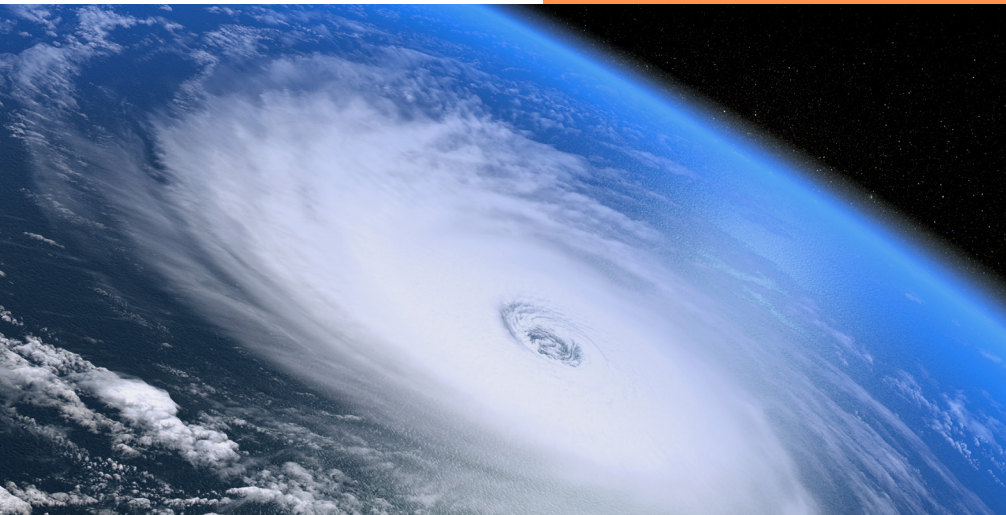


# HURRICANE PREPAREDNESS FOR CONTRACTORS EQUIPMENT

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Contractors equipment is either operated by its owner or can be rented to others for similar use in a wide variety of construction activities. Such equipment is essential for the successful completion of projects in building construction, heavy industry and mining activities. This bulletin will provide general guidance for how contractor's equipment owners and operators can develop a hurricane contingency plan to protect their equipment from potential hurricane exposures.

In general there are four phases of a hurricane contingency plan: Pre-Storm Planning, Hurricane Formation, Hurricane Watch/Warning, and Hurricane Recovery. Each corresponding section of this document will provide basic insight of items to incorporate into an equipment specific hurricane contingency plan.

## DEVELOPING YOUR SPECIFIC PLAN

Having set escalation procedures documented in a hurricane contingency plan serves as a failsafe that critical parts of preparation are not overlooked as a storm is approaching your equipment. The points discussed below are not a comprehensive listing of actionable items one may see or need in a hurricane contingency plan. Some Allianz recommended strategies to begin developing and implementing a hurricane contingency plan for your equipment are listed below:

- Source protection schemes, operational practices from as wide a sample range as possible/practical.
- Distribute to all employees involved in the operation/handling of equipment.
- Review at least annually with employees, ideally before the start of hurricane season in the respective geography.

## PHASE ONE: PRE-STORM PLANNING

A hurricane contingency plan should be developed long before equipment is exposed to hurricane events. Typically the Atlantic hurricane season is from June 1<sup>st</sup> to November 30<sup>th</sup>, peaking late-August to mid-October. The following points are considered critical planning steps in implementing an equipment specific hurricane contingency plan:

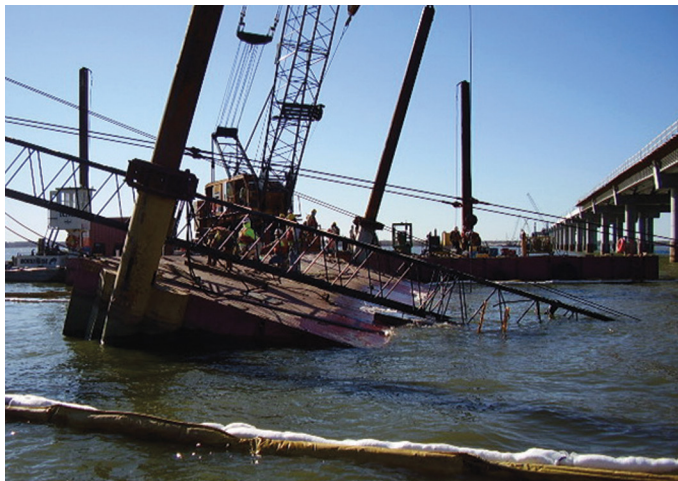
- Develop a hurricane action team incorporating key personnel familiar with the equipment; this can include representation from the equipment owner, operator, and manufacturer.
- Determine the materials most appropriate for securing/protecting specific equipment during a hurricane event.

## PHASE TWO: HURRICANE FORMATION

When operating in a hurricane prone region, it is important to actively monitor weather forecasts for conditions that promote hurricane formation. A key factor to watch for is areas of low pressure moving into regions with high temperatures. The most common formation areas that affect the United States are the west coast of Africa, the Gulf of Mexico and southwest coast of California.

If a storm forms in an area that may expose equipment to hurricane conditions, that equipment's hurricane contingency plan should be initiated. The following actions are examples of items which an operator/owner should consider implementing into their hurricane contingency plan for once a storm has formed:

- Establish a source where backup fuel for equipment is readily available.
- Establish a nearby location, if possible, where backup parts are readily available.
- Identify locations where equipment will be most protected<sup>1</sup>. The flood risk of your location can be checked using tools available from FEMA at <http://msc.fema.gov/portal>.



- Review the escalating phases of equipment specific hurricane contingency plan with local operators.
- Obtain any materials required to sufficiently protect the equipment during a storm event<sup>3</sup>.
- Alert drivers carrying equipment in transit of the developing storm.

These points are not comprehensive for this phase. Allianz recommends monitoring the National Hurricane Center website for up to date forecasts and models<sup>2</sup>.

If the storm forms in a geography where landfall is possible within less than 48 hours, the owner/operator should immediately escalate to Phase Three of their hurricane contingency plan.

### PHASE THREE: HURRICANE WATCH

The path and speed of a tropical storm are often variable and difficult to predict on a long term forecast. For purposes of hurricane contingency planning, a hurricane watch is put into effect if the storm is predicted to make landfall in 48 hours at the operating area.

The following actions are examples of items an owner/operator should consider including in their hurricane contingency plan for equipment under a hurricane watch.

- Obtain backup fuel, fully fuel equipment at the end of daily operations.
- Remove debris or potential projectiles from the equipment's designated storage area.
- Implement equipment specific protection plans (consulting with OEM's).
- Verify that all equipment required for dewatering operations is functional.
- Ensure essential backup parts are readily accessible at a secure location, obtain parts if need be. Remove any electronics equipment that is non-essential to operation.
- Check crane specific manufacturer recommendations for wind events, and when 'booming down' is required.
- Review the protocols for securing/protecting the equipment with all equipment operators and supervisors.
- Establish a stop work time/condition for local operations if the storm continues to advance. Ensure all equipment has been moved to its designated location at this point in time.
- Establish safe locations for equipment in transit; with transit operations set to terminate at a set point during the advancing storm.

1. The location which provides the most protected location for equipment will vary from storm to storm, in general interior locations, areas protected by a permanent structure, or locations with higher elevations are best suited to protect equipment. FEMA FIRM maps will provide information if your location is in a flood zone. If your equipment is located within a 100 or 500 year flood plain, additional flood prevention measures are recommended. This tool can be found online at <http://msc.fema.gov/portal>
2. The National Hurricane Center is an organization run by the US National Oceanic and Atmospheric Administration, the National Hurricane Center website can be found online at <http://www.nhc.noaa.gov/>
3. These materials should be designated in the equipment's specific protection scheme for hurricane events within the hurricane contingency plan; as agreed upon during plan development.



## PHASE FOUR: HURRICANE RECOVERY

The following procedures are operational practices an owner/operator should consider including into their hurricane contingency plan for after the storm has made landfall and passed.

- Do not attempt to access equipment until the situation has been deemed safe by local authorities and/or the project's local recovery leader.
- Do not power on equipment that is or may have been submerged until it can be confirmed that the components have been drained of water and are dry<sup>5</sup>. Equipment inspection by a qualified mechanic may be necessary prior to start-up.
- Identify if any equipment was damaged during the storm, document and report all damages accordingly.<sup>6</sup>
- If any equipment has been damaged or immobile, take measures to protect it from further damage by relocation or physical protection.
- Check the condition/status of local roadways and advise drivers of equipment in transit accordingly.

**Please contact your insurance broker to inquire about a review of your specific plan from Allianz Risk Consulting.**

\* This article provides general information and recommendations that may apply to many different situations. Any recommendations described in this article are not intended to be specific to your unique situation. Consult with your staff and specialists to determine how and whether the information in this article might guide you in developing specific plans or procedures for your operations. This article does not substitute for legal advice, which should come from your own counsel.

These actions are not a comprehensive listing of the procedures that could be implemented during Phase III of a hurricane contingency plan. The specific protection schemes for individual pieces of equipment should be developed by the owner/operator prior to operation in a hurricane exposed region. A well-developed Hurricane Watch will have subsequent levels of escalation within this phase and will include protection levels becoming more robust as the storm advances.

4. Protection schemes should be developed by multiple persons familiar with the intricacies of a particular piece of equipment. The manufacturer may be able to provide additional guidance as to the best protective preparations contractors can complete prior to a storm.
5. It is generally recommended that all damages are documented in writing and with photographs. If possible, begin documenting all damage prior to attempting equipment recovery.
6. It is generally recommended that all damages are documented in writing and by photograph. If it is practical to begin document all damage prior to attempting equipment recovery.

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