments** in the US this year.

To date \$115,000 has been provided to volunteer fire departments!

- The 2023 application period will be open from **June 1–Sept. 1.**



TRANSCAER®

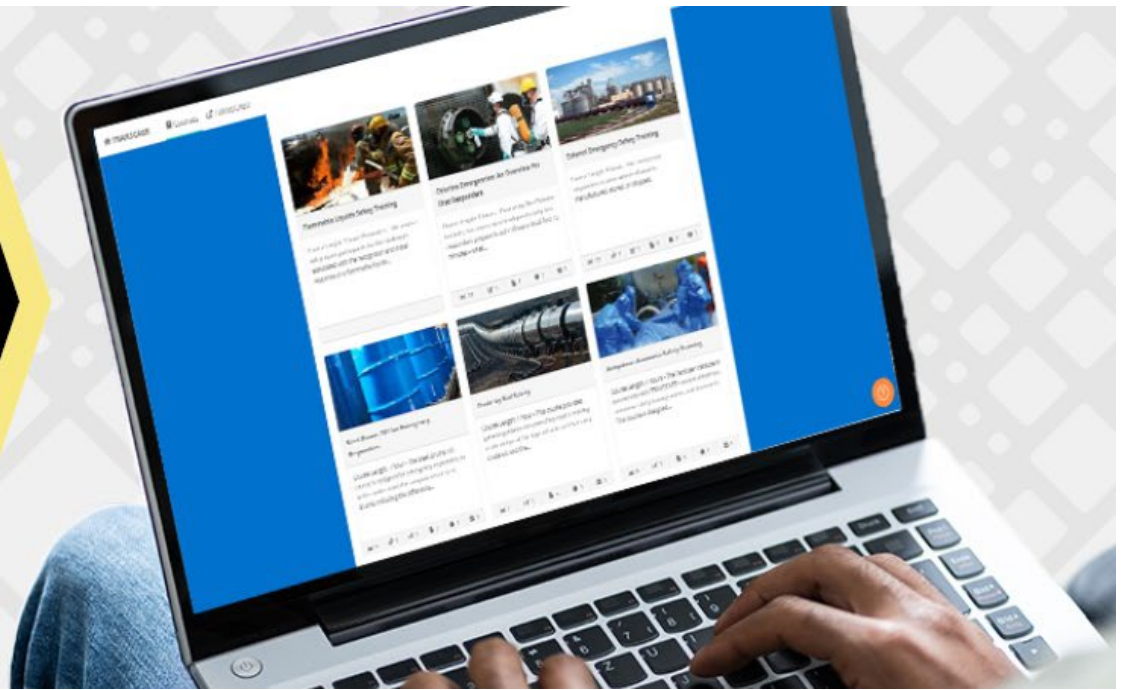
- 818 events in 2022 -

Focused on increasing the number of railroad, highway, and hazmat trainings offered annually across the United States.



Check Out Our **FREE**
ONLINE HAZMAT
COURSES

www.hazmatcourses.com



Learning Management System

16
courses
available 24/7

TRANSCAER Augmented Reality Mobile Application

- App will be accessed through private link.
- The app can be used online or offline.
- The mobile app will automatically update when connected to Wi-Fi.
- Additional models will be added to the app in the future.



Please note these are for DEMO ONLY, final scenario will be released on app.

Contact Information

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CHEMTREC[®]

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TRANSCAER[®]

NFPA HAZMAT RESPONSE COMMITTEE

Rick Edinger, NFPA Hazardous Materials Response Personnel
Committee Chair

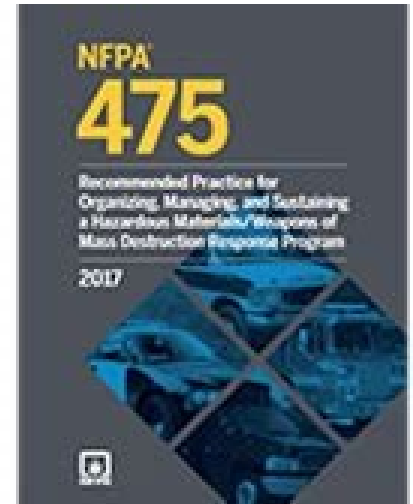
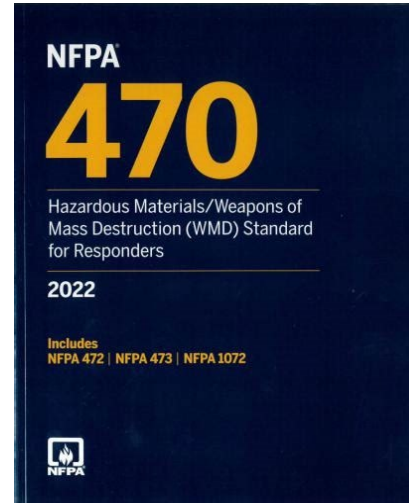


2023 Hazmat Roundtable

NFPA Hazmat Standards Committee Update

NFPA 470 & 475

- Who are we?
- What do we do?
- What are we working on?
- What are the results?
- When can we expect them?



NASTTPO UPDATE

Tim Gablehouse, Board Member NASTTPO, Gablehouse Granberg LLC

NASTTPO ISSUES /INITIATIVES

A decorative graphic consisting of multiple overlapping, wavy lines in various shades of green, ranging from light lime to a darker forest green. The lines flow from the left side of the page towards the right, creating a sense of movement and depth.

Timothy R Gablehouse

Member, Colorado Emergency Planning Commission (SERC);
Board Member Colorado Emergency Preparedness Partnership, Inc.
Past-President, Board Member NASTTPO
Attorney, Gablehouse Granberg LLC

POLICY RESPONSES TO THE ROUNDTABLE REPORTS

- **TWO PRIMARY CONCEPTS:**
 - **ADEQUATE EMERGENCY PLANNING IS A CIVIL RIGHT**
 - The process is key.
- **LITIGATION OCCURS UNDER THE CIVIL RIGHTS ACT**
 - Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d et seq
- **LITIGATION OFTEN LINKED WITH THE ADA**
- **STATES AND LOCAL GOVERNMENTS ARE THE TARGET**
- **LACK OF PUBLIC INVOLVEMENT IS THE TYPICAL FAILURE**
- **LEPCs ARE KEY TO ADDRESSING THESE ISSUES**

PATH FORWARD - 1

- **THE PLANNING PROCESS INVOLVES ALL STAKEHOLDERS**
 - **What are the realistic risks in your community?**
 - **What are the current community capabilities re those risks?**
 - **Whole of community – not only responders**
 - **awareness, education, planning**
 - **Compare risks with capabilities – (public and private)**
 - **Outcome is identification of gaps in current preparedness**
- **And then -**

PATH FORWARD - 2

- **Measuring the success of the planning process**
 - Create strategic plan to prioritize & close capability gaps
 - Prioritization requires involvement across the entire community
- **Results in a step-wise approach to filling gaps**
- **Our progress can be measured**

This process is our defense civil rights and ADA violations

Requires high expectations for participation and persistence.

WHAT DO WE NEED TO DEVELOP

- **NASTTPO guidance documents for LEPCs**
 - **Public access to information**
 - **Climate change**
- **Training on Advanced issues**
 - **Planning process training and guidance**
 - **ASTM STANDARD E3241**
 - **Civil Rights and EJ**

DEMONSTRATE SUCCESS

- We live in a world of metrics.
- We are not successful unless we can measure something that shows we are successful.
- We can define that for our programs or let others define it.
 - *20-20 hindsight*



Timothy Gablehouse

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303.572.0050

CHEMPREP OVERVIEW

Adam Leary, DHS Countering Weapons of Mass Destruction (CWMD) Office
| Operations Support, Chemical Support Chief



Homeland
Security

May 2023

ChemPREP Overview

Adam D. Leary

Countering Weapons of Mass Destruction Office (CWMD)

U.S. Department of Homeland Security

CWMD Mission

CWMD leads DHS efforts and coordinates with domestic and international partners to safeguard the United States against CBRN and related threats.



CWMD's Chemical Support Branch

- *The Chemical Support Branch develops and supports efforts that enable and empower SLTT partners and DHS components towards preventing, protecting against, and rapidly responding to chemical incidents.*
- Lines of Effort:
 - Technical Expertise
 - Intradepartmental, Interagency, and International Coordination
 - Enhancing Preparedness for SLTT partners
 - Supporting Our DHS Operational Components
 - Operationalizing Intelligence and Technical Information

Overview – What is ChemPREP

- CWMD's program to partner with SLTT stakeholders to:
 - Examine each local jurisdiction's unique chemical risks and vulnerabilities
 - Assess their ability to respond
 - Recommend actions to enhance their readiness
 - Connect jurisdictions with other federal resources to improve coordination and overall preparedness
- Tailored approach
- The approach is not always linear.
- Engagements are not “one and done.” We are building partnerships.
- We are building out elements of all the steps of the process, that can then be tailored to each jurisdiction.



Homeland
Security

The Past Informs the Present

Observations from History and Experience

- Responders often *operate within “fog of war”* during the early stages of an incident.
- Chemical identification *may not occur* for hours and days.
- Response personnel *may not have adequate resources* to triage, decontamination, and treat large numbers of chemical exposures.
- Victims *may self-transport* to hospitals.
- Public may behave *disproportionally* and further confound resources.



These observations led to the
Chemical Defense Demonstration Cities Initiative

Chemical Defense Demonstration Cities Initiative



Baltimore – Subway



*Houston – Sports
Arena/Rail/Port*



New Orleans – Ports



Nassau Co – Sports Arena



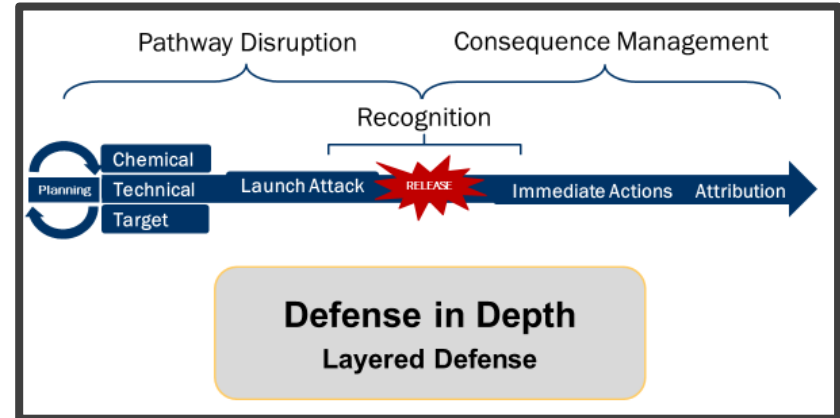
Boise – Sports Arena

- In pursuit of answers to a big question: What does it mean to achieve “preparedness” against chemical threats?
- Initiative: Multi-year project to systematically evaluate selected U.S. jurisdictions.
- Approach: Scenarios Drive Assessment and Optimization
- Outcomes:
 - A structured assessment framework to assess capabilities/generate requirements
 - Identified generalizable focus areas and best practices to share

Optimizing Local Chemical Defense Systems (1 of 2)

Key Findings – Challenges – Opportunities

- Lack **tailored chemical-specific risk assessments** for specific venues and communities
- Treating the **community's entire emergency response system** as a systems engineering problem (**understand the interdependency** of relationships, resources, and components)
- Diminishing local response leaders with experience and **expert decision-making skills** (compromised decision-making capabilities)
- Lack **“Whole Community” CONOPS** focused on critical decision-making and information sharing strategies
- Prevention and response activities are not focused on **highest impact critical actions.**

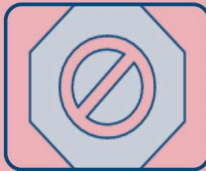


Three Key Areas to Optimize Highest Impact Critical Actions



Early Recognition

- Use all available sources to recognize incident and rapidly deploy personnel and assets.



Stop the Exposure

- Minimize exposure to population-at-risk with rapid, efficient decontamination and crisis/risk communication to population.



Treat the Wounded

- Treat victims (physically/psychologically wounded) with MCM, psychological first aid, etc. to alleviate and reduce adverse human health outcomes.

Process for Optimizing Chemical Preparedness

ChemPREP

ENHANCING PREPAREDNESS
THROUGH PARTNERSHIP

Assess Threat and Vulnerability

- Conduct jurisdiction-specific chemical inventory and commodity flow.
- Develop prioritized threat/vulnerability and unmitigated risk profile.

Develop Scenario and Conduct Workshop

- Build tailored scenario(s) from threat profile with accompanying modeling and visual aid products.
- Conduct discussion-based workshop(s) using scenarios to drive analysis and evaluate existing policies, plans, and capabilities and formulate improvements and optimizations.

Analyze Capabilities and Develop Decision-Making Framework

- Analyze existing capabilities to identify community-specific gaps, strengths, and leverage points.
- Develop jurisdiction-specific cognitive decision making framework using a holistic systems-based approach to preparedness.

Align and Optimize Capabilities

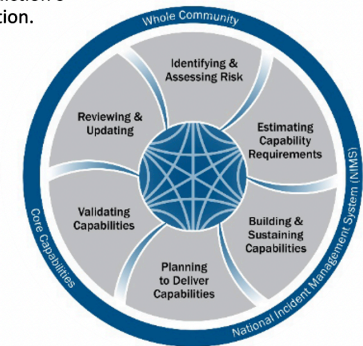
- Connect local jurisdiction with federal resources to close gaps using the Federal Chemical Preparedness Capabilities Resource Catalog, which includes best practices, guidance, grants, and other preparedness resources.
- *Local jurisdiction operationalizes the findings and recommendations from ChemPREP activities.*

Validate Capabilities

- Assess preparedness through discussion/operational based exercise(s) to validate plans and test capabilities.
- Deliver an exercise overview, analysis of capabilities, and a list of corrective actions for local jurisdiction's consideration.

Continuous Improvement

- *Local jurisdiction reviews Improvement Plan and makes corrective actions to update capabilities and preparedness system.*
- Establish regular engagement timeline to support future community needs post-ChemPREP implementation.



National Preparedness System, *Comprehensive Preparedness Guide 101*



Homeland
Security

ChemPREP

ENHANCING PREPAREDNESS
THROUGH PARTNERSHIP

Interested in working with us?

ChemDefense@hq.dhs.gov



Provide your contact
information via this QR code



Homeland Security

CHEMICAL & BIOLOGICAL INCIDENTS

Ward Quayle & Chuck Lineback | FEMA

Key Planning Factors and Considerations For Response to and Recovery from Chemical & Biological Incidents

2023 Hazmat Roundtable



FEMA



Mission of the CBRN Office

Helping our nation prepare for, respond to, and recover from chemical, biological, radiological and nuclear (CBRN) emergencies, including hazardous materials (HAZMAT) and weapons of mass destruction (WMD) incidents.



FEMA



Chemical and Biological Incidents

- Often complex and occur without warning
- Pose many unique challenges that impact traditional approaches to key response and recovery goals such as the preservation of life, property, and the environment; promotion of economic stability; and meeting basic human needs



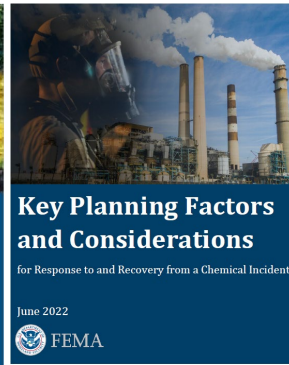
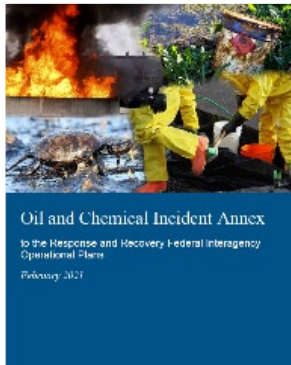
Chemical and Biological Planning Documents

- Federal interagency frameworks for disaster preparedness, prevention, mitigation, response, and recovery are provided through a suite of documents—the Federal Interagency Operating Plans (FIOPs):

- Incident type-specific guidance is available through specialized annexes.

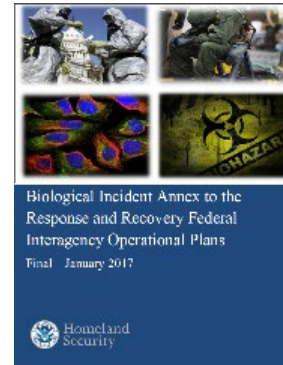
- **Chemical Incident Planning Documents:**

- Oil & Chemical Incident Annex (OCIA)
- Chemical Key Planning Factors (Chem KPF)



- **Biological Incident Planning Documents:**

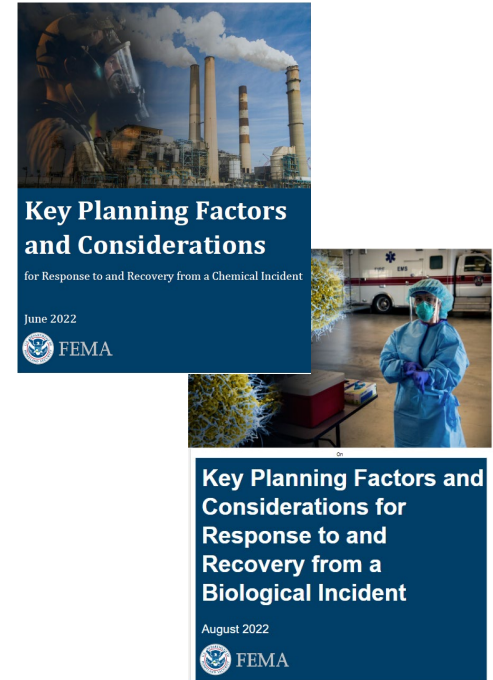
- Biological Incident Annex (BIA)
- Biological Key Planning Factors (Bio KPF)



FEMA

Key Planning Factor Guidance Considerations

- Follows the Synchronized Operational Areas described in the *CBRN Incident Annex's to the Response and Recovery Federal Interagency Operational Plans* (BIA, OCIA, and others)
- Prompts jurisdictional response and recovery planners to consider the key planning factors for chemical and biological incident response
- Provides specific, "user-friendly" information related to chemical and biological incidents that can be added to existing plans
- Designed for regional, state, local, Tribal, and territorial planners
- Does not encompass the totality of the planning process nor all issues, but provides a foundation for planning



What is a Key Planning Factor?

- Key Planning Factor (KPF):
 - Informs critical pre-event, response, and recovery planning, including considerations for planning that may occur after the incident onset
 - Leads to knowledge that can greatly influence the response and recovery process (reduce cost, increase speed, etc.)
 - Explains how a chemical or biological incident varies from a more traditional emergency



FEMA



What the KPFs Provide

- Chemical and biological specific incident response and recovery considerations
- Real world incident examples
- Suggested activities to complete during planning
- Guides and prompts, leading planners through important questions to ask, contacts to make, lists to prepare, and other recommended action items, etc.
- Resource information (links and descriptions)
- Critical thinking exercises and discussion questions

While you Read

Throughout *Key Planning Factors and Considerations for Response to and Recovery from a Chemical Incident*, you will find a system of specialized callout boxes which denote opportunities to take action, coordinate with other governments or agencies, or reference external materials. A guide to those specialized callout boxes is provided here.

Action Item

A suggested activity to complete during planning

Coordination Opportunity

An example of interagency coordination highlighted in the content

Refer To

Guidance for locating more information from a separate resource

What Would You Do?

A critical thinking exercise or discussion question



FEMA



Key Planning Factors and Considerations For Response to and Recovery from a Chemical Incident

Chem KPF Guidance Considerations

- Follows the Synchronized Operational Areas described in the *Oil and Chemical Incident Annex to the Response and Recovery Federal Interagency Operational Plans*
- Prompts jurisdictional response and recovery planners to consider the key planning factors for chemical incident response, including considerations for planning that may occur after the incident onset
- Provides specific, "user-friendly" information related to chemical incidents that can be added to existing plans
- Designed for regional, state, local, Tribal, and territorial planners
- Prompts jurisdictional response and recovery planners to consider the key planning factors for chemical incident response



Chem KPF Document Structure

- “Prime the Pump” Pre-Event Planning
- Recognize and Characterize the Incident
- Communicate with External Partners and the Public
- Control the Spread of Contamination
- Augment Provision of Mass Care and Human Services to Affected Population
- Augment Provision of Health and Medical Services to Affected Population
- Augment Essential Services to Achieve Recovery Outcomes



Chem KPF: Additional Resource Sections

- Federal Preparedness, Response, and Recovery
- Planning, Decision Support, and Modeling Resources for Chemical Incidents
- Appendices:
 - Chemical Substances and Hazard Information Resources
 - Health Effects of Chemical Exposure: Toxidromes
 - Chemical Incident Policy, Legislation, and Regulations
 - Chemical Planning and Notification Requirements for Responsible Parties
 - Environmental Containment and Remediation Options
 - Medical Countermeasure Distribution Process
 - Federal Funding for Incident Response
 - Emergency Support Functions (ESFs)
 - CBRN Emergency Response Assets and Teams

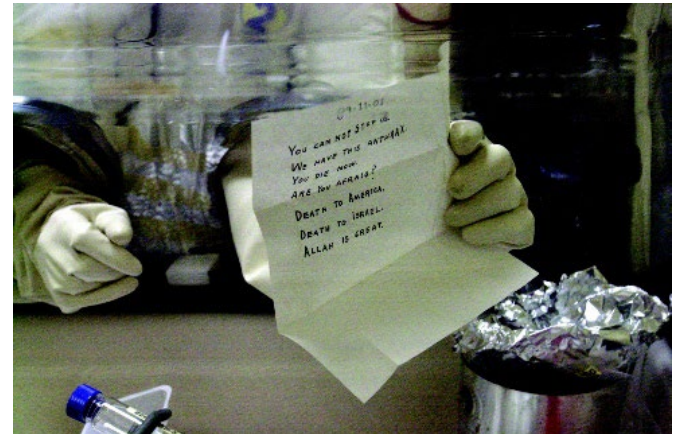




Key Planning Factors and Considerations For Response to and Recovery From Biological Incidents

Bio KPF: Crosscutting Considerations

- Intersection of public health, healthcare, emergency management, and potentially law enforcement officials' roles and responsibilities during response
- Review of past biological incidents and lessons learned such as Amerithrax, Ebola Virus Disease (EVD), coronavirus disease 2019 (COVID-19)
- Understand the similarities and differences between biological incidents using various defining characteristics to inform response and recovery considerations and inform corresponding decision making



Bio KPF: Detect and Characterize the Threat

- Determine the extent of the incident and verify the identity, viability, and infectivity of the involved pathogen
- Characterizing the incident will help:
 - Reduce morbidity and mortality
 - Ensure the effective use of resources
 - Prevent the spread of contamination and occurrence of secondary infections
 - Reduce the overall economic impact of the incident
- Ensure awareness of detection strategies and limitations:
 - Passive recognition detection systems/surveillance
 - Active detection systems/technologies

Planning guidance example:

- Coordinate with public health authorities to understand how emergency management can support biological agent detection and characterization activities within plans.



FEMA

Bio KPF: Communicate with External Partners and the Public

- Communication considerations for a biological incident:
 - Safety measures and risk guidance
 - Areas to avoid, movement restrictions, evacuation and/or transportation modifications
 - Availability of medical and non-medical countermeasures
 - Locations of supportive care and treatment facilities
 - Self-decontamination and shelter-in-place messaging to save lives in affected populations after an intentional biological incident

Planning guidance example:

- Work with epidemiological/public health experts to understand how best to communicate the data informing decision-making



DC Homeland Security & Emergency Management
@DC_HSEMA

DC Health Department monitoring Swine Flu situation.
No cases in DC; for more information:
<http://doh.dc.gov>

11:22 AM · Apr 27, 2009 · Twitter Web Client



FEMA

Bio KPF: Control the Spread of Contamination

- Controlling the spread may involve non-pharmaceutical interventions (NPIs), medical countermeasures (MCMs), and/or environmental containment/source reduction.



Planning guidance examples:

- Implementation of types of NPIs (personal, community, and environmental) to control disease spread
- Provision of effective MCMs to prevent, mitigate, or treat adverse health effects:
 - Pre- and post-exposure prophylaxis
 - Therapeutics
 - Diagnostic tests
 - PPE

Bio KPF: Augment Provision of Mass Care and Human Services to the Affected Population

- Unique considerations will be needed for planning due to issues such as contamination spread including:
 - Shelter-in-place/restricted movement
 - Alterations in feeding operations
 - Evacuation/post-evacuation needs
 - Public fear and mental health impacts
- Innovative and creative mass care services may be needed to facilitate the distribution of emergency supplies and assistance and support the whole community.

Planning guidance example:

- Plan for special scenarios such as transporting and housing service animals accompanying people who require quarantine or isolation due to the nature of a specific biological incident.



Bio KPF: Augment Provision of Health and Medical Services to Affected Population

- Planning challenges include:
 - First responders and healthcare personnel exposure
 - Lack of pathogen-specific MCMs
 - Amplified public demand for medical and health resources/information
- Fatality management considerations:
 - Contaminated human and animal remains
 - Fatalities may be critical pieces of evidence in a law enforcement or safety investigation
 - Local morgues, funeral homes, and cremation facilities may be overwhelmed

Planning guidance example:

- Coordinate with hospitals and health care coalitions (HCCs) to ensure procedures exist for patient triage, surge decompression, patient movement, and care adaptation for biological incident response.



Bio KPF: Augment Essential Services to Achieve Recovery Outcomes

- Recovery actions may include:
 - Long-term economic support
 - Restoration of interrupted critical infrastructure operations
 - Site remediation
 - Public health surveillance and behavioral health programs
 - Community impact monitoring due to losses suffered and financial stress
 - Augmentation of essential services at varying levels

Planning guidance example:

- Bring together planners from emergency management, public health, HCCs, and other private and public stakeholders (i.e., critical infrastructure systems, business community) in impacted jurisdictions to consider and formulate recovery objectives and priorities.



Additional Resource Sections

- Planning, Decision Support, and Modeling Resources
- Appendices:
 - Examples of National-Level Notification Modalities
 - Examples of a Biological Pathogen: Detection, Verification, and Information Sharing
 - Support Functions:
 - Emergency Support Functions (ESFs)
 - Recovery Support Functions (RSFs)
 - Federal Assets for CBRN Incidents



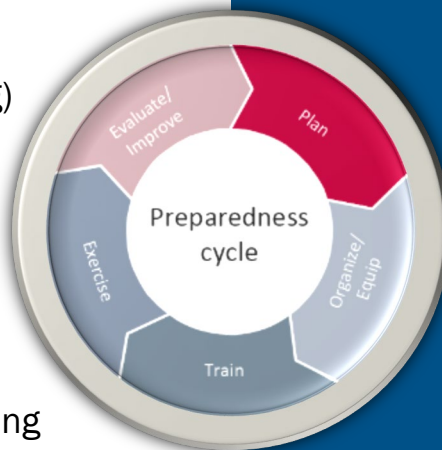


Next Steps for Chemical and Biological Incident Planning

Exercising Plans

Ensure plans are operational through:

- Identifying needs (strategy planning)
- Training
- Exercising
- Evaluating
- Updating with identified areas for improvement from activities, including post-incident



Questions?



FEMA



Contact Information:

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Emergency Management Specialist

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Ward Quayle

Emergency Management Specialist

ward.quayle@fema.dhs.gov



FEMA

<https://www.fema.gov/cbrn>



NVFC P.I.T. Crew Training Program

A partnership between PHMSA and the
NVFC and its Partners



U.S. Department
of Transportation
**Pipeline and Hazardous Materials
Safety Administration**



NVFC Hazardous Materials Response Committee

- Provides training and support to the nation's volunteer fire service on issues related to Hazmat
- Works closely with other stakeholders and partners:
 - PHMSA
 - DHS
 - TRANSCAER
 - McNeil & Company
 - Other

To date...

- We have trained over 8,000 first responders in 22 states on Li-ion batteries and ESS/BESS.
- We provided over 400 first responders in 6 states with training on “All-hazards” Planning.
- Working on the “P.I.T. Crew” Training program with a PHMSA grant:
 - At least 15 trainings across the country:
 - 8 Regional
 - 7 Local
 - 15 courses to start in a “Train-the-Trainer” format.
 - 9 more classes in the wings.



Questions?

National Volunteer Fire Council
1-888-ASK NVFC (275-6832)
nvffoffice@nvfc.org

www.nvfc.org

This training was funded by the U.S. Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) under Award #693JK32240003HMPS.



U.S. Department
of Transportation
**Pipeline and Hazardous Materials
Safety Administration**



IAFF TRAINING UPDATE

Jamie Burgess, Deputy Director | HazMat Training Department

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS



Hazardous Materials Training Department

Jamie Burgess, Deputy Director

May 2023

International Association of Fire Fighters

- The International Association of Fire Fighters (IAFF) is the driving force behind nearly every advance in the fire and emergency services in the 21st century.
- With headquarters in Washington, DC, and Ottawa, Ontario, the IAFF represents more than 335,000 full-time professional fire fighters and paramedics in more than 3,500 affiliates. IAFF members protect more than 85 percent of the population in communities throughout the United States and Canada.



HazMat Training



Federally Funded
Certification & Refresher Training
IAFF HazMat Training Advantages
Request Training
Master Instructors
HazMat Advisory Board



Pro Board® Certification

Board of Directors of
the Pro Board®
Committee on
Accreditation (COA)



Hazmat Department Training Summary 2022

Number of Grants/Contracts = 8

Total Funding = \$4,524,665 (includes Canadian CBRNE as \$500,000)

Classes Delivered = 522

Students Trained = 6,241

Contact Hours = 149,052



HazMat Training: Pro Board®



Pro Board® recognized certification from the IAFF is an indisputable mark of performance belonging to individual fire service professionals.

Pro Board® Certification

- Pro Board® Fire Service Professional Qualifications (Pro Board) Certification
- Available for the IAFF HazMat and Confined Space
- Board of Directors of the Pro Board® Committee on Accreditation (COA)



HazMat Training (1 of 2)

IAFF HazMat Training Advantages

- High quality
- Delivered at your location
- Customized to your jurisdiction
- Meets or exceeds NFPA 470/1072, NFPA 1006 and OSHA 1910.120
- National Pro Board® Certification
- HazMat Ops, Technician, Confined Space Operations & Rescue



HazMat Training (2 of 2)

Certification & Refresher Training

- Confined Space Operations* (24 hrs)
- Confined Space Rescue* (40 hrs)
- Emergency Response to Terrorism (8 hrs)
- Frontline Safety (8 hrs)
- HazMat Operations* (24 hrs)
- HazMat Technician* (80 hrs)
- High-Consequence Incidents (8 hrs)
- Responding to Drug Related Incidents (8 hrs)
- Emergency Response to Liquefied Natural Gas (8 hrs)



*Pro Board® Accredited



HazMat Advisory Board

Chairperson

Donald Stewart, MD – Medical Director for the Fairfax County, Virginia Public Safety Occupational Health Center

IAFF State and Local Presidents

Andrew Ansbro, President, IAFF Local 94, Uniformed Firefighters Association – New York City

Marty Lancton, President, IAFF Local 341, Houston Professional Fire Fighters Association

Brian Rice, President, California Professional Fire Fighters

Pat Cleary, President, IAFF Local 2, Chicago Professional Fire Fighters

Randall W. Wyse, President, IAFF Local 122, Jacksonville Association of Fire Fighters

Jeffrey L. Richardson, IAFF Local 660, Charlotte Firefighters Association

Technical Members

Christina M. Baxter, PhD – Emergency Response TIPS, LLC

Steven M. Becker, PhD – Community and Environmental Health College of Health Sciences

Jerry Chandler, PhD – National Institutes of Health

Thomas Hales, MD, MPH - Senior Medical Epidemiologist, CDC – NIOSH

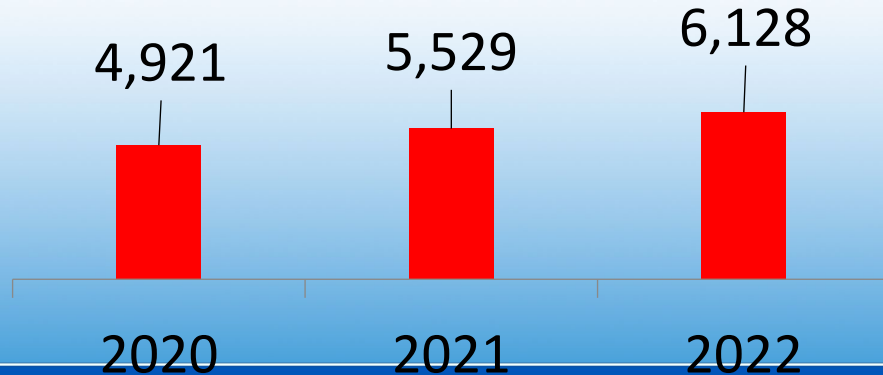
Katelynn A. Kapalo, PhD – Instructor, Executive Fire Officer, Research Psychologist – Naval Air Systems Command



Pro Board® Summary

- IAFF is one of the top 5 entities based on registration fees generated and number of certifications registered.
- To date in CY 2023 the IAFF has issued 4,171 Pro Board certifications.

Number of Certifications Issued by Year





<https://youtu.be/ZWI40HzzdM8>

Breakout Sessions and Report Backs

Survey of Issues

2022 Roundtable Emerging Issues

- Alternative energy response
- Impact of climate change on hazmat risks and challenges
- Batteries and associated emergency response concerns
- Labeling and placarding of used auto batteries that still have stranded energy charge
- Liquid Natural Gas (LNG) by rail issues, concerns, and myths
- Impact of international events on US concerns and risk perceptions
- Large scrap vehicles that are CNG powered often have fuel tanks that are not fully evacuated, presenting potential risks to responders
- Hazmat and technology to include AI, robots, drones, training technologies, and other emerging trends



Improvement Plan and Tracking Issues

Discuss emerging trends and issues discovered during breakout groups.

Roundtable Wrap-up

Roundtable Report Landing Page

<https://www.phmsa.dot.gov/grants/hazmat/hazardous-materials-emergency-response-roundtable>

The screenshot shows the official website of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The page is titled "Hazardous Materials Emergency Response Roundtable" and features a navigation menu with links for Home, About, Working with PHMSA, and Hazardous Materials Grants. The main content area includes an overview of the roundtable, a list of reports, and a sidebar with links to various grant programs and training resources.

An official website of the United States government [Here's how you know](#) ▼
United States Department of Transportation

U.S. Department of Transportation
**Pipeline and Hazardous Materials
Safety Administration**

Sign-up for Email Alerts Newsroom

Search

About PHMSA Safety Regulations and Compliance Resources

[Home](#) / [About](#) / [Working with PHMSA](#) / [Hazardous Materials Grants](#)

[Hazardous Materials Grants Program Overview](#)

[Hazardous Materials Emergency Preparedness \(HMEP\) Grant](#)

[Assistance for Local Emergency Response Training \(ALERT\)](#)

[Hazardous Materials Instructor Training \(HMIT\) Grant](#)

[Supplemental Public Sector Training \(SPST\) Grant](#)

[Community Safety \(CS\) Grant](#)

[Reports to Congress](#)

[Hazardous Materials Emergency Response Roundtable](#)

[Hazmat Incident Response Training Resources](#)

Hazardous Materials Emergency Response Roundtable

Overview

The purpose of the November 12, 2022, virtual Roundtable meeting was to review the issues and action recommendations made in the 2019 and 2021 Roundtable meetings, to report on ongoing work that has been done since 2021 to address those issues, and to thereby help prepare Roundtable members for the work to be done in the next in-depth Roundtable meeting that is planned for spring 2023. Included below in this report are:

1. A summary of the action recommendations from the 2019 and 2021 Roundtable meetings that were reviewed in this meeting
2. Summaries of the reports from Roundtable attendees and participating federal agencies on work that has been ongoing since 2021 to address the 2019-2021 recommendations
3. Emerging hazmat issues that need to be addressed in future Roundtable discussions
4. Next steps in the continuous Roundtable initiative

Reports

[2022 Hazmat Roundtable Report](#)

[2021 Hazardous Materials Emergency Response Roundtable Report](#)

[2019 Hazardous Materials Emergency Response Roundtable Report](#)

Questions • Comments

Eddie Murphy

Email: Eddie.Murphy@DOT.gov

Office: 202-366-7043

Cell: 202-734-9122

Thank You



PHMSA By the Numbers

3.3 Million

Miles of Regulated Pipelines

1.2 Million

Daily Shipments of
Hazardous Materials

16,700

Underground Natural Gas
Storage Wells

1.6 Billion

Tons of Hazardous Materials
Shipped Annually by All
Modes

64%

of U.S. Energy Commodities
Transported by Pipeline

Appendix D: Consolidated View of Issues and Recommendations

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
13	Information Sharing	Federal agencies (e.g., PHMSA, EPA, USFA, and FEMA) and key stakeholder groups (e.g., IAFC, IAFF, and NVFC) involved with emergency preparedness need consistent and sustainable ways to share critical information.	7	3	0	1	To facilitate long-term continuity, Hazmat Roundtable participants should consider designating one organization as the Secretary to facilitate long-term continuity.	The Hazardous Materials Roundtable should be conducted annually, and the Roundtable Report should be viewed as a "living" document. To facilitate long-term continuity, Roundtable participants should consider designating one organization as the Secretary to facilitate long-term continuity.
14	Information Sharing	Both short-term and long-term processes for sharing critical information on emerging trends and issues among stakeholders are needed.	6	4	1	0	Support the timely and effective dissemination of critical information on emerging threats, risks, and agency capabilities to facilitate both short-term and long-term HazMat/WMD emergency preparedness activities.	Current examples include alternative emergency sources, labeling and placarding of used EV batteries, impact of international events on US concerns, etc.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
20	Hazmat Training & Funding	The process for applying for grants can be confusing and challenging, especially for volunteer organizations.	5	4	1	1	Consider the Georgia experience of providing a playbook for each type of grant funding available. The Federal equivalent can be found at grants.gov.	
12	Planning & LEPC/TERC Performance	Underperforming LEPCs are lacking strong leadership and have low membership.	5	3	2	1	Improve LEPC Membership and Leadership.	Provide Federal guidance to SERCs on strategies and best practices to increase the commitment and involvement level of LEPC members. Such strategies may include exploring a regional approach rather than local LEPC format in areas where appropriate.
21	Funding Hazmat Training Planning & LEPC/TERC Performance	Community awareness and education regarding HazMat and all-hazard risks and the LEPC role in preparedness need to be increased to improve preparedness.	5	2	4	0	Improved integration of environmental issues into the FEMA Threat and Hazard Identification and Risk Assessment (THIRA) process.	

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
19	Hazmat Training & Funding	The use of grant funding is often limited.	4	4	3	0	Agencies should look for opportunities to provide enhanced flexibility in the application and use of grant funds.	
24	Funding Planning & LEPC/TERC Performance	Local elected officials are not informed enough about their area's operational needs and capabilities, HazMat risks, and gaps.	4	3	3	1	The Authority Having Jurisdiction (AHJ) should be responsible for determining the level of HM services to be provided.	
25	Funding & Prevention/Mitigation	Disaster preparedness efforts often underestimate the risks of local HazMat releases during disasters.	4	3	3	1	Mitigate risks caused by natural disasters.	Expand Federal disaster recovery and mitigation grant requirements and instructions to include risk reduction and mitigation measures pertinent to hazardous materials facilities and related infrastructure.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
17	Hazmat Training	An increasing number of emergency responders have limited time for hazard specific training due to the myriad of training requirements already in-place (e.g., EMS, Fire, Rescue, Hazmat, etc.)	4	2	4	1	Training activities must include more advanced and immersed simulations.	
9	Prevention/ Mitigation	More HM emergencies could be avoided if local HM risks were better managed.	4	1	2	4	Risk reduction priorities should be expanded to include prevention and mitigation at all levels (Federal, state, local, and Tribal).	
4	Risk-Based Response & Preparedness	Information and guidance addressing emerging threats and risks are not released in a timely manner.	3	6	2	0	Improve science and evidence-based data for RBR.	Establish a single online point-of-access website for information on current Federal, industry, and academic research activities exploring HazMat data of importance to RBR incident decision-making.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
11	Planning & LEPC/TERC Performance	Increased community awareness and education regarding HM, all-hazard risks, and the LEPC's role improve preparedness.	3	5	2	1	Improve Community Awareness and Education.	Provide guidance and training programs to instruct LEPC members on how to set up and manage an LEPC public education program.
8	Prevention/Mitigation	Few jurisdictions fund HM prevention efforts because funding tends to go to activities that are viewed as higher priorities due to their immediacy or perceived risk exposure.	3	4	2	2	Improve local zoning, transportation routing, and land-use planning.	Develop new online and hands-on training and informational programs on commodity flow studies, how to conduct them, and how to use the data results in HazMat preparedness.
5	Risk-Based Response & Preparedness	RBR decision making does not include controlling impacts on critical infrastructure systems.	3	4	3	1	Improve science and evidence-based data for RBR.	Establish a technical expert body associated with the single point-of-access (above) that will apply a consensus process to translate emerging scientific findings into brief and concise protocols.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
2	Risk-Based Response & Preparedness	Hazmat response capabilities and services at the local/regional level do not utilize a risk-based response (RBR) which results in inconsistent responses to emergencies that involve hazardous materials.	3	4	4	0	Strengthen emergency response systems.	Ensure that the Federal HazMat response community collaborates with the Congressional Fire Caucus and related fire/HazMat-centric advocacy groups to champion efforts to address this challenge, such as more fire grants to communities, tax deductions for fire service work, etc.
6	Prevention/Mitigation	Opportunities for HazMat prevention and mitigation are often being missed at the local level.	3	4	4	0	Improve local HM prevention/mitigation policies and metrics.	Ensure that Federal agencies with missions that include HazMat preparedness collaborate establish parallel policies for measurable local HazMat prevention and risk-reduction initiatives as a requirement in their respective HazMat regulatory and grant support programs.

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
15	Information Sharing	The concept of the Hazmat (HM) Information Center (Fusion Center) should be revisited as a tool for information sharing between Federal agencies and the emergency preparedness community.	3	3	2	3	Revitalize the concept of the HM Information Center with greater emphasis on sharing of critical information. Note: Should not include sensitive or classified information.	The initial focus of the HM Information Center was too broad and should be focused on information sharing both to/from the emergency preparedness community to Federal agencies with an initial focus on HM transportation and response information.
28	Hazmat Training Risk-Based Response & Preparedness	RBR training and curricula delivery strategies need to be improved through better instruction and modernization.	3	3	2	2	Improve RBR training strategies similar to the ICS/NIMS concept.	Establish an online RBR curriculum center in which instructors, curriculum designers and training system managers can share ideas, lessons learned, and information about available resources to improve RBR instruction in existing incident response training nationally. Reduced incidents and generational turnover in emergency services = less field experience.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
16	HazMat Standard of Care	Regulations do not accurately reflect a number of current emergency response and health, and safety issues including the selection of PPE, decontamination practices, and the utilization of risk-based response processes.	3	3	4	1	Encourage the updating of Federal regulations for HazMat emergency response (OSHA 29 CFR 1910.120.q) to more accurately reflect current response issues, scenarios, and related challenges.	
27	Hazmat Training HazMat Standard of Care	Training has not been focused on volunteer organizations and their challenges.	3	2	5	0	Need to develop curricula that addresses the challenges of volunteer organizations. Attendees noted concepts and processes outlined in NFPA 1710/1720 – Standard for Organization and Deployment of Fire Suppression Ops by Career and Volunteer Fire Departments as a possible path forward.	

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
7	Prevention/Mitigation	Federal disaster funding programs do not include HM prevention and mitigation measures as much as they should.	2	6	2	0	Improve local HM prevention/mitigation policies and metrics.	Provide guidance for local community leaders that provides simplified metrics and hazard risk indicators to help them better understand the HazMat risks in their communities.
2	Risk-Based Response & Preparedness	Hazmat response capabilities and services at the local/regional level do not utilize a risk-based response (RBR) which results in inconsistent responses to emergencies that involve hazardous materials.	2	5	4	0	Strengthen emergency response systems.	Provide stronger regional technician-level systemic support, especially in rural areas, and other support services to local communities to strengthen local initial response capabilities.

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
26	Funding & Prevention/Mitigation	There are lost opportunities for avoiding HazMat emergencies due to the absence of prevention and mitigation efforts.	2	4	4	1	Improve HM facility operations, inspections, and code enforcement activities.	Foster Federal risk mitigation grant funding to small local HazMat facilities. FEMA, EPA, USDOT and other Federal agencies with HazMat risk reduction missions could work with the Small Business Administration and industry professional associations to explore strategies for Federal risk mitigation grant funding support to small local facilities.
22	Funding Hazmat Training Planning & LEPC/TERC Performance	Supplemental funding is needed to support the transition from HazMat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.	2	3	4	2	Enhanced state and national-level training efforts for LEPC members.	

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
23	Funding Planning & LEPC/TERC Performance	Additional funding is needed to support the transition from HazMat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.	2	3	5	1	Improve LEPC Funding and access to Hazard Mitigation Grants.	Ensure that hazardous materials are an eligible risk under FEMA mitigation grants, and that LEPC coordination is a requirement in Federal mitigation planning.
18	Hazmat Training	Most curricula and training requirements focus on baseline standards, not region-specific standards.	2	2	5	2	Need to develop curricula based on local/regional threats and advanced or region-specific standards.	
3	Risk-Based Response & Preparedness	There are different perspectives of what RBR is and how it can be applied in planning, prevention, and response situations.	1	5	5	0	Strengthen national recognition and support for risk-based response (RBR).	Develop consensus clarification of the definition of RBR in NFPA 470—Standard for Hazardous Materials Emergency Response.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
1	Risk-Based Response & Preparedness	Initial operations-level responses at the local level are reduced because of the decreased number of firefighters and staffing challenges of emergency services personnel.	1	3	4	3	Strengthen national recognition and support for risk-based response (RBR).	Ensure RBR is included in all Federal and association references and guidance regarding emergency preparedness.
2	Risk-Based Response & Preparedness	Hazmat response capabilities and services at the local/regional level do not utilize a risk-based response (RBR) which results in inconsistent responses to emergencies that involve hazardous materials.	1	3	4	3	Strengthen emergency response systems.	Develop guidance for community leaders on the recruitment and retention of volunteers, including sharing best practices lessons learned and tips/techniques from communities who are successfully maintaining a strong volunteer service.

HazMat Roundtable Meeting Report • May 9–10, 2023

Survey Question #	Improvement Area	Issue	Critical	High	Medium	Low	Recommendations	Solution
10	Planning & LEPC/TERC Performance	The transition from HazMat-only to all-hazard preparedness is slow, and more support is needed.	0	7	3	1	Assist LEPCs transition to all-hazard preparedness, as appropriate.	Increase Federal support/endorsement for LEPC transition.

Appendix E: HazMat Roundtable Issue Prioritization Survey Questions and Results

Please review the following HazMat Roundtable issues and prioritize each issue using the following key as your guide:

- Critical: Address right away (FY 2023)
- High: Address within the next 12-18 months
- Medium: Address within 24 months
- Low: Address after 24 months

14 total responses

Risk-Based Response & Preparedness

1. Initial operations-level responses at the local level have reduced because of the decreased number of firefighters and staffing challenges of emergency services personnel.
 - a. Critical: 29%
 - b. High: 21%
 - c. Medium: 29%
 - d. Low: 21%
2. HazMat response capabilities and services at the local/regional level do not utilize a risk-based response (RBR) which results in inconsistent responses to emergencies that involve hazardous materials.
 - a. Critical: 21%
 - b. High: 50%
 - c. Medium: 29%
 - d. Low: 0%
3. There are different perspectives of what RBR is and how it can be applied in planning, prevention, and response situations.
 - a. Critical: 14%
 - b. High: 43%
 - c. Medium: 43%
 - d. Low: 0%

4. Information and guidance that address emerging threats and risks are not released in a timely manner.
 - a. Critical: 29%
 - b. High: 50%
 - c. Medium: 21%
 - d. Low: 0%

5. RBR decision making does not include controlling impacts on critical infrastructure systems.
 - a. Critical: 36%
 - b. High: 29%
 - c. Medium: 29%
 - d. Low: 7%

Prevention/Mitigation

6. Opportunities for HazMat (HM) prevention and mitigation are often missed at the local level.
 - a. Critical: 21%
 - b. High: 57%
 - c. Medium: 21%
 - d. Low: 0%

7. Federal disaster funding programs do not include HM prevention and mitigation measures as much as they should.
 - a. Critical: 36%
 - b. High: 50%
 - c. Medium: 14%
 - d. Low: 0%

8. Few jurisdictions fund HM prevention efforts because funding tends to go to activities that are viewed as higher priorities due to their immediacy or perceived risk exposure.
 - a. Critical: 43%
 - b. High: 29%
 - c. Medium: 14%
 - d. Low: 14%

9. More HM emergencies could be avoided if local HM risks were better managed.
 - a. Critical: 29%
 - b. High: 29%
 - c. Medium: 14%
 - d. Low: 29%

Planning & LEPC/TERC Performance

10. The transition from HazMat-only to all-hazard preparedness is slow, and more support is needed.
 - a. Critical: 14%
 - b. High: 57%
 - c. Medium: 21%
 - d. Low: 7%

11. Increased community awareness and education regarding HM, all-hazard risks, and the LEPC's role improve preparedness.
 - a. Critical: 29%
 - b. High: 43%
 - c. Medium: 21%
 - d. Low: 7%

12. Underperforming LEPCs lack strong leadership and have low membership.
 - a. Critical: 43%
 - b. High: 29%
 - c. Medium: 21%
 - d. Low: 7%

Information Sharing

13. Federal agencies (e.g., PHMSA, EPA, USFA, and FEMA) and key stakeholder groups (e.g., IAFC, IAFF, and NVFC) involved with emergency preparedness need consistent and sustainable ways to share critical information.
 - a. Critical: 64%
 - b. High: 29%
 - c. Medium: 0%
 - d. Low: 7%

14. Both short-term and long-term processes for sharing critical information on emerging trends and issues among stakeholders are needed.
 - a. Critical: 71%
 - b. High: 21%
 - c. Medium: 7%
 - d. Low: 0%

15. The concept of the HM Information Center (Fusion Center) should be revisited as a tool for information sharing between federal agencies and the emergency preparedness community.
 - a. Critical: 50%
 - b. High: 14%
 - c. Medium: 14%
 - d. Low: 21%

HazMat Standard of Care

16. Regulations do not accurately reflect a number of current emergency response and health and safety issues, including the selection of PPE, decontamination practices, and the utilization of risk-based response processes.
 - a. Critical: 21%
 - b. High: 43%
 - c. Medium: 29%
 - d. Low: 7%

17. An increasing number of emergency responders have limited time for hazard specific training due to the myriad of training requirements already in-place (e.g., EMS, Fire, Rescue, HazMat, etc.).

- a. Critical: 36%
- b. High: 29%
- c. Medium: 29%
- d. Low: 7%

18. Most curricula and training requirements focus on baseline standards, not region-specific standards.

- a. Critical: 21%
- b. High: 14%
- c. Medium: 50%
- d. Low: 14%

HazMat Training | Funding

19. The use of grant funding is often limited.

- a. Critical: 43%
- b. High: 29%
- c. Medium: 29%
- d. Low: 0%

20. The process for applying for grants can be confusing and challenging, especially for volunteer organizations.

- a. Critical: 50%
- b. High: 36%
- c. Medium: 7%
- d. Low: 7%

Funding | HazMat Training | Planning & LEPC/TERC Performance

21. Community awareness and education regarding HazMat and all-hazard risks and the LEPC role in preparedness need to be increased to improve preparedness.

- a. Critical: 43%
- b. High: 21%
- c. Medium: 36%
- d. Low: 0%

22. Supplemental funding is needed to support the transition from HazMat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.
- a. Critical: 29%
 - b. High: 21%
 - c. Medium: 36%
 - d. Low: 14%

Funding | Planning & LEPC/TERC Performance

23. Additional funding is needed to support the transition from HazMat-only to all-hazard preparedness, increase community awareness, and support underperforming LEPCs.
- a. Critical: 21%
 - b. High: 36%
 - c. Medium: 36%
 - d. Low: 7%

24. Local elected officials are not informed enough about their area's operational needs and capabilities, HM risks, and gaps.
- a. Critical: 43%
 - b. High: 29%
 - c. Medium: 21%
 - d. Low: 7%

Funding | Prevention/Mitigation

25. Disaster preparedness efforts often underestimate the risks of local HM releases during disasters.
- a. Critical: 36%
 - b. High: 29%
 - c. Medium: 29%
 - d. Low: 7%
26. There are lost opportunities for avoiding HazMat emergencies due to the absence of prevention and mitigation efforts.
- a. Critical: 29%
 - b. High: 36%
 - c. Medium: 29%
 - d. Low: 7%

HazMat Training | HazMat Standard of Care

27. Training has not been focused on volunteer organizations and their challenges.
- a. Critical: 29%
 - b. High: 36%
 - c. Medium: 36%
 - d. Low: 0%

HazMat Training | Risk-based Response & Preparedness

28. RBR training and curricula delivery strategies need to be improved through better instruction and modernization.
- a. Critical: 36%
 - b. High: 36%
 - c. Medium: 14%
 - d. Low: 14%

Other Issues

29. Are there other issues not included in this survey that need to be addressed and added to the list?
- a. Yes: 57%
 - b. No: 43%
30. Please describe the issue or issues that need to be added to the list for consideration.
- a. Critical: The Federal Agencies and partner organizations need to present a consistent message regarding the transition of LEPCs to all-hazards. This needs to be coupled with education to LEPCs/Emergency Managers/Elected Officials on the risks of civil rights/environmental justice claims against local governments. Critical: We all are failing to understand who our "customer" is for these programs. The public will not support increased funding, nor demand elected official attention unless we increase our efforts to educate the public creating awareness of risk. Most importantly this means creating appropriate expectations for local capability limitations (when responders are not coming) and a sense of responsibility for personal or business actions. If we don't, then we will continue to put the responder community in the untenable position of protecting us all the time and failing in 20/20 hindsight. I'm certain that it will be obvious who this is. Let me know if you want to discuss further before the meeting.
 - b. Current Rail Safety Bills being proposed have an opportunity to add Discretionary Grants from PHMSA straight to a local or regional jurisdiction for the development of RBR preparedness plans, hazmat responder planning, and hazmat response

- programs. These grants would be in addition to the existing HMEP Grant Program. Congress seems to be more in favor of sending these additional funding dollars to the States for administration instead, even though several states do not utilize funding that is currently available to them, turning back millions of dollars annually. The discussion about LNG by rail is back on the table in light of recent high-profile derailments. One proposed bill would add stricter regulations concerning train length, tank car inspections, and speed limitations. Those regs will only address unit trains and completely ignore single or multiple car shipments per train. The largest injustice in the bill ignores the need for additional funding for specialized responder training. Mistakes of the past concerning preparedness, planning, and training that were learned by the transportation of other alternative fuels of the past have apparently been forgotten. An audit of current planning, preparedness, and appropriate training for hazmat response once again has become into question. We still do not have a central point of information exchange addressing such things as "the effectiveness of training courses", "available credible training", and a "lack of consistent planning and preparedness across all types and sizes of jurisdictions".
- c. A need for management regulations for managing teams and organizations, a lack of standardized minimum training at the operations level for responders (not awareness), need for community specific hazard training requirements, need for dedicated funding streams at local, state, and federal levels for HM planning, training, and equipping,
 - d. Evolving technology that will impact HM response; energy storage / transition, artificial intelligence (good and bad uses), evolving global terrorism threats.
 - e. HAZMAT and all response not keeping up with technology and emerging issues HAZMAT and all response seem focused on "flavor of the week" as that is what the public is screaming for instead of looking into core and long-term improvements
 - f. Need to emphasize that the priorities are based upon the relative TIMING in which issues can be addressed (i.e., what can we do now vs. later). An issue may be viewed as critical in terms of severity and importance, but an action plan to address that specific issue may be a longer term (i.e., LOW) timing.
 - g. Basic training needs to be required
 - h. More coordination of all of the various training programs out there.

Appendix F: Online Course Catalog Survey Questions and Results

5 total responses

1. Who should be the online course catalog's sponsor? You can select one or more options from the list below.
 - a. PHMSA: 33%
 - b. IAFC: 56%
 - c. NFPA: 0%
 - d. NASTTPO: 0%
 - e. Other: 11%
2. Will the site's sponsor be responsible for managing the system on which the catalog resides (e.g., general maintenance and technical updates)?
 - a. Yes: 100%
 - b. No: 0%
3. If not, then which organization should be responsible for managing the system in terms of general maintenance and technical updates?
 - a. PHMSA: 0%
 - b. IAFC: 0%
 - c. NFPA: 0%
 - d. NASTTPO: 0%
 - e. Other: 0%
4. Who will be responsible for approving training requests to add, delete, or modify course catalog content?
 - a. PHMSA: 0%
 - b. IAFC: 40%
 - c. NFPA: 0%
 - d. NASTTPO: 0%
 - e. Other: 60%
5. Will training requests be centrally managed by one group?
 - a. Yes: 60%
 - b. No: 40%

6. If not, then how will the course catalog content be managed?
 - a. Specific host provider should manage the programs that they are responsible for.
 - b. Suggest having a murder board review process

7. Will training topics be limited to HazMat only?
 - a. Yes: 40%
 - b. No: 60%

8. If training topics should be beyond the scope of HazMat, then what other training topics should be covered in the catalog?
 - a. Because Hazmat incidents can start as another type of incident like EMS or a structure fire, case studies or information on how incident progress from one level to another. Also, information involving WMD or CBRNE should be included.
 - b. Emerging topics related that may involve HAZMAT but do not have a specific focus yet. Lithium-Ion batteries are an example of a topic that crosses multiple responsibilities. Codes and Standards. Operations, training and third-party specialists.
 - c. LEPC operations in an all-hazards world. Measuring success in emergency planning.

9. What types of training providers should be permitted to submit requests to have their training information in the catalog? You can select one or more from the list below.
 - a. Federal Training Providers: 29%
 - b. State Training Providers: 29%
 - c. Local Training Providers: 18%
 - d. Private Training Providers: 18%
 - e. Other: 6%

10. Should users be redirected to the training providers' websites to enroll in courses?
 - a. Yes: 100%
 - b. No: 0%
 - c. Other: 0%

11. Should users be redirected to the training providers' websites to learn more information about the courses?
 - a. Yes: 100%
 - b. No: 0%
 - c. Other: 0%

12. Which data elements should be collected from training providers to be included in the online course catalog. Check all that apply. Keep in mind that if you answered Yes to the previous question, consider what information would be most important for the online catalog to display versus the information shown on the training providers' websites.
- a. Name of Training Provider: 8%
 - b. Type of Training Provider (e.g., Federal, State, Local, Private): 8%
 - c. Related to Community Risk Reduction? (Yes or No): 8%
 - d. Course ID/Number: 6%
 - e. Course Name: 6%
 - f. Course Description: 6%
 - g. Course Level (e.g., Beginner, Intermediate, Advanced): 8%
 - h. Course Objectives: 6%
 - i. Prerequisites: 6%
 - j. Duration (Length of Course): 6%
 - k. Delivery Type (e.g., Online, In-person, Instructor-led (Virtual)): 8%
 - l. Number of Continuing Education Credits: 3%
 - m. Emergency Management Phase (e.g., Prevention, Mitigation, Preparedness, Response, Recovery): 3%
 - n. Instructor Name: 5%
 - o. Instructor Contact Information: 2%
 - p. Link to Course on Training Provider's Website: 8%
 - q. Other: 0%
13. If you selected Other in the previous question, please provide additional data elements that you think should be included in the online catalog in the space below.
- a. ****NO RESPONSES****
14. Please provide additional feedback or recommendations regarding the online course catalog in the space below.
- a. ****NO RESPONSES****

15. Would you be willing to participate in a working group to provide feedback on the online course catalog?

a. Yes: 100%

b. No: 0%

c. Maybe: 0%

16. Full Name

Three names were submitted.

17. Email Address

Three email addresses were submitted.