Specific Hurricane Precautions for Marina Owners

Prior to Hurricane Season

○ Contact the county Civil Defense or Emergency Management director and the Marine Patrol each spring to review comprehensive county disaster plans and to review emergency assistance communications.

○ Review with your insurance representative whether vessels in wet slips should evacuate the marina; consider such factors as:
  • Severe weather drawbridge policy
  • Boat evacuation routes
  • Safe harbors
  • Boats that may be dashed against docks by wind and waves
  • Pilings that may be pulled loose as the storm tide rises

○ Check with your insurance agent to confirm that:
  • The marina is adequately insured, particularly for wind and water damage
  • Current photographs of marina facilities are on file
  • Any applicable specifications required by the insurance policy have been met and that this is confirmed in writing

○ Review your Storm Plan’s section on severe weather standard operating procedure (SOP) at least annually — prior to hurricane season. Go over it with your staff and be sure your clientele knows what will be expected of them.

○ Review your facility’s “seasonal” operations or activities during the hurricane season. Consider ordering supplies, stocks and vessel inventory items accordingly to keep exposures as low as possible.

○ Distribute the Storm Plan to all employees. Facility employees will have homes, family and property of their own to consider. They must be made
aware of their work-related duties and responsibilities so that they can plan accordingly. Review plans and procedures with co-tenants or subcontractors in multiple-occupancy facilities.

- Develop a detailed map of the marina/boatyard complex showing locations of:
  - Utility equipment and power shutoff points
  - Sources of auxiliary power
  - Potential hazard areas, such as fallen objects, trees, poles, etc.
  - Emergency equipment and supplies
  - Communication equipment
  - First aid stations
  - Escape routes
  - Stored hazardous materials

- Know your physical plant facilities, operations services, equipment and housekeeping. Make assignments of employees to be responsible for areas and operations of the facility. Designate team units to be responsible to key people.

- Conduct a complete facility housekeeping and field-day or field-week operation sometime in the spring or just prior to the hurricane season, to police and clean up all open areas and structures within the facility. This should include, but is not limited to, the following:
  - Remove all debris, trash and unnecessary items from open areas.
  - Store or otherwise secure all materials and supplies.
  - Inspect and service as necessary all building walls, roofs, windows, doors, docks, piers, wharfing or slipfingers, pilings, electrical and lighting installations, fuel and natural gas supply and dispersing equipment, both portable and fixed fire fighting equipment, mobile lifts, hydrolifts and railways.
  - Conduct and record frequent safety inspections of the entire marina/boatyard facility with your insurance agent. Correct problems immediately.
  - Prepare and maintain a disaster preparedness kit (DPK).

- Purchase, maintain and monitor a battery-operated NOAA weather-alert radio and a portable AM-FM radio for local government advisories (models that require no batteries are available). Make sure that you and your employees understand the local warning system. Order and stock as needed emergency equipment and supplies. Develop your stock according to what your facility needs, such as extra mooring lines, lumber for fender boards, chafing gear, screw anchors, flashlights, batteries, portable generators, electrical and manual bilge pumps and hull patching or repair supplies.

- Estimate the number of permanent, transient, new or brokered vessels that may be on hand in your care, custody and control at any period of time during the hurricane season. Can you secure all vessels at your facility, or will vessels have to be moved to inland protected areas? How and by whom? Where? These questions are best answered long before a storm hits.

- Determine your policy on non-owned vessels in your care, custody and control at your facility and elsewhere. Communicate your position to vessel owners, preferably in written form as a notice, or as part of the mooring, listing or work order agreement or contract.

- Know all the vessels and their owners, captains or caretakers. You should have a record of home and business phone numbers and addresses of vessel owners or their designated representatives. Consider having vessel owners file written hurricane plans with you. Plan a communication system with wet slip
cliente, including the name, address, and telephone number of a designated caretaker in the event the client is out of town during the hurricane season.

- Make sure that dockage space rental agreements and storage contracts limit liability for property damage and personal injury. Specify that vessel owners will be billed for services and materials necessary for preparation, response and recovery. If evacuation of vessels is required, make sure all clients understand your policies and the measures being taken.

**Standard Operating Procedures (SOP)**

**Development Guidelines**

The SOP is a checklist of specific tasks and duties arranged in order of importance. Organize the SOP according to the predicted time of arrival for severe weather. For example, at minus 72 hours, all personnel and clientele should be alerted. The SOP should define when and under what conditions you plan to begin response actions.

Establish procedures for communicating with and assisting clientele in preparing, responding and recovering from severe weather. For example, this might consist of:

- Listing calls to be made
- Distributing a written checklist of tasks for clientele to use in preparing their vessels
- Assigning staff members to provide materials and assistance when needed

Outline specific tasks for each department or staff member to accomplish during preparation, response and recovery. Establish responsibility for:

- Boarding the windows, operating emergency pumps, supervising traffic, preparing special equipment such as pumpout stations, generators, DPK, etc.
- Deciding what equipment, files and personnel are to be evacuated, in what order, when and how
- Deciding where equipment and supplies are to be sorted and secured, etc.

Include lists of files, documents, photographs, equipment, etc. requiring special attention. For example, staff assignments, evacuation routes, clientele and staff evacuation deadlines and final inspection before leaving, recovery safety inspection, and guidelines and methods for logging arrivals and departures.

**Disaster Preparedness Kit (DPK)**

**Recommended Equipment and Supplies**

Disaster preparedness kits are a collection of equipment and supplies which can be made immediately available to staff and/or clients to prepare for and recover from the effects of a disaster. Purchase materials well in advance; properly store and maintain at all times. The following is offered as a guideline for assembling kits.

- Items needed by personnel and clients: first aid kits, medicine, stretchers, blankets, food and water, radios, batteries and flashlights, life jackets, foul weather gear, flares, tools, sanitation facilities, gas-powered generators, pumps, hoses, etc.
○ Items needed to secure facility: plywood, nails, duct tape, extra line and cable, auxiliary power, fuel, fire control equipment, tools, emergency lighting, sandbags, barricades, warning signs, chafing gear, used tires, etc.

○ Items needed for evacuation: SOP, including legal documents and photographs, personal effects, extra food and water, medicine, clothing, portable radio, special tools needed for recovery, a trailer or truck to haul heavy items, keys, etc.

Prior to the Hurricane

Even the smallest marine facility operation has numerous tasks and precautions that must be taken in preparation for a hurricane. The extent of the tasks and the number of personnel available will determine the amount of time required to complete the preparation. However, 72 hours is probably the minimal time allowable in most instances to undertake the following:

72–48 Hours prior to Predicted Hurricane Landfall

○ Be alert to NOAA weather updates and local official advisories. Take appropriate actions based on the proximity and predicted movement of severe weather.

○ Notify personnel that the facility is on a hurricane alert. Personnel should commence preparations for putting the hurricane plan into action.

○ Review the standard operating procedure. Check the disaster preparedness kit. Allow staff to prepare their homes before reporting for duty. Do not forget the live-aboards.

○ Implement severe weather standard operating procedure. Put waterborne operations employees on standby to start securing operations within the next 24 hours. Begin contacting vessel owners or their representatives in order to remove vessels from the facility, if required. Begin facility protection preparations by policing all yards, marina and dock areas. Stow away or secure loose equipment.

○ Remove vessels from dry storage or other facilities with outside racks for small boats and trailers and secure them elsewhere. Use facilities with inside rack storage in a building with sufficient protection, unless in a lowland area where evacuation of all vessels may be necessary. Secure all flammable, explosive or other hazardous materials, such as compressed gas cylinders, in a safe, protected, secure area.

○ Take down large signs, antennas or other removable items subject to wind damage. Commence facility protection precautions at this time. Install storm shutters or other protective equipment.

○ Process and mail all paperwork that can be completed immediately. Set all new paperwork aside to be completed after the hurricane. Reduce inventories as much as possible and delay ordering materials, stocks or supplies.

○ Have all dumpsters emptied.

○ Top off all underground fuel tanks.

○ Top off all above-ground fuel tanks and double the tie-downs.

○ Prepare to evacuate. Base the decision to evacuate on recommendations from local authorities and the condition of evacuation routes. Account for all personnel and clientele. Arrange for transportation. (Rent necessary vehicles/equipment early.) Remove expensive equipment or products to inland warehouses for storage.
48–24 Hours prior to Predicted Hurricane Landfall

- Complete all vessel removal operations during this 24 hour period. Secure remaining vessels. Fuel all the departing vessels as well as facility vessels and other vehicles in preparation for securing all fueling operations and equipment. Loss of electrical power during a hurricane may disrupt fuel supplies after the storm.
- Secure in protected areas any equipment such as forklifts, trucks, travel lifts, mobile cranes and workboats that may not be needed in storm preparations. Complete securing operations for lowland locations that are evacuating personnel and equipment.
- Secure all dock structures, field buildings and offices. Evacuate trailers.

24–0 Hours prior to Predicted Hurricane Landfall

In these hours prior to the projected arrival of the hurricane, the Hurricane Warning has been issued. It is highly likely that the hurricane will make landfall near your facility. The following activities should be in progress or nearing completion so that most personnel can be released in the next twelve hours:

- Complete all vessel protection and securing operations with a final check of doubled mooring lines, tied off with sufficient slack and fender boards and/or other protective equipment in place.
- Turn off all electrical power supplies at the main power switch. Turn off all natural gas at the main valve. Secure all fuel supply tanks and lines at the shoreside installation. Disconnect all electric motors, pumps and similar equipment at or below ground level and protect or place in a safe location.
- Evacuate clientele, essential files, records, equipment and personnel either when the premises are secured or immediately upon hearing an evacuation order from authorities.
- Release employees who are not staffing facilities during the storm no later than twelve hours prior to the storm. Give instructions for reporting back to work after the storm.
- Ensure that all perimeter access points in the form of fences, gates and building doors are locked and secured.
- Complete all facility precautionary preparations twelve hours prior to the hurricane’s arrival.
- Do not allow employees to stay on any vessel during the hurricane.
- Turn off fresh water supply at the meter if supplied from city water lines.

During the Hurricane

- Stay in a protected and safe place inland if possible.
- Exercise extreme caution if outdoor activities become necessary. Do not attempt to move or re-secure loose vessels or equipment during the storm period. Do not venture out during the eye or lull in the hurricane.
- Stay tuned to news and weather broadcasts concerning the hurricane’s movement so you will know when the danger has passed.