



MESSAGE FROM THE CHIEF

Welcome to November, Texas! The temperatures should start cooling off here soon, fingers crossed! We celebrate Thanksgiving in November, reminding us of all the things we're so thankful for: living in the great state of Texas, our families, and our first responders who keep us safe. I'd like to remind Texas emergency managers of one more thing we should be thankful for – the amazing mutual aid system we have built here in Texas.



ENERGY IN MOTION – RADIOLOGICAL EMERGENCY PREPAREDNESS IN TEXAS

Are Texans experiencing a growing problem with mutant roosters? Is radiation exposure to blame? The picture to the right suggests these beasts are capable of growing to the height of a grown man and the width of a Volkswagen Beetle. Could something as sinister as radiation be at fault? One may argue theories and beliefs that support this notion, but Google and Photoshop are generally the chief culprits. Radiation is simply energy in motion, and people experience daily exposure to radiation through earth, air, food, and water.



EMAT IS WORKING FOR YOU

Since 1987, the Emergency Management Association of Texas (EMAT) has worked to represent emergency management professionals throughout the State of Texas. The mission of EMAT is to provide an opportunity for members to shape emergency management policy and practices in Texas. Through this mission, EMAT strives to advance the professionalism of emergency management, foster relationships with other emergency management organizations, address emergency management issues, and develop and foster information sharing and mutual support networks for all phases of emergency management.



THE SILENT KILLER: CARBON MONOXIDE POISONING

Carbon monoxide (CO) is a colorless, odorless, poisonous gas that causes flu-like symptoms that are often misinterpreted after an exposure. Initial symptoms of CO poisoning, such as headache, nausea and fatigue, are often mistaken for the flu, because the deadly gas isn't detected by our sense of smell. CO poisoning is caused by inhalation combustion fumes. When too much CO is in the air you're breathing, your body replaces the oxygen in your red blood cells with carbon monoxide. This prevents oxygen from reaching your tissues and organs.

TEXAS EMERGENCY MANAGEMENT BRIEFS, TIPS AND LINKS

Find more information on events and resources for the emergency management community.

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Mutual Aid

As emergency managers we've heard the terms (or more accurately, the acronyms) a thousand times – mutual aid agreements (MAA), memorandum of understanding (MOU), etc. – but when was the last time these documents were reviewed and updated in your jurisdiction? Where is this documentation stored? Does it contain all the information needed to be eligible for reimbursement if and when the time comes? Take some time this month and review your jurisdiction's mutual aid agreements.

Did you know you can [store and manage your mutual aid agreements on preparingtexas.org](https://www.preparingtexas.org)? It's a quick and easy way to make sure participating jurisdictions have access to these documents when needed. It also provides a backup copy of these vital records (hint* hint*: COOP!).

Three Levels of Aid

Automatic Mutual Aid

Agreements that permit the automatic dispatch and response of requested resources without incident-specific approvals. These agreements are usually basic contracts; some may be informal accords.

Local Mutual Aid

Agreements between neighboring jurisdictions or organizations that involve a formal request for assistance and generally cover a larger geographic area than automatic mutual aid.



Statewide Mutual Aid

Agreements, often coordinated through the state, that incorporate both state and local governmental and nongovernmental resources in an attempt to increase preparedness statewide.

[Click here for more information on mutual aid.](#)

For more information or assistance with mutual aid, contact your Texas [State Coordinator](#) or [District Coordinator](#).

Days to Remember in November:

[Critical Infrastructure Preparedness Month](#)

[Military Family Month](#)

[Child Safety Protection Month](#)

November 5 – Daylight Savings Time Ends - [Change Your Clocks, Change Your Batteries](#)

November 17 – Take a Hike Day – [Visit a Texas State Park](#)

November 22 – [President Kennedy Assassination](#) in Dallas anniversary (1963)

November 23 – Thanksgiving



Chief W. Nim Kidd, MPA, CEM[®], TEM[®]
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The Silent Killer: Carbon Monoxide Poisonings

Carbon monoxide (CO) is a colorless, odorless, poisonous gas that causes flu-like symptoms that are often misinterpreted after an exposure. Initial symptoms of CO poisoning, such as headache, nausea and fatigue, are often mistaken for the flu, because the deadly gas isn't detected by our sense of smell. CO poisoning is caused by inhalation combustion fumes. When too much CO is in the air you're breathing, your body replaces the oxygen in your red blood cells with carbon monoxide. This prevents oxygen from reaching your tissues and organs.

Carbon monoxide poisoning can be especially dangerous for people who are sleeping or intoxicated. People may end up with irreversible brain damage or even be killed before anyone realizes there's a problem. Per the Center of Disease Control (CDC), CO poisoning causes thousands of deaths each year in the United States. It is the leading cause of accidental poisoning deaths in America. Patients who survive the initial poisoning still face the prospect of delayed neurologic dysfunction, which occurs in 14% to 40% of serious cases.

Common symptoms of CO Poisonings:

- Dull headache
- Weakness
- Dizziness
- Nausea or vomiting
- Shortness of breath
- Fast heart rate
- Chest pain
- Blurred vision
- Confusion or drowsiness
- Seizures
- Loss of consciousness

Common Risk Factors Associated with CO Poisonings

- **Children:** Young children take breaths more frequently than adults, which may make them more susceptible to CO poisoning.
- **Older adults:** Older people who experience CO poisoning may be more likely to develop brain damage.
- Depending on the degree and length of exposure, CO poisoning can cause:
 - Permanent brain damage
 - Damage to your heart, possibly leading to life-threatening cardiac complications
 - Death

Common causes of CO Poisonings

CO can come from any device that burns fuel. Common sources are cars, fireplaces, powerboats, woodstoves, kerosene space heaters, charcoal grills, and gas appliances such as water heaters, ovens, and dryers. Usually they cause no problems. Trouble comes when:

- Cars, trucks, or other engines are left running in enclosed spaces, such as garages. CO can build up in a garage and leak back into the house. Even sitting in an idling car in an open garage or swimming behind an idling boat can be dangerous.
- Fuel-burning appliances are not installed used or working properly. Dangerous levels of CO can build up inside houses and other buildings.
- Fuel-burning heating systems and appliances are used during cold weather, when doors and windows are closed. Chimneys in older buildings become blocked and release fumes into the homes or offices. Newer houses that are well insulated and tightly sealed can trap carbon monoxide inside. If you have a leak in the ventilation system, CO can spread through your home which leads to exposure.

Simple precautions can help prevent CO poisoning

- **Install carbon monoxide detectors.** Put one in the hallway near each sleeping area in your home. Check the batteries every time you check your smoke detector batteries (at least twice a year). If the alarm sounds, leave the house and call 911 or the fire department. CO detectors are also available for motor homes and boats. Understand that CO detectors are a backup safety measure. They do **not** replace the need to check appliances regularly and use them safely.
- **Open the garage door before starting your car.** Never leave your car running in your garage. Be particularly cautious if you have an attached garage. Leaving your car running in a space attached to the rest of your house is never safe, even with the garage door open.
- **Use gas appliances as recommended.** Never use a gas stove or oven to heat your home. Use portable gas camp stoves outdoors only. Use fuel-burning space heaters only when someone is awake to monitor them and doors or windows are open to provide fresh air. Don't run a generator in an enclosed space, such as the basement or garage.
- **Keep your fuel-burning appliances and engines properly vented.** These include:
 - Space heaters
 - Furnaces
 - Charcoal grills
 - Cooking ranges
 - Water heaters
 - Fireplaces
 - Portable generators
 - Wood-burning stoves
 - Car and truck engines
- **If you have a fireplace, keep it in good repair.** Have your fireplace chimney and flue cleaned every year.

- **Keep vents and chimneys unblocked during remodeling.** Check that they aren't covered by tarps or debris.
- **Complete repairs before returning to the site of an incident.** If carbon monoxide poisoning has occurred in your home, it's critical to find and repair the source of the CO leak before you stay there again. Your local fire department or utility company may be able to help. Ask your utility company about yearly checkups for all gas appliances, including your furnace.

If you suspect an environment to have high levels of CO or have symptoms that you think could be caused by CO poisoning, **leave the area immediately, call 911 and let the fire department assess and manage the cause and ventilation of CO gases.**

[Jason Dush](#)

EMS Manager

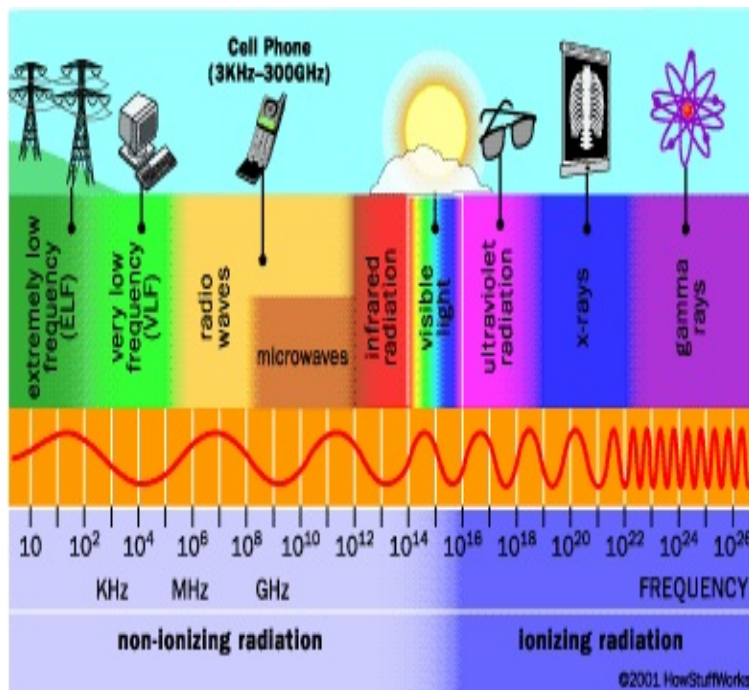
Texas Division of Emergency Management

Energy in Motion - Radiological Emergency Preparedness in Texas

Are Texans experiencing a growing problem with mutant roosters? Is radiation exposure to blame? The picture to the right suggests these beasts are capable of growing to the height of a grown man and the width of a Volkswagen Beetle (Google Images, 2017). Could something as sinister as radiation be at fault? One may argue theories and beliefs that support this notion, but Google and Photoshop are generally the chief culprits. Radiation is simply energy in motion, and people experience daily exposure to radiation through earth, air, food, and water.



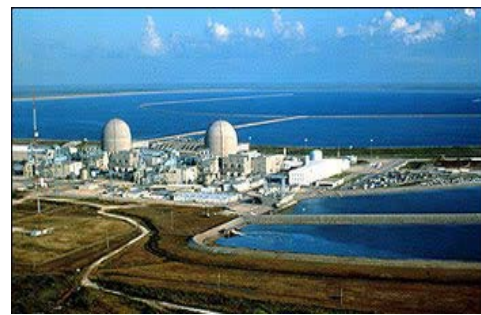
Numerous benefits are associated with energy produced through radioactive materials. Nuclear power is a relatively environmentally friendly source of power because of the lack of greenhouse gases produced during production of power. In medicine, radiation treatments save thousands of lives per year, and x-ray machines allow doctors and dentists to identify health issues in a noninvasive manner. Radiological materials also have important applications in agriculture, industry, scientific research, defense, and academia.



It is important to understand that radiation is present in our everyday environment. Some types are harmful to human health and others are not. There are two different types of radiation, categorized by how matter is affected: non-ionizing radiation and ionizing radiation. Non-ionizing radiation “deposits energy in the materials through which it passes, but does not have sufficient energy to break molecular bonds or remove electrons from atoms” (United States Nuclear Regulatory Commission, 2014). Non-ionizing radiation takes form in visible light, microwaves, radio waves, radar, and heat exchanges. Low doses or naturally occurring non-ionizing radiation is generally harmless to living organisms. The alternate side of the

radiation spectrum is ionizing radiation, which includes ultraviolet radiation, x-rays, and gamma rays. In contrast to non-ionizing radiation, ionizing radiation is capable of depositing enough energy to break molecular bonds and displace electrons from atoms (United States Nuclear Regulatory Commission, 2014).

In Texas, radiation and radioactive materials are abundant throughout the state. Texas is home to two nuclear power

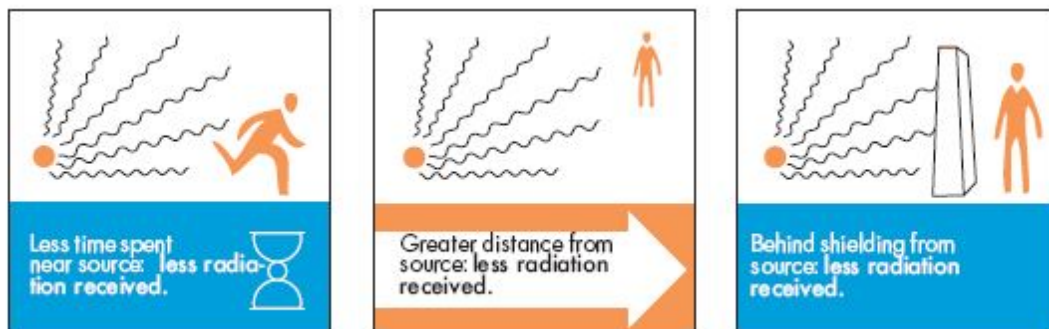


plants, two nuclear research reactors, a nuclear weapons assembly and maintenance facility, and a radiological waste storage site. Radioactive waste shipments, both industrial and medical, are also safely transported through Texas on a regular basis.

The Texas Division of Emergency Management (TDEM) and many state, local, and federal agencies are charged with ensuring the health and safety of Texans, which is of utmost importance when it comes to radiation related emergencies and emergency preparedness. In addition to managing these risks, TDEM is charged with carrying out a comprehensive all-hazard emergency management program for the state and assisting cities, counties, and state agencies in planning and implementing their emergency management programs. This includes planning for and responding to radiological events and incidents at fixed nuclear facilities, along transportation routes, in industrial applications, and against malicious acts.

In the preparedness effort to combat radiation related events, TDEM works closely with each fixed nuclear power facility, the Pantex weapons facility, local jurisdictions, the [Texas Department of State Health Service's \(DSHS\)](#), FEMA Region VI's [Radiological Emergency Preparedness \(REP\) Program](#), the [Nuclear Regulatory Commission Region IV](#), and [the Department of Energy](#). To ensure Texans are prepared to respond to and recover from a radiological emergency, TDEM provides up-to-date plans for different radiation incident scenarios. The division also participates in realistic and thorough exercises, including annual nuclear power plant exercises. Finally, relevant training is available statewide in radiological emergency preparedness, including the [FEMA IS-3: Radiological Emergency Management](#) and the [AWR140: Introduction to Radiological/Nuclear WMD Operations Course](#).

Should there ever be a radiological incident, it is possible for citizens and first responders in the affected area to avoid excessive exposure to radiation by following a simple protection principle: time, distance, and shielding. According to the [United States Nuclear Regulatory Commission \(NRC\)](#), "Time, distance, and shielding measures minimize your exposure to radiation in much the same way as they would to protect you against overexposure to the sun" (United States Nuclear Regulatory Commission, 2014). First, limiting one's exposure time to the source is the primary method of reducing radiation dosage. Next, one should move away from a radiation source as quickly as possible. Increasing the distance from a radiation source greatly decreases exposure risk. Finally, one should use shielding, such as personal protective gear, or a barrier like a building or wall between a source and their position. Proper shielding will either eliminate or greatly reduce contamination and exposure potential.



In conclusion, it is important to remember radiation is simply energy in motion. Many myths and misconceptions revolve around radiation, but in truth, radiation and radiological materials are abundant and have many benefits. The Texas Division of Emergency Management, local governments, state

partners, federal agencies, and industry experts work together to ensure Texans are prepared to respond to radiation emergencies and are equipped to ensure the health and safety of Texas citizens.

[Josh Bryant](#)

Technological Hazards Unit Supervisor
Texas Division of Emergency Management

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During the first part of this year, EMAT has been active in addressing these mission goals and is currently working to improve the Certified Texas Emergency Manager (TEM) credential. Updates to the requirements and application will improve the process for emergency management professionals to be recognized by their peers for their dedication to professional development. The updated process was released in September of this year, and EMAT looks forward to recognizing our members with this certification.

EMAT also strives to be a voice for emergency managers – during the recent legislative session, EMAT worked to provide information on policy matters of interest to our members. For example, several members have expressed interest in proactively addressing the use of drones as a powerful new tool for emergency management. As an organization, we look forward to presenting a unified voice on such legislative issues to ensure that those in emergency management are heard.

As a profession, we are stronger together.

Upcoming initiatives will focus on improving mutual support among emergency managers in disaster situations. Our partners in public safety do a great job of creating mechanisms for mutual aid; by continuously adapting, emergency managers can provide a more robust support structure for extended response and recovery operations. These opportunities allow us to gain real world experience while supporting fellow emergency managers as part of the cavalry.



I am honored to represent the members of EMAT as the organization's current president. Texas is a leader in emergency management helping to shape the future of the profession, and I believe that EMAT is a part of those efforts. As a profession, we are stronger together. I encourage each and every one of you to join EMAT and look at attaining your TEM, and I welcome you to reach out and provide your perspective on what EMAT can do for you!

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TEXAS EMERGENCY MANAGEMENT BRIEFS, TIPS AND LINKS

Harris County CERT Membership Reaches 30,000 Milestone October 25, 2017, The Katy News

(Harris County, TX) – The Harris County Citizen Corps Community Emergency Response Team (CERT) program has reached a milestone of 30,000 trained members with the graduation of its latest students from the East Aldine District and Humble. The final exercise and graduation will take place on Monday, October 30th at 7 p.m. at the Harris County Fire and Sheriff's Training Academy, 2318 Atascocita Road in Humble, Texas.

“The CERT program teaches skills that ultimately make our communities stronger and better prepared,” said Harris County Judge Ed Emmett. “These students’ commitment is admirable. They are showing great responsibility by preparing themselves and their families for emergencies.”

The CERT program teaches disaster preparedness and basic response skills in fire safety and suppression, search and rescue tactics, and disaster medical operations. CERT volunteers are trained to respond safely, responsibly, and effectively to emergency situations, but they can also support their communities during non-emergency events as well.



The CERT program’s success is due in large part to its partnership with the City of Houston, first responders, non-profit agencies, community organizations and all its volunteers.

[From The Katy News](#)

Harvey Heroes Honored at Dinner By Mark Moreno, October 25, 2017, The Monitor

First responders of the Rio Grande Valley were honored Tuesday at the Mission Community Center for their efforts during the aftermath of Hurricane Harvey.

The city of Mission in-conjunction with Hidalgo County held the RGV Harvey Responder Appreciation Dinner for the first responders and their families as a display of gratitude and support from all four of the Valley counties who went to service the residents of Southeast Texas and the Coastal Bend after Hurricane Harvey in August.

Guest speaker Antonio “Tony” Peña Jr., Texas Division of Emergency Management Region 3 state coordinator, detailed statistics about the Valley responders efforts and offered words of empowerment.



Guest speaker Antonio “Tony” Peña Jr.

“There were over 12 million cubic yards of debris. We’ve destroyed 2.3 million from the coastal area up to Houston,” Peña said. “We had about 63,000 people in shelters across the state of Texas.”

“There were many uniforms that responded to bring normalcy to people’s lives, no matter what kind of incident.” Peña said. “We are Texas strong, we will recover.”

[From the Monitor](#)

The Costs Recovering from Harvey Will Be Staggering, Lawmakers Are Told By John C Moritz, October 2, 2017, USA Today Network

Houston Mayor Sylvester Turner, a former member of the Texas House, told the Appropriations Committee that the cost of coping with Harvey’s destruction will be stratospheric.

He said 27 trillion of gallons of rain fell on Houston and surrounding communities in a matter of hours after the storm that crashed the Coastal Bend with Category 4 winds turned northeast up the Gulf Coast. The cost of hauling away the mountains of debris from thousands of flooded homes and businesses will reach \$260 million.

Fortunately, he added, the federal government will pick up 90 percent of the tab.

The cost of rebuilding the government-owned buildings in the Houston area will reach about \$175 million, Turner said. The city of Houston’s insurance tops out at \$100 million, he added.

Officials have yet to make an official estimate of the cost to widen the bayous that overflowed their banks so that future flooding might be contained, Turner said. And compounding all of that, he added, was that the city simply did not have the equipment, manpower and training even before the storm hit.

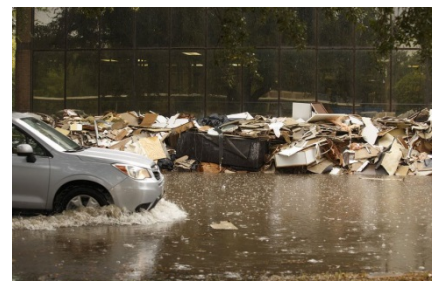
“You cannot operate (city government) lean and mean” during catastrophic weather, Turner said.

[From Corpus Christi Caller Times](#)

In wake of major floods, Texas water agency drafting statewide flood plan By Dan Solomon, October 4, 2017, The Texas Tribune

For 60 years, the Texas Water Development Board has been the keeper of a master list of projects that are supposed to meet the state's water needs for the next half century. But the latest list the agency is compiling is not about supplying water — it's about managing it.

Earlier this year in the wake of two major floods that crippled communities across the state — and just months before the remnants of Hurricane Harvey dumped a historic amount of rainfall on southeast Texas — state lawmakers voted to give the agency \$600,000 to create the state's first-ever flood plan. The document will broadly evaluate statewide flood risks and detail projects local governments want to pursue to mitigate those vulnerabilities with suggestions as to how the state could help fund or finance them.



Flooded street below the Barker Reservoir dam.

There are many approaches the state could take after the plan is presented to the 2019 Legislature, but he said one thing is certain: "Flood risk is not going away in Texas."

[From The Texas Tribune](#)

Hurricane Harvey sparks renewed push for underground water storage projects **By Katie Riordan, October 18, 2017, The Texas Tribune**

For state Rep. Lyle Larson, Hurricane Harvey was not only a tragedy but also a wasted opportunity. The San Antonio Republican, who chairs the House Natural Resources Committee, estimates that the amount of rain the storm dropped on the state could meet all its water needs — household, agricultural and otherwise — for at least eight years.

Instead, he said, those 34 trillion gallons ended up in a place where they didn't do a bit of good: the Gulf of Mexico.

In Harvey's wake, Larson and other lawmakers are re-upping calls for state support of "aquifer storage and recovery" projects in which water is pumped into underground reservoirs and stored for future use. Larson authored several related bills earlier this year — most of them passed, but were later vetoed by Gov. Greg Abbott — that would've earmarked state funding for such projects and directed the state's water planning agency to study the best places to put them.

The practice of capturing water and injecting it into underground aquifers is well established. According to the Texas Water Development Board, there are at least 175 operational aquifer storage and recovery projects throughout the United States, including three in Texas. (The oldest, in New Jersey, came online in 1969.) Several more projects are in the works throughout the state.

[From The Texas Tribune](#)

Abbott, Members of Congress Ask for \$18.7 Billion in Harvey Relief **By Dan Lohrmann, October 5, 2017, Austin American Statesman**

Gov. Greg Abbott and most of Texas' congressional representatives have requested \$18.7 billion in the next round of Hurricane Harvey recovery funds.

"Texas greatly appreciates the Appropriations Committees' efforts to swiftly provide funds," the political leaders said in a letter to committee leaders in the House and Senate. "However, in light of the unprecedented damage from Hurricane Harvey and the historically epochal flooding of Houston, Beaumont and surrounding regions, we all recognize that the funding already appropriated is a small fraction of the federal resources needed to help rebuild Texas and reinvigorate the American economy."

Harvey struck the state's Gulf Coast on Aug. 25 with sustained winds of 132 mph, devastating coastal and rural communities and leaving large portions of Houston and Beaumont under several feet of water. Abbott has estimated that the recovery could cost up to \$180 billion.

[From Austin American Statesman](#)