Emergency Response (Life Safety)

Crisis Management & Crisis Communications Information

Technology Disaster Recovery

Business Unit Continuity Planning

Emergency Response: 2018 Atlantic Hurricane Season

Template & Checklists

Prepared by Aon Property Risk Consulting

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Recovery Overview

Comprehensive Business Continuity Management (BCM) planning is a vital component of ensuring the successful response to and recovery from a significant business interruption. BCM is comprised of four key components; emergency response (life safety), crisis management & crisis communications, information technology disaster recovery, and business unit continuity planning. The following checklist outlines key parts of an enterprise-wide response and recovery process.

Before initiating substantive work on a BCM plan, it is prudent to outline a proposed schedule and budget to ensure the strategies and tactics laid out are reasonable relative to established resource allocation parameters.

✓	**Recovery Team**
	Identify a primary and back-up Crisis Manager
	Identify primary and back-up Recovery Management Team Members
	Establish and notify employees involved in recovery and clarify roles
	Communicate recovery action steps to all employees

✓	**Risks and Hazards**
	Identify natural-hazard, technological, strategic, and man-made events that may occur.
	Calculate the likelihood of occurrence for each event.
	Calculate the resulting possible negative impact your facilities, people, and/or operations.

✓	**Alternate Location**
	Locate and confirm an alternate recovery location and back-up location.
	Develop relationship with recovery vendor (if appropriate) and/or neighboring businesses.
	Assess suitability of existing field locations for recovery.
	Set aside space for an emergency command center.

✓	**Communications**
	Develop plan to communicate both internally and externally (including the media).
	If able, contract with an Emergency Notification System vendor to aid in rapid internal communications. If unable create an employee phone tree and store copy(s) offsite.
	Record and store external emergency contact information (electric, plumber, insurance, etc.).
	Determine plan for re-routing critical existing phone numbers to alternate locations. Verify the ability of those alternate locations to handle the new influx of calls.
	Ensure plan includes multiple methods of communication (text, email, satellite phones, cell phone, etc.).

✓	**Employees**
	Establish plan for emergency payroll.
	Develop password-protected page, email or a voice recording emergency communication system. ??
	Engage people with disabilities in emergency planning.

✓	**Technology and Data**
	Document technology hardware, software and licensing information.
	Develop technical recovery procedures to be followed in the event of an interruption.
	Determine and list individuals/vendors to manage technical recovery.
	Determine source for back-up technical resources (Smartphones, PCs, servers, printers, etc.)
	Document critical data to be restored and back-up all data at off-site location.

✓	**Operations**
	Via a formalized Business Impact Analysis, identify & document critical business functions.
	Develop plan to restore critical business functions.
	Identify employees responsible for restoring each critical business function.
	Create senior-level crisis management plan (strategic analysis & decision-making).
	Develop plan for expedited financial decision-making and disaster cost tracking.
	Review insurance coverage and assure it is adequate for all possible disasters.

✓	**Supply Chain**
	Identify key vendors based on criticality of service, information, &/or material provided.
	Develop plan to communicate with key vendors and suppliers.
	List key clients, suppliers, and critical recovery contacts and store copy(s) offsite.
	Survey key vendors and suppliers as to their response and recovery programming.
	Investigate and, if appropriate, develop relationships with alternate suppliers in case primary vendors are unavailable

✓	**Safety**
	Assemble disaster recovery kit.
	Create and exercise evacuation and shelter-in-plans.
	Create an emergency shelter plan.

✓	**Testing and Maintenance**
	Exercise the disaster recovery and business continuity plan.
	Conduct a post-exercise review and report results.
	Communicate changes in plan to responsible parties (e.g., management, employees, vendors, customers)

Recovery Kit

A disaster, no matter how great or small, can be a hectic time in both your professional and personal life. Preparing several kits and making them easily accessible will help restoration procedures to begin immediately. This checklist will provide a breakdown of necessary items to initiate recovery. One of the primary functions of any recovery kit should be protecting the important records and emergency items in order to ensure a smooth reconstruction of vital information and operations following any disaster.

Description	Included		Quantity	Task Assigned To
	Yes	No		
Business Continuity Plan Important Records				
Insurance Policies				
Fixed Asset Inventory				
Vital records and equipment inventory				
Critical IT assets				
Contracts				
Employee Contact Information				
Key Vendor Contact Information				

Description	Included		Quantity	Task Assigned To
	Yes	No		
Operating System Installation Disks/Software Licensing Keys/Office Supplies				
Software installation downloads				
Software licensing keys				
Hardware serial numbers				
Stamps				
Writing utensils & notepads				
Stapler & staples				
Tape				
Printer paper				
Calculators				
Letterhead				

Description	Included		Quantity	Task Assigned To
	Yes	No		
Emergency Items				
Cash				
Water (one gallon per person per day)				
Map of the local area and directions to alternate location				
Three day supply of non-perishable food				
Battery powered/crank radio				
Flashlight				
Extra batteries				
First aid kit				
Whistle to signal for help				
Can opener for food (if kit contains food)				
Blankets				

Description	Included		Quantity	Task Assigned To
	Yes	No		
Sanitation				
Dust/filter masks				
Moist towelettes				
Plastic garbage bags				
Paper towels				

Description	Included		Quantity	Task Assigned To
	Yes	No		
Tools				
Duct tape				
Pocket knife				
Wrench or pliers to turn off utilities				
Screwdriver				
Lighter/matches (sealed in plastic bag)				

Description	Included		Quantity	Task Assigned To
	Yes	No		
Grab & Go Kits for Employees				
Medications				
First aid kit				
Cash				
Emergency contact information				
Feminine hygiene products				

Power and Generator Checklist

Nearly all businesses will lose power, at least for a period, following a catastrophic event. Since every organization has different power needs, it is important to know and understand your risk as well as your building's power requirements. The following checklist highlights some of the steps that should be taken in order to effectively recover from any power outage.

✓	**Before a Power Outage**
	Ensure your emergency preparedness kit includes the following items: • Flashlights with Batteries • Battery or hand-crank powered Emergency Weather Radio • Avoid candles due to the inherent fire hazard
	If possible, have a land-line, non-cordless telephone in your office that does not operate on a VOIP network. Often a fax line can serve this purpose.
	Create a personnel policy that dictates which staff members should report and those that should remain home. Make sure all employees are aware of the policy.
	If security at your location is a concern, ensure that your alarm/security systems have proper battery backup systems, and that telephone connectivity to your monitoring service isn't reliant on power
	Ensure all sensitive electronic equipment is protected by a power strip surge protector
	Ensure all Uninterruptible Power Supply (UPS) devices are functional and tested regularly
	Inspect all critical equipment such as sewer ejector pumps, HVAC condensate drain pumps, and any pumps that provide protection from flooding in low-lying areas. Ensure those pumps are part of the emergency power plan.
	Fuel up any critical equipment including company vehicles, back-up generators, etc.

✓	**Get Expert Advice**
	Contact a local certified electrician or restoration vendor to assist in determining your power needs
	Work with your electrician to make a list of all items that would need to be powered by a generator or other alternate power source. Consider: • Power needs for cooling equipment in server rooms and other sensitive equipment areas • If exterior lighting or HVAC Systems are part of the recovery plan, how are those needs different and how are they part of the plan? • Record the starting and running wattage required for each item on the list
	In order to better facilitate emergency power requirements, be sure to ask your electrician the following questions and note the information for future use: • What phase is your electrical service? Single or Three Phase? • What voltage is your service? 208v, 240v or 480v? • Is your power requirement for a Wye or Delta generator? • How many amps do you need to power? • What size generator is required? • How many feet of cabling are required to power the generator? Does your building have a power transfer switch? If no transfer switch has been installed, you will need to consider options – hardwire or spider box?
	Determine where a generator should be placed on premises, particularly in a multi-tenant building.
	Determine how you will recover from different power outage scenarios. Consult a business continuity partner that can walk you through your options. Will you always just need a generator, or should you consider a full mobile office recovery?

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✓	**After a Power Outage**
	Turn off and unplug all electrical equipment to avoid damage from power spikes when electrical service is resumed
	Leave one light turned on so you'll know when the power comes back on.
	Never run a generator inside or connect a generator to the electrical system unless prior steps have been taken to ensure it is safe to do so.
	Ensure you know your generator's fuel consumption rate and set up regular fuel deliveries ahead of time to ensure you never run out.
	Do not touch any downed electrical power lines and keep your employees away from them. Report downed lines to the appropriate officials in your area.
	Leave doors on office refrigerators and freezers closed as much and as long as possible during outages. Food will stay colder if doors are left closed and halt spoilage.
	Make sure the generator you use includes the following: • Transportation to your building site • The appropriate amount of Cam Lock Cabling (standard is 250' unless more is requested) • Pigtails to connect the generator • Starter fuel for the first few days of recovery • A set of operating and safety instructions • A walk through of the basic operating instructions with your vendor
	Follow these steps to prevent generator theft: • Place the generator in a well-lit area • Install security cameras at the generator site, as possible • Consider running a metal ring into the ground and securing the generator with a chain • If you have to store the generator on its trailer, secure the trailer by chaining the wheels, defensive parking (surrounding with other cars, etc.), and removing the hitch • Chain or padlock the generator to other heavy equipment

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Flood Preparedness

Floods are one of the most common and widespread of all disasters and continue to grow in frequency and severity. Businesses are more likely to flood than burn down, so it is vital to prepare now.

The following checklist will help keep your business afloat even if the worst happens. Many businesses have found that they may be able to save between 20% and 90% on the cost of stock and movable equipment by taking action to prepare in advance of flooding. The following resources and tools will help mitigate your risk and protect not only your business but also the most critical element of your business – your people.

✓	Before the Flood
	Establish an evacuation plan that includes specific evacuation procedures, including routes and exits. Review disaster recovery plan with team, and key employees
	Take all necessary steps to prevent the release of dangerous chemicals that might be stored on your property - locate main gas and electrical shut-offs and anchor all fuel tanks
	Postpone any receipt of goods- deliveries, couriers, etc.
	Contact insurance broker, discuss policy, etc.
	Establish emergency communication method (Alert Notification System, phone tree, etc.); identify meeting place and time for all key employees in Crisis Management Team; create voicemail for when evacuated, or out of office, etc.
	Update disaster recovery kits and begin crisis backup procedures
	Maintain accurate inventory of product on site
	Use plugs to prevent floodwater from backing up into sewer drains, or install flood vents/or flood proof barriers
	Stay tuned to local media & community messaging

✓	During the Flood
	Life safety is paramount
	Begin next phase of your business continuity plan
	Send non-critical staff home
	Raise elevators to the 2nd floor and turn off. Move valuable records and equipment to the second floor.
	Stay tuned to local media- evacuate when required
	Take cell phones, charger, critical hardware, and emergency kits with you
	Unplug electrical items before leaving
	Consider your business phones and redirection to cell phones, an answering service, or Google Voice

✓	After the Flood
	Listen for news reports to learn whether the community's water supply is safe to drink
	Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage - water may also be electrically charged from underground or downed power lines
	Be aware of areas where floodwaters have receded, roads may have weakened and could collapse under the weight of a car
	Clean and disinfect everything that got wet, mud left from floodwater can contain sewage and harmful chemicals
	Implement disaster recovery plan, and monitor local authorities' communication
	Contact employees via determined method of communication and discuss next steps
	Contact your insurance agent

✓	**Your People**
	Ensure you have an emergency communication plan in place prior to the storm, evacuation, or threat
	Have all employees, vendors, and client contact information on hand
	During evacuation have a central point of contact for all employees, and ensure you know where your employees are located
	Following the flood, notify all critical people of next steps, based on damage

Helping to Mitigate your Risk for Flood Interruption:

Do You Know the Terms?

Flood Watch

Flooding is possible. Tune into NOAA Weather Radio, commercial radio, or television for information.

Flash Flood Watch

Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.

Flood Warning

Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.

Flash Flood Warning

A flash flood is occurring; seek higher ground on foot immediately.

Driving Flood Facts

The following are important points to remember when driving in flood conditions:

- Six inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling.

- A foot of water will float many vehicles.

- Two feet of rushing water can carry away most vehicles including sport utility vehicles (SUVs) and pick-ups.

Hurricane Preparedness

Hurricanes generate a series of threats to lives and property. The most obvious is the threat posed to buildings, equipment, and people by the high winds which characterize such storms.

This checklist will help you prepare for a hurricane's effect on your business, employees, and community by highlighting activities you should undertake before, during, and following the event. When the National Oceanic and Atmospheric Administration's National Hurricane Center issues a watch or warning, use the time available to begin taking the following steps.

✓	Before The Storm
	Stay up-to-date on the storm's progress via radio, TV or NOAA Weather Radio All Hazards receiver.
	Determine safe evacuation routes inland as well as alternative routes.
	Review your Shelter-In-Place plan, making sure your Disaster Kit is fully stocked and fresh batteries & supplies are included.
	Ensure you have an emergency communication plan in place prior to the storm, evacuation, or threat.
	Backup all data on servers and personal computers. If the backup site is within the area that may be affected by the storm, take backup tapes with you in the evacuation.
	Turn off all non-critical devices such as server monitors and workstations and other non-essential electrical equipment.
	Check the integrity of the uninterruptible power supply (UPS). Move the UPS to the highest level possible above the floor.
	Inspect and make emergency repairs to drains, gutters, and flashing.
	Strap or anchor to the roof deck support assembly (e.g., the joists) all roof-mounted equipment such as HVAC units and exhaust vents.
	Alert a third party about your company's relocation plan in the event the storm makes your location inaccessible.
	Protect/relocate vital records including your insurance policies.
	Install windstorm shutters/plywood over windows and doors.
	Take the following steps so that items outdoors will not blow away or cause damage: ▪ Remove all loose debris ▪ Anchor or relocate all nonessential equipment to a safe indoor location ▪ Secure storage of flammable liquid drums, or move them to a sheltered area (but never into main facility areas) ▪ Anchor all portable buildings (e.g., trailers) to the ground ▪ Secure large cranes and other heavy equipment ▪ Make sure outdoor signs are properly braced
	Ensure that any employees who volunteer to stay onsite have proper supplies and equipment (e.g., drinkable water, nonperishable food, medical, flashlights, and walkie-talkies). If an official evacuation order is in place, no employees should remain behind.
	Have cash on hand for post-windstorm needs, such as buying food and supplies, or paying employees and contractors.
	Ensure you know which employees are certified in CPR, EMT, etc.
	Repair and fill above-ground tanks with fresh water.
	Fill fuel tanks of generators, fire pumps, and all company-owned vehicles.
	Remove as many goods as possible from the floor, or ship them out of the facility.
	Shut off natural gas supply in order to minimize fire loss.
	Disconnect the main electrical feeds to the facility, if possible, to prevent a potential fire caused by short-circuiting of damaged equipment.
	Ensure remote access to your company's website so updates about your availability can be made.

✓	**During The Storm**	
	Patrol the property continuously and watch for roof leaks, pipe breakage, fire or structural damage. During the height of a windstorm, personnel should remain in a place that has been identified as safe from wind and flood.	
	Constantly monitor any equipment that must remain online.	
	During power failure, turn off electrical switches to prevent reactivation before necessary checks are completed.	

✓	**After The Storm**	
	Keep listening to radio, TV or NOAA Weather Radio All Hazards to make sure the storm has passed.	
	Wait until an area is declared safe before entering to secure the site and survey damage.	
	Procure 24-hour security if needed.	
	Watch for closed roads. If you come upon a barricade or a flooded road, turn around, don't drown.	
	Survey for safety hazards such as live wires, leaking gas or flammable liquids, poisonous gases, and damage to foundations or underground piping.	
	Call in key personnel and notify contractors to start repairs. Make sure safety systems are fully implemented before work is allowed to begin. This means controlling smoking and other open flame sources. Require contractors to share responsibility for establishing fire-safe conditions before and during the job.	
	Begin salvage as soon as possible to prevent further damage: ▪ Cover broken windows and torn roof coverings immediately ▪ Separate damaged goods, but beware of accumulating too much combustible debris inside a building	
	Clean roof drains and remove debris from roof to prevent drainage problems.	

✓	**Your People**	
	Have all employees, vendors, client contact information on hand.	
	Use an Alert Notification System to keep all interested parties posted on status updates and next steps.	
	During evacuation, have a central point of contact for all employees, and ensure you know where your people are located.	
	During an evacuation, consider your phones lines - redirection to cell phones, answering service, Google Voice, or backup lines could be critical.	
	Following the storm, notify all critical people of next steps, based on damage.	

In flat areas, storm surges may rush many miles inland. Hurricanes often generate heavy rainfall, which can cause severe flooding over wide areas. Hurricanes also may spawn deadly tornadoes. Flooding and tornadoes may affect areas well inland. You should also prepare for these potential interruptions.

The National Weather Service rates hurricanes by their intensity, using the Saffir-Simpson Hurricane scale of one to five. The scale categorizes storms according to their sustained winds, the storm surges produced, and expected damage.

Category One
- Wind speed: 74-95 mph (119-153 km/h)

- Storm surge: 4-5 feet above normal

- Damage: Damage primarily to unanchored mobile homes, shrubbery, and trees along with some coastal road flooding and minor pier damage

Category Two
- Wind speed: 96-110 mph (154-177 km/h)

- Storm surge: 6-8 feet above normal

- Damage: Roofing, door and window damage to buildings; Considerable damage to shrubbery and trees, mobile homes, poorly constructed signs, and piers

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Category Three
- Wind speed: 111-130 mph (178-209 km/h)

- Storm surge: 9-12 feet above normal

- Damage: Structural damage to small residences and utility buildings; foliage blown off trees and large trees blown down; mobile homes destroyed

Category Four
- Wind speed: 131-155 mph (210-249 km/h)

- Storm surge: 13-18 feet above normal

- Damage: Extensive damage to doors, windows and lower floors of shoreline houses; total roof failures on small residences; shrubs, trees, and all signs blown down; mobile homes completely destroyed

Category Five
- Wind speed: Greater than 155 mph (249 km/h)

- Storm surge: generally greater than 18 feet above normal

- Damage: Complete roof failure on many buildings and some complete building failures with small utility buildings blown over or away; severe and extensive window and door damage; mobile homes completely destroyed

Know the Terms

Tropical Depression: An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds of 38 MPH (33 knots) or less. Sustained winds are defined as one-minute average wind measured at about 33 feet (10 meters) above the surface.

Tropical Storm: An organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39–73 MPH (34–63 knots).

Hurricane: An intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 MPH (64 knots) or higher.

Storm Surge: A dome of water pushed onshore by hurricane and tropical storm winds. Storm surges can reach 25 feet high and be 50–1000 miles wide. Storm surge is by far the greatest threat to life and property along the immediate coast.

Storm Tide: A combination of a storm surge and the normal tide (i.e., a 15-foot storm surge combined with a 2-foot normal high tide over the mean sea level created a 17-foot storm tide).

Hurricane/Tropical Storm Watch: Hurricane/tropical storm conditions are possible in the specified area of the watch, usually within 48 hours. Tune into NOAA Weather Radio, commercial radio, or television for information.

Hurricane/Tropical Storm Warning: Hurricane/tropical storm conditions are expected in the specified area of the warning, usually within 36 hours of the onset of tropical storm force winds. Complete storm preparations and immediately leave the threatened area if directed by local officials.

Extreme Wind Warning: Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eye wall, are expected to begin within an hour. Take immediate shelter in the interior portion of a well-built structure.

Short Term Watches and Warnings: These warnings provide detailed information about specific hurricane threats, such as flash floods and tornadoes.

Table-Top Exercise

Exercising is a key step in preserving a viable recovery plan. One popular way of starting a testing program is a table-top exercise. This approach is cost effective and focuses on your employees and their specific recovery tasks. This checklist will guide you through steps and suggestions to plan and facilitate a successful table top exercise.

✓	Item	Description
	Identify team for table top exercise	Be sure key decision makers are involved, whether they are participants, or their absence is written into the scenario.
	Establish a crisis command center	The location of the table top exercise - conference bridges are recommended for remote parties to dial into. All information gathered will also be stored in this location.
	Log all activities	Appoint a scribe to document actions and open items for later review.
	Determine scenario	In doing so, be creative but practical. Take your risk assessment into consideration, and consider what will be appropriate based upon time allotted for this exercise.
	List assumptions	This includes closed roadways, key personnel that are absent, extent of damage and outages, expected duration of outages, etc.
	Rules for the exercise	Clearly define which actions will be taken vs. assumed since there isn't time to do each step in real-time that would be taken in a recovery.
	Split the scenario into sessions	Make these time-appropriate for the overall time of the exercise. After each session the participants/observers will review and document what was learned. With each session you can pose a new list of assumptions.
	What critical business functions were affected?	From the assumptions, the participants should identify which functions are crippled, and how to meet recovery time objectives for each function. This will assist in prioritizing what functions to recover first.
	Vendors	Will your third party vendors: phone service, IT, data back-up, facilities, etc. be involved in this exercise? If so, make sure you provide them with adequate notice related to their responsibilities in the exercise. If not, write into the rules how vendors will be simulated.
	Time frame	At the beginning of each session, clearly define the number of hours participants have to work on each session as well as how much time passes in 'exercise time' compared to 'real time'.
	Talking points for each session	After each session and list of assumptions is presented, have your team(s) ask/answer these questions: ▪ What should happen now? ▪ What do we know at this point? ▪ What decisions do you have to make? ▪ Who and how do we need to contact? ▪ What documents / information are available to you? ▪ What are the next steps?

✓	Item	Description
	Post exercise review	Once you have completed the exercise, conduct a review before dismissing participants. Consider these questions: ▪ Did this exercise confirm actions required at each phase of the crisis timeline? ▪ Did this exercise identify procedures for escalation and the declaration process during a crisis? ▪ Were all gaps, new ideas, and recommendations for improvement identified and recorded?
	Next steps	Build on what you've learned by making appropriate changes and clarifications to your written plan. Establish a date to complete another testing exercise. It is recommended that you minimally test your recovery plan on an annual basis.

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Contact Us:

To engage a leader in Aon Global Risk Consulting's Property Risk Consulting Group, please reach out to:

Jill Dalton
Managing Director
Claims Preparation, Advocacy and Valuations
Aon Risk Solutions | Aon Global Risk Consulting
jill.dalton@aon.com
1.212.441.2136

Peter Jagger
Managing Director
Claims Preparation, Advocacy and Valuations
Aon Risk Solutions | Aon Global Risk Consulting
peter.jagger@aon.com
1.214.989.2623

Ronald Hajjar
Managing Director
Claims Preparation, Advocacy and Valuations
Aon Risk Solutions | Aon Global Risk Consulting
ron.hajjar@aon.com
1.469.304.3540

Chris Ford
Director
Claims Preparation, Advocacy and Valuations
Aon Risk Solutions | Aon Global Risk Consulting
christian.ford@aon.com
1.330.836.8945

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