

SEVERE WEATHER EVENTS

How to Keep People & Facilities Safe

By Courtland Keith

Developing an effective emergency response plan is key for OSH managers who may need to anticipate a severe weather event such as a hurricane, tornado or wildfire. Weather is unpredictable, and with a quickly changing climate, time-sensitive emergency management is integral to ensuring the safety of a company's employees and infrastructure.

Even if a business or organization is not located in a region affected by severe weather, customers, partners or vendors may still be affected, so it is important to have a plan in place to anticipate those impacts.

Six categories form the core steps that safety managers should take when preparing for severe weather.

Step 1: Gather Information & Weather Intelligence

Preparing for a weather event starts with information: gathering the facts surrounding an event and staying updated on changes as they happen. Consider where information is coming from. Are internal resources and services available to provide in-house data or intelligence, or would it make sense to partner with a third party that can provide real-time weather alerts?

Weather intelligence services can provide a multilayered, tailored approach to notifications and advice. If assets are located along the coastline of an active hurricane basin, minute-by-minute notifications about a storm's track can dictate evacuation plans. If a facility is affected by seasonal wildfires, atmospheric data can help the facility prepare for a break in production should the air quality deteriorate to an unsafe level.

No matter the weather, accurate and reliable information impacts a response plan protocol and, in turn, reduces risks and costs. As an emergency or safety manager, having this information on hand helps in making those crucial decisions. The sudden change in direction of a storm could mean quickly shutting down operations and evacuating staff, or it could mean that a facility is no longer in the line of fire, with operations continuing safely. Timely information will help decide not only when to act, but also when not to.

Step 2: Create a Support Network

When setting up an emergency response plan, it is important to make the right connections. This applies to any external service providers needed to keep operations running smoothly. If a loss of power occurs due to high winds, safety managers should contact a provider that can give accurate

time estimates so that generator output can be appropriately managed. Become acquainted with contractors, utility service providers, weather intelligence suppliers and vendors to create a network of support. Do not wait for the first severe weather event to make these connections; get to know service providers well ahead of potential weather events. Having those personal relationships in place helps them to better understand a business's limitations.

Step 3: Keep Asking Questions

No one can preempt every scenario that might occur in the event of severe weather, be it flooding, infrastructure loss or loss of communications, but hypothesizing the major possibilities adds a layer of preparedness and helps safety managers make the right decisions. Following are a few questions to ask:

- Are minute-by-minute alerts on storm tracking for transport restrictions necessary?
- What maintenance for generators will be needed should power lines be compromised?
- How much warning is needed to alert employees of the dangers of traveling to work?

Step 4: Plan in Advance

Avoid being caught off guard. If safety managers know their business will be affected by severe weather during certain times of the year, they should plan for it. Build an emergency plan to protect staff, clients and infrastructure. Following are several key points to keep top of mind.

Shelter

The first thing people look for in the event of severe weather is shelter. Designating a safe place for employees or customers to retreat to should be one of the first actions in planning. Can the facility be shut down and employees sent home, or will they need to shelter in place? If the plan includes sending home nonessential employees, knowing the precise timing of storm arrival is crucial to ensure that employees can make it home safely. If shutdown is not an option, consider the threats:

- Will flooding be an issue? Will seeking higher ground be necessary?

- Is a basement a necessity to protect staff from a tornado?

- Will staff need to move further inside a building, away from windows that might be broken by debris or wind?

Depending on the type of risk, designate or build a safe place to keep people out of danger.

Choosing a safe space is first, next is working out a quick and safe path to it. This path must be direct, the shortest possible route and physically safe. It should be clear of debris and any fire or flooding hazards, and accessible to everyone. Factor in the amount of time required to move people to safety via this route and ensure that this time is built into the plan.

Weather intelligence services can send an alert when they see that a designated safe place may need to be used.

Supplies

Major storms are known to impact power grids, roads, telephone lines and more. In the case of a facility being cut off from receiving deliveries or utilities, a stockpile of supplies can keep the business operating until services return to normal. This could include installing a generator to provide power for up to 4 days, should the grid sustain damage. It could also mean stocking up on functional supplies whose normal daily delivery is stalled.

A common best practice is to have emergency supply providers on standby (those who can make deliveries immediately before or after an event) should a business need something urgently. Should conditions worsen so that business must stop completely, with people retreating to a safe area, necessities such as food, water and medical supplies must be covered. This includes a disaster survival kit containing a flashlight, batteries, portable radio and whistle to signal for help.

Remember, if a storm does not directly impact a facility, it can still stress a business, affecting service providers or clients in a wider region. A business may even become the sole provider of service or product to a particular area. This would require a plan to meet increased demand,

adjusting supplies and staffing requirements to support the affected community.

Communication & Staffing

Before, during and after a weather event, having a two-way communication method with employees is crucial for ensuring their safety, preparing for any staffing shortages and announcing operational changes. For the medical industry, patient care does not stop in the event of a storm and may instead increase, so planning rotations and communicating with staff helps keep things functioning. The same can be true for other industries providing 24/7 services.

Reliable weather prediction data can be used not only to advise staff when they will be needed and anticipate fluctuating capacity and business needs, but also to predict when employees can safely travel to and from work. Managers must keep in mind that employees have differing factors restricting them from coming to work, depending on where they live and personal circumstances. When planning for hurricane season, for example, the longer lead time with storms means that staff can prepare by securing their homes, gathering supplies and ensuring their family's safety before thinking about work.

When severe weather is brewing, telecommunications providers may struggle with increased demand. Simplifying communication with employees to a text alert could provide a quick, reliable method to relay information and instructions. Should telecommunications service go out completely, staff can use satellite radios or access a previously sent email with instructions.

Staff Training

In the event of a weather emergency, every individual must be trained to understand their responsibilities when carrying out protocol. Should an emergency notification come through, staff should be able to act confidently and quickly, knowing what to expect. Getting staff prepared for severe weather emergencies can be achieved through routine drills, which ensure that employees know and can execute their responsibilities in the event of a real disaster. Drills also show the best ways for workers to protect themselves in various emergencies. For example, during a tornado, staff should know how to crouch and protect their heads from flying debris.

Who & What Safety Managers Are Responsible For

Knowing how many people are in a facility and where they are located at any given time is crucial. This includes

employees and visitors, as everyone must be accounted for in the event of a retreat to safety or evacuation. Businesses are also responsible for protecting their infrastructure and assets, while keeping an up-to-date inventory of property in a safe place. In the event of damage or loss to property, insurers will need to know the exact items owned by the business, and their location and value.

Furthermore, maintaining property and infrastructure is important. During a major storm, primary concerns revolve around power and water, especially during flood risks. A facility's integrity can be threatened, so keep everything in good condition and clear of hazards. High winds can push over foliage and trees, so check that the building is not at a high risk of being damaged by its natural surroundings.

During regular building upkeep, make sure roofs, doors and windows are structurally sound; roofs are often the most susceptible to damage, followed by walls and openings. Have these features cared for, and ensure that any mounted equipment is well anchored, in good condition and fire or flood protected. Carry out regular maintenance on all auxiliary functions, such as generators or emergency lighting, so that these systems are in proper working condition should they be needed unexpectedly. Lastly, expand this care to all structures for the business, including storage facilities and outdoor units.

Step 5: Make Continuous Adjustments

Responding to weather requires flexibility and time-sensitive decision-making. As weather grows and dissipates, an emergency response plan should adjust for each scenario. Many response plans factor in a timeline of actions, depending on how long before storm impacts can be expected, also known as a proximity trigger. As soon as a proximity trigger is reached, the plan commences and actions are taken at each daily or hourly milestone. While these actions are necessary, timing them can be equally important. Generic response plans that do not adjust based on current and forecast storm conditions such as the storm's movement or the probability of intensity at impact will cost a business time and

money. This can mean a business is unprepared for the arrival of a storm, putting lives at risk. Or it may mean taking unnecessary actions after a storm slows or changes direction, increasing costs or lowering production for no reason. This is where up-to-the-minute storm alerts based on the precise location of the facility can help safety managers implement their plans and accurate, timely information plays its most important role.

Step 6: Learn From Previous Weather Events

Safety managers can learn from their business or similar ones by taking note of mistakes and through experience. No two storms are identical, but they can present similar challenges and understanding those challenges can help better prepare for the next one. Following each event, it is a good practice to take stock of the response plan:

- Was it effective?
- Were sufficient preparations made?
- Did anything arise that was not previously considered?
- Did the staff stay safe?
- How were facilities affected?

After an event, safety managers should assess:

- Access to information. Were alerts received when needed?
- The performance of service providers. Were any providers unaffected by the storm, and should any changes be made?
- Were employees informed in the lead-up to an event or is a new communication method needed?
- Were on-site staff well protected and accounted for?
- Were enough supplies available until the risks passed?

Asking these questions allows safety managers to improve emergency plans, ensures that people and facilities remain safe and helps avoid large-scale losses.

Conclusion

After reviewing these steps in preparing for a severe weather event, a business's current emergency plan may need adjustments or additions. Receiving the right information will help a business prepare sufficiently. Knowing what to expect is key when reacting to any foreseeable emergency. **PSJ**

Courtland Keith is vice president of cross industry sales at StormGeo. As a trained meteorologist, Keith combines a background in interpreting the weather with the experience of counseling businesses across all industries, including construction and telecommunications, on how to respond to and prepare for severe weather threats. She holds an M.S. in Ocean Science and Technology and a B.S. in Meteorology from Texas A&M University.