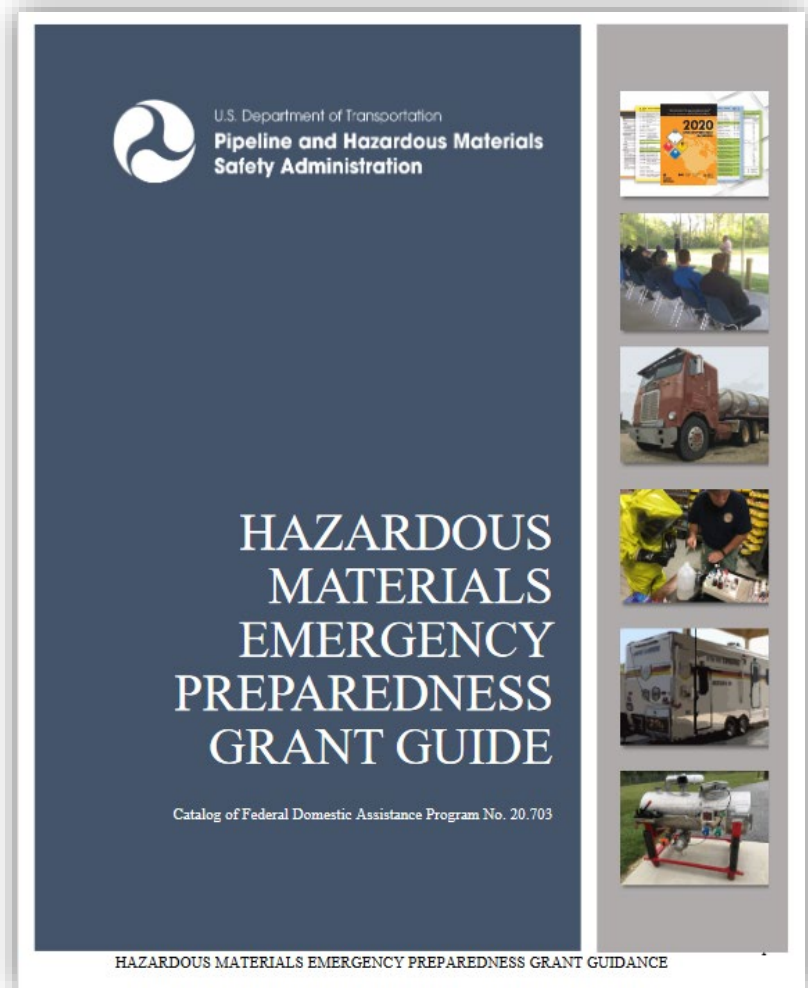


Leveraging HMEP Funds: How Texas Maximizes HMEP Funds

Michael Green
Technological Hazards Unit



**We get HMEP
funding, but
what can we
do with it?**



Texas HMEP Projects

Planning

- Hazmat Response Capability Assessment
- Texas Border Hazmat Study
- LEPC Guidebooks
- Hazmat Derailment Planning for Schools and Community Colleges
- Quick Series LEPC Pocket Guides
- Commodity Flow Studies
- Railroad Transport of Hazmat in Texas (Rail Study)
- Hazmat Transport Incident Pre-Planning Workshops

Training

- Hazmat Training Props
- Training LMS Replacement
- Rescue Specialist Training
- Mobile Training Tower
- sUAS Training
- Swiftwater Rescue Training



Hazmat Response Capability Assessment

Hazmat Incident Risks and Response Capabilities: Texas Fire Department Survey Results (Oct 2019)

- Problem
 - State of Texas did not know to what extent the citizens of the state were protected during Hazmat incidents. No system was in place to assess the capabilities of responders to Hazmat incidents and therefore assess responder training needs.
- Surveys sent out in four wave (email Oct & Dec 2018) USPS (May & Jul 2019) to over 1800 departments
- 715 responses



	Capability Tier							
	Not Close to Baseline Count	Close to Baseline Count	Baseline Count	Baseline Close to Tier 1 Count	Tier 1 Count	Tier 1, Close to Tier 2 Count	Tier 2 Count	Total Count
Greatest, it is our top hazard	71	21	1	3	0	3	3	102
Higher, more than most other hazards	179	31	2	6	0	10	4	232
Somewhere in the middle	181	14	2	3	0	4	5	209
Lower, less than most other hazards	55	3	0	0	0	2	0	60
Minimal, at the very bottom	19	2	0	0	0	1	0	22
Total	505	71	5	12	0	20	12	625



Texas Border Hazmat Study

Hazmat Transportation on the Texas-Mexico Border:
Influences and Potential Future Developments (Oct 2019)

■ Findings

- Agricultural Hazards: Agricultural activities can be as hazardous as industrial or more.
- Industrial Development: Occurring in areas with limited or no proper zoning controls.
- Rising Hazmat Transport: Transport in the RGV of refined products from the U.S. to Mexico is increasing.
- Border Staffing Issues: Inadequate staffing at the border may worsen incidents at or near Int'l Bridges.
- Petroleum Storage: Hidalgo County has extensive above-ground petroleum storage and drilling. 5th densest in Texas.
- No Rail Hazmat: No rail hazmat activity in Hidalgo County; minimal concern in Cameron County.
- Chemical Industry Growth: Mexico's chemical industry could develop into major contributor of hazmat flows.



LEPC Guidebooks

March 2019

- In 2017, then DPS-TDEM contracted with Texas A&M Transportation Institute to revise the Texas LEPC Handbook
- The new guide was a complete revision of the old handbook and incorporated new material
- A panel of LEPC experts provided input about which topics were most important for the new LEPC guide
- The guide and its associated documents built upon the EPA Region 6 guide and other LEPC guidance and research
- Ultimately, the update resulted in three different documents:
 - Executive Primer
 - Full Guide
 - Preparedness Projects for LEPCs





LEPC Guidebooks

March 2019

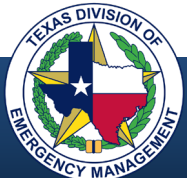
- The new guide updated all regulation and program descriptions
 - Incorporated the many changes to FEMA guidance since the last guide
 - Explained the state and federal regulatory changes to EPCRA, RMP Rule, and Ammonium Nitrate regulation following the West, Texas disaster
- It avoided the generalities of other documents
 - Focused on LEPC improvement and effectiveness
 - Provided specific, actionable items and projects with measurable results
- The new guide was unique
 - Tailored specifically to Texas LEPCs
 - Placed LEPCs inside the local/state emergency management system as a whole-community component of emergency management



LEPC Guidebooks

March/April 2019

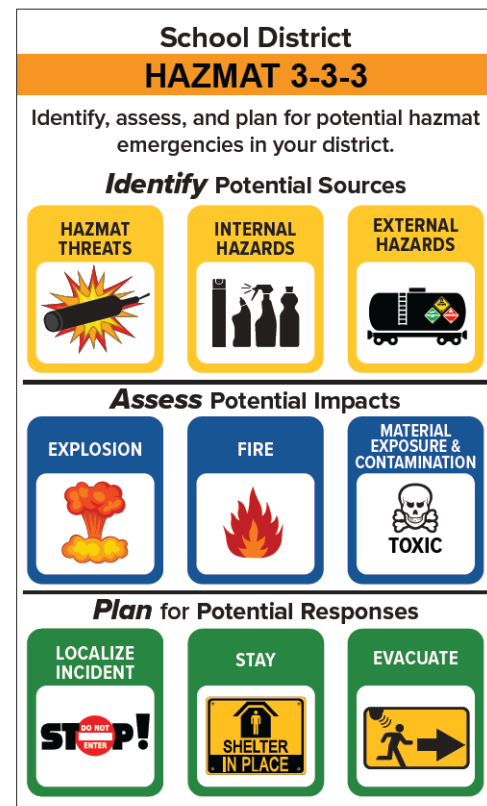
- **Executive Primer**
 - 13 pages (excluding front/back matter)
 - Basic LEPC familiarization
- **LEPC Guide**
 - 12 Modules, 6 Appendices
 - Comprehensive coverage of LEPC topics
- **Projects for LEPCs**
 - 17 preparedness projects
 - Basic to advanced difficulty



Hazmat Derailment Planning for Schools and Community Colleges

2021, Updated 2022

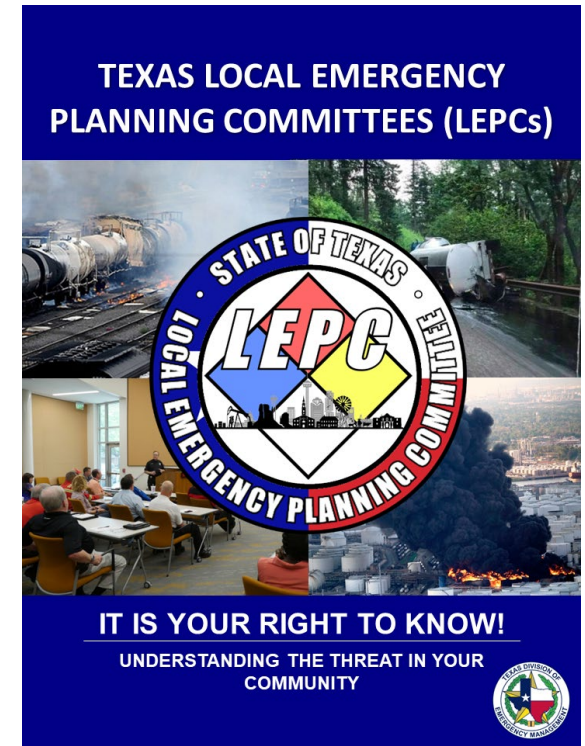
- Texas Education Code (TEC) Section 37.108 requires school districts that have a facility property line within 1,000 yards of a rail line to have a policy for train derailments in their emergency plan
- It supplements emergency planning standards and protocols published by the Texas School Safety Center.
- Uses existing emergency planning resources and structures as the basis for their 3-3-3 Hazmat Incident Framework. This simple framework helps districts understand hazmat risks and provides readily implemented solutions.
- Intro and 4 Volumes



Quick Series LEPC Pocket Guides

2022

- Designed to provide members of the LEPCs with readily available information
 - Background
 - Responsibilities
 - History of EPCRA
 - Tier II Requirements & Fees
 - Release Notification
 - Emergency Planning
 - Exercises
 - Funding
 - Important dates
 - Local/State/Federal Contacts
- The instant access eliminates the need to search through multiple books.
- Helps increase LEPC functional awareness and improve the ability to make spill/release notifications.



ISBN 978-1-68423-992-4



Commodity Flow Studies

2019-Present

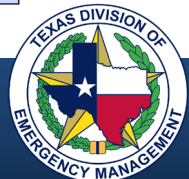
- Application period
January 1 – February 28
- Online application
- Road, Rail or Both
- Must haves:
 - a current Form 151
(LEPC Membership Update Form)
 - be an active LEPC
 - Completed App signed by
Applicant & LEPC Chair
- 2020 – 1, 2021 – 1, 2022 – 4,
2023 – 26, 2024 -3



TEXAS DIVISION OF EMERGENCY MANAGEMENT
HAZARDOUS MATERIALS EMERGENCY PREPAREDNESS
(HMEP) FY 2022-2023 APPLICATION FOR PLANNING ACTIVITIES
(Application Submission Deadline - February 28th)



1. Applicant Organization Name (LEPC Name):
2. Period of Performance (Approved projects with fully signed Interlocal Contracts can begin their projects.) Start Date: October 1 End Date: September 30
3. Date of last Signed TDEM 151:
4. Date of last LEPC meeting:
5. Population of County (For statistical purposes)
6. Date of last EOP update or HazMat Annex/ESF update:
7. Date of last Commodity Flow Study: (Input a date or N/A) ☐ N/A
If N/A explain why:
8. On a scale of 1 to 5, with 1 being least and 5 being most, how dense are your HazMat transportation corridors?
9. Is there a transportation corridor you would like to focus on?
10. In your own words, what will this study be used for?
11. LEPC Status (Only active LEPCs are eligible to apply for HMEP grant funds): ☐ Active ☐ Inactive



Railroad Transport of Hazmat in Texas (Rail Study)

2019-Present

- Hazardous Material Transport in Texas
 - Crucial for state and national economies but poses risks to populations and the environment.
 - Officials must consider these risks in emergency and disaster plans.
 - Texas aims to evaluate rail hazmat transport risks, vulnerabilities, and preparedness needs.
 - The project integrates data, assesses local response capabilities, and sets priorities for planning and preparedness.
 - A panel of public and private stakeholders provides input and feedback.



Railroad Transport of Hazmat in Texas (Rail Study)

2019-Present

- From the overall problem statement, “What are the rail hazmat transport risks, vulnerabilities, and preparedness needs in Texas?” the following questions are derived:
 - What is rail hazmat transport activity by corridor in Texas?
 - What locations are most at-risk or vulnerable?
 - How are local communities prepared, especially in at-risk locations?
 - What locations could most benefit from enhanced planning and preparedness?



Railroad Transport of Hazmat in Texas (Rail Study)

2019-Present

- At least once each year TDEM shall distribute the information compiled by TxDOT to the appropriate officials for inclusion in local emergency management plans established under Subchapter E, Ch 418, Govt Code – TX Transportation Code 193.002(g)
- With assistance from TxDOT, the reporting matrix Class 1 Railroads provided to Texas was redefined and standardized.

STCC	UN	CLASS	ERG	DESCRIPTION	YEAR	RAILROAD	COUNTY	SEGMENT	CARLOADS	RESIDUE	INTERMODAL	RESIDUE	TOTAL
5000000	1012	2.1	115	BUTYLENE	2023	ACME	Travis	Austin Subdivision	116	0	0	0	116
5000000	1017	2.3	124	CHLORINE	2023	ACME	Travis	Austin Subdivision	2644	0	0	0	2644
5000000	1018	2.2	126	CHLORODIFLUOROMETHANE	2023	ACME	Travis	Austin Subdivision	11	0	0	0	11

Example, not actual data

Commodity Standardized Reporting Data Fields

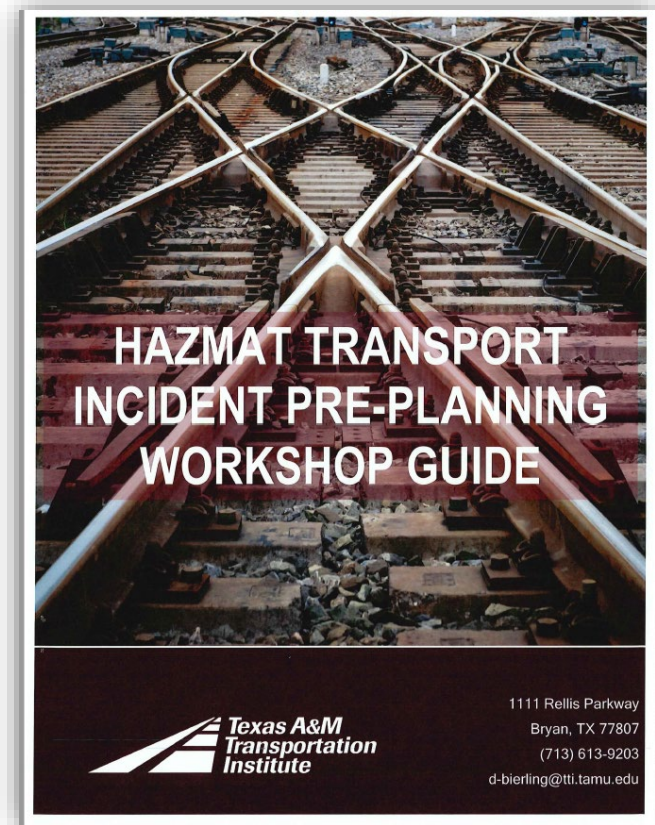
- County Name
- Subdivision Name
- Standard Transportation Commodity Code (STCC)
- UN/NA ID Number
- Packing Group
- Proper Shipping Name
- ERG Number
- DOT Hazard Class & Division (Primary & Secondary classes)
- Residue Car Total Counts
- Loaded Car Total Counts
- Residue Intermodal Total Counts
- Loaded intermodal Total Counts
- Total Counts (the above 4 fields totaled)



Hazmat Transport Incident Pre-Planning Workshops

2022-Present

- Regional Hazmat plans were found to not involve all stakeholders.
- Workshops are designed to be structured, discussion-based activities
- Planning stakeholders focus on collecting and sharing information, reaching consensus, and developing tangible outcomes
 - like procedures, plans, and agreements.



Hazmat Transport Incident Pre-Planning Workshops

2022-Present

- Learning Objectives
 - Understand the types of hazards and railroads in the area
 - Identify mutual aid considerations for Shelter In Place or evacuations
 - Identify current capabilities and resources
 - Assess gaps and needs
 - Identify next steps for response planning and coordination actions
 - Assessing response expectations
 - Planning for gaps
 - Implementing priorities
 - Evaluating improvements

Hazmat Transport Pre-Incident Planning Workshop


Regional workshop with Permian Basin communities on

- Hazmat transport in the region (focus on railroad)
- Priority hazards and vulnerabilities
- Community protective actions
- Capabilities, resources, timing
- Mutual aid

When: Thursday, June 06, 2024, 0900-1500
Where: Oxy Century Plaza, 1600 Gehrig Drive, Midland, TX 79706
Contact: Ms. Shelly Cleveland, TDEM District 9 Chief, (432) 386-6737
RSVP to: Shelly.Cleveland@tdem.texas.gov

Who: Community emergency officials with a "need-to-know" such as





- Fire/EMS, LEOs, Dispatch
- Emergency Management
- Health and Hospitals
- Public Works & Transportation
- School Districts and Higher Education
- Senior Elected Officials



SCAN TO RSVP

Description: When a major hazmat incident occurs, such as a train derailment and hazmat release, community actions and decisions count, especially during the first minutes and hours. Local officials need to assess risks, identify who and what may be affected, and take steps to protect life and property until and continuing after advanced response resources arrive. This workshop focuses on planning for community defensive actions during the first incident operational period, such as public notification, shelter-in-place or evacuation, and additional resources that may be needed through mutual aid. Attendees are **emergency officials who have a need-to-know** about and pre-plan for potential hazmat incidents in their communities.

Attendees will gain information about rail transport hazards, initial actions that were taken in other communities where there were major hazmat incidents, and recent updates to the Texas' emergency management framework. Attendees will also identify community vulnerabilities, protective actions and mutual aid partners, assess gaps, and develop plans to implement improvements in their own communities. Electronic workshop materials and printed worksheets will be provided. The meeting is hosted by Oxy and lunch is sponsored by the Permian Basin Regional Fire Training Institute – *Thank you!*





Hazmat Transport Incident Pre-Planning Workshops

2022-Present

- 2022 – (former) Region 3 - South TX
 - Weslaco, Del Rio, Corpus Christi
- 2023 – Region 7 - West TX
 - Alpine, El Paso, Midland
- 2024 – Region 3 - East TX
 - Texarkana, Beaumont, Nacogdoches/Lufkin, Longview, Paris, and Tyler potential workshop locations



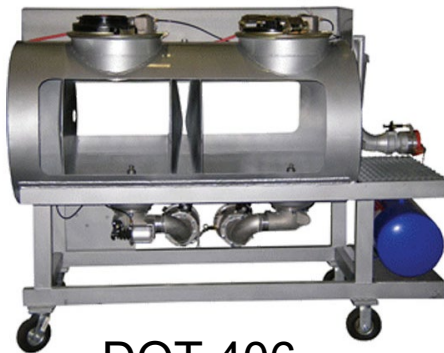
Midland Workshop
Occidental Petroleum Corp
(Oxy) Century Plaza Bldg,
June 6, 2024



HAZMAT Training Props

2018

- The units are smaller versions of the actual tank, which has all the valves, piping, emergency devices, and operational systems.



DOT-406



SAFE TRANSPORTATION
TRAINING SPECIALISTS



MC-331



DOT-407



DOT-412



HAZMAT Training Props

2018



Chemical Hydraulic Valve



True Internal Valve



Betts Valve

<https://safetransportation.com/>

1-877-330-7887

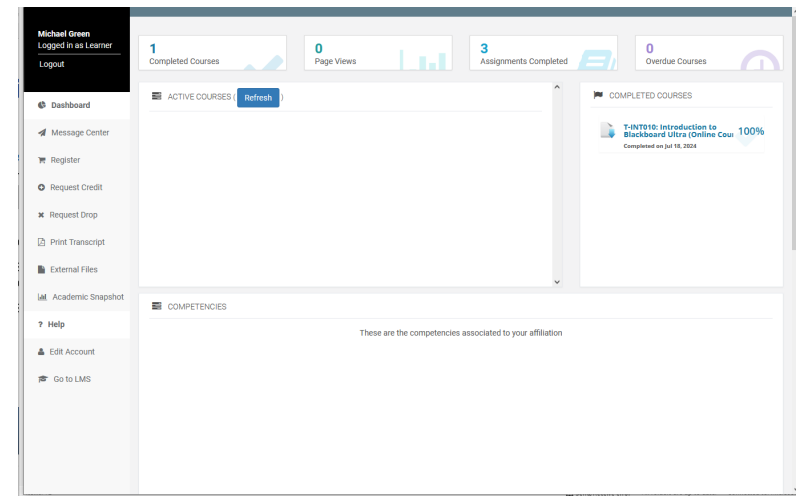
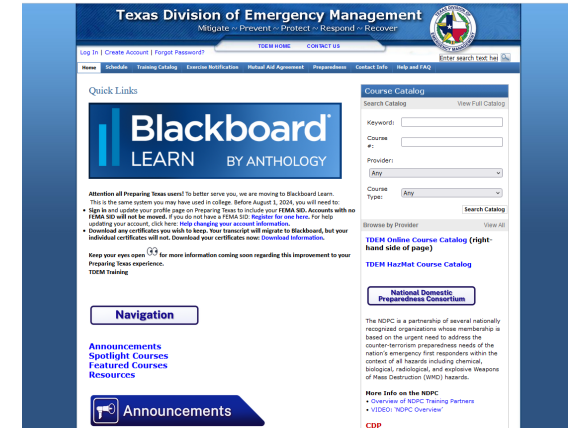


Training LMS Replacement

2021-2023

www.preparingtexas.org (PTO)

- Hazmat training uses 33% of the program.
- Used to schedule and track HMEP training courses.
- The previous edition was built in 2010 with limited capabilities
- The new edition was built by Blackboard. Brought online in August 2024 with increased capabilities
- Uses FEMA SID for User ID to reduce duplicate accounts.



Rescue Specialist Training

2020-2022

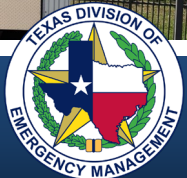
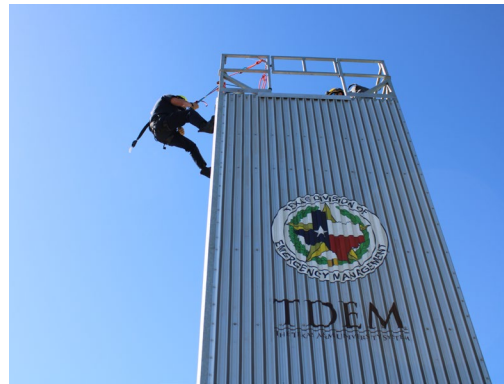
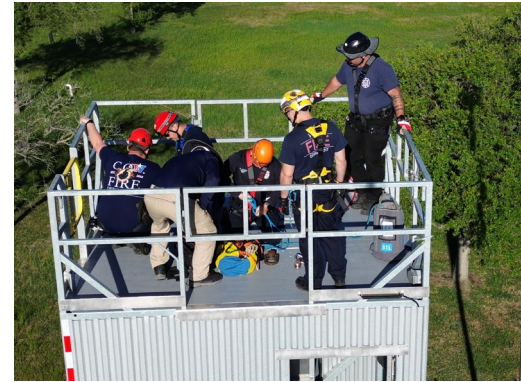
- Created after Confined Space Rescue and Trench Rescue training were updated to the 2021 Edition of NFPA 1006 from the 2013 Edition.
 - The new edition requires more Rope Rescue Training as a prerequisite.
 - Made an 80-hour combo class of Rope A&O and Confined Space Rescue Tech.
 - Students cannot be previously certified (IFSAC, Pro Board, TCFP) in either topic to attend.
 - Must attend the entire course to receive any course credit.
 - One individual Rope Rescue skill withheld until end of week two.
 - If the student does not complete this skill, they will not be certified in Rope Rescue A&O



Mobile Training Tower

2020-2022

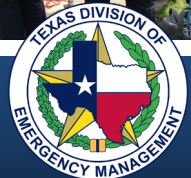
- Built to assist rural, volunteer, and underserved area departments with hosting the Rescue Specialist Training.
- Previous prop for Confined Space was a 20+ year old cargo trailer with a lot of unused space and not very challenging.
 - This was a major upgrade to the program.
- When horizontal is used for the Ropes Awareness and Operations portion.



Mobile Training Tower

2020-2022

- When vertical is used for the Confined Space Rescue Awareness, Operations, and Technician portions.
- Equipped with a smoke machine, industrial fans, interior/exterior LED lights, and a generator.
- Can also be powered by an extension cord. Has a bypass switch on the breaker panel.



sUAS Training

2022

- sUAS for Public Safety Personnel
 - Teaches the basics for the FAA Part 107 test
 - Provides flight time with different drones
- Basic to Advanced Flight Operations
 - Must have an FAA Remote Pilot license
 - Covers night ops, mission planning, UAS Air Ops Boss, aerial search for person tactics, and usage of thermography.
 - Provides flight time during class to practice new skills.



Swiftwater Rescue Training

2023

- New course just brought to the program end of July.
- Badly needed to Texas due to flash flooding issues across the state in all 8 regions.
 - Multiple major hazmat transportation corridors are subject to flash flooding.
- Has Hazmat Awareness component
 - Assess the incident site for hazardous materials (hazmat) and other environmental conditions)





Upcoming Texas Projects

- GIS Hazmat Planning Map
- Texas LEPC Phone App*
- LEPC Release of Hazardous Chemical Plan Template (Fillable PDF)
- FY24 – Starting Oct 1, 2024, All 36 H-series classes will require Hazmat Awareness as a Prerequisite (e.g. Rescue, sUAS, Swift Water, Oil Spill)



Thank You!

For More Information

Please contact us for more information about this presentation or any further information regarding any of the projects.



Michael Green

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TechHaz@tdem.texas.gov

