

Maryland Port Administration

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Hurricane Preparedness Plan

For

Marine Terminals

Revised

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Maryland Port Administration Hurricane Preparedness Plan

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Maryland Port Administration Hurricane Preparedness Plan

A. PURPOSE

1. The purpose of this plan is to establish policy and procedures for protecting personnel and securing Maryland Port Administration (MPA) property and equipment in preparation for hurricane force weather. The MPA will provide guidance, act as liaison to the U.S. Coast Guard, and disseminate advisory information to MPA tenants in preparation for a possible hurricane strike on Baltimore. The goal is to minimize potential deaths, injuries, and property damage and return MPA facilities to normal operations as quickly as possible after a hurricane impact on the Baltimore area.
2. 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 those promulgated in the U.S. Coast Guard Captain of the Port (COTP) Upper Chesapeake Bay Hurricane Contingency Plan. <http://homeport.uscg.mil/mycg/portal/ep/home.do> **(Copy and paste the address)** Click Port Directory, then under Safety & Security Section, click COTP Orders-Local Contingency Plans, then click Upper Chesapeake Maritime Hurricane Contingency Plan 2009.

These plans should be consulted and their policies, directives, and recommendations adhered to, as they apply, in the event of a hurricane emergency.

B. APPLICATION

This plan applies to all MPA personnel and facilities and includes recommended actions for leasees of MPA property.

C. DISCUSSION

1. 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 minimized.
2. June 1st through November 30th is the period of greatest hurricane activity and is referred to as hurricane season. The Coast Guard COTP will establish and publish maritime conditions based on when gale force winds are predicted to arrive on the Maryland waters of the Chesapeake Bay (or the COTP Zone). The intent of setting port maritime hurricane conditions is to give the port community time to prepare. Attachment (1) is a chart comparing the various maritime hurricane conditions. These conditions are described as follows:

- a) **SEASONAL ALERT:** Set on June 1st and remain in effect through November 30. At this time hurricane plans should be reviewed and weather reports closely monitored for any hurricane activity.
 - b) **STORM CONDITION:** Set when high winds 55mph/48kts or greater are forecast. This condition includes all phases of the approaching storm.
 - c) **WHISKEY.** Set when gale force winds (34+ mph) associated with tropical cyclone activity are expected to arrive at the Port within **72 hours.**
 - d) **XRAY:** Set when gale force winds (34+ mph) associated with tropical cyclone activity are expected to arrive at Port within **48 hours.**
 - e) **YANKEE:** Set when gale force winds (34+ mph) from a hurricane force storm are expected to arrive at the Port within **24 hours**, and as soon as practical after the storm passes.
 - f) **ZULU:** Set when gale force winds (34+ mph) from a hurricane force storm are expected to arrive at the Port within **12 hours.**
3. The MdTA Police Department (P.D.) maintains a 24-hour watch and communications system. U.S. Coast Guard will make notification of maritime condition (via telephone and through teleconferences) changes to the MPA. Notifications and advisories to MPA tenants will be made using the MPA eBroadcast system; therefore it is important to provide current information to the eBroadcast administrator.
 4. The Coast Guard COTP Baltimore will take action to control ship movements based on the prevailing maritime condition. Sector Baltimore is an inland port and there are several factors to consider when deciding whether or not to allow a vessel to transit to sea or remain in Port. It takes 8 hours to transit through the C&D canal and 12 hours to transit through Hampton Roads to reach the Sea Buoy. Also the COTP has to consider what port conditions both Sector Delaware Bay and Sector Hampton Roads have set.
 5. The COTP Baltimore will dispatch harbor patrols into the port during the various maritime conditions to check for any potential hazards and may require facility operators to take action to eliminate hazardous conditions.

D. VESSEL PREPAREDNESS

- 1 The MPA, through eBroadcast, will transmit maritime condition advisories and preparedness recommendations to vessel owners, operators, agents, and steamship companies.
- 2 At **WHISKEY**, advise all vessels that **NO VESSEL CAN REMAIN MOORED AT MPA FACILITIES UNTIL and UNLESS THE FOLLOWING OCCURS**. Preparations should begin.
 - a) Oceangoing and barges greater than 500 gross tons, must seek COTP approval and have a COTP verification number for remaining in Port. This requires submission of a written request to COTP and MPA Operations, using the USCG's **Commercial Vessel Authorization Checklist/Survey**.
 - b) Any vessel less than 500 gross tons must complete the USCG's Commercial Vessel Authorization Checklist/Survey, submit to MPA, and request permission from the MPA to remain in port. The Director of Operations or designee for MPA will review the request and may grant permission to the vessel, depending on operational considerations. A person of authority who can legally bind the corporation or entity must sign a Right of Entry.
 - c) Vessels with COTP pre-approval to remain in port should verify that the approved plan remains valid and notify the COTP of their intentions. If any of these vessels are moored at an MPA facility, MPA Ops must be notified and will consider giving permission for a vessel to remain at its berths.
 - d) The MPA may allow vessels to stay at its berths under any maritime condition. For commercial oceangoing vessels and barges greater than 500 gross tons, permission must be granted by the COTP Baltimore before MPA will allow a vessel to remain at its berths. However, the COTP Baltimore has ultimate authority to direct vessel movements and usually orders vessels greater than 500 gross tons to anchorage or to sea if conditions permit. Advanced planning and timely coordination with the MPA and the COTP will be critical in determining the safest course of action for each vessel.
 - e) Vessels asking permission to be moored at an MPA owned facility during a hurricane must notify the COTP Baltimore and the MPA by submitting a **Commercial Vessel Authorization Checklist/Survey**. Vessels electing to remain at anchorage in Baltimore Harbor or Chesapeake Bay must notify the COTP Baltimore. These arrangements must be confirmed when maritime condition YANKEE has been set or sooner. **Recommended Precautionary Measures For Ships** and **Recommended Precautionary Measures for Barges** remaining moored or anchored in port are included in the COTP Upper Chesapeake Bay Hurricane Contingency Plan. Also owners of vessels and barges should review the **Hurricane Prep Checklist for Ships and Barges**. These checklists/surveys/forms can be found in U.S.C.G Hurricane Contingency Plan. <http://homeport.uscg.mil/mycg/portal/ep/home.do>

Click Port Directory, then under Safety & Security Section, click COTP Orders-Local Contingency Plans, then click Upper Chesapeake Maritime Hurricane Contingency Plan 2009.

f) For commercial oceangoing vessels and barges greater than 500 gross tons requesting permission to stay at an MPA berth, the MPA requires that the vessel requests permission in writing and submits a completed Commercial Vessel authorization Checklist/Survey. The Director of Operations or designee for MPA will review the request and may grant permission to the vessel, depending on operational considerations. A person of authority who can legally bind the corporation or entity must sign a Right of Entry.

3. When **XRAY** is set, the following is required:
 - a. Vessels with COTP pre-approval to remain in port should verify that the approved plan remains valid and notify the COTP and the MPA of their intentions.
 - b. Other vessels intending to remain at their moorings in port must obtain the COTP's permission and the MPA's approval.
4. When **YANKEE** is set, all vessels intending to remain moored at an MPA facility should have COTP and MPA permission.
5. At maritime conditions X-RAY and Yankee, the MPA Operations Department will notify the USCG of all vessels and barges arriving and departing MPA facilities.
6. When **ZULA** is set, COTP's team will ensure that all vessels are moored or anchored in preparation for the hurricane.
7. **Post Hurricane:** Vessel operators should be aware that after a hurricane passes, all navigation channels must be surveyed for possible submerged hazards to navigation and navigational aids must be checked to ensure they are functioning properly and in their proper location. The COTP Baltimore may not permit vessel movement in the Port of Baltimore until these precautionary measures are completed. This could delay vessel arrivals and departures for several days after a hurricane. Any decision to keep a vessel in port during a hurricane should be made with this in mind.

E. FACILITY PREPAREDNESS

1. **WHISKEY:** The MPA, through eBroadcast, will transmit the following to MPA departments, its tenants, and other port users:
 - a) Review Hurricane Preparedness and Contingency Plans. Prepare (MPA) to initiate work order for Hurricane Preparedness.
 - b) Advise vessels who want to remain moored at an MPA facility of the requirement identified under Vessel Preparedness Section.
 - c) Normal facility operations may continue during maritime condition WHISKEY.
2. **XRAY:** The MPA, through eBroadcast, will transmit the following to MPA departments, its tenants, and other port users:
 - a) Normal facility operations may continue during maritime condition X-RAY
 - b) Begin clearing missile hazards such as loose gear, equipment, dunnage, sheet metal, pallets, trash, drums, etc.
 - c) Plan for moving and securing dangerous cargo and hazardous materials to a safe location. Advise the COTP Baltimore of any concerns regarding dangerous cargoes or hazardous materials.
 - d) If practical, prepare stacking plan for empty and full containers. The COTP may require this action for containers with hazardous materials. Each tenant is to survey its area and use appropriate judgment as to the safest manner in which to store containers and other cargoes.
 - e) Survey moored vessels and notify the COTP Baltimore of any potential problems.
 - f) Advise vessels who want to remain moored at an MPA facility of the requirement identified under Vessel Preparedness Section.
 - Vessels with COTP pre-approval to remain in port should verify that the approved plan remains valid and notify the COTP of their intentions.
 - Other vessels intending to remain at their moorings in port must obtain the COTP's permission and the MPA's approval.
 - g) Review schedules of inbound and departing vessels and barges. Notify the COTP Baltimore of any vessels arriving or departing the Port of Baltimore within the next 48 hours.

- h) Where possible, photograph construction projects and facility improvements for use as verification of hurricane damage.
 - i) Keep abreast of weather conditions.
 - j) Consider the possibility of flooding and prepare to take measures to mitigate damage as much as possible (e.g. sandbag doors, move critical equipment, documents, and records to a higher location such as the second floor of a multi-story building or on top of tables or desks, etc.)
 - k) Check and test back-up generators, including fueling.
3. **YANKEE:** The MPA, through eBroadcast, will transmit the following to MPA departments, its tenants, and other port users. Some items will be for MPA only.
- a) Normal operations may continue.
 - b) Plan for the possible termination of cargo operations.
 - c) Begin securing buildings and equipment for heavy weather.
 - d) Begin securing containers, both empty and full.
 - e) Secure non-essential fuel and chemical storage and supply facilities (close valves, secure openings, etc.)
 - f) Advise vessels who want to remain moored at an MPA facility of the requirement identified under Vessel Preparedness Section.
 - Notify the COTP Baltimore of any vessels still moored at a terminal.
 - Advise all vessels intending to remain moored at an MPA facility that they should have COTP and MPA permission.
 - g) Survey terminal areas for any potential hazards. Notify the MdTA Police and the COTP Baltimore if any hazards are found.
 - h) Ensure all hazardous cargo is secured and protected from damage as much as possible.
 - i) Review the MPA Crane Operating Procedures during Forecast and Actual Winds.
 - j) Consider the possibility of flooding and take measures to mitigate damage as much as possible (e.g. sandbag doors, move critical equipment, documents, and records to a higher location such as the second floor of a multi-story building or on top of tables or desks, etc.)

- k) Normal telephone service may not be available after a hurricane. Review radio procedures and protocols and ensure radio batteries are available and charged.
 - l) The MdTA Police will patrol MPA facilities and report any problems or hazardous conditions noted to the responsible terminal operator and the MPA Ops. Department
 - m) Once Condition YANKEE is set, a Command Post may be established. Request ISD to prepare command post.
 - n) Command Post Procedures dictate who should be present.
 - o) SERM should make regular status reports to the MEMA Emergency Operations Center (EOC) or DOTOps in accordance with Appendix 3 to Annex C of the Maryland EOP.
 - p) Continue to evaluate weather conditions.
 - q) The MPA Ops Department will request more frequent weather reports from the weather service provider.
 - r) Identify & schedule personnel who will be required to report to DOT OPS.
 - s) Identify & schedule personnel who may be required to remain at or near the facility.
 - t) Ensure that 'essential personnel' can get onto terminal.
 - u) Ensure that employee phone numbers are available.
8. ZULU: The MPA, through eBroadcast, will transmit the following to MPA departments, its tenants, and other port users:
- a) Prepare for possible termination of cargo operations. Determine time for termination and broadcast.
 - b) Establish the MPA Command Post with pre-designated personnel. Refer to CP procedures.
 - c) Continually evaluate weather conditions
 - d) Ensure all buildings and equipment are secured for heavy weather.
 - e) Backup computer files and applications.
 - f) Secure all fuel and chemical storage and supply facilities (close valves, secure openings, etc.)
 - g) Notify the COTP Baltimore of any vessels still moored at a terminal.

- h) Survey terminal areas for any potential hazards. Notify the MdTA Police and the COTP Baltimore if any hazards are found.
- i) Refer to the MPA Crane Operating Procedures During Forecast and Actual Winds.
- j) Prepare for flooding and take measures to mitigate damage as much as possible (e.g. sandbag doors, move critical equipment, documents, and records to a higher location such as the second floor of a multi-story building or on top of tables or desks, etc.).
- k) Move vehicles and equipment to higher ground.
- l) The MPA small boat facility should take the following actions:
 - (1) Secure all boats and scows with additional lines.
 - (2) All vessel-mooring lines should be lengthened to accommodate for exceptionally high tides.
 - (3) Clear missile hazards such as loose gear , equipment, dunnage, trashcans, etc. from pier and work areas.
 - (4) Park vehicles in garage.
 - (5) Seek safe harbor for debris scows at North Locust Point Terminal.
 - (6) Insure electrical service to small boats is maintained for bilge pumps.
 - (7) Assign personnel to facility after normal working hours to address any unforeseen occurrences.
- m) The MdTA Police will patrol MPA facilities and report any problems or hazardous conditions noted to the responsible terminal operator and MPA Command Post.
- n) Test radios, radio procedures and protocols and ensure batteries are available and charged.
- o) Move Equipment to higher ground.
- p) Review evacuation plans.
- q) The MPA SERM should make regular status reports to the MEMA EOC or DOTOps in accordance with Appendix 3 to Annex C of the Maryland EOP.
- r) Dispatch persons to DOT OPS, if required.

- s) Post schedule for employees required to remain on terminal.
- t) Plan schedule for replacements at Command Post.
- u) Provide with options and information regarding home preparation to employees, as appropriate.

F. POST-HURRICANE ACTIVITIES

1. The MPA, through eBroadcast, will publish advisories to MPA departments and tenants regarding their responsibilities for their own and MPA's equipment and property.
2. The MPA Ops and Maintenance:
 - Establish telephone and/or radio communications with the MPA CP.
 - Verify status of all personnel. Report findings/problems to the MPA CP.
 - Survey terminal areas for any dangerous conditions (e.g. fire/explosion hazards, oil/hazardous material spills, etc.) Report problems to MPA CP.
 - Survey terminal for status of intermodal operations.
 - Contact tenants and advise of situation and status on reopening terminals.
3. The Engineering Department:
 - Inventory and document property damage.
 - Inspect terminal structures and equipment for damage and restore to operational status.
4. The MPA Maintenance Department:
 - a) Inspect and restore utilities as quickly as can be done safely.
 - b) Examine terminal berths for any damage including bulkheads, sheet piling, fendering systems, and dolphins.
 - c) Inspect and restore cranes to an operational status.
5. The MdTA Police and MPA Maintenance Departments and MPA tenants should cooperate to clear roadways of debris and restore transportation routes.
6. The MPA Office of Communications will prepare news releases of terminal situation, condition, and employees' work status.

7. The Security Department will inspect and ensure that all security is adequate to resume business.
8. MPA Human Resources will provide guidance on MPA employee issues.
9. Marketing will contact customer and update on status of terminal and operations.
10. The MPA SERM should make regular status reports to the MEMA EOC or DOTOps in accordance with Appendix 3 to Annex C of the Maryland EOP.

**Maryland Port Administration
Hurricane Preparedness Plan**

List of Essential Telephone Numbers

<u>Department/Agency</u>	<u>Telephone Number</u>
Baltimore City Fire Department Ops Center	410-396-3086
Baltimore County Fire Department	410-887-4592
Chesapeake and Delaware Canal Operator	410-575-6714
Maryland Department of the Environment	410-537-3975
MDE Emergency Response Team	1-866-633-4686
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	410-631-1071
Operations Lieutenant	410-633-1070
On Duty Supervisor	410-633-1067
MPA Security Office	410-633-1150
MPA Office of Communications	410-385-4483
MPA Safety and Risk Management Department	410-633-1147
MPA Terminal and Vessel Operations Department - Main Line	410-633-1077
MPA Terminal Operations Cellular	410-302-9581
Director of Operations	410-633-1043
Gen. Manager, Terminal Operations	410-633-1124
Vessel Operations	410-633-1160
Steamship Trade Association of Baltimore, Inc.	410-248-3377
U.S. Coast Guard Captain of the Port, Baltimore, MD	410-576-2693
Vessel information Telephone	410-576-2517
USCG Recorded 24/7 Message	410-576-2682
USCG Crisis Action Center (CAC)	410-576-2699
Vessel Information Fax	410-576-2524
U.S. Coast Guard Captain of the Port, Hampton Roads, VA	757-441-3302
U.S. Coast Guard Captain of the Port, Philadelphia, PA	215-271-4881

Attachment 1

**MARYLAND PORT ADMINISTRATION
CRANE OPERATING PROCEDURES DURING
FORECAST & ACTUAL WINDS**

**MARYLAND PORT ADMINISTRATION
CRANE OPERATING PROCEDURES
DURING FORECAST & ACTUAL WINDS**

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Subject:

MPA Crane Operating Procedures during forecast and actual wind conditions

- I. Reference: MPA severe wind operating procedures dated July 15, 2000.
- II. Purpose: To establish MPA crane policy during forecast or actual severe wind.
- III Application: All cranes under the control of or rented from or to the MPA and all MPA or other personnel involved in the supervision, operation or maintenance of said cranes.
- IV. Rescissions: MPA Severe Wind Operating Procedures dated. July 15, 2000
- V. Discussion: The wind speeds effecting the operation of the RTG cranes and mobile cranes.
- VI Action: The attached MPA Crane Operating Procedures are effective 00:01 a.m. October 20, 2003 and will be followed by all personnel involved in crane operation, including renters.

A. PURPOSE

To detail MPA crane operations and shutdown during forecast or actual high wind conditions.

B. APPLICATION

These procedures apply to the operation of all MPA cranes (dockside, mobile, and RTG) and to all MPA, ILA, or contractual personnel involved in the supervision, operation, maintenance, repair, or modification to MPA cranes at all MPA terminals.

C. ENFORCEMENT

These procedures shall be enforced by **MPA supervisory personnel**. Stevedore superintendents will assist in enforcing these procedures insofar as ILA operators are concerned.

D. WAIVER

These procedures may be temporarily waived in part **only by the onsite MPA crane supervisor, the MPA Administrator or his written designated representative.**

E. CONTRACT WEATHER SERVICE

1. The MPA uses a contract weather service which furnishes, on a 24-hour basis, a specialized weather forecast service for the Baltimore Harbor. This weather forecast includes complete details in layman's terms of wind speed (expressed in MPH), time of arrival, wind direction, high and low wind speeds (if gusts), predictable changes in wind direction and speeds. Other adverse weather information may be included in the forecast.
2. **“ADVISORY CONDITIONS”** - If meteorological conditions permit, the contract weather service will successively alert the MPA of severe weather conditions as follows:
 - a. Severe weather condition that is expected to occur over the Baltimore Harbor area within two (2) hours. (Two Hour Warning) Condition **GREEN.**
 - b. Severe weather condition that is expected to occur over the Baltimore Harbor area within one (1) hour. (One Hour Warning) Condition **YELLOW.**
 - c. Severe weather condition that is expected to occur over the Baltimore Harbor within one-half (1/2) hour. (One Half Hour Warning) Condition **RED.**
 - d. When the severe weather condition has passed and the wind is not forecast to be 30 MPH or above, the contract weather service will communicate an "all clear" to the MPA.
3. The contractor furnishes a weather forecast by FAX twice a day, at 0545 and 1400 hours to the following MPA departments:
 - a. Dundalk crane maintenance
 - b. Seagirt crane maintenance
 - c. Dundalk terminal maintenance
 - d. Terminal operations

- e. MPA Storeroom DMT
 - f. MdTA Police communication center and commander at DMT
-
- 4. All weather “**Advisory**” messages are promptly transmitted by the contract weather service in the form of a text message sent via pager to the DMT Crane Duty Person, SMT Crane Duty Person, Operations duty Person and a high wind advisory will to sent to the above listed Fax locations.
 - 5. A high wind forecast from the contract weather service is **advisory information**. Terminal personnel will be alert for any unexpected local high wind conditions.
 - 6. An "all clear" from the contract weather service is also **advisory information**.
 - 7. A copy of the most recent weather advisory fax will be given to each ship superintendent at the start of crane operation

F. HIGH WIND FORECAST VERSUS ACTUAL WINDS

- 1. High winds as forecast by our contract weather service are winds 30 MPH or greater.
- 2. High wind alarms on MPA dockside cranes at Dundalk, South Locust Point, and North Locust Point Marine Terminals will sound when the actual wind is a steady 40 MPH, a gust between 40 and 54 MPH for at least 15 seconds or immediately upon gusts of 55 MPH or greater of any duration.
- 3. High wind alarms on MPA dockside cranes at Seagirt Marine Terminals will sound when the actual wind is a steady 50 MPH, a gust between 50 and 59 MPH for at least 15 seconds or immediately upon gusts of 60 MPH or greater of any duration.
- 4. High wind alarms on the RTG cranes will sound when the actual wind gusts as recorded by the units in any crane reaches a steady speed of 50 MPH, a gust between 50 and 55 MPH for at least 15 seconds or immediately upon gusts of 60 MPH or greater of any duration.
- 5. High wind alarm on the Manitowoc crane will sound immediately when the actual wind gusts are 35 MPH.
- 6. High wind alarm on the Grove crane will sound immediately when the actual wind gusts are 30 MPH.

G. ON-SITE WIND INDICATING EQUIPMENT

- 1. Each MPA dockside crane, RTG crane and mobile crane is equipped with an anemometer system to indicate wind speed at the highest fixed point of the crane. All operator cabs are equipped with MPA two-way radios and a visual readout for the wind speed, red caution light which flashes when the wind reaches 35 MPA, and an audible warning alarm which sounds under high wind conditions. The Manitowoc and Grove cranes have an alarm that will sound immediately at gust of 35 and 30 MPH respectively.
- 2. At Dundalk Marine Terminal, a wind speed recorder is located in the crane maintenance office at Building 90-A. The wind speed recorder monitors the wind speed and direction at the corner of berth 6 and 7, it automatically records these variables and dates them with a time stamp on a chart. A visual readout, a flashing red caution light, and audible alarm are also at this location. The office is equipped with a two-way radio.

3. All MPA dockside and RTG cranes and crane maintenance personnel are equipped with two-way radios with necessary frequencies to communicate with all crane units.
4. Each anemometer system is checked for proper operation at daily start-up and a full system check and calibration is performed semi-annually.
5. The MPA cranes have been divided into crane groups according to their location and wind shutdown speeds. These crane groups will be considered separate entities for all wind **conditions**. The crane groups are:
 - a. Dundalk Marine Terminal Dockside Cranes
 - b. Seagirt Marine Terminal Dockside Cranes
 - c. North Locust Point Marine Terminal Dockside Cranes
 - d. South Locust Point Marine Terminal Dockside Cranes
 - e. Seagirt Marine Terminal RTG Cranes
 - f. Manitowoc Crane
 - g. Grove Crane

H. **PROCEDURE FOR "NORMAL" WIND CONDITIONS***

1. **Dundalk, South Locust Point, and North Locust Point dockside cranes**

"NORMAL" wind condition for these crane groups; means winds or gusts now exist at velocities, as measured by any wind alarm system in the respective crane group, between 0 to but not including 35 MPH. Crane operation proceeds normally. The crane operator and MPA ground personnel should always be alert for any sudden change in wind conditions.

2. **Seagirt dockside cranes.**

"NORMAL" wind condition for this crane group means winds or gusts now exist at velocities, as measured by any crane wind alarm system in the crane group, between 0 to but not including 45 MPH. Crane operation proceeds normally. The crane operator and MPA ground personnel should always be alert for any sudden change in wind conditions.

3. **RTG cranes.**

"NORMAL" wind condition for this crane group means winds or gusts now exist at velocities, as measured by any wind alarm system in the crane group, between 0 to but not including 45 MPH. Crane operation proceeds normally. The crane operator and MPA ground personnel should always be alert for any sudden change in wind conditions.

4. **Mobile cranes at any location.**

"NORMAL" condition for these crane groups means winds or gusts now exist at velocities that do not interfere with the control of the load and is below 30 MPH for the Grove crane or 35 MPH for the Manitowoc crane. Crane operation will proceed normally. The crane operator and MPA ground personnel should always be alert for any sudden change in wind conditions.

I. PROCEDURE FOR "CAUTION" WIND CONDITIONS*

1. **Dundalk, South Locust Point, and North Locust Point dockside cranes**
"CAUTION" wind condition for these crane groups means winds or gusts now exist as measured by any dockside crane wind alarm system in the respective crane group are at least 35 MPA but less than 40 MPH for a duration of at least 15 seconds. This condition will cause a red light at the visual readout to begin flashing.
2. **Seagirt dockside canes.**
"CAUTION" wind condition for this crane group means winds or gusts now exist as measured by any wind alarm system in the crane group, are at least 45 MPH but less than 50 MPH for a duration of at least 15 seconds. This condition will cause a red light at the visual readout to begin flashing.
3. **RTG cranes.**
"CAUTION" wind condition for this crane group means winds or gusts now exist as measured by any wind alarm system in the crane group, are at least 45 MPH but less than 50 MPH for a duration of at least 15 seconds. This condition will cause a red light at the visual readout to begin flashing.
4. **Mobile cranes.**
A "Caution" wind condition for the mobile cranes shall become effective whenever the operator or the ground personnel observe the wind speed rising to a point where it starts to interfere with the control of the load. This is not a fixed value due to the variable configurations of the cranes such as boom length and boom angle
5. The crane operator will report to the MPA Crane Duty Person when he first observes the flashing red light. At that time, **the MPA Crane Duty Person shall declare a "Caution" condition and notify the operator and Stevedore Foreman on site at all working cranes of the change in the operational status of the crane(s).**
6. A "CAUTION" condition will be declared by the Crane Duty Person upon receiving a one (1) hour forecast from the weather service predicting high winds in the Baltimore Harbor Area and notify the operator and Stevedore Foreman on site at all working cranes of the change in the operational status of the crane(s).
7. Full crane operation will continue with the operator exercising caution to prevent any damage to the spreader umbilical cable. Under a high wind, the cable may be blown from its normal vertical position and may not coil properly into its receptacle during use of the crane. The operator will notify MPA personnel of any problems with the cable and limit the speed of the crane, if necessary, to prevent damage to the cable.
8. MPA crane personnel will be in the immediate area where any cranes are working under a "Caution" condition and monitor operation of the crane(s) and condition of the spreader umbilical cable and festoon cables.

J. **PROCEDURES FOR "SHUTDOWN" WIND CONDITIONS**

1. **Unless unusual circumstances are present, cranes will only be shut down after a wind alarm sounds.** Unusual circumstances could be such things as a tornado sighting, intense black cloud, severe weather advisory from the U.S. Weather Service, etc. The MPA Crane Duty Person will make this determination. He shall consult with a higher authority if time permits.
2. **Shutdown Conditions**
 - a. **Dundalk, South Locust Point, and North Locust Point dockside cranes**
"SHUTDOWN" condition for these crane groups is a steady wind of 40 MPH, or a gust of between 40 and 45 MPH for at least 15 seconds, or a gust of 55 MPH for any duration as measured by any wind alarm system in the respective crane group. Any of these conditions will cause an audible alarm to sound.
 - b. **Seagirt dockside cranes**
"SHUTDOWN" condition for this crane group is a steady wind of 50 MPH, or a gust of between 50 and 59 MPH for at least 15 seconds, or a gust of 60 MPH for any duration as measured by any wind alarm system in the crane group. Any of these conditions will cause an audible alarm to sound.
 - c. **RTG cranes**
"SHUTDOWN" condition for this crane group is a steady wind of 50 MPH, or a gust of between 50 and 54 MPH for at least 15 seconds, or a gust of 55 MPH for any duration as measured by any wind alarm system in the crane group. Any of these conditions will cause an audible alarm to sound.
 - d. **Mobile cranes at any location.**
"SHUTDOWN" condition for these crane groups is a gust of 30 MPH for the Grove crane and 35 MPH for the Manitowoc crane as measured by the wind alarm system in the respective crane. This condition will cause an audible alarm to sound.
3. Upon occurrence of a "SHUTDOWN" condition, crane operators will report the alarm to the MPA Crane Duty Person, who will notify the other cranes in the crane group of the "SHUTDOWN" condition and to cease operation.
4. The cranes shall be moved to "stowed" positions, if conditions permit. "Stowed" means that a crane has been secured with turnbuckles tightened, storm pins inserted in their pockets, chocks under their tires and all brakes set. On Dockside cranes, booms shall be raised and latched in position, if time and conditions permit.
5. If conditions will not permit a crane to be traveled to its "stowed" position, it shall be "pinned" at the nearest stowage pin location with stowage pins inserted in pin pockets and all brakes set.
6. If it is not possible to travel the crane at all, it shall be "secured in place" by setting all brakes.
7. When leaving the crane under "SHUTDOWN" condition, personnel will use stairs and ladders to get down. Elevators must not be used.

8. When an operating crane is placed under "SHUTDOWN" and also when operations resume, the MPA Crane Duty Person will notify the Stevedore Foreman on site and Terminal Operations, who will promptly notify the stevedore company management.
9. Operations shall not resume until at least 15 minutes has passed since the most recent alarm has sounded. The MPA Crane Duty Person will make the determination as to whether operations will then resume. An "all clear" from the contract weather service is not required before cranes may return to work.

K. SUMMARY OF DUTIES

1. CONTRACT WEATHER SERVICE

- a. Will furnish a 5:45 a.m. and 2:00 p.m. daily weather forecast.
- b. Will, on a 24-hour basis, furnish weather forecasts of high winds at frequent enough intervals to keep MPA promptly posted on every forecast update.
- c. If meteorological conditions permit: Furnish successive specialized weather forecast concerning high winds expected within:
 - i. 2 hours
 - ii. 1 hour
 - iii. 1/2 hour
- d. Will furnish an "all clear" when the forecast of high winds ceases to exist.

2. CRANE DUTY PERSON

- a. Will ask for weather forecast updates whenever he feels it is necessary after receiving the high wind forecast or a wind alarm.
- b. Will decide whether to continue crane operations or to shut down under unusual circumstances, such as a tornado sighting, and intense black cloud, a severe weather advisory from the U.S. Weather Service, etc., even though the wind has not yet reached shutdown intensity. He shall consult with higher authority if time permits.
- c. Will decide whether to shut down or to continue crane operations when the wind gusts to near "SHUTDOWN" condition but no alarm sounds.
- d. Will be in the vicinity of the cranes under all high wind forecast conditions and also in contact with crane personnel in the berth areas.
- e. Will notify the Terminal Manager, or his designated representative, of each weather update from the contract weather service, including the "all clear".
- f. Will make sure that each Stevedore Superintendent using MPA cranes is notified of all high wind forecasts, all wind conditions, "caution", "shutdown", and "all clear".
- g. Will decide whether to give an "all clear" after cranes have been "shutdown" for 15 minutes. **He shall consult with the terminal Crane Maintenance Supervisor or his designated representative prior to declaring an all clear.**

3. **MPA CRANE PERSONNEL**

- a. Will stay in the immediate area of cranes working under "caution" condition.
- b. Will use stairs and ladders to get down from a crane that is under "shutdown" condition. **Elevators must not be used.**
- c. Will help to secure all cranes when "shutdown" condition occurs, if circumstances permit.
- d. Will report to the MPA Crane Duty Person every time that a high wind alarm sounds while under a "Shutdown" condition.
- e. Will stand by in the area, and contact their supervisor for further instructions after cranes have been secured for "shutdown" condition.

4. **LONGSHOREMEN WHO OPERATE MPA CRANES**

- a. Will report to the MPA Crane Duty Person the first time that the crane cab wind indicator light flashes RED and when the high wind alarm sounds.
- b. Will use stairs and ladders to get down from a crane which is under "shutdown" condition. **Elevators must not be used.**
- c. Will help to secure their individual cranes against high winds by gantrying to a storm pin pocket, if circumstances permit.
- d. The RTG operator will place the boogies in the park position prior to leaving the crane, unless the wind condition dictates emergency evacuation.

5. **STEVEDORE SUPERINTENDENTS**

Will assist in enforcing these procedures insofar as longshore crane operators are concerned.

6. **MPA TERMINAL OPERATIONS**

Will notify stevedore company management using MPA cranes of "caution, "shutdown" and "all clear" status.

Distribution:

All MPA Crane Department Personnel, Associated MPA Management, Steamship Trade Association of Baltimore, ILA and those who rent MPA Cranes.