



Flood Emergency Response Planning

Flood risks pose significant challenges to businesses in the U.S. and around the globe. The majority of the world's population lives in close proximity to the coast or major inland waterways, so many homes and businesses are at risk for this type of disaster. Floods vary in geographical impact and the speed with which water levels rise. A tropical storm may impact hundreds of miles of coastal communities over a period of days while localized flash floods may impact small geographical areas in a matter of minutes. Major storms and flood disasters have the potential to destroy property, take lives, and cripple businesses. FEMA estimates that over 40% of businesses that experience a significant disaster do not reopen.

In October 2012, Hurricane Sandy decimated the east coast of the U.S., causing over \$50B of total damage. Many businesses were underinsured and unprepared for such a catastrophic event. FEMA has since proposed new flood maps in many coastal locations. As a result, properties that weren't in a flood zone in the past may now be required to obtain flood insurance. In addition to insurance protection, implementing a Flood Emergency Response Plan (FERP) is critical to ensuring the continuity and survival of businesses in flood-prone areas.

How do I Protect my Business?

Identify your Risks

The first step to being prepared is to identify and understand your risks. Are your facilities located in flood zones? If you are unsure, consult with your HUB International insurance professional to learn about the flood risks for your properties and the insurance coverage options that are available. When new buildings are planned, potential sites should be reviewed for flood risk. If building in a flood zone is necessary, be sure to locate key electrical and mechanical equipment above grade level, with additional flood protection such as pitched drains and sump pumps.

Create a Plan

Once you have identified that a property is at risk for flooding, a Flood Emergency Response Plan (FERP) should be developed. The plan should:

- Designate a person in charge. The FERP Coordinator should have authority to initiate the plan and to direct resources before, during, and after the emergency.
- Identify key personnel who have FERP responsibilities.
- Develop a communication method (such as a phone chain) to alert employees of incoming storms or impending floods. The communications should also alert key personnel to be on stand-by for flood preparation actions.
- Create procedures to shut down equipment and processes in a safe manner.
- Have provisions for when to activate the IT Disaster Recovery Plan. Shift IT functions to other facilities or remote data centers to ensure continuity of operations.
- Allow for relocating equipment, inventory, valuable records or other movable property to higher levels, if possible.
- Establish measures to prevent water from entering the building.
- Establish written agreements for response and recovery resources with contractors. For example, consider a facility that does not have a back-up generator. The facility could contract to have reserved rental generators available in the event of a prolonged power outage due to flooding. Many companies charge a small service fee to guarantee this type of service.
- Schedule regular training on FERP procedures, especially with key employees. Update the FERP whenever any personnel changes are made, or when processes in the facility change.

Preparing – Before the Flood

Mitigate damage and protect your property by taking the following pre-flood precautions:

- The FERP coordinator should closely monitor storms to assess the need and appropriate timing to activate the plan.
- Notify key employees when potential storms are being tracked to ensure their availability.
- Assemble key materials and supplies, such as sandbags, plywood and nails, tarps, portable pumps, power tools and hand tools, mops, buckets, etc.
- Ensure that any personnel that are staying on site have emergency supplies, such as drinking water, non-perishable food, radios, first aid kits, lighting, and necessary personal protective equipment (PPE).
- Fill all fuel tanks, such as vehicles, emergency generators and fire pumps.
- Check all fire protection equipment to ensure all are in service.
- Move any machinery, equipment, inventory, valuable records or other movable property to higher levels.
- Secure flammable/combustible liquids containers. Shut down all flammable liquids lines at the source (except emergency generators and fire pumps).
- Shut down electrical power if it will be affected by rising water levels.
- Put sandbags at building openings or dig trenches to divert water if possible.

Actions – During the Flood

The safety of all employees who remain on-site must be top priority:

- Do not attempt to move or service wet electrical equipment.
- Do not go outside in periods of heavy rain, lightning or during other hazardous conditions. Floods are often accompanied by high winds so be aware of falling trees and flying debris.
- Shelter in-place within the building, above the grade level, and in an internal room with no windows.
- If authorities order evacuation, leave the facility immediately. **DO NOT STAY** under any circumstances.

Recovery – After the Flood

Once flood waters subside and the site is safe, the company should begin to assess damage and start salvage efforts. The following steps should be considered:

- Be aware of downed power lines or other hazards caused by the storm. Report any outages or damage to the utility companies.
- Repair damaged fire protection equipment.
- Communicate with contractors regarding repair work as their services may be in short supply following a major storm event.
- Clean drains and roofs of debris.
- Dry and clean all electrical equipment. Do not energize without first having a licensed electrician inspect for damage.
- Check equipment for mechanical damage caused by flood waters. Be aware that salt water can be especially corrosive.
- Clean and purge gas lines prior to restarting boilers.
- Obtain necessary permits from the local jurisdiction prior to beginning construction work.

HUB Risk Services can assist you in development of a location specific plan. Please contact your regional HUB Risk Services Consultant for more information.