

SECTION 38**SEVERE WEATHER PREPAREDNESS POLICY****1. PURPOSE AND SCOPE**

- 1.1. This Health, Safety, and Environment Procedure (HSEP) provides the minimum procedures to be followed when there is a threat of a hurricane or typhoon.
- 1.2. This HSEP applies to all employees and on-site contractors engaged in operations covered by the MAPP Construction HSE Program.

2. RESPONSIBILITIES

- 2.1. Additional management, staff, employee, and subcontractor responsibilities are stated in individual procedures that address responsibilities specific to the HSE topic.
- 2.2. The Site Superintendent, Project Manager or his designee will coordinate with various site supervisory personnel. This information, as to the approach and progress of the hurricane, will come from the Site/Project Manager, their assistant, or Corporate HSE.

3. DEFINITIONS

Hurricane	A violent storm originating over tropical waters with winds near its center reaching 74 miles per hour (64 knots and higher). In the Northern Hemisphere, winds in hurricanes blow in a counterclockwise direction around its center and the size of the storm may range from 50 to 1000 miles in diameter. Not all hurricanes are alike. This creates over-confidence if you've been through a minimal hurricane and encounter a massive one.
Hurricane Center or Eye	The eye is the relatively calm area near the center of the storm. In this area, winds are often light and the sky may be only partly covered by clouds. Frequently the storm appears to have passed, then resumes as the eye passes over you.
Hurricane Force Winds	Hurricane force winds are winds of 74 miles per hour (64 knots) or higher.

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Hurricane Watch	A hurricane watch is an announcement issued by the US Weather Bureau to the public and all other interests via press, radio, and television broadcasts whenever a tropical storm or hurricane becomes a threat to a coastal area. The “Hurricane Watch” announcement is not a warning. It indicates that the hurricane is near enough that everyone in the area covered by the “watch” should listen for subsequent advisories and be ready to take precautionary action in case hurricane warnings are issued.
Gale Warning	When winds of 38 – 55 miles per hour (33 – 48 knots) are expected, a gale warning is added to the advisory message. By the time gales reach shore, all work must be complete or cease. Forty mph is the limiting condition for outside work and then only with difficulty.
Storm Warning	When winds of 55 – 74 miles per hour (48 – 64 knots) are expected, a storm warning is added to the advisory message. Gale and storm warnings indicate the coastal area to be affected by the warning, the time during which the warning will apply and the expected intensity of the disturbance. When gale or storm warnings are part of a tropical cyclone advisory, they may change to a hurricane warning if the storm continues along the coast.
Hurricane Warning	<p>When hurricane conditions are expected within 24 hours, a hurricane warning is added to the advisory. Hurricane warnings identify coastal areas where winds of at least 74 miles per hour are expected to occur. A warning may also describe areas where dangerously high water or exceptionally high waves are forecast, even though winds may be less than hurricane force.</p> <p>When a hurricane warning is issued, all precautions should be taken immediately. Hurricane warnings are seldom issued more than 24 hours in advance. If the hurricane’s path is unusual or erratic, the warnings may be issued only a few hours before the beginning of hurricane conditions. Precautionary actions should begin as a hurricane warning is announced.</p> <p>NOTE: Water is forced ashore with a “storm surge” if the eye passes to the west of you. Conversely, tides fall if the eye moves over land to the east of your location. In the latter case, anticipate winds from the west, then from the north, then from the west.</p>

4. PROCEDURE

In the event of a hurricane threat, a three-part alert procedure will be taken. The alert will be issued by the Site/Project Manager. The procedures listed in the following sections address hurricane threats. The same procedures shall apply to threats of typhoons.

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This alert will be issued when a hurricane is in the Gulf of Mexico. Action taken during the alert will consist of a job cleanup activity so that material policed up will not have to be returned to the field in the event the storm alert is removed. In general, this alert is to identify locations for securing objects, materials, etc., trash and loose materials cleanup, and a notice for supervisors to review the hurricane procedure.

All departments will:

- Pick up all loose trash and unused material in all areas,
- Remove any unused scaffolding in all areas,
- Check all buildings for proper tie-down,
- Check and assist subcontractors in cleanup and tie-down, and
- Determine job shipping schedule for construction dock.

Alert II – Condition Orange

Jobsite is in the Hurricane projection cone, 72 Hours till intercept. Steady movement of hurricane toward project. In general, action taken during this alert consists of securing equipment and materials which cannot be practically moved. This procedure will be terminated at any point if it appears that the project is no longer under threat by storm.

- Fill all gasoline and diesel tanks.
- Fill and/or secure all storage tanks.
- Locate and retain portable generating equipment.
- Secure all pumps and hoses. Make preparation for water removal.
- Review work and make arrangements for removal of equipment and materials from all areas.

Alert III – Condition Red

Jobsite is in the Hurricane projection cone, 48 Hours till intercept.

- Recheck anchors on all temporary buildings. Make a complete check to include subcontractors.
- Make final cleanup of construction and in plant areas.

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- All trash barrels and portable toilets are to be grouped together and secured to stable objects.
- Water cans full of potable water are to be placed inside the warehouse.
- Welding machines, air compressors, etc., are to be grouped together and secured to stable objects. All leads, hoses, and torches are to be rolled up and secured. Welding machines placed on trailers are to be secured together and trailers anchored.
- All scaffolding is to be taken to the scaffold storage area and secured from movement. Group, secure and anchor down.
- Wooden pallets, forms, and wooden decks are to be secured and anchored.
- Trailers, floats, etc., are to be grouped at dispatch and secured from movement.
- All booms are to be lowered to a safe position.
- All light equipment is to be lined up with brakes set.
- Earthmoving equipment is to be left on high ground or in shops, along with pickups, flatbeds, buses, and all are to be secured with brakes set.
- All paint hoppers are to be tied down.
- All mats are to be tied together and anchored.
- All piling is to be grouped and secured against movement.
- All gang boxes grouped in areas are to be secured and anchored.
- Anchor all tanks, drums, and vessels that may be moved by high winds and water.
- Check that all underground piping is protected against floatation.
- Where possible, construction drawings and records should be protected from water damage in case of roof or window damage or rising water by raising to desk top height.
- All vital records, payroll, cash payment journal, etc., will be secured in a safe place to avoid wind and water damage.
- Onsite vehicles are to be left with brakes set on high ground in the shop area.
- Ice house is to be secured with a full supply of ice on hand.
- Turn off all electrical power at main switches.
- Evacuate jobsite.
- Security coverage will be as directed by the Site/Project Manager.

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- Notify Company/Operations Management when final stages are complete.

5. REFERENCES

www.nhc.noaa.gov

www.accuweather.com

www.weather.com

Hurricane™, The ULTIMATE Hurricane tracking application for the iPhone and iPod Touch!

No other hurricane tracker comes close to Hurricane™!



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6. FIGURES

