

**The World Trade Center Baltimore
401 East Pratt Street
Baltimore, Maryland 21202**

Hurricane Preparedness Plan

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Maryland Port Administration The World Trade Center Baltimore Hurricane Preparedness Plan

Purpose:

The purpose of this plan is to establish a policy and procedures to prepare The World Trade Center Baltimore (**WTC**) in the event of a hurricane. Preparing the WTC for a weather event includes protecting occupants and securing Maryland Port Administration (**MPA**) property and equipment. The MPA Property Management Office (**PMO**) will disseminate advisory information to its WTC tenants and oversee preparation activities for the WTC. The goal of the preparedness plan is to minimize the risk of death, injury, and property damage and return the WTC to normal operations as quickly as possible after a severe weather event.

This plan is advisory in nature and does not supersede any directives or requirements established by the Maryland Emergency Management Agency's (**MEMA**) State of Maryland Emergency Operations Plan (**EOP**) or by any authority having jurisdiction. These plans should be consulted and their policies, directives, and recommendations adhered to, as they apply, in the event of a hurricane or severe weather event emergency.

Application:

This plan applies to The World Trade Center Baltimore, PMO, and other related personnel that are involved with the safeguarding of MPA property and personnel as it relates to the WTC.

Discussion:

Hurricanes pose a threat to life and property on the east and gulf coasts of the United States from high winds, heavy rains, and flooding. Fortunately, hurricanes can be detected and their movements closely monitored making the threat they pose relatively predictable. With sufficient notice and preparation, people and property can be protected and losses potentially minimized.

June 1st through November 30th is the period of greatest hurricane activity and is referred to as hurricane season. The Coast Guard Captain of the Port (**COTP**) will establish and publish maritime conditions based on the threat of a hurricane striking the Baltimore area. The chart on Attachment 1 compares the various maritime hurricane conditions. These conditions are described as follows:

1. Maritime condition **HURRICANE SEASON**: This condition is automatically set on June 1st each year. At this time hurricane plans should be reviewed and weather reports closely monitored for any hurricane activity.
2. Maritime condition **WHISKEY** (also referred to as **HURRICANE SEASON**): Hurricane force winds (75+mph) may be expected within 72 hours.
3. Maritime condition **XRAY** (also referred to as **HURRICANE WATCH**): Hurricane force winds are expected within 48 hours.
4. Maritime condition **YANKEE** (also referred to as **HURRICANE WARNING**): Hurricane force winds are expected within 24 hours.

5. Maritime condition ZULU (also referred to as (HURRICANE WARNING): Hurricane force winds are expected within 12 hours.

The MdTA Police Department (P.D.) maintains a 24-hour watch and communications system. U.S. Coast Guard will make notification of maritime condition changes to MdTA Police, MPA Ops or MPA Safety and Risk Management Department (SRMD). SRMD will notify the PMO who in turn will notify the tenants of the hurricane condition and other relevant information.

It is important to have an up-to-date WTC Emergency Contact Form Attachment 3. WTC tenants are responsible for submitting in a timely manner any changes for its office relating to emergency contacts to the PMO via email to mhughes@marylandports.com. The WTC Emergency Contact Directory will be maintained at the PMO, the WTC Security Desk and MdTA Police Department Communications.

Preparation Actions:

WHISKEY (also referred to as *HURRICANE SEASON*). Hurricane force winds (75+mph) are expected within 72 hours.

1. Normal business operations may continue.
2. The SRMD will advise PMO of the maritime condition.
3. The PMO will do the following:
 - Advise tenants to stay posted to the designated website during the expected event.
 - Review preparedness plan for XRAY, YANKEE, ZULU with WTC maintenance and other pertinent personnel in relation to the WTC and preparedness.

XRAY (also referred to as *HURRICANE WATCH*). Hurricane force winds are expected within 48 hours.

1. Normal business operations may continue.
2. The SRMD will advise PMO of the maritime condition and periodic weather updates.
3. The PMO will do the following:
 - Advise WTC Tenants to stay posted to the website.
4. The PMO will direct the following activities of WTC maintenance through hurricane preparation work orders:
 - Identify work force that will report to the WTC during ZULU.
 - Ensure equipment and supplies required under the preparedness plan are on site or available.
 - Survey both inside and outside the WTC. Make plans to protect outside equipment and structures.
 - To clear items such as loose gear, equipment, trash, trashcans, etc. from outside and loading dock.
 - Check all lobby and other exterior doors for design standard operation.

- Revolving doors should be locked down as soon as wind gusts exceed 45 mph. Swing doors will be used for ingress and egress.
- Test emergency generator and fill fuel tank.
- Test all drains to ensure proper operation.
- Test all sump pumps for proper operation.
- Contact an antenna contractor to inspect the roof antennas for safety. Contact all antenna owners and advise them of any issues.
- Check and secure roof and all roof hatches.
- Check Link-Seals at Columns 4, 6 & 8, joint caulking, and other watertight seals around the perimeter of the building.
- Check floodgates to insure full closure, latch and seal in accordance with the manufacturer's operation instructions.
- Move timber flood protection barricades into position adjacent to designated entrance or egress doors and openings. Make ready plastic sheeting, sealant materials, and sand bags needed to complete the watertight installation.
- Check storm drain manhole in west access ramp to confirm watertight seal and all bolts tight in place. Confirm access to all parts associated with installation of emergency cover plate hung on adjacent wall.
- Review schedules of all functions to be held on the 21st floor and TOTW during and after the hurricane. WTC maintenance is to notify the clients of the potential hurricane and to prepare for possible closure of the WTC to allow clients to make alternate plans. Provide list to executive office in the event we have to cancel any events and refunds will be necessary. WTC maintenance is to have all contacts and phone numbers for each client readily accessible.
- Have in place fully charged radios, cell phones, flashlights, back up batteries for the above for a crew of 10 people, excluding the cell phones (that should be for 2 people).
- Arrange for hand portable submersible pumps, 120 volt, 60 foot head capacity with 1-1/2" discharge with hose connection fitting and enough 1-1/2" hose (75 feet min. to reach an appropriate discharge point) to remove floodwater from the loading dock, columns, lobby, etc.
- Contact the City and request a status of the drain and if there are any issues with draining anticipated with the impending hurricane.
- Contact BGE to devise plan for shutdown of electricity, if necessary. This would be needed in the event the basement floods.

YANKEE (also referred to as *HURRICANE WARNING*). Hurricane force winds are expected within 24 hours.

1. Once Condition YANKEE is set, a Command Post (**CP**) for the marine terminals may be established. The PMO may either send a representative or be in communication with the CP. SRMD will advise PMO if a CP has been established.
2. The SRMD will, if required, make regular status reports to the MEMA Emergency Operations Center (**EOC**) in accordance with Appendix 3 to Annex C of the Maryland EOP.

3. Normal business operations may continue.
4. SRMD will advise PMO of the maritime condition and provide periodic weather updates.
5. The MdTA Police will patrol MPA facilities and report any problems or hazardous conditions noted to and SRMD and PMO.
6. The PMO will do the following:
 - Advise WTC Tenants to stay posted to the website.
 - Plan for the possible closing of WTC in order to prepare for hurricane.
 - Advise janitorial to have staffing on standby during hurricane.
7. The PMO will direct the following activities of WTC maintenance through hurricane preparation work orders:
 - Review all actions taken in XRAY
 - Remove any potential hazards from WTC grounds.
 - Implement procedures to close, latch, and seal floodgates at top of east and west loading dock access ramps; **install, latch, and seal drop-in barrier at top of east egress stairs from loading dock**; and install auxiliary emergency cover plate over watertight manhole cover in west access ramp. Installation of auxiliary emergency cover plate is only recommended when floodwater expected to meet or exceed elevation +9.0 feet.
 - Notify staff and tenants the loading dock is closed for deliveries.
 - Connect semi-rigid fire hose to alternate sump pump discharge pipe coupling at Column #2 and stabilize hose end at column gate not lower than elevation +13.5 feet.
 - Normal telephone service may not be available after a hurricane. Review radio procedures and protocols and ensure radio batteries are available and charged.
 - To notify work force to report to the WTC at Zulu 12 hours prior to landfall and remain through hurricane event to post hurricane restoration of essential services. Schedule to be provided to PMO.
 - To provide arrangements for sleep if the time to be on duty is over 16 hours.

ZULU (also referred to as (*HURRICANE WARNING*)). Hurricane force winds are expected within 12 hours.

1. The SRMD will advise PMO of the maritime condition and provide periodic weather updates.
2. Business operations may continue under advisory conditions.
3. The PMO will do the following:
 - Advise WTC Tenants to stay posted to the website.
 - Via the website or other appropriate means, advise tenants of status of WTC Building. A determination to close will depend on the conditions that are expected and orders that may be received from jurisdiction have authority.
 - Review evacuation and other emergency plans.

- Advise security to close the arcade gates.
 - Plan for the possible closing of WTC in order to prepare for the hurricane.
 - Prepare to establish a potential WTC Command Post with pre-designated personnel. The WTC CP will continue to report to the terminals CP.
4. The PMO will direct the following activities of WTC maintenance through hurricane preparation work orders:
 - Implement procedures **3** through **7** as specified in Attachment 4. Only required, if floodwater expected to meet or exceed elevation +9.0 feet.
 - Be prepared to shut down the steam heat system at the main valve. Only required, if floodwater expected to meet or exceed elevation +9.0 feet.
 - If floodwater expected to meet or exceed elevation +9.0 feet, verify installation of auxiliary emergency cover plate.
 - Be prepared to contact BGE to implement plan for shutdown of electricity, if necessary. This would be needed in the event the basement floods.
 - If and only if floodwater rises to an elevation of +9.5 feet, redirect sump pump discharge flow to Column #2. Caution, redirecting flow prematurely will dump sump water on to the plaza not yet flooded.
 5. The SRMD should make regular status reports to the MEMA EOC in accordance with Appendix 3 to Annex C of the Maryland EOP.

Post Hurricane Activities

The SRMD will advise PMO of any official advice or recommendations.

1. The PMO will do the following:
 - Perform post hurricane evaluation.
 - Return to seasonal alert.
3. The PMO will work with WTC maintenance or MPA Engineering to do the following:
 - Inspect and restore utilities as quickly as can be done safely.
 - Examine exterior (including, but not limited to roof, water dock and columns) and interior for any damage.
 - If in-house personnel cannot achieve restoring, then WTC maintenance will have appropriate vendor respond for immediate repair.
 - Inventory and report damage to terminal CP, as long as the CP remains in operation.
 - If access to WTC or tenant spaces is affected, make phone calls to emergency contacts.
 - Provide copies of all completed work orders to PMO.
4. The MPA Office of Communications will prepare news releases of WTC situation, condition, and employees' work status and post on designated website
5. The SRMD should make regular status reports to the MEMA EOC accordance with Appendix 3 to Annex C of the Maryland EOP.

Attachment 1 - Comparison of Civilian, Maritime and Military Hurricane Conditions

<i>Projected Storm Path and Seasonal Considerations</i>	<i>Maritime Hurricane Conditions</i>	<i>Civilian Hurricane Conditions</i>	<i>Military Hurricane Conditions</i>
1 December - 31 May	NONE	NONE	NONE
1 June - 30 November	SEASONAL ALERT (set automatically)	HURRICANE SEASON (set automatically)	SEASONAL ALERT (set automatically)
Hurricane force winds are expected within 72 hours at (geographic point)	CONDITION WHISKEY	HURRICANE SEASON	CONDITION FOUR
Hurricane force winds are expected within 48 hours at (geographic point)	CONDITION XRAY	HURRICANE WATCH	CONDITION THREE
Hurricane force winds are expected within 24 hours at (geographic point)	CONDITION YANKEE	HURRICANE WARNING	CONDITION TWO
Hurricane force winds are expected within 12 hours at (geographic point)	CONDITION ZULU	HURRICANE WARNING	CONDITION ONE
After the storm passes or when projected storm path has storm not impacting (geographic point)	Return to SEASONAL ALERT	Return to HURRICANE SEASON	RESPONSE & RECOVERY

Attachment 2 - List of Essential Telephone Numbers

Department/Agency	Telephone Number
Baltimore City Fire Department	410-396-5689
Baltimore Gas & Electric Report All Electric Outages & Gas leaks	410 685-1400
Request Outage Information	410 265-4470
• Business Hours (7:30 AM to 4:30 PM Weekdays)	
• Non-Business Hours (4:30 PM to 7:30 AM Weekdays)	410 685-1400 (Request transfer to Duty Rep)
• Senior Account Executive: Robert Pellegrini	Office 410 265-4046 Pager 410 597-6600 ID# 1758 Home 410 248-2843
City Public Works	410-396-3100 (info)
Sidewalks (footways)	410-396-6967
Water & Waste Water	410-396-7870
Storm Drain	410-361-9381
Maryland Department of the Environment	410-537-3975
Oil & Hazardous Materials Emergency Response Team	866-633-4686
Maryland Emergency Management Agency	410-517-3600
Emergency Operations Center	410-517-3600
MdTA Police Department Communications Section	410-633-1092
MdTA Police Detachment Commander	410-633-1071
Cellular Telephone	443-324-8789
Operations Lieutenant	410-633-1070
Cellular Telephone	443-829-7601
On Duty Supervisor	410-633-1067
MPA Office of Communications	410-385-4480
MPA Security Office	410-633-1150
MPA Safety and Risk Management Department	410-633-1147
MPA Terminal and Vessel Operations Department	410-633-1077
Director of Operations	410-633-1043
Gen. Manager, Terminal Operations	410-633-1124
Marine Operations Duty Person	410-633-1076
Vessel Operations	410-633-1160
Marine Operations Cellular	410-302-9581
WTC Meridian Engineer on site	(cell) 410-262-3818

Attachment 3 - Emergency Contact Form

EMERGENCY CONTACT FORM
THE WORLD TRADE CENTER BALTIMORE

The Maryland Port Administration is requesting the following information to make the proper notification after hours in an event involving your property, premises or company personnel that includes needing access without their badge.

COMPANY NAME: _____ SUITE #: _____

FLOOR: _____ BUSINESS PHONE: _____ BUSINESS FAX #: _____

FIRST CONTACT: _____ TITLE: _____

HOME PHONE: _____ CELL PHONE: _____ PAGER #: _____

SECOND CONTACT: _____ TITLE: _____

HOME PHONE: _____ CELL PHONE: _____ PAGER #: _____

THIRD CONTACT: _____ TITLE: _____

HOME PHONE: _____ CELL PHONE: _____ PAGER #: _____

In addition, please advise the name of the person that will authorize employees for a badge and access hours to your space if different from above:

(Signature of Person) _____ (Print)

HOME PHONE: _____ CELL PHONE: _____ PAGER #: _____

ALARMS: Yes _____ No _____ NAME OF ALARM COMPANY: _____

■ _____ PHONE: _____

FORM COMPLETED BY: _____ (signed) TITLE: _____

Print Name: _____

E-MAIL ADDRESS: _____ (this email address will be used to disseminate information from the Property Management Office).

Please note it is the tenant's responsibility to notify Property Management Office of any information that changes.

Attachment 4 – Implementation of Flood Barrier Systems

1. **Access Ramp Floodgates: (Implement at condition YANKEE)**
Close, latch, and seal floodgates at top of east and west loading dock access ramps. This barrier will provide flood protection to Elev. +11.5’.
2. **East Loading Dock Egress Stairs: (Implement at condition YANKEE)**
Install drop-in flood barrier, latch and inflate seals at east location. This barrier will provide flood protection to Elev. +11.5’.
3. **West Loading Dock Egress Stairs: (Required if flood water expected to exceed Elev. +9.0’)**
Install drop-in flood barrier, latch and inflate seals at west location. This barrier will provide flood protection to Elev. +11.5’.
4. **Auxiliary Cover Plate: (Required if flood water expected to exceed Elev. +9.0’)**
Install auxiliary emergency cover plate over watertight manhole cover in west access ramp.
5. **Main Entrance Doors at Columns #2 & #10: (Required if flood water expected to exceed Elev. +9.0’)**
Install demountable conversion frame and stop log system at four (4) pre-fitted locations. This barrier system will provide flood protection to Elev. +11.5’. Full deployment must not be completed until the building is officially closed.
Note: Until new stop log system is installed, temporary wood barriers shall be deployed as needed.
6. **Main Entrance Doors at Arcade Doors: (Required if flood water expected to exceed Elev. +9.0’)**
Install demountable conversion frame and stop log system at two (2) pre-fitted locations. This barrier system will provide flood protection to Elev. +11.5’.
Note: Until new stop log system is installed, temporary wood barriers shall be deployed as needed.
7. **Fire Stair Egress Doors: (Required if flood water expected to exceed Elev. +9.0’)**
After the building has been officially closed, install demountable conversion frame and stop log system at two (2) pre-fitted locations. This barrier system will provide flood protection to Elev. +11.5’.
Note: Until new stop log system is installed, temporary wood barriers shall be deployed as needed.

Attachment 5 – Checklist for Pre-Hurricane Season

March thru May Actions

1. If necessary, update Hurricane Preparedness Plan
2. Inspect and test emergency generator & automatic transfer switches. Perform a full building power outage to insure proper transfer of emergency power to all connected systems and proper operation of those systems on emergency power. Verify full and complete return to normal power.
3. Inspect and test all drains
4. Inspect and test all sump pumps
5. Contact antenna contractor to inspect roof antennas for safety
6. Inspect and check roof hatches
7. Inspect link-seals at Columns 4, 6 & 8, joint caulking, and other watertight seals around perimeter of the building. Make any repairs as necessary.
8. Inspect and test floodgates to insure full closure, latch and seal in accordance with the manufacturer's operation instructions.
9. Inspect and verify that watertight manhole cover is sealed, all bolts are tight in place, and all parts for auxiliary emergency cover plate are in good condition. Conduct an exercise to install auxiliary cover plate to verify installation protocol.
10. Inspect and inventory 10 mil plastic sheeting (2 - 15' x 100' rolls per flood event), water reactive sealant (one case, 24 sausages, per flood event), sand bags (600 – 50 lb. bags per flood event) and other related equipment for use.
11. Contact the city and request an evaluation of storm drain condition and if any problems exist what action will be taken. Paul Weiner, Chief Storm Water Engineering, Utility Engineering Section, at 410-396-4700 and advise him of the specific intention.
12. At pre-season inspection, remove all trash and check water flow through drains at Columns 4, 6 and 8. These drains do not enter the building, but should be cleaned and checked periodically to ensure proper drainage if the columns should become filled during a flood event. Also, contact SHA Communications Dept. at 410-747-8590 to inquire when the antenna tower was last inspected for structural integrity. Any problems found should be discussed to determine if any issues are cause for concern during the hurricane season.
13. Check operation of forklift and ensure spare tank of propane is available.

Attachment 6 – Definitions

Definitions:

Elevation: Fixed structure elevations are based on Baltimore City vertical datum.

Floodwater Elevation: Potential floodwater elevation at time of hurricane arrival is calculated by adding predicted tide level (NOAA website) at time of arrival, at Baltimore, MD., Site #8574680 (Fort McHenry) plus 0.8 feet at WTCB plus average storm surge for predicted hurricane category (expected in Baltimore at time of arrival) from Saffir-Simpson Hurricane Scale.

Example:

+2.5 feet - Fort McHenry Tide Prediction (standard prediction, excluding storm surge)

+0.8 feet - Adjustment at WTCB

+4.5 feet - Avg. Storm Surge Category 1 Hurricane (Saffir-Simpson Hurricane Scale)

+7.8 feet - Flood Water Elevation

Saffir-Simpson Hurricane Scale: See Below

Saffir-Simpson Hurricane Scale			
Scale No. (Category)	Sustained Winds (mph)	Damage	Storm Surge
1	74-95	Minimal: Unanchored mobile homes, vegetation and signs.	4-5 Feet
2	96-110	Moderate: All mobile homes, roofs, small crafts, flooding.	6-8 Feet
3	111-130	Extensive: Small buildings, low-lying roads cut off.	9-12 Feet
4	131-155	Extreme: Roofs destroyed, trees down, roads cut off, mobile homes destroyed. Beach homes flooded	13-18 Feet
5	> 155	Catastrophic: Most buildings destroyed. Vegetation destroyed. Major roads cut off. Homes flooded.	> 18 Feet