

# Hurricane Guide & Checklist



leerebodos@paragonconsults.com



Newark, DE

972.691.1377

www.paragonconsults.com



# Introduction

Hurricanes are tropical cyclones in which winds reach speeds of 74 miles/hour or more, and blow in a large spiral around a relatively calm center called the eye of the storm. The two warning levels for a hurricane are:

- WATCH: The first alert when a possible but as yet uncertain threat to a coastal area exists.
- **WARNING:** A notice that within 24 hours an area may be subject to sustained winds of 74 mph or more and/or dangerously high water or unusually high waves, even though expected winds may be less than hurricane force.

Category	Wind Speed (MPH)	Storm Tide (ft.)
1	74 - 95	4 - 5
2	96 - 110	6 - 8
3	111 - 130	9 - 12
4	131 - 155	13 - 18
5	> 155	> 18

## **CATEGORY BY WIND VELOCITY**

# Preplanning

- □ A thorough survey of all property and operations should be undertaken. The survey should include such items as:
  - $\Box$  Roof Covering.
  - $\Box$  Edging or flashing strips.
  - $\Box$  Coping tile.
  - $\Box$  Roof ventilators and dust collectors.
  - $\Box$  Awnings.
  - □ Gutters and downspouts.
  - $\Box$  Roof and wall signs.
  - □ Outside wiring, piping, and ductwork.
  - $\Box$  Siding.

All of the items listed above should be in proper repair and securely fastened.



- □ An area, within the facility, should be set aside which would become a headquarters from which emergency operations could be directed. Equipment and materials available in the emergency room itself might include:
  - $\Box$  Radio (battery operated).
  - $\Box$  Extra batteries.
  - □ Telephone and portable radio communication system.
  - $\Box$  Floor plan(s) of the business.
  - □ Maps.
  - □ Names and telephone numbers of important contacts.
  - □ Emergency lighting.
  - $\Box$  Power supply.
  - $\Box$  Rain gear.
  - $\Box$  Assorted hand tools.
  - □ Portable pump.
  - □ Tarps.
- □ Training for all personnel should include background information on the types of storms and how they occur, as well as emergency response measures.
- □ All employees should be aware of the dangers of flooding and the levels to which water can rise in a hurricane. The elevation of the business should be determined and equipment situated above this level as much as possible.

## **Before the Storm**

- □ Think in terms of protecting life and property. Some necessary precautions include preparing plans for:
  - □ Evacuation of any low lying or coastal areas.
  - $\Box$  Flooding.
  - $\Box$  Travel evacuation routes.
  - $\Box$  Carpool arrangements.
  - □ Keeping cars and trucks filled with gasoline.
  - $\Box$  An emergency supply of drinking water and food.
- □ The location of the nearest emergency shelter should be listed and distributed to appropriate parties, and all personnel should be given travel directions.
- □ Any machinery or equipment stored or used outdoors should be brought inside (if possible). If this is not possible then it should be securely fastened down and protected.
- □ All large windows, which are in danger of breaking, should be boarded up.
- □ Staff should prepare for flooding or high-water levels and should obtain sandbags, if necessary.
- □ Give priority to protection of power plant and firefighting equipment/materials.
- □ Anchor all holding tanks to avoid flotation.
- □ Remove all portable fire protection equipment from potential flood areas.
- □ List the locations of all fuel control valves and close all valves prior to flooding.
- □ Enforce "No Smoking" rules because of possible flammable liquid spills.



# **During the Storm**

- □ Turn off all nonessential electricity if flooding occurs or is likely to occur.
- □ Stay inside -- even during the eye of the storm -- unless emergency repairs are necessary.
- $\Box$  Use telephones only for emergencies.
- □ Use flashlights instead of candles or kerosene lamps.
- □ Have a good fire extinguisher ready in case of fire. Make sure that any fire brigade is well trained and their equipment is well maintained.

## After the Storm

- Drinking water and food may be contaminated be careful!
- □ There may be problems with gas or electricity. Be sure to contact the correct utilities if you suspect a leak or other problem. Report any downed power lines or any broken gas or water mains to the appropriate authorities.
- □ Look for any structural damage. Evacuate the premises if necessary.
- Do not go near fallen or low-hanging wires. Do not touch anything that comes into contact with fallen or low-hanging wires.
- □ Be aware of weakened roads, bridges, etc., which may collapse unexpectedly.



## **Appendix 1: Hurricane Checklist**

When planning for hurricanes a detailed checklist should be developed indicating the order in which processes are to be shut down and the facility secured. The length of time needed – expressed in hours or days – to accomplish these tasks should be determined *in advance* so that appropriate actions can be initiated at the proper time. Then, as each task is completed during either a *hurricane watch* or *hurricane warning*, managers should check it off and move on to the next one.

Below is a sample checklist. Please modify to suit the needs of your facility.

	Action Point	Time Required	Complete	
1.	Shut down process safely.			
2.	Inspect roof edging strips, gutters, flashing, covering, and drains.			
3.	Inspect sign and stack supports, guy wires, and anchorages.			
4.	Check for weak door and window latches or hardware or for insecure			
	panel fastenings. Expedite repairs.			
5.	Protect vulnerable windows from flying debris.			
6.	Brace unsupported structural members at construction sites.			
7.	Protect important records from wind, debris, and rain.			
8.	Up-date important backup records and move them to a location not			
0	vulnerable to the same incident.			
9.	Fill aboveground tanks to capacity with product or water to minimize wind damage.			
10.	Anchor structures in the yard that can be moved by high winds, such as			
	trailers, lumber, or any loose yard storage. Move stored materials inside where practical.			
11.	Assemble the following supplies and equipment at a central, secure			
	location, including:			
	<ul> <li>Emergency lighting</li> <li>Caulking compound</li> </ul>			
	□ Lumber and nails □ Tarpaulins			
	□ Tape for windows □ Power and manual tools			
	□ Sandbags □ Shovels and axes			
	□ Roofing paper □ Chain saws			
12.	Ensure that the emergency crew remaining on the premises has the			
	following:			
	□ Nonperishable food □ Lighting			
	□ Two-way radios □ Stored drinking water			
	□ First aid equipment			
13.	Fill emergency generator and fire pump fuel tanks.			
	Inspect all fire protection equipment to be sure it is in service.			
	Take extraordinary measures to secure outdoor traveling cranes and			
	bridges in accordance with manufacturers' instructions. Besides setting			
	rail clamps, secure with wedges and cable anchors.			
16.	Clean out drains and catch basins.			
17.	Be sure to prepare the Flood Checklist as well as the Hurricane Checklist.			

Add other items unique to your facility...

# **Thank You**



# SV7 MMYERS



## S 7 RSM RESILIENCE AND TRAINING



**S7UNIVERSITY** DIGITAL TRAINING SOLUTIONS



Sigma7 is a new kind of global risk information and services platform designed to enhance value by helping organizations dramatically improve the way they assess, mitigate and respond to risk. We provide a total risk solution, aggregate best-in-class capabilities, contextualize threats with clarity and measure success by business outcome and value for the risk dollar spent. Our technology-enabled services platform optimally manages risk, so companies can deliver their essential mission in a complex, rapidly evolving threat landscape. Sigma7 delivers services across risk domains on an outsourced, augmented, or point solution basis.

## **RISK MANAGEMENT PACKAGES**

- Highly Managed Risk
- Board Level Packages
- C-Level Packages
- Enterprise Packages
- Outsourced Risk Office

#### **SECURITY & INTELLIGENCE**

- IF Threat Intelligence Platform
- Security Management Advisory
- Security Operations Center
- Immersive HEAT Training
- Active Threat Training
- Political & Country Risk Assessment
- Duty of Care Services
- Supply Chain Threat Monitoring
- Torchlight Enhanced Awareness

## STRATEGIC RISK ADVISORY

- Geopolitical Risk Advisory
- Cyber Risk Advisory
- Supply Chain Risk Advisory
- Risk Analytics & Quants
- Enterprise Risk & Resilience
- Transaction & Dispute Services
- Crisis Command
- Immersive War Gaming

#### **RISK MANAGEMENT SERVICES**

- Property Risk Engineering
- Cyber Risk Services
- Forensic Accounting & Claims
- Exposure Valuation
- Risk Finance Optimization
- Insurance Adequacy Review
- Duty of Care Services

- STRISK.COM