



Hurricane Preparedness



Hurricanes have the potential to cause severe flooding and extensive damage resulting from heavy rainfall, storm surge and sustained high winds. A storm surge occurs just before a hurricane reaches land and can generate water levels up to 20 feet higher than the normal high tide extending 50 to 100 miles inland. Hurricanes may spawn tornados that can also cause extensive damage.

Hurricane season runs from June 1 to November 30. Advances in technology and weather tracking have made it easier to detect and predict the movement of these storms before they make landfall.

Hurricanes are dangerous and can result in devastating losses. However, with proper preparation; it is possible to dramatically reduce damage to your property and significantly reduce the potential for business interruption.

PRE-STORM SEASON PRECAUTIONS

Establishing precautions before, during and after a severe rainstorm, windstorm, tornado or hurricane may help mitigate the severity of the loss as well as enhance the overall safety of the facility. Pre-Storm precautions begin with implementation of the Tokio Marine America (TMA) HPR Loss Control “**WIND**” advice as a best practice:

- **W**herever your facility is located, all new important structures should be designed to meet applicable standards
- **I**nvestigate all existing important structures for conformance to appropriate standards
- **N**ecessary retrofit upgrades should be strategically considered following the advice of your Account Team
- **D**ecide in advance to meet these guidelines by inclusion in corporate design specifications

Our windstorm guidelines adhere to the technical advice detailed in the referenced FM datasheets and follow the FM approvals methodology for new construction and re-roofing. An effective hurricane preparedness plan begins with coordinated, advanced planning to ensure your buildings, roof covers and rooftop equipment are designed to meet the anticipated wind loads. Please consult with your local TMA HPR Loss Control representative for assistance with implementing this advice at your facility.

The following checklist is intended to provide additional general information needed to plan and implement an effective response to these natural disaster exposures.

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General Pre-Storm Preparation:

- Inventory equipment and product well before a storm strikes.
- Use a video or still camera to create a visual record of items that might be damaged or lost during a severe storm. Update this visual record periodically, particularly after making improvements. Keep valuable plans and documents in a safe location.
- Retain receipts for valuable items and note makes, models, serial numbers, dates of purchase and other relevant information. Store visual and written records (or copies of them) away from your business, in a secure location.
- Establish a Storm Emergency Team and an action plan that defines what actions will be taken based upon the level of the threat. Employees should understand their duties for facility protection, coordination of clean-up, salvage and restoration operations after the storm. Update the action plan annually.
- Appoint a member of the Storm Emergency Team to monitor daily weather reports and trigger the determination of threat level changes regularly.
- Establish an emergency repair program with utility contractors should electric, natural gas, communication or public water supply services be interrupted or damaged.
- Arrange for local contractors to prioritize roof or structural repairs.
- Develop a list of emergency phone numbers of weather forecasters, government agencies and contractors



PRECAUTIONS PRIOR TO A STORM

Buildings:

- Close exterior doorways / openings and make doors weather-tight.
- Close interior doors that have access to perimeter rooms / areas with windows.
- Board up exterior windows with minimum 5/8 inch plywood or wind shutters.
- Complete a pre-storm inspection of the roof of ALL Buildings on site. All loose roof coverings should be secured or covered with sandbags without blocking roof drains.
- Inspect the roof's perimeter flashing and secure loose flashing sections with No. 8 screws and neoprene washers spaced 1 ft. on center. Replace rusted nails or anchor bolts where needed. Install perimeter flashing on roof coverings if not already provided.
- Inspect and clear the roof of all organic debris and clean all roof drains to prevent ponding. Roof drains can quickly be overwhelmed from the excessive amount of rainwater as the storm moves inland. Water ponding on the roof can cause roof collapse.
- Secure any equipment on the roof to prevent windborne debris damage. All loose objects should be removed from the roof. Consult TMA HPR Loss Control "***Rooftop Equipment Securement Guidelines***" for more details.

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- Exterior vegetation (trees, brush, etc.) should be trimmed and weak or dead branches removed to limit them from becoming windborne debris.
- Brace unsupported structural members with struts, cables or additional diagonal bracing, and laterally support all non-reinforced block walls on both sides at construction sites.

Stock, Inventory & Miscellaneous Storage or Equipment:

- Secure ground mounted exterior equipment. Don't assume heavy equipment cannot be moved during a severe windstorm.
- Loose items or structures that are outside the Main Building (smoking sheds, gazebos, pallets, furniture, racking, etc.) should be relocated inside the building(s) where practical or properly secured so they do not become windborne projectiles.
- Review inside storage arrangements and relocate all susceptible materials to safe areas away from windows.
- Secure hoisting or loading equipment such as cranes and bulk cargo loaders.
- Anchor, brace or lash down combustible/flammable liquid tanks susceptible to excessive winds or storm surge.
- Bring outside combustible/flammable liquid drums or portable containers to inside flammable liquids storage facilities, cabinets or lockers or relocate these materials to an exterior more sheltered / protected area.
- Cover computers and stock with tarpaulins and waterproof covers.

Utilities:

- Shut off all gas supplies before a windstorm strikes.
- Shut off electrical equipment in areas that might be flooded. If the entire facility is exposed, shutoff building power at the main building disconnect switch.
- In addition, shut off all critical electrical equipment before a storm where possible.
- Shut off all flammable and combustible liquid and gas lines at their source to prevent the discharge of such materials from piping broken by windborne debris. In addition, support exposed piping if possible.
- Establish a reserve fuel supply equal to the normal supply, or provide a safe alternative fuel source for sufficient duration.
- Fill emergency generator or other backup power sources' fuel tanks. Do not store additional supplies of fuel inside the building unless within facilities designed per NFPA 30.

Fire Protection Equipment/Domestic Plumbing:

- Keep all Fire Protection Systems in service during a windstorm.
- Install barriers around sprinkler risers and control valves to protect them from floating debris associated with flood waters.

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Precautions to minimize Flooding:

- Lubricate all sprinkler control valves and locks to reduce future rusting and ensure ease of operation.
- Label location of outside sprinkler control valves and hydrants for easy visibility using rods and flags similar to what is used in areas where significant snowfall occurs.
- Continue to conduct routine inspections of all sprinkler control valves.
- Protect fire pump equipment or boilers in a flood prone area with sandbags or other fixed in place flood barriers such as a metal barrier across the door frame and sealed to the floor.
- Review the location and check the condition of hand operated domestic valves that have been installed to prevent the backflow through plumbing fixtures or drain sewers. Install additional shut-off valves if necessary.
- Clear all floor and yard drains. Monitor these drains during the storm to make sure they remain clear. Consider sealing drains where flooding from backflow has occurred in the past.
- If water is expected to enter the facility despite all physical barriers, apply a coating of rust preventative compound to all equipment such as pumps, blowers and compressors that can't be physically relocated.
- Provide sump pumps for equipment pits or basement areas.

POST-STORM ACTIONS

Initiate salvage activities immediately, including:

- Secure site and assess the damage.
- Implement the post-storm action plan with the Storm Emergency Team.
- Institute the emergency repair program with utility contractors after loss of electric power, natural gas, communication or public water supply services.
- Inspect, repair and/or restore all fire protection equipment as soon as possible.
- Identify and secure all areas where there are live downed power lines.
- Inspect flammable liquid or gas transfer lines for leaks, damage and initiate repairs.
- Identify structures in danger of collapse and take action to secure the structures and prevent additional collateral damage.
- Separate damaged materials from undamaged materials.



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- Cover equipment and stock that is exposed to water damage associated with roof or pipe leaks to prevent further damage.
- Develop plans to secure the facility against looters and trespassers.
- Utilize the facility “Hot Work” Permit System when necessary.
- Eliminate as many ignition sources as possible.
- Utilize the services of professional damage restoration companies to begin salvage and to prevent additional damage.
- Institute a fire watch and manage fire protection impairments until normal operations are resumed.

Should you experience any damage or have any questions before, during, or after the storm, please feel free to contact your local Tokio Marine America HPR Property Loss Control Representative or email us at TMMLossControl@TMAmerica.com or Toll Free (888) 525-2942.

If you have fire protection equipment that is out of service, report the situation and expected duration to Impairment Notification Online: www.TMAmerica.com/impairments.

To Report a Claim

Our phone number for Claims is available 24/7 by calling;

1-877-LOSS4TM (877-567-7486)

Or

On-Line Tokio Marine America 24/7/365 Claim Notification;

MyTMM: www.mytmm.com (Applications> Report a Claim)

Internet: www.tokiomarineclaims.com

Email: Claims@ACTEC.net



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