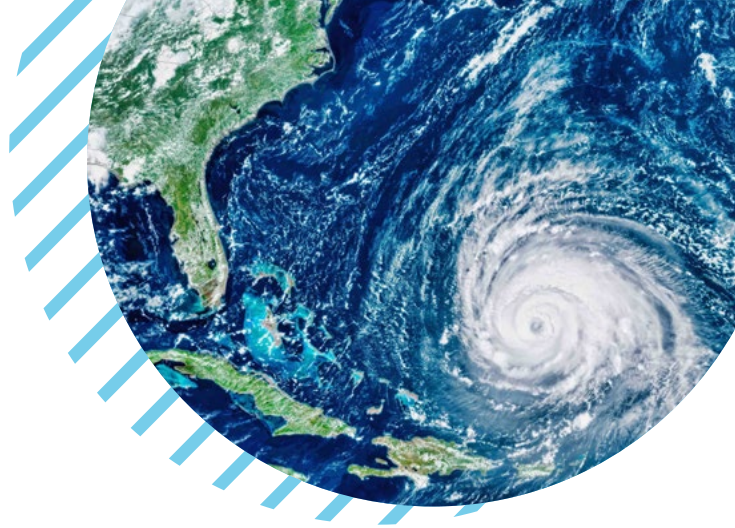




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Hurricane Planning:

Warning, Plan Now or Pay Later

(References: US Department of Labor, FEMA, NCLocal.org)

As populations in coastal cities soar, businesses in these communities, and even in nearby inland communities, must prepare for the impact of tropical storms and hurricanes. These severe weather events can cause major disruptions for communities and every type of business. By preparing and acting now, you can help mitigate the damage caused by these dangerous storms and make sure your business thrives after the storms hit. Below are a list of items to consider before, during and after the storm.

Questions to answer before the storm

- Map the windstorm front and stay up-to-date on the storm's progress.
- Move fleet vehicles to protected areas of higher ground, preferably covered, to minimize damage and ensure survivability of the fleet.
- Backup all data on servers and personal computers. If the backup site is within the area that may be affected by the storm, take backup tapes with you in the evacuation.
- Shut down operations that depend on outside power sources in an orderly manner, following established procedures.
- Turn off all non-critical devices such as server monitors and workstations and other non-essential electrical equipment.
- Check the integrity of the Uninterruptible Power Supply (UPS). Move the UPS to the highest level possible above the floor.
- Inspect and make emergency repairs to drains, gutters and flashing.
- Strap or anchor to the roof deck support assembly (e.g., the joists) all roof-mounted equipment such as HVAC units and exhaust vents.
- Check/maintain all necessary backup equipment, such as emergency generators and communication devices.
- Protect/relocate vital records.
- Install windstorm shutters/plywood over windows and doors.
- Take the following steps so that items outdoors will not blow away or cause damage:
 - Remove all loose debris.
 - Anchor or relocate all nonessential equipment to a safe indoor location.
 - Secure storage of flammable liquid drums, or move them to a sheltered area (but



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- never into main facility areas)
- Anchor all portable buildings (e.g., trailers) to the ground.
- Secure large cranes and other heavy equipment.
- Make sure outdoor signs are properly braced.
- Inspect all fire protection equipment, such as sprinkler control valves and fire pumps.
- Ensure that the employees who volunteered to stay on site have proper supplies and equipment (drinkable water, nonperishable food, medical, flashlights, walkie-talkies).
- Have cash on hand for post-windstorm needs, such as buying food and supplies, or paying employees and contractors.
- Repair and fill above-ground tanks with water.
- Fill fuel tanks of generators, fire pumps, and all company-owned vehicles.
- Clean out drains and catch basins.
- Protect computers, machinery, and stock with tarpaulins and waterproof covers.
- Remove as many goods as possible from the floor, or ship them out of the facility.
- Isolate, neutralize, or remove from the site any chemicals that can react violently with each other.
- Shut off gas to minimize fire loss.
- Protect or shut off other possible flame sources.
- Disconnect the main electrical feeds to the facility, if possible, to prevent a potential fire caused by short-circuiting of damaged equipment.

What to Expect

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74–95 mph	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap, and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96–110 mph	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3	111–129 mph	Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.



4	130-156 mph	Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	157 mph or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

During the storm

- Emergency response personnel should stay at the facility only if safe to do so.
- Patrol the property continuously and watch for roof leaks, pipe breakage, fire or structural damage. During the height of a windstorm, personnel should remain in a place that has been identified as safe from wind and flood.
- Constantly monitor any equipment that must remain online.
- During power failure, turn off electrical switches to prevent reactivation before necessary checks are completed

After the storm

- Secure the site.
- Survey for damage.
- Survey for safety hazards such as live wires, leaking gas or flammable liquids, poisonous gases, and damage to foundations or underground piping.
- Repair damage to the automatic sprinkler system and get it back in service as soon as possible.
- Call in key personnel and notify contractors to start repairs. Make sure safety systems are fully implemented before work is allowed to begin. This means controlling smoking and other open flame sources. Require contractors to share responsibility for establishing fire-safe conditions before and during the job.
- Begin salvage as soon as possible to prevent further damage:
 - Cover broken windows and torn roof coverings immediately.
 - Separate damaged goods, but beware of accumulating too much combustible debris inside a building.
- Clean roof drains and remove debris from roof to prevent drainage problems.
- Visually check any open bus bars, conductors and exposed insulators before restarting main electrical distribution systems.





Although no one can predict when, where and with what intensity a weather-related incident will strike, organizations can protect and preserve their people, facilities, and operations best by being prepared for the worst. You may not be able to control the weather, but you can control the impact it has on your organization and the services you provide to your customers.

