

SE Texas General Construction Tips:

#1

Preparing for a Hurricane



We've had a number of weather events in recent years which involved severe flooding. However, we don't want to forget that hurricane season is nearly here and that while a flood and a hurricane may have some similarities, a hurricane will bring with it high winds and other hazards. Structures under construction may be structurally incomplete, have loose materials, open roofs, windows, and doorways susceptible to wind driven rain. Equipment such as cranes and scaffolding are susceptible to high winds. With COVID-19 on everyone's mind, we also need to look at how a hurricane may affect worker safety and business continuity. One lesson we know from past events is that planning, preparation, and training are needed to prepare so everyone can return home safely at the end of the day

The National Weather Service/National Hurricane Center will issue warnings on potential hurricanes and other severe weather events. Prior warnings can allow time to prepare for landfall and implement a hurricane preparation plan. Hurricanes and severe weather may provide several day's warning. However, a hurricane or severe weather event can develop suddenly. You should be prepared to accelerate implementation of your plan in a shorter period of time based on the specific weather outlook.

National Hurricane Center WATCHES:

Listen closely to instructions from local officials on TV, radio, cell phones or other computers for instructions from local officials. Evacuate if told to do so.

Storm Surge Watch: There is a possibility of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 48 hours.

Hurricane Watch: Hurricane conditions (sustained winds of 74 mph or greater) are possible within your area. Because it may not be safe to prepare for a hurricane once winds reach tropical storm force, The NHC issues hurricane watches 48 hours before it anticipates tropical storm-force winds.

Tropical Storm Watch: Tropical storm conditions (sustained winds of 39 to 73 mph) are possible within the specified area within 48 hours.

National Hurricane Center WARNINGS:

Listen closely to instructions from local officials on TV, radio, cell phones or other computers for instructions from local officials. Evacuate immediately if told to do so.

Storm Surge Warning: There is a danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours. If you are under a storm surge warning, check for evacuation orders from your local officials.

Hurricane Warning: Hurricane conditions (sustained winds of 74 mph or greater) are expected somewhere within the specified area. NHC issues a hurricane warning 36 hours in advance of tropical storm-force winds to give time to complete preparations. Preparations should be completed. Evacuate immediately if ordered.

Tropical Storm Warning: Tropical storm conditions (sustained winds of 39 to 73 mph) are expected within your area within 36 hours.

Extreme Wind Warning: Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eyewall, are expected to begin within an hour. Take immediate shelter in the interior portion of a well-built structure.

Getting Started

With the impact of Covid-19 over the last year, one thing to consider is that some items could potentially be in short supply or some businesses or critical suppliers may be only partially staffed or closed. With potential supply chain disruptions and other issues, it's a good idea to review what the impact might be in the event of a severe weather event. Review hurricane and flood related safety processes to ensure they are up to date and evaluate how COVID-19 may impact the preparation for, and response to, a hurricane or flood event.

One thing you may want to do is to ensure you have a business continuity plan in addition to an OSHA Emergency Action Plan (if required). The OSHA Emergency Action Plan is primarily directed at protecting workers during an emergency and not business continuity. They serve separate purposes and both are important. Your insurance carrier may have plans available for your use. There are several places where you can find examples of business continuity plans such as:

- Insurance Institute for Business and Home Safety (IBHS)

<http://disastersafety.org/ibhs-business-protection/ofb-ez-business-continuity/>

- FEMA Hurricane Ready Business Toolkit
<https://www.fema.gov/media-library/assets/documents/152381>

A sample OSHA Emergency Action Plan can be found here:

- Texas OSHCON Sample OSHA Emergency Action Plan
<http://www.tdi.texas.gov/oshcon/>

The start of hurricane season is a good time to review your plan, make adjustments, and ensure the information is correct. Run your plan through a test to ensure it works as planned.

As part of your hurricane plan, it's a good idea to encourage your workers to have their own home hurricane emergency action plan. A worker who is prepared and has a plan of action will be more likely to be able to be able to return to the work site to help during recovery operations. Sample plans and emergency kit suggestions for workers and families can be found at:

- Federal Ready Website (Home and Business Hurricane Information)
<https://www.ready.gov/>
- Ready Harris County (Evacuation Zone Information is Here Too)
<https://www.readyharris.org/About>
- Houston Office of Emergency Management (Houston Disaster Preparedness Guide is Here Too)
<https://www.houstonoem.org/preparedness-are-you-ready/>

For cities and Counties outside of Houston/Harris County, locate your Office of Emergency Management or other applicable agency to find out specific evacuation routes, local emergency notification systems etc.

General Business Preparation

Preparing your company starts well in advance of an impending hurricane and developing a plan of action is high recommended prior to the start of hurricane season. Many of the work practices discussed here were lessons learned after hurricanes Katrina, Rita, and Harvey. It is not designed to take the place of any required OSHA training or requirements but to raise awareness of the unique challenges of preparing and responding to hurricanes. You should review your plan at least annually and update it as changes occur to ensure it is up to date and reflects your current operations and business needs:

- Keep in mind that wind damage can occur far inland. Damaging winds are possible 100 miles or more inland from the coast.
- Check insurance coverage to make sure it covers potential damage. Some policies may not cover flood, wind driven rain, mold, or other potential losses. Keep your insurance policy and contact information in a safe and accessible place.
- Review current contracts to determine if you have any hurricane responsibilities to owners or other contractors. Plan how to meet those obligations in addition to preparing your own sites and facilities.
- Determine whether you should include hurricane provisions in bid packages or contract performance. Consider who is responsible for any losses due to delays, shortages, mold, and insurance claims.

- Incorporate the effects of mandatory evacuations, traffic jams, fuel shortages, and contra-flow into your plans. A contra-flow from the Houston area can affect your business operations miles away and affect your ability to move around and potentially prevent assistance, supplies, or expertise from getting to the Houston area from other locations.
- Prepare a list of your personnel, suppliers, and contractors. Identify vital jobs and critical skills for hurricane preparation and response.
 - Do personnel have the proper documents or identification to enter road blocked areas?
 - Will contractors be needed to clear debris, remove flood water, restore utilities, provide site security etc.? Consider contacting your local authorities to determine what the re-entry process may be and make plans or arrangements as necessary.
- Consider a telephone number and work location outside of the projected disaster area that can be used to coordinate response and recovery efforts. Check to see if your website and email systems are serviced outside the projected disaster area.
- Determine how facilities and valuable equipment will be secured after an evacuation and after the hurricane.
- Identify equipment you may need to purchase and stockpile in a safe location such as generators, water, equipment batteries, repair and clean-up supplies, and personal protective equipment.
- Consider having your facility pre-wired for generator use by a qualified person. Improperly connecting a generator to the building electrical systems without a disconnect between the facility and utility lines can electrocute utility workers repairing power lines through backfeed.
- Determine how employee needs will be met. They will need to prepare their own homes and families. They may be required to evacuate and may not be available to work. Lodging and food may be unavailable for those returning after the hurricane.
 - Consider evacuating employees in shifts. Have one group prepare their homes and evacuate their families and then come back to relieve the employees still working.
 - Discuss food and housing issues with your local businesses. Work with them or in conjunction with other local businesses to assist on providing generators and other resources so your employees will have food and lodging during recovery operations.
- Develop procedures to back up important computer records and decide where they will be stored. Keep sufficient storage media on hand to do the backups.
- Maintain cash reserves necessary to operate for a few days in case ATMs are not working and banks are closed.
- Purchase equipment in advance, such as generators, tarps, plywood, first aid kits, bottled water, flash lights, insect repellent, hand sanitizer etc. Identify where such items will be stored, either in a protected location or outside the potential disaster area where they can be reached. Also include office supplies you may need to operate your business.
 - Ensure you select storage areas that are not subject to flooding
- Identify important documents and paper files that need to be protected and identify a safe storage location.
- Identify local government emergency response and relief organizations in your area. Find out where they are located and how to contact them. Check to see what government resources, such as the Small Business Administration (SBC), that will be available to help you recover your business and what information would be needed to start the process. Include a copy of that information with other important documents.
 - View websites such as www.disasterassistance.gov and www.ready.gov to get an idea of the types of assistance available from the government to help recover your business.

- Consult with your local utilities such as electric, gas, and water companies to determine what procedures they recommend in regards to turning off, or leaving on, those services. Verify the locations of the utility shut-offs and write procedures on what to do for each one before and after a hurricane. Ensure the person responsible is trained on the procedures and safety precautions.
- Develop a plan in regards to returning to the area. Employees and their families may be delayed due to a phased return to various parts of the area or prohibited from entry. Local governments may establish recommended return days for evacuees even if the hurricane did not make landfall.
- Identify local radio stations which carry emergency announcements and post it in your vehicles.
- Ensure you have a method to communicate with employees outside of the Houston area other than the radio. For example, an employee that evacuates to San Antonio or Dallas may not be able to pick up local radio announcements. Have employees provide a phone number from the place they are evacuating to.
- Consider whether a satellite phone is worth the cost in the event cell phone service is not working.
- Contact your insurance company and websites such as www.fema.gov and www.disastersafety.org to learn ways to mitigate damage to business and property.
- Review government disaster information websites for planning tools and information such as Texas www.texasready.gov, Harris County www.readyharris.org, the city of Houston <https://www.houstonoem.org>, and www.readyhoustontx.gov.
- Train your employees on the hurricane preparation plan and the necessary safety precautions and practices they will need to respond after the hurricane. Have employees trained on first aid. Perform the training before the hurricane to ensure employees are ready to respond quickly and safely.

This information has been developed by an OSHA Compliance Assistance Specialist using reliable sources and is intended to assist employers, workers, and others improve workplace health and safety by providing questions and topics that can be considered in regards to a hurricane. Each organization should evaluate their own facilities and programs to determine hazards and take the appropriate steps. While we attempt to thoroughly address specific topics [or hazards], it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in this presentation. This information is a tool for addressing workplace hazards, and is not an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. This document does not have the force and effect of law and is not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. It does not create (or diminish) legal obligations under the Occupational Safety and Health Act. Finally, OSHA may modify rules and related interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov. Mention of any group or organization is not an endorsement and the links provided are for informational purposes only. For questions contact Jim Shelton at shelton.james@dol.gov