Business Continuity Planning Guide

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1. Business Continuity Planning Overview

Business Continuity Planning Overview

How quickly a business can recover from a disaster hinges on effective planning and education before such an event strikes.

- Hurricane Katrina
- The Kobe earthquake
- Terrorist attacks on the World Trade Center and Pentagon
- Fukushima tsunami and nuclear release
- Daily cyberattacks in the news
- Moore, Oklahoma tornado

Each of these events has redefined everyone's perception of "worst-case scenario." These and other disasters have forced businesses to re-evaluate their readiness for such catastrophes. In fact, 52% of businesses experienced a disruptive event(s) in the last five years[1] and your company may have been among them.

If a disaster were to strike, would your company be able to resume operations quickly? A disaster does not have to be a large-scale catastrophe like those mentioned above. Too many businesses neglect to plan adequately for more common types of disasters, such as fire, power outage, cyber-attack, or hazardous weather. Even the simplest disasters can cost you. The average downtime for an organization is over $150,000 USD per hour in a recent study. Downtime costs your business more than you may think. Statistically speaking, it is the second largest expense after human resources. 81% of organizations report that downtime costs them on average over $300,000 USD per hour[2].

The lesson comes down to this: **Planning = Survival.** Companies that survive a disaster with a minimum amount of damage or loss of market share are inevitably those that plan ahead. The recovery lessons that these insightful businesses offer can help organizations of every size from small retailers to middle-market manufacturers to the largest multinational service organizations.

A return to normalcy requires a great deal of planning and collaboration by disparate groups including: employees; suppliers; customers; financial institutions; government agencies; insurance companies, agents and brokers. Businesses that do not heed this planning lesson remain exposed to substantial loss of life, physical assets, revenue and reputation. They may even face complete failure.

A business continuity plan provides a framework for returning to normalcy. Through the planning process, companies identify and manage hazards associated with a disaster, mitigating the effects of such an event, should one occur.

Business Continuity Planning Benefits:

- Minimizes lost revenue
- Maintains market share
- Controls recovery costs
- Increases productivity during the recovery period
- Minimizes regulatory impact
- Increases competitive advantage
- Survives supply chain interruptions

1. Stax Market Report, 2018, Stax Inc.
2. Info. Tech. Industry Council, 2016

Business continuity planning also requires an appreciation for the interdependencies of an organization. Each function that makes up critical infrastructure must be maintained; even one failure could have disastrous results for your company. Savvy organizations determine their vulnerability to certain hazards and prioritize key activities so the infrastructure is preserved regardless.

A Guide To Help You

Developing a comprehensive business continuity plan (BCP) may seem overwhelming. Some companies do not know where to start such a project, while others veer off course because of the seemingly endless variables involved in designing one. The process does not have to be quite so daunting.

Using this Business Continuity Planning Guide can help you develop a business continuity plan before a catastrophe strikes and is a useful reference to facilitate developing and maintaining a business continuity plan.

This guide can help companies to:

- Segment the planning process into logical steps
- Determine what resources and investments may be required to develop and implement an effective plan
- Consider a variety of pathways for resuming business operations

The Business Continuity Planning Guide provides counsel, guidelines, forms and checklists that encourage thinking about what can happen and planning for the catastrophe along the way. Compiled by Chubb professionals with years of experience in helping companies develop BCPs, this guide outlines risk assessment and mitigation, emergency planning and business recovery activities that enable you to prepare for and possibly minimize a disasters impact.

We also encourage the use of existing resources such as:

Ready.gov

American Red Cross

Disaster Recovery Journal

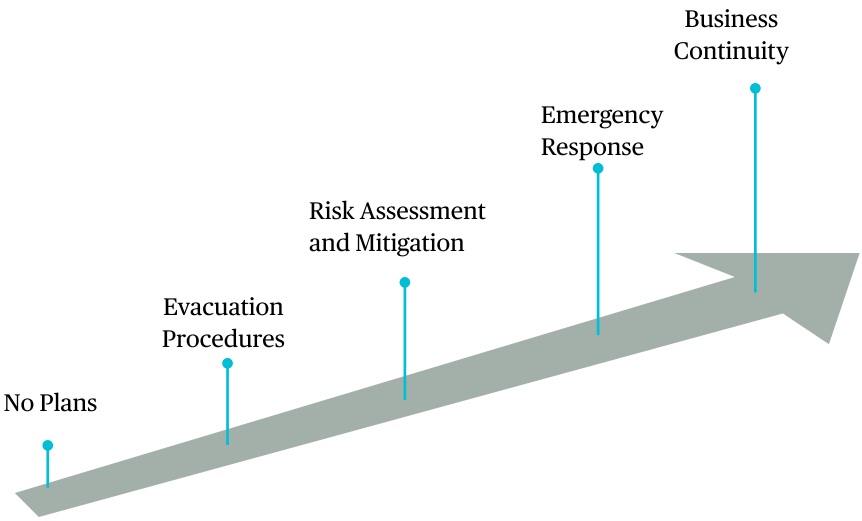
A business continuity plan is defined as: A documented collection of procedures and information that is developed, compiled, and maintained in readiness for use in an incident to enable an organization to continue to deliver its critical products and services at an acceptable predefined level.
(DRI International, 2019)

What Is A Business Continuity Plan?

The process of developing a business continuity plan requires an investment of time and financial resources. The return on this investment can be dramatic. A good business recovery plan can save lives in a disaster and may even save your organization.

Having such a plan will help you get your business back on track after an unforeseen disaster. By reviewing activities likely to occur during and after a disaster, you will be able to create a comprehensive plan. This plan will include three major components, each addressing a specific planning phase: risk assessment and mitigation, emergency response and business recovery.

Typical Progression Of A Plan



Any attempt at business continuity planning will falter without support from top management and without a designated person and team responsible for overseeing the process. This cannot be avoided. Additionally, assistance from professional contingency planners or from your insurance company, agent or broker can be extremely valuable and in some cases critical. Nevertheless, remember, while outside consultants can be valuable, only you truly know your business and the market in which you operate.

In the emergency response planning phase, an organization develops procedures that enable it to respond to a disaster.

Risk Assessment and Migration

Risk assessment and mitigation planning requires you to identify and assess the hazards facing your organization while taking steps to reduce or eliminate them. This phase of the business continuity planning process provides a framework for considering the types of events that might compromise your business. It suggests measures you can take to prepare for natural and man-made disasters, improving your ability to protect employees, safeguard assets and minimize financial consequences.

In the Risk Assessment and Mitigation Planning section, you will find matrices, planning considerations and checklists to help you organize and record actions needed for mitigating or eliminating hazards.

Emergency Response Planning

The emergency response plan is activated when an unexpected event– such as a fire, earthquake or bomb threat – occurs, or when a forecasted event, like a hurricane, is imminent. The plan responds until people are safe and there is no further threat of property damage or bodily injury.

The emergency response planning section highlights several core emergency response functions: incident command systems (ICS), communications, life safety and property protection. Included are checklists to help in the process of determining how to manage supporting functions such as emergency services; communications, evacuations, facility shutdown, and others. How the emergency response plan is structured will vary with each company, depending on the size and complexity of the organization.

Recovery planning helps prepare you to return market share, production and/or operations to pre-disaster levels.

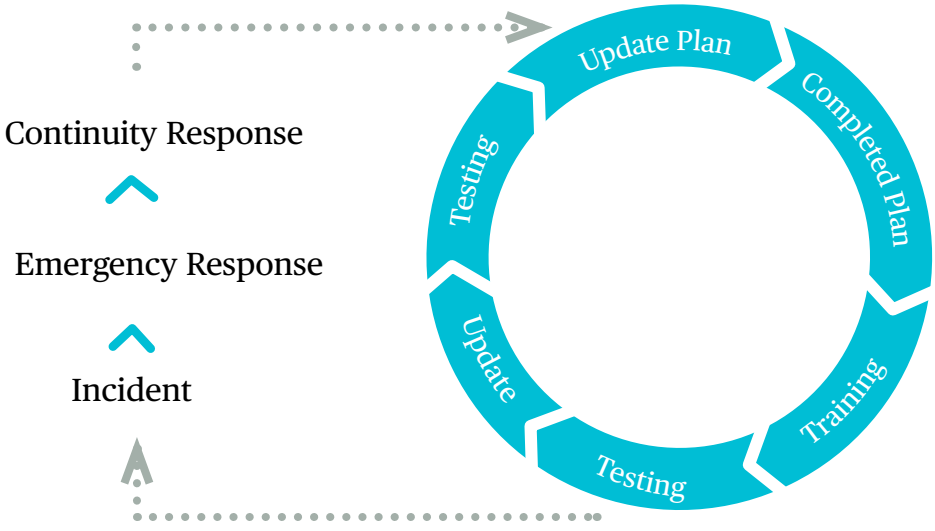
Business Recovery Planning

Business recovery planning is the process of defining procedures that enable an organization to continue as a viable entity after a catastrophic event occurs. If operations are disrupted for extended periods, the business may fail. This phase addresses the recovery of a company's critical business function after a catastrophe.

In the Business Recovery Planning section, we provide guidelines, forms and checklists to help companies develop a comprehensive, site-specific business continuation plan. One of the fundamental resources for business recovery planning is the Business Impact Analysis Questionnaire (BIA) and Return Time Objective

A Cycle of Planning

The process of developing a business continuity plan is sometimes described as a "cycle" of contingency planning. This is because the organization is continually changing so it requires reviews, updates and adjustments based on changes to your business operations. Also it requires a regular review of company surroundings to evaluate the level of exposure from other business and the environment. Comprehensive review is time-consuming, but is essential to creating a comprehensive plan



2. Risk Assessment and Mitigation

Risk Assessment And Mitigation

Business continuity planning requires you to assess the hazards facing your company and take steps to reduce or eliminate them. This phase of the business continuity planning process provides a framework for considering the types of events that might compromise your business. It also suggests measures you can take to prepare for natural and man-made disasters, thereby improving your ability to protect employees, safeguard assets and minimize downtime and loss of market share.

Here are a few examples of how companies might mitigate the impact of a disaster:

- Companies located in earthquake or windstorm prone areas can check the design, construction and materials of their buildings to ensure they meet current construction standards for these hazards.
- Companies whose greatest exposure is fire should verify sprinkler systems and other fire-protection systems are designed to protect the facility based on the most current NFPA or other applicable standards.
- Companies prone to losses related to power outages should consider emergency generators and/or transfer switches as well as connect to dual utility feeds (if available).

All companies face a variety of natural and man-made hazards and determining their probability of occurrence and potential impact on business operations is paramount. This guide's Vulnerability Assessment Matrix can assist you in ranking the various hazards to determine which your firm is most vulnerable.

Vulnerability Assessment Matrix

The first step in proper disaster preparedness planning is to assess the vulnerability of your facility (i.e., the probability and potential impact of each hazard). Use the Vulnerability Assessment Matrix to guide the process, which entails using a numerical system to assign probabilities, estimate impact and consider mitigating factors. The higher scored hazards indicate those hazards which your firm is most vulnerable.

Choosing The Potential Hazards

In the first column of the chart, list all hazards that are likely to affect your facility. Consider hazards that could occur within your facility and those hazards that could occur within your community (regional events).

There are a variety of factors to consider when identifying potential hazards. These factors include historical events, geographic location, technological issues, human factors, plant construction, operational hazards and utility loss.

Historical Events: What types of emergencies have occurred in the community, at this facility and other facilities in the area? Is the area prone to natural catastrophes such as earthquakes, tornadoes or hurricanes? Does the area have a history of man-made catastrophes such as chemical spills or transportation accidents?

Geographic Location: What can happen as a result of the facility's location? Keep in mind:

- Proximity to flood plains or seismic faults
- Coastal areas or areas prone to a particular hazard (Tornado Alley or lake effect snow)
- Proximity to companies that produce, store, use or transport hazardous materials
- Adjacent to major transportation routes or airport flight paths

Technological Issues: What is the impact of IT / phone system failures? Possibilities include:

- Telecommunications failure (VOIP)
- Cyber attack
- Computer hardware failure, Plant infrastructure failure, i.e. generators
- Heating/cooling system failure

Human Factors: What emergencies can be caused by employees or outsiders? Laid off or fired employees may sabotage systems? Do local events have the potential for civil unrest?

- Workplace violence
- Civil unrest
- Sabotage
- Terrorism

Plant Construction / Hazards from Operations: What types of emergencies can result from the design or construction of the facility? Are hazardous operations present? Is machinery/ equipment difficult or timely to replace? Consider:

- Physical construction of the facility
- Hazardous processes
- Warehousing of combustibles
- Dust explosions
- Unique / foreign made machinery
- Proximity to shelter areas
- Interior (non weather) water damage

Loss of Utilities: What utilities are you reliant on? Consider loss of these utilities for hours / days? Consider what could happen as a result of:

- Loss of electric power
- Communication lines down or internet service loss
- Ruptured gas or water mains
- Steam explosion

Scoring The Hazards Using The Vulnerability Assessment Matrix

Estimate Probability
In the Probability column, rate the likelihood of each hazard's occurrence. In most cases, this is a subjective consideration but useful nonetheless. Use a simple scale of 1 to 5 with 1 as the lowest probability and 5 as the highest.

Assess the Potential Human Impact
Analyze the potential human impact of each hazard—the possibility of death or severe injury. Assign a rating in the Human Impact column of the Hazard Assessment Matrix. Use a 1 to 5 scale with 1 as the lowest impact and 5 as the highest. Consider:

- Cost to replace / repair
- Cost to set up temporary site
- Factors that could delay rebuilding

Assess the Potential Business Impact
Consider the potential loss of market share. Assign a rating in the Business Impact column. Again, 1 is the lowest impact and 5 is the highest. Assess the impact of:

- Business interruption
- Employees unable to report to work
- Imposition of fines and penalties or legal costs
- Transportation mode failure
- Interruption to supply chain

Assess Mitigating Factors
Consider your internal / external resources and their ability to respond in an emergency. Assign a score in the Mitigating Factors column. Use a 1 to 5 scale with 1 as the strongest resource and 5 as the weakest.

For each hazard, ask these questions:
- Do we have the necessary resources and capabilities to respond?
- Will external resources be able to respond for this emergency as quickly as needed, or is it a shared resource that have other priority areas to serve?

Review the Scores
Total the scores for each hazard. Sort the matrix from high to low score. For the top three hazards, review the potential risk mitigation measures that are possible. As an example, if a hurricane ranked as the top hazard. Your team should review your structure to determine if appropriate measures have been taken to reduce the risk of damage, i.e. rated glazing, hurricane resistant dock doors, all roof top equipment is adequately tied down, etc.

Vulnerability Assessment Matrix

Potential Hazard	Probability	Impacts			Mitigating Factors	Total Score	Risk Mitigation Actions
		Human Impact	Property Impact	Business Impact			
						0	
						0	
						0	
						0	
						0	
						0	

Scoring:

☐ Rate each hazard from 1 being the lowest to 5 being the highest.

☐ Rate mitigating factors present with 1 as the strongest resource and 5 as the weakest.

Return

Planning Risk Assessment Checklists

Common Elements

Water Damage

Earthquake

Tornado/ Windstorm

Hurricane

Flood

Fire

Winter Storm/Cold Weather

Technological Emergencies

Civil Unrest

Common Elements Checklist

When completing the Risk Assessment and Mitigation phase of a business continuity plan, there will be mitigation activities that will impact a number of different incident scenarios. Some of the more common mitigation actions to reduce the effect or possibility of an incident are listed below. This is not an all-inclusive list and should be used to help develop additional hazard mitigation activities.

The ultimate goal should be to eliminate as many hazards as possible to help reduce the chance of having to activate the business continuity plan or one of its elements.

This checklist should be used in conjunction with all other checklists.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Back up all computer files and store off premises in a vault or secured storage facility? (This can be physically or in a "cloud" configuration.)	
2. Cover and secure all liquid containers (e.g., tanks, vats), especially those containing toxic chemicals?	
3. Design new buildings, and modify existing buildings, to conform to local, state and federal building codes?	
4. Develop an emergency response plan for hazards identified in risk assessment?	
5. Distribute procedures to all employees?	
6. Develop internal and external emergency communications plans?	
7. Ensure key personnel are familiar with all fire safety systems?	
8. Ensure that all critical equipment has backup power and/or Uninterrupted Power Supply (UPS) systems for a logical shutdown procedure?	
9. Ensure that equipment running backup media is functional and is in place?	

10. Ensure that key safety and maintenance personnel are familiar with all building systems?	
11. Establish a preventive maintenance schedule to keep equipment operating safely? Test equipment in accordance with manufacturers' specifications?	
12. Establish business contingencies with clients and suppliers?	
13. Establish procedures for safe handling and storage of flammable liquids and gases?	
14. Familiarize local fire officials with hazardous chemicals in the facility?	
15. Install automatic fire detection system? Check alarms and detectors monthly?	
16. Keep a list of all vendors' and key customers' telephone numbers available and secured?	
17. Maintain an emergency kit? Include flashlights, plastic sheeting, rope, battery-operated radio, blankets, hand tools, extra supplies of plastic rolls, mops, buckets, water vacuums, lubricants, portable generators, radios, batteries, bottled water, and basic food supplies available? Maintain a first aid emergency kit? Include gloves, face shields, respirators, and rescue equipment?	
18. Meet with fire department to discuss the community's emergency response capabilities? Develop fire plan with local fire department?	
19. Place fire extinguishers in appropriate locations?	
20. Post emergency phone numbers to activate emergency response plan?	

Action Items	Assigned	Date
1.		
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Water Damage Mitigation Planning Checklist

Similar to fire, water often causes devastating damage, with losses ranging well into the millions of dollars. Burst pipes, roof leaks, overflowing toilets, and leaking appliances, are just some of the common causes. The risk and potential effects to business have historically been underestimated. Water damage can result in business interruption, relocation costs, lost rents, and negatively impact reputation.

The unfortunate truth is that most businesses do not have a water damage mitigation plan. Even if the building has high quality water, new plumbing systems, and formal inspection and preventative maintenance programs, leaks can and will still occur. Even the newest water detection technology may be only as good as where you install it! A living, breathing mitigation plan is a MUST!

The ultimate goal should be to eliminate as many hazards as possible to help reduce the change of having to activate the business continuity plan or one of its elements.

This checklist should be used in conjunction with all other checklists.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Have a formal plan dedicated to water damage prevention and mitigation?	
2. Have senior management attest to the importance of the plan organizationally?	
3. Have an accountable coordinator in charge of the water damage response program?	
4. Prioritize action items (such as training needs) written into the annual performance goals of the water damage coordinator?	
5. Ensure the plan includes organizational and employee and contractor notification charts?	
6. Have formal inspection schedules for older piping systems, hot water heaters, plumbing hoses, HVAC, etc.?	
7. Address installation of leak detection and/or automatic valve shutdown devices such as in susceptible equipment rooms, within or around HVAC units, laundry units, and other high sensitivity areas (toilets, sinks, hot water heaters, etc.)?	

8. Make sure the plan addresses critical areas such as main and emergency power equipment, data and communication centers, high valued equipment rooms, laboratories and cleanrooms, and electrical and alarm system rooms?	
9. Have quick notification of key personnel in place to include risk management, engineering and maintenance, security and facilities, and other key personnel?	
10. Identify critical valves with tags indicating what portion of the system it controls?	
11. Have key employees authorized and trained at least annually on shutting down and isolating systems and key valves in an emergency event?	
12. Keep emergency supply "spill control kits" equipped with materials to mitigate escaped liquids?	
13. Ensure the plan detail extraordinary measures to be taken during cold weather preparedness, hurricanes, micro-bursts, or flooding?	
14. Ensure the plan been updated at least annually?	
15. Have "table top" drills or exercised been performed on the water damage plan within the last year with your team? Validate the plan works?	

Action Items	Assigned	Date
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Earthquake Checklist

Earthquakes occur suddenly and without warning. Earthquakes can seriously damage buildings and their contents; disrupt gas, electric and telephone services; and trigger landslides, avalanches, flash floods, fires and huge ocean waves called tsunamis. Aftershocks can occur for weeks following an earthquake.

In many buildings, the greatest danger to people in an earthquake is when equipment and non-structural elements such as ceilings, partitions, windows and lighting fixtures shake loose.

Planning Considerations

Consider the following when preparing for earthquakes:

- Assess your facility's vulnerability to earthquakes. Ask local government agencies for seismic information for your area.
- Have your facility inspected by a structural engineer. Develop and prioritize strengthening measures. These may include:
  - Adding steel bracing to frames
  - Adding sheer walls to frames
  - Strengthening columns and building foundations
  - Replacing unreinforced brick filler walls
  - Follow building safety codes when constructing a facility or making renovations
  - Inspect nonstructural systems, such as air-conditioning, communications and pollution control systems. Assess the potential for damage. Prioritize measures to prevent damages.
- Inspect the facility for any item that could fall, spill, break or move during an earthquake. Take steps to reduce these hazards:
  - Move large and heavy objects to lower shelves or the floor. Hang heavy items away from where people work.
  - Secure shelves, filing cabinets, tall furniture, desktop equipment, computers, printers, copiers and light fixtures.
  - Install safety glass where appropriate.
  - Secure fixed equipment and heavy machinery to the floor.
  - Larger equipment can be placed on casters and attached to tethers, which attach to the wall.
  - Add bracing to suspended ceilings, if necessary.
  - Secure large utility and process piping.
- Store copies of architectural drawings in an off-site location.
- They can be used to assess the facility's safety after an earthquake.
- Review processes for handling and storing hazardous materials. Have incompatible chemicals stored separately.
- Ask your insurance carrier about earthquake insurance.
- Establish procedures to determine whether an evacuation is necessary after an earthquake.
- Designate areas in the facility where occupants should gather if an evacuation is not necessary. The area should be away from exterior walls and windows.
- Conduct earthquake drills. Provide personnel with the following earthquake safety information:
  - If outdoors, move into the open, away from buildings, streetlights and utility wires.
  - If indoors, stay there. Take cover under a sturdy piece of furniture or counter, or brace yourself against an inside wall.
  - Protect your head and neck.
  - After an earthquake, stay away from windows, skylights and items that could fall. Do not use the elevators.
- Use stairways to leave the building if an evacuation is necessary.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Anchor all structures, tanks and machinery (including exterior items) to foundations?	
2. Anchor or brace top-heavy building contents such as bookshelves and equipment?	
3. Back up all computer files and store in a watertight container off premises in a vault or secured storage facility?	
4. Cover and secure all liquid containers (e.g., tanks, vats), especially those containing toxic chemicals?	
5. Design new buildings, and modify existing buildings, to conform to local, state and federal building codes?	
6. Develop an emergency response plan? Include provisions for building evacuation; fire; response to medical emergencies; loss of power, water and sprinkler systems; natural gas leakage; chemical spills; flooding and exposed electrical wiring?	
7. Train staff on emergency procedures?	
8. Develop internal and external crisis communications plans?	
9. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
10. Ensure key personnel are familiar with all fire safety systems?	
11. Ensure that all critical equipment has backup power and/or Uninterrupted Power Supply (UPS) systems?	
12. Ensure that key safety and maintenance personnel are familiar with all building systems?	
13. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	

14. Equip building with backup power supply, diesel generator or long-term battery backup system? Maintain adequate fuel supply?	
15. Establish a preventive maintenance schedule to keep emergency equipment operating reliably? Test equipment in accordance with manufacturers' specifications?	
16. Establish procedures for safe handling and storage of flammable liquids and gases?	
17. Familiarize local fire officials with hazardous chemicals in the facility?	
18. Have extra supplies of plastic rolls, mops, buckets, water vacuums, lubricants, portable generators, radios, batteries, bottled water and basic food supplies available for the emergency response team?	
19. Keep a list of all vendors' and key customers' telephone numbers available and secured?	
20. Maintain an emergency kit? Include flashlights, plastic sheeting, rope, battery-operated radio, blankets and hand tools?	
21. Meet with fire department to discuss the community's emergency response capabilities? Develop fire plan with local fire department?	
22. Post emergency phone numbers to activate emergency response plan?	
23. Regularly inspect buildings for structural deterioration? Promptly repair all structural problems (e.g., cracked beams, dry rot, broken masonry and mortar)?	
24. Relocate towers, elevated tanks, signs and utility poles away from buildings?	

Action Items	Assigned	Date
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Fire Checklist

Fire is the most common of all hazards. Every year, fires cause thousands of deaths and injuries and billions of dollars in property damage.

Planning Considerations

Consider the following when preparing for fire:

- Meet with the fire department to discuss the community's fire response capabilities. Review your operations to identify processes and materials that might cause or fuel a fire.
- Have your facility inspected for fire hazards. Ask about fire codes and regulations.
  - Ask your insurance carrier to recommend fire prevention and protection measures. Your carrier may also offer training in fire protection.
- Instruct personnel to use the stairs, not elevators, in a fire. Instruct them to crawl on their hands and knees to escape a hot or smoke-filled area.
- Conduct evacuation drills. Post maps of evacuation routes in prominent places. Keep evacuation routes, including stairways and doorways, clear of debris.
- Assign fire wardens for each area to monitor shutdown and evacuation procedures.
- Establish procedures for the safe handling and storage of flammable liquids and gases. Establish procedures to prevent the accumulation of combustible materials.
- Prohibit smoking from within the structure. Provide for the safe disposal of smoking materials on the exterior entries.
- Establish a preventive maintenance schedule to keep fire protection equipment operating safely.
- Place fire extinguishers in appropriate locations. Train all personnel to use them.
- Install smoke detectors. Check smoke detectors monthly and change batteries at least once a year.
- Establish a system for warning personnel of a fire. Consider installing a fire alarm with automatic notification to the fire department.
- Ensure that key personnel are familiar with all fire safety systems.
- Identify and mark all utility shutoffs so that electrical power, gas or water can be shut off quickly by fire wardens or responding personnel

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Back up all computer files and store in a watertight container off premises in a vault or secured storage facility?	
2. Cover and secure all liquid containers (e.g., tanks, vats), especially those containing toxic chemicals?	
3. Design new buildings, and modify existing buildings, to conform to local, state and federal building codes?	
4. Develop an emergency response plan? Include provisions for building evacuation; fire; response to medical emergencies; loss of power, water and sprinkler systems; natural gas leakage; chemical spills; flooding and exposed electrical wiring? Distribute procedures to all employees?	
5. Develop Hot Work Permit Program for welding operations?	
6. Develop internal and external emergency communications plans?	
7. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
8. Distribute fire safety information to employees: how to prevent fires in the workplace, how to contain fire, how to evacuate the facility, where to report a fire?	
9. Ensure key personnel are familiar with all fire safety systems?	

10. Ensure that all critical equipment has backup power and/or Uninterrupted Power Supply (UPS) systems?	
11. Ensure that equipment necessary for running backup media has been identified and is in place?	
12. Ensure that key safety and maintenance personnel are familiar with all building systems?	
13. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
14. Equip building with backup power supply, diesel generator or long-term battery backup system? Maintain adequate fuel supply?	
15. Establish a preventive maintenance schedule to keep equipment operating safely? Test equipment in accordance with manufacturers' specifications?	
16. Establish procedures for safe handling and storage of flammable liquids and gases? Ground and bond liquid containers appropriately?	
17. Familiarize local fire officials with hazardous chemicals in the facility?	
18. Install automatic fire detection system? Check alarms and detectors monthly?	
19. Keep a list of all vendors' and key customers' telephone numbers available and secured?	
20. Meet with fire department to discuss the community's emergency response capabilities? Develop fire plan with local fire department?	
21. Place fire extinguishers in appropriate locations?	

Action Items	Assigned	Date
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Flood Checklist

Floods are the most common and widespread of all natural disasters. Most communities can experience some degree of flooding after spring rains, heavy thunderstorms or winter snow thaws. Most floods develop slowly over a period of days. Flash floods, however, are walls of water that develop in a matter of minutes. Flash floods can be caused by intense storms or terrain features.

Planning Considerations

Consider the following when preparing for a flood:

- Determine whether your facility is located in a flood plain. Learn the history of flooding in your area. Learn the elevation of your facility in relation to streams, rivers and dams.
- Inspect areas in your facility subject to flooding. Identify records and equipment that can be moved to a higher location. Make plans to move records and equipment in case of a flood.
- Consider the need for backup systems:
  - Portable pumps to remove floodwater
  - Alternate power sources, such as generators or gasoline- powered pumps
  - Battery-powered emergency lighting
- Purchase a National Oceanic and Atmospheric Administration (NOAA) weather radio with a warning alarm tone and battery backup. Listen for watches and warnings.
  - **Flood Watch:** Flooding is possible. Stay tuned to the NOAA radio. Be prepared to evacuate. Tune to local radio and television stations for additional information.
  - **Flood Warning:** Flooding is already occurring or will occur soon. Take precautions at once. Be prepared to go to higher ground. If advised, evacuate immediately.
- Ask your insurance carrier for information about flood insurance. Property policies typically don't insure against flood loss.
- Review the community's emergency plan. Learn the community's evacuation routes. Know where to find higher ground in case of a flood.
- Establish warning and evacuation procedures for the facility. Make plans for assisting employees who may need transportation. Consider the feasibility of flood-proofing your facility. There are three basic methods.
  - **Permanent measures** are taken before a flood occurs and require no human intervention when flood waters rise. These measures include:
    - Filling windows, doors or other openings with water-resistant materials, such as concrete blocks or bricks. This approach assumes the structure is strong enough to withstand floodwaters.
    - Installing check valves to prevent water from coming in where utility and sewer lines enter the facility.
    - Reinforcing walls to resist water pressure; sealing walls to prevent or reduce building watertight walls around equipment or work areas within the facility that are particularly susceptible to flood damage.
    - Constructing floodwalls or levees outside the facility to keep floodwaters away.
    - Elevating the facility. This approach is most applicable to new construction or re-building after a near total loss.
  - **Contingent measures** are taken before a flood, but require some additional action when flooding occurs. These measures include:
    - Installing watertight barriers to prevent the passage of water through doors, windows, ventilation shafts or other openings.
    - Installing permanent watertight doors.
    - Constructing movable or temporary flood walls.
    - Installing permanent pumps to remove floodwaters.
  - Emergency measures are generally less expensive than those listed above, though they require substantial advance warning and do not satisfy the minimum requirements for watertight flood-proofing set forth by the National Flood Insurance Program. These measures include:
    - Building walls with sandbags.
    - Constructing a double row of walls with boards and posts to create a "crib", then filling the crib with soil.
    - Constructing a single wall by stacking small beams.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Anchor all structures, tanks and machinery (including exterior items) to foundations?	
2. Anchor or brace top-heavy building contents such as bookshelves and equipment?	
3. Back up all computer files and store in a watertight container off premises in a vault or secured storage facility?	
4. Construct permanent floodwalls or dikes around buildings to prevent inundation?	
5. Cover and secure all liquid containers (e.g., tanks, vats), especially those containing toxic chemicals?	
6. Design new buildings, and modify existing buildings, to conform to local, state and federal building codes?	
7. Develop internal and external emergency communications plans?	
8. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
9. Elevate stock above floor level?	
10. Ensure that all critical equipment has backup power and/or Uninterrupted Power Supply (UPS) systems?	
11. Ensure that key safety and maintenance personnel are familiar with all building systems?	
12. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
13. Equip basement and ground-level areas with water pumps?	
14. Equip building with backup power supply? Maintain adequate fuel supply?	

15. Establish business contingencies with clients and suppliers?	
16. Have extra supplies of plastic rolls, mops, buckets, water vacuums, lubricants, portable generators, radios, batteries, bottled water and basic food supplies available for the emergency response team?	
17. Keep a list of all vendors' and key customers' telephone numbers available and secured?	
18. Locate as many electrical system components as possible above ground level?	
19. Locate critical machinery, equipment and business records above ground level?	
20. Maintain an emergency kit? Include flashlights, plastic sheeting, rope, battery-operated radio, blankets and hand tools?	
21. Maintain a first aid emergency kit? Include gloves, face shields, respirators and rescue equipment?	
22. Maintain a minimum 72-hour backup supply of water, nonperishable foods and sanitation materials?	
23. Move equipment off the floor?	
24. Move vulnerable equipment, raw materials and finished products away from doors and windows and cover equipment with a water-resistant tarp?	
25. Post emergency phone numbers to activate emergency response plan?	
26. Regularly inspect buildings for structural deterioration? Promptly repair all structural problems (e.g., cracked beams, dry rot, broken masonry and mortar)?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

Hurricane Checklist

Hurricanes are severe tropical storms with sustained winds of at least 74 miles per hour. Hurricane winds can reach 160 miles per hour and extend inland for hundreds of miles. Hurricanes bring torrential rains and a storm surge of ocean water that crashes into land as the storm approaches. Hurricanes also can spawn tornadoes.

Hurricane advisories are issued as soon as a hurricane appear through November 30th[1].

Planning Considerations

Consider the following when preparing for a hurricane:

- Ask your local emergency management office about community evacuation plans.
- Establish warning, evacuation and facility shutdown procedures. Make plans for assisting employees who may need transportation.
- Purchase a National Oceanic and Atmospheric Administration (NOAA) weather radio with a warning alarm tone and battery backup. Listen for hurricane watches and warnings.
  - **Hurricane Watch:** A hurricane is possible within 24 to 36 hours. Stay tuned to the NOAA radio for additional advisories. Tune to local radio and television stations for additional information. An evacuation may be necessary.
  - **Hurricane Warning:** A hurricane will hit land within 24 hours. Take precautions at once. **If advised, evacuate immediately.**
- Make plans for communicating with employees' families before and after a hurricane.
- Survey your facility. Make plans to protect outside equipment and structures.
- Make plans to protect windows. Permanent storm shutters offer the best protection. Covering windows with 5/8" marine plywood is a second option.
- Consider the need for backup systems:
  - Portable pumps to remove floodwater
  - Alternate power sources, such as generators or gasoline- powered pumps (Not in enclosed spaces)
  - Battery-powered emergency lighting
- Prepare to move records, computers and other items within your facility to another location.

Hurricane Wind Velocity Categories

The Saffir-Simpson Hurricane Scale

Category	Wind Speed	Probable Property Damage
1	74 - 95 mph 64-82 kt 119-153 km/h	• Damage primarily to shrubbery, trees, foliage and unanchored mobile homes • Some damage to poorly constructed signs
2	96 - 110 mph 83-95 kt 154-177 km/h	• Considerable damage to shrubbery, trees and foliage Some trees blown down • Considerable damage to mobile and poorly constructed homes
3	111 - 129 mph 96-112 kt 178-208 km/h	• Trees will be snapped or uprooted • Well-built framed homes may incur major damage or removal of roof decking and gable ends • Numerous roads blocked
4	131 - 156 mph 13-112 kt 209-251 km/h	• Well-built framed homes can sustain severe damage with loss of most of the roof structure and/ or some exterior • Extensive damage to lower floors of structures near the shore • Complete destruction of mobile homes • Power outages will last weeks to possibly months
5	> 157 mph > 137 kt > 252 km/h	• All shrubs, trees and signs blown down • Complete destruction of roofs on residences and most industrial buildings • Severe and extensive damage to windows and doors

1. *weather.gov/safety/hurricane-ww*
2. Source: https://w1.weather.gov/glossary/index.php?letter=h

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Anchor all structures, tanks and machinery (including exterior items) to foundations?	
2. Anchor or brace top-heavy building contents such as bookshelves and equipment?	
3. Construct permanent floodwalls or dikes around buildings to prevent inundation?	
4. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
5. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
6. Equip building with backup power supply, diesel generator or long-term battery backup system? Maintain adequate fuel supply?	
7. Have wood or metal covers available for windows and doors to prevent glass breakage?	
8. Locate critical machinery, equipment and business records above ground level? If this is not possible, store them within watertight rooms or containers?	
9. Move equipment off the floor?	
10. Move vulnerable equipment, raw materials and finished products away from doors and windows and cover equipment with a water-resistant tarp?	
11. Regularly inspect buildings for structural deterioration? Promptly repair all structural problems (e.g., cracked beams, dry rot, broken masonry and mortar)?	
12. Relocate towers, elevated tanks, signs and utility poles away from buildings?	

Action Items	Assigned	Date
1.		
2.		
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Tornado/Windstorm Checklist

Tornadoes are incredibly violent local storms that extend to the ground with whirling winds up to 300 mph. Spawned from powerful thunderstorms, tornadoes can uproot trees and buildings and turn harmless objects into deadly missiles. Paths of damage can be more than one mile wide and 50 miles long. Tornadoes can occur with little or no warning.

Planning Considerations

Consider the following when preparing for a tornado:

- Ask the local emergency management office about the community's tornado warning system.
- Purchase a National Oceanic and Atmospheric Administration (NOAA) weather radio with a warning alarm tone and battery backup. Listen for tornado watches and warnings.
  - **Tornado Watch:** Tornadoes are likely. Be ready to take shelter. Stay tuned to the NOAA radio for additional information.
  - **Tornado Warning**: A tornado has been sighted in the area or is indicated by radar. Take shelter immediately.
- Establish procedures to inform personnel when tornado warnings are posted. Consider the need to assign spotters to look for approaching storms.
- Conduct tornado drills.
- Work with a structural engineer or architect to designate shelter areas in your facility. Ask your local emergency management office or the National Weather Service for guidance.
- Consider the amount of space you will need. Each adult requires about six square feet of shelter space; nursing home and hospital patients require more.
- The best protection in a tornado is usually an under-ground area. If an underground area is not available, consider:
  - Small interior rooms on the lowest floor without windows
  - Hallways on the lowest floor away from doors and windows
  - Rooms constructed with reinforced concrete, brick or block, with no windows and a heavy concrete floor and roof system protected areas away from doors and windows

Note: Auditoriums, cafeterias and gymnasiums covered with a flat, wide-span roof are not considered safe.

- Make plans for evacuating personnel away from light-weight modular offices or mobile home-size buildings. These structures offer no protection from tornadoes.
- Once in the shelter, personnel should protect their heads with their arms and crouch down.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Anchor all structures, tanks and machinery (including exterior items) to foundations?	
2. Anchor or brace top-heavy building contents such as bookshelves and equipment?	
3. Design new buildings, and modify existing buildings, to conform to local, state and federal building codes?	
4. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
5. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
6. Equip building with backup power supply, diesel generator or long-term battery backup system. Maintain adequate fuel supply?	
7. Move vulnerable equipment, raw materials and finished products away from doors and windows and cover equipment with a water-resistant tarp?	
8. Regularly inspect buildings for structural deterioration? Promptly repair all structural problems (e.g., cracked beams, dry rot, broken masonry and mortar)?	
9. Relocate towers, elevated tanks, signs and utility poles away from buildings?	

Action Items	Assigned	Date
1.		
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Winter Storm/Cold Weather Checklist

Severe winter storms bring heavy snow, ice, strong winds and freezing rain. Winter storms can prevent employees and customers from reaching the facility, leading to a temporary shutdown until roads are cleared. Heavy snow and ice can also cause structural damage and power outages.

Planning Considerations

Consider the following when preparing for a winter storm:

- Listen to the National Oceanic and Atmospheric Administration (NOAA) weather radio and local radio and television stations for weather information:
  - **Winter Storm Watch:** Severe winter weather is possible.
  - **Winter Storm Warning:** Severe winter weather is expected.
- **Blizzard Warning:** Severe winter weather with sustained winds of at least 35 mph is expected.
- **Traveler's Advisory:** Severe winter conditions may make driving difficult or dangerous.
- Establish procedures for facility shutdown and early release of employees.
- Store food, water, blankets, battery-powered radios with extra batteries and other emergency supplies for employees who become stranded at the facility.
- Provide a backup power source for critical operations.
- Arrange for snow and ice removal from parking lots, walkways and loading docks.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Check established public and private procedures for snow and ice removal?	
2. Check the snow-bearing adequacy of the roof? Establish a plan for removing excessive snow?	
3. Develop an emergency response plan? Include provisions for building evacuation; fire; response to medical emergencies; loss of power, water and sprinkler systems; natural gas leakage; chemical spills; flooding and exposed electrical wiring? Distribute procedures to all employees?	
4. Develop mechanical drawings for all utilities, especially fuel, gas, sprinkler and water lines?	
5. Develop preventative maintenance program for cleaning gutters and drains?	
6. Ensure that all critical equipment has backup power and/or Uninterrupted Power Supply (UPS) systems?	
7. Ensure that all dry pipe sprinkler systems have been drained completely and that all wet pipe systems have been properly protected against freezing and cracking?	
8. Ensure that equipment necessary for running backup media has been identified and is in place?	

9. Ensure that key safety and maintenance personnel are familiar with all building systems?	
10. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
11. Equip building with backup power supply, diesel generator or long-term battery backup system? Maintain adequate fuel supply and re-fueling protocols?	
12. Have extra supplies of plastic rolls, mops, buckets, water vacuums, lubricants, portable generators, radios, batteries, bottled water and basic food supplies available for the emergency response team?	
13. Have wood or metal covers available for windows and doors to prevent glass breakage?	
14. Keep a list of all vendors' and key customers' telephone numbers available and secured?	
15. Maintain a minimum 72-hour backup supply of water, nonperishable foods and sanitation materials?	
16. Maintain an emergency kit? Include flashlights, plastic sheeting, rope, battery-operated radio, blankets and hand tools?	
17. Regularly inspect buildings for structural deterioration? Promptly repair all structural problems (e.g., cracked beams, dry rot, broken masonry and mortar)?	

Action Items	Assigned	Date
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Technological Emergencies Checklist

Technological emergencies include any interruption or loss of utility service, power source, life support system, information system or equipment needed to keep the business in operation. The loss can be from either/or physical causes or cyber-attacks.

Planning Considerations

Consider the following when preparing for technological emergencies:

- Identify all critical operations, such as:
  - Utilities including electric, power, gas, water, hydraulics, compressed air, municipal and internal sewer systems; and wastewater treatment services
  - Security and alarm systems; elevators; lighting; life support systems; heating, ventilation and air-conditioning systems; and electrical distribution systems
  - Manufacturing equipment and pollution control equipment
  - Communication systems, both data and voice networks
  - Transportation systems, including air, highway, railroad and waterway
- Determine the impact of service disruptions.
- Ensure that key safety and maintenance personnel are thoroughly familiar with all building systems.
- Establish procedures for restoring systems. Determine need for backup systems.
- Establish preventative maintenance schedules for all systems and equipment.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Develop mechanical drawings focusing on all utilities, especially fuel, gas, sprinkler and water lines?	
2. Develop security and disaster recovery policy/program for computer operations?	
3. Ensure that duplicate copies of “off-the-shelf” and customized software applications are stored off-site?	
4. Equip all incoming natural gas and fuel lines with automatic shutoff valves? Equip plumbing system with backflow valves?	
5. Equip building with backup power supply, diesel generator or long-term battery backup system? Maintain adequate fuel supply?	

6. Establish a preventive maintenance schedule to keep equipment operating safely? Test equipment such as fire pumps in accordance with manufacturers' specifications?	
7. Formally review all departments' equipment and operations to determine which equipment and applications are critical?	
8. Locate as many electrical system components as possible above ground level?	
9. Maintain a list of all laptop users, including home and cell telephone numbers?	
10. Maintain personal protective equipment, including flame-resistant clothing, safety glasses, leather gloves and voltage-rated tools?	

Action Items	Assigned	Date
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Civil Unrest

Incidents of civil unrest, including strikes, looting and riots can result in a gross disruption of your business as well as damage your employees' morale and feelings of safety and well-being.

Planning Considerations

Consider the following when preparing to minimize damage resulting from civil unrest:

- Have professionals (e.g., sheriff's department, local police department) assist in the development of a company policy and response plan.
- Increase internal security measures and state of readiness when a threat is apparent.
- Communicate with all employees the actions in place to assure their safety.
- Give training seminars to pertinent employees to be aware of these threatening situations and provide techniques for handling these problems.

Check with your insurance provider to see if civil unrest / crisis management coverage exists.

Completed By:	Date:

Quick Reference Action List. Do You...	Response
1. Develop a company plan for civil unrest, including reporting and evacuation procedures?	
2. Establish "enhanced" security procedures to protect staff and control access to buildings?	
3. Consider "work from home" arrangements when a threat exists or is pending?	
4. Assure adequate for "work from home" procedures exist, i.e. VPN connectivity, adequate portals, access to IT applications, Help Desk support, etc?	
5. Establish protective measures for vulnerable windows and doors to prevent glass breakage / building access?	
6. Establish a list of crisis management or security consultants with 24/7 contact information?	
7. Train new staff in civil unrest protocols during orientation and existing employees when the plan is updated or at least annually?	
8. Test procedures by requiring staff to "work from home" at least once a year?	

Action Items	Assigned	Date
1.		
2.		
3.		
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3. Emergency Response Planning

Emergency Response Planning

In the emergency response planning phase, an organization develops procedures that help it respond to a disaster.

The emergency response plan (ERP) addresses warnings, evacuation, direction and control, facility shutdown and other procedures to respond to or prepare for a pending disaster.

The ERP is activated when an unexpected event such as a fire, earthquake or bomb threat occurs, or when a forecasted event, like a hurricane, is imminent. The plan responds until people are safe and there is no further threat of property damage or bodily injury.

Guidelines and checklists included in this section will assist your firm in preparing for these types of events and put into practice core emergency management principles.

Developing An Emergency Response Plan

The process of developing an emergency response plan can be segmented into the following phases:

- Preparation
- Analysis of Hazards and Capabilities
- Plan Development
- Implementation

Developing An Emergency Response Plan

Preparation
During the preparation phase, you need to assemble a planning team, establish a mission statement, and develop a project plan and budget. It is also important to secure upper management approval and involvement in this early stage.

- **Form an Emergency Response Team.**
  The committee should be led by someone from upper management and represent a cross-section of employees, including representatives from facilities, human resources, information technology, operations and individual business units.
- Select an Emergency Response Coordinator. The coordinator is an individual assigned to oversee emergency response activities for the organization. The coordinator is a member of the Emergency Response Team and is a primary contact in an emergency.
- **Establish authority.**
  Upper management must show commitment to the emergency response planning process by authorizing the team to take the steps necessary to complete the plan. With management support, the Emergency Response Team will get better cooperation from other employees.
- **Issue a mission statement.**
  Upper management should issue a mission statement that demonstrates the company's concern for employee welfare. The statement should define the purpose of the emergency response plan and it should appear in the Executive Summary of the ERP.
- **Establish a project plan and provide funding.**
  The Emergency Response Team should develop a project plan with milestones and deadlines. Upper management should allocate funds to support the ERP. Project expenses may include training, use of outside consultants or emergency response planning software.

Analysis of Hazards and Capabilities
In this phase, you gather information about vulnerabilities and exposures at your company and define ways to mitigate or eliminate them. If you have completed the disaster preparedness planning, you have already done this work. The Hazard Assessment Matrix in the Disaster Preparedness Planning section of this guide will help you identify and quantify the hazards your company may face.

Plan Development
Once the team has been established and the hazard assessment completed, develop the emergency response plan (ERP). Keep the following core functions in mind when developing your ERP. Each of these functions has a corresponding checklist that helps you evaluate your plan's thoroughness. Use the provisions listed in those forms to help strengthen your plan.

The plan itself should include these components:

- **Executive Summary:** Informs company personnel about the purpose of the plan, the ERP mission statement and the responsibilities of key emergency response planning personnel.

- **Emergency Management Elements:** Describes the company's approach to the core emergency management functions. These will define the responsibilities of the Emergency Response Team. This component should also include the criteria and procedure for declaring a disaster. Determine steps for declaring a disaster.
  - Not all emergencies warrant a formal disaster declaration. A hasty decision to declare a disaster can be more disruptive than the event itself. A timely and appropriate response is necessary to protect the safety of employees and reduce the risk to property.
  - The principle criterion for deciding to declare a disaster is the event's impact on a company's critical business functions. Some of the more common critical business functions include these departments:
    - Sales
    - Finance
    - Facilities
    - Operations
    - Human Resources
    - Information Systems

Consider which additional functions will be necessary to stay in business, including the:

- Ability to supply products to customers
- Ability to repair equipment
- Ability to determine inventory and pending work orders
- Emergency Response Procedures: Details how the company will respond to different types of emergencies. These procedures instruct employees on what action to take to protect people and property.
- **Support Documentation**: Includes copies of critical documents that might be needed during an emergency. These may include:
  - **Plans / Diagrams** - Building floor plans, plot plan (site plan, building, grounds, utilities, fire protection systems, and emergency shutoffs), street maps and other appropriate maps.
  - **Procedure Charts** - Simple organizational charts with the names, titles, addresses and telephone numbers of key emergency personnel. These charts will be useful before and during emergency operations. Use the charts to identify who is responsible for key activities and who has emergency equipment or supplies.
  - **Contact Lists** - These lists include contact information for key personnel. These lists should include names, addresses, telephone numbers and organizational responsibilities for emergency operations. Alternates should be listed in case primary personnel are not available. Company officials should carry pocket cards containing the names, telephone numbers and locations of local government and company emergency services, staff and facilities.
  - **Listing of Local Resources** - A list of major sources of additional labor, equipment and supplies. The listing should identify resources by company; location; and type and quantity of skilled workers, equipment and supplies. The resource listing should be updated annually.
  - **Mutual Aid Agreements** - Agreements between companies and government agencies to assist one another, within defined limits, during major emergencies. The direction and control and emergency service staffs should be aware of the provisions of these agreements.

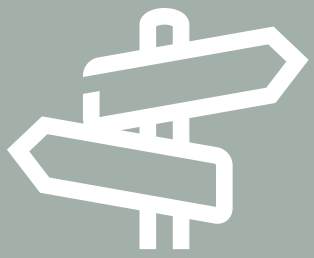
Seek approval for final draft:
After writing the final draft of the plan, seek final approval in writing. Upper management must approve the plan and support it with the necessary financial and human resources.

Implementation
In this phase, you finalize the emergency response plan, integrate it into company operations and train employees to respond in an emergency.

- **Budget:** Budget for and acquire all items needed to support the emergency response plan, including emergency supplies and communications equipment. Many of these items may have been budgeted for in the preparation phase.
- **Distribute the plan:** Make sure employees receive the plan, particularly key personnel with emergency response planning responsibilities.
- **Integrate the plan into company operations:** The ERP must be woven into a company's corporate fabric. Regular testing, training and awareness activities will help make emergency response management part of what employees do on a day-to-day basis.
- **Conduct training:** Train employees in emergency response procedures when they are hired and at least once a year. Also, continue to train personnel who have specific responsibilities in an emergency.
- **Evaluate and modify the plan:** Review and evaluate the plan often. Conduct testing exercises to determine feasibility of the plan. Revise the emergency response plan based on lessons learned during these exercises

Planning Emergency Response Checklists

Communications



Directions & Control

Emergency Services

Evacuation

Facility Shut-down

Public Information

Communications Checklist

In an emergency, communication becomes critical.

Management must receive timely information on impending threats to the facility and be able to transmit that information rapidly. The plan must address the communication you may need to perform in an emergency and the maintenance and backup systems needed to support them. Systems must be in place to disseminate information to key staff, emergency response team members and all other employees. It should provide for the dissemination of information on disaster preparedness, safety measures and evacuation procedures. Employees should also receive guidelines for dealing with the media during an emergency.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Describing the methods of communication between the Emergency Operations Center (EOC), response teams, alternate locations, neighboring firms and local and state emergency services?	
2. Ensuring that response team members (and alternates) know where to obtain communications equipment and how to operate it and that they understand communications terminology?	
3. Obtaining additional telephone services during emergencies?	
4. Securing primary and backup communications systems (fixed and mobile) with generators or extra batteries?	
5. Defining warning activation procedures?	
6. Describing the warning systems (e.g., alarms, paging systems, detectors, and word-of-mouth) used to alert employees of danger?	
7. Differentiating warning signals that identify specific threats or require specific response actions?	
8. Receiving warnings from the weather service or local government when hazardous conditions or situations threaten the facility?	
9. Routinely checking the warning system to ensure it is functioning properly?	
10. Assigning responsibility to ensure that all employees understand the warning signals, receive general instructions on what to do in an emergency, and know where to go and how to get to their shelter areas and/or disaster stations?	

11. Designating an information officer to act as the official point of contact during an emergency?	
12. Disseminating factual information to employees to control rumors?	
13. Providing emergency information and instructions for hearing- and visually- impaired and non-English-speaking workers?	
14. Establishing and communicating procedures for employees to report an emergency?	
15. Instructing employees about dealing with the media in an emergency?	
16. Preparing materials instructing employees how to respond to specific hazards that can affect the company?	
17. Providing special instructions for key workers expected to continue operations, including their roles and provisions made for their safety?	
18. Regularly scheduling general emergency training for all employees and technical training for response team members?	
19. Having routine briefings for new employees to acquaint them with the emergency response plan and their role in an emergency?	
20. Having supervisors meet regularly with their staff to discuss emergency procedures?	

Action Items	Assigned	Date
1.		
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Direction And Control Checklist

Direction and Control (Incident Command Structure - ICS) is a function that mandates the coordination and control of operating forces in an emergency. It involves obtaining and analyzing information that will form the basis of critical decisions. Much of this activity should be managed from the Emergency Operations Center (EOC) – a centralized management center for emergency operations. Because it is the area where decision- makers gather in an emergency, the EOC should be located somewhere not likely to be involved in the disaster.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Providing a clear and concise summary of emergency functions, direction and control relationships and have a support communications system?	
2. Assigning operational and administrative support for emergency response activities?	
3. Describing functions, layout, duties of staff and the process used to bring the EOC to full-readiness for around-the-clock operations?	
4. Identifying an alternate EOC location in case the primary location is unable to function?	
5. Identifying the location of the EOC or on-the-scene command post?	
6. Identifying the personnel assigned to the EOC for emergency operations?	
7. Indicating who will be in charge in the event of a disaster?	
8. Supplying logistical support for food, water, lighting and fuel for the emergency response teams?	
9. Protecting emergency personnel and equipment during a disaster?	
10. Receiving, analyzing, reporting and retaining disaster-related information for EOC staff and/or response teams at EOC coordination point(s)?	
11. Staffing emergency response teams and their timely activation?	

Action Items	Assigned	Date
1.		
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5.		

Emergency Services Checklist

Emergency services, such as fire, rescue, security or medical, should reflect the size and complexity of the facility and the problems likely to arise. In many businesses, employees assigned to the facility's Emergency Response Team (ERT) perform these duties. The ERT is called upon to perform vital jobs during an emergency, including assisting in an evacuation.

At a small facility, emergency duties may involve a single team of two people; in a larger organization, several dozen people serving on an ERT may divide into smaller teams focused on specific areas. A fully prepared ERT offers two significant benefits in an emergency: faster response time and greater technical knowledge of the company's facilities, processes and materials. ERT members should develop checklists for their specific tasks in the event of an emergency.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Providing centralized access to plot plans (site plan, map of buildings and grounds) that shows utility shutoff locations, water hydrants and mains, storm drains / sewer lines, natural gas pipelines and the address of each building?	
2. Alerting all emergency services to the dangers associated with technological hazards and fire during emergency operations?	
3. Obtaining standard operating procedures for each response team that outline how the team will accomplish its assigned tasks and how it will deal with various hazards?	
4. Providing logistical support to emergency services during emergency operations?	
5. Providing procedures for liaison with Emergency Services to facilitate rescuing injured people during emergency operations?	
6. Ensuring that ERT members understand how and when to use response equipment and protective clothing?	
7. Designating a representative from the ERT to report to the Emergency Operations Center (EOC) to advise decision-makers, coordinate with other operating forces, and direct and control the team?	
8. Reporting the appropriate information (e.g., evacuation status, damage assessment) to the EOC during emergency operations?	

Action Items	Assigned	Date
1.		
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3.		
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5.		

Evacuation Checklist

The goal of an evacuation is to move people quickly and safely out of threatened areas or to areas of refuge. Evacuations are most successful when there is sufficient warning of an impending disaster. Companies should establish evacuation options tailored to different types of hazards, both natural and man-made.

The emergency response plan (ERP) should include clear and detailed procedures for complete or partial evacuations from buildings and facility grounds. Depending on the circumstances, an evacuation will require written procedures covering a number of actions that occur concurrently and sequentially. It is crucial that site specific evacuation procedures be thought out in a systematic way to establish a proper sequence and ensure that evacuation proceeds without incident.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Identifying the individual(s) responsible for ordering an evacuation and establishing lines of succession for carrying out evacuation functions?	
2. Assigning responsibility in an evacuation to specific floor or area captains to ensure all personnel leave the facility?	
3. Establishing procedures when an evacuation would be ordered or further investigation would warranted?	
4. Developing evacuation procedures, with specific actions dependent on the hazard?	
5. Providing special assistance for disabled and non-English-speaking personnel during emergency evacuations?	
6. Clearly marking evacuation routes throughout company facilities with two exit options from all areas?	
7. Describing the warning and communications systems that signal impending or immediate evacuations? Is this available for each type of evacuation your facility may require?	
8. Designating a team of staff to maintain and update the evacuation plan?	

9. Establishing procedures to confirm that all personnel have been safely evacuated?	
10. Designing evacuation routes assuring to avoid potential secondary hazards (e.g., live high-voltage wires, fuel tanks, gas pipelines)?	
11. Ensuring that all personnel know the evacuation routes and gathering points on the site?	
12. Collaborating with Engineering staff to identifying areas of refuge within the facility(s)?	
13. Issuing a facility status report to specified company and civil authorities from the responsible on-site person following a site evacuation?	
14. Conducting periodic evacuation drills at all facilities with after action report to identify areas of improvement?	
15. Verifying and testing emergency lighting systems to allow for safe evacuation of staff during a power outage?	

Action Items	Assigned	Date
1.		
2.		
3.		
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Facility Shutdown Checklist

This checklist addresses procedures to shut down equipment and utilities or the entire facility during an emergency when evacuation is necessary. This core emergency response function provides for the protection of company facilities, equipment and supplies that will be essential to restoring operations after the disaster. It defines and assigns responsibilities to protect company property and vital documents before employees leave workstations. Shutdown procedures should be based on thoughtful consideration of what secondary events might occur in conjunction with a specific hazard or in the process of emergency response activities.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Identifying who will make the decision to shut down equipment, utilities or the facility?	
2. Indicating under what conditions a shutdown would be ordered?	
3. Assigning individuals the responsibility to shut down utility feeds (electric, gas, water, steam, etc.)?	
4. Identifying and protecting valuable and sensitive tools, instruments, machinery and materials?	
5. Establishing damage control techniques to minimize property loss during a disaster?	
6. Establishing shutdown procedures appropriate for the impending hazard?	
7. Assessing systems / utilities that have automatic shutdown modes?	
8. Designating personnel in the event of a major storm to close / barricade doors and windows, remove stock from the floor and move light weight high value equipment to shelter areas within the facility?	
9. Instructing, training and exercising personnel to implement emergency shutdown procedures?	
10. Protecting equipment and material stored outside by banding, tying down or moving items to inside storage and mobile equipment to high ground or to protected sides of the buildings?	
11. Reporting the completion of a shutdown to the Emergency Operations Center (EOC)?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

Public Information Checklist

This area of the communications function concerns your contacts with government agencies, community organizations, utilities, news media and business partners, including customers and shareholders. It addresses sharing information about your emergency response plan before a disaster strikes and disseminating information in the event of an emergency

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Assigning a spokesperson to handle all contact with the news media?	
2. Assigning one or more people to handle contacts with vendors, customers and shareholders/ investors?	
3. Communicating with employees' families in an emergency?	
4. Meeting with community emergency personnel to review plans and procedures?	
5. Reviewing procedures with other appropriate organizations, such as utilities?	
6. Notifying key officials and/or requesting off-site assistance in the event of an emergency?	
7. Requesting emergency assistance from state and local agencies (e.g., fire, police, medical, HazMat)?	
8. Warning local government and nearby establishments of on-site disasters that might spread to areas outside the facility?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

4. Business Recovery Planning

Business Recovery Planning

Consider this scenario: Your facility is hit with a disaster. You activate your emergency response plan, evacuate staff safely, and have the disaster under control.

What do you do next?

It may take more than 30 days or more to get the facility up and running. How does your organization resume critical business functions and operations? What does the company need so business activities can continue during the recovery process?

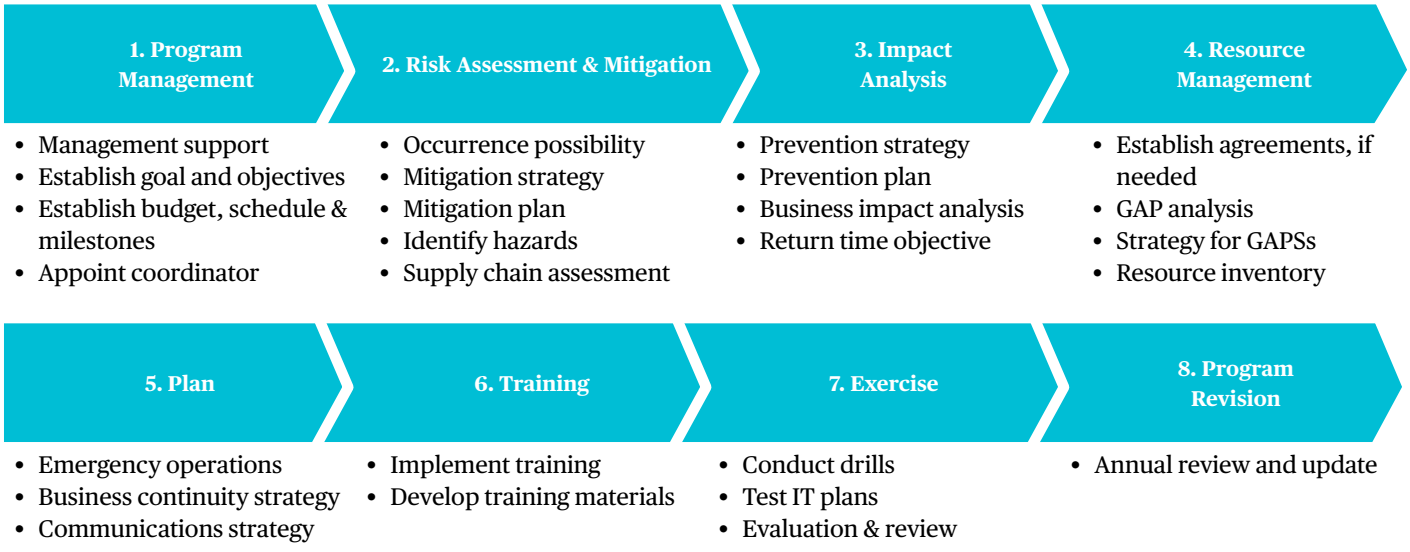
Once critical functions are operating, how do you return your business back to the level it was before the disaster?

Business recovery planning is the process of defining procedures that enable an organization to continue as a viable entity after a disaster has struck. If operations are disrupted for too long, the business may fail. This plan addresses the recovery of a company's critical business function after a catastrophe. An important part is restoration planning, which helps prepare you to return sales, production and operations to pre-disaster levels.

This section of the guide provides recommendations, forms and checklists to help companies develop a comprehensive, site- specific business recovery plan (BRP). Among the fundamental resources for business recovery planning are the Business Impact Analysis Questionnaire (BIA) and the Business Resumption Timetable. These, and many of the other recommended forms, are included in this section and can be adapted to meet the specific needs of your business.

Developing A Business Recovery Plan

Business recovery planning can be segmented into the following phases, some of these you should have already completed in previous sections.



Developing A Business Recovery Plan

1. Program Management
The development of a business recovery plan requires a significant investment of time, money and other resources. It also requires the full support of senior management. Getting approval from senior management to develop the plan is the first crucial step. The team members that have already been established (Planning Coordinator and Planning Committee members) should be utilized in this phase.

Other important steps in the preparation phase include:

- Determine the objectives of the business recovery plan. What is the goal and focus of the plan?
- Select a likely disaster outcome – rather than a specific event – to develop the BCP. A typical disaster outcome might be: The main facility is inaccessible and inoperable for 30 days. By selecting an outcome rather than a specific event, a plan will address events most likely to occur.
- Select planning committee meeting dates.
- Develop project assignments for the planning committee members. Activities should be recorded on a project progress report form.
- Develop an initial business continuation planning schedule and budget.

2. Risk Assessment & Mitigation
This part of developing the business recovery plan should have already been completed in the Risk Assessment & Mitigation discussed previously. All companies face a variety of natural and man-made hazards. Identifying those exposures and determining their probability of occurring and the potential impact to staff, the facility and the business operations. This guide's Vulnerability. Assessment Matrix can assist you in ranking the various hazards to determine the extent your firm is vulnerable.

Mitigation is the paramount in a business recovery plan. If the disaster can be avoided there will be no need for implementing the emergency response or business recovery plans.

3. Impact Analysis
The Impact Analysis is key in this phase. It determines the impact of a disaster on each department and identifies resources needed to resume critical business functions.

- Each department within the organization should complete a **Business Impact Analysis Questionnaire**. This form will help the department assess the impact of a disaster.
- Prioritize critical business functions.
- Complete the Return Time Objectives (RTO) section (PartA) of the Business Resumption Timetable for each critical business function. The Return Time Objective may range from hours to months.
- Complete the Staff Requirements and Locations section (Part B) of the Business Resumption Timetable for each critical business function. The summary of minimum personnel developed in the Data Collection phase should be helpful in completing this form. For each function, list the key departments and tasks necessary to resume business. Estimate the number of staff required at an alternate site as well as the number of employees who might be needed at the command center and the number who can work from home or ad hoc sites. Consider both immediate and short-term needs.
- If appropriate, complete the Business Resumption Timetable for those business functions classified as essential and important as well.
- Compile the results of the Business Impact Analysis Questionnaires and the Business Resumption Timetables into a Business Impact Analysis report. Submit the Business Impact Analysis report to senior management for approval before proceeding to Plan Development.
- Consider alternative business solutions to identified critical processes or exposures. As an example use of a more readily available solvent instead of a specialty solvent from a single source supplier.
- Verify that the organization has an emergency response plan in place. The plan should address the organization's readiness and response to all hazards that can affect health and safety.
- Verify that documentation of company assets is current and that a backup of the information is available off-site.
- Verify that critical documents and vital records are properly protected and/or duplicated. Ensure that they will be accessible in the event of a disaster. Vital records are those documents that are irreplaceable or contain information that, if temporarily unavailable, would create a legal or business impairment.

4. Resource Management
Have each department prepare a list of minimum resources– personnel, materials, equipment and space – required to conduct critical business functions at an alternate site. Develop a spreadsheet summary of these requirements. This step will help in the development of the Business Resumption Timetable during the Business Impact Analysis phase.

It is unlikely that initial recovery strategies will be established that meet all the recovery time objectives due to budget / time constraints. A GAP (the comparison of actual performance with potential or desired performance) analysis is useful for identifying where existing recovery measures fall short. Over time the organization may be able to eliminate these gaps as technology advances or further funding becomes available.

5. Plan
Once the Business Impact Analysis report is completed, it is possible to develop strategies to resume business functions – the heart of the business continuation plan.

- Key members of the planning committee should identify and document continuation strategies for each critical business function. They may also develop strategies for those business functions classified as essential and important.
- Use financial impact data from the Business Impact Analysis Questionnaires to evaluate the cost/benefit of each potential strategy. Select one or more specific strategies to resume critical business functions. As the plan is developed, you will refine, test and adjust solutions to meet business needs. Submit the continuation strategies and budget to senior management for approval.
- Establish Recovery Teams. These teams will develop and support specific continuation strategies for critical business functions. Each team should have a leader, an alternate leader and at least three other members.
- Have each recovery team develop tasks and procedures to support continuation strategies. Each recovery team should return written continuation procedures to the planning coordinator. They may wish to use the Recovery Team Action Plan form.
- Recovery teams should develop procedures for restoring the critical business functions.
- Prepare a business recovery plan outline. This outline can serve as the table of contents for the continuation plan.

Consider plans for your business recovery activities.

5.1. Ensure that adequate funding is available for restoration activities. This includes:
  a. Adequate property insurance, including up-to-date equipment and inventory valuations
  b. Adequate business income and extra expense insurance
  c. A secured credit line
  d. Funds allocated for emergencies

5.2. Identify critical machinery, software, materials and vendors, and document procedures for quick procurement after a disaster.

5.3. Identify specialized production facilities (e.g., clean rooms, biohazard labs) and special reconstruction needs.

5.4. Verify that facility and equipment designs, drawings and blueprints are properly protected with duplicates stored off-site.

5.5. Document procedures for securing building permits or certifying facilities (e.g., certificates of occupancy and requirements from the Environmental Protection Agency or Food and Drug Administration). Get permits and zoning changes ahead of time.

5.6. Identify any current building code requirements for new construction. Where possible, meet new requirements before the need to build or rebuild arises. The following are examples of building code requirements that could increase the cost of construction:
  a. Demolition ordinances, such as additional regulations and procedures to protect the public
  b. Cleanup ordinances for hazardous debris, like asbestos
  c. Fire protection, such as the retrofitting of sprinkler systems
  d. Accommodations required by the *Americans with Disabilities Act (ADA), such as elevators*
  e. Minimum standards for earthquakes, windstorms, and floods

5.7. Identify obstacles that may increase construction time (e.g., availability of building materials).

5.8. Establish a Restoration Management Team. This team may be the same as the Business Recovery Planning Committee. The team should have the authority and financial responsibility to decide whether the company will restore, rebuild or relocate the business operations after a disaster. It needs to establish a decision-making process for implementing the restoration plan.
The Restoration Management Team will gather information from appropriate Teams. This information sharing will help the Restoration Management Team formulate restoration action plans.

5.9. Some of the recovery teams established in the business recovery plan will be involved in restoration activities. As continuation tasks are completed, some teams will shift their focus to restoration.

5.10. Working together, the teams will develop restoration strategies and develop tasks and procedures to support them. The Restoration Checklist identifies some of these. They include:
  a. Identifying and preparing possible relocation sites
  b. Developing and documenting plans to reach operational capacity as quickly as possible
  c. Developing and documenting strategies to regain sales and restore revenues to pre-disaster levels

6. Training
In the training phase, you will finalize the business recovery plan. In many ways, however, a business recovery plan is always a work in progress. To be effective, it needs to be continually tested and adjusted to reflect changes in the business.

- Distribute the Plan: Adjust the written business continuation plan to reflect organizational issues. Distribute copies of the final draft to each member of the planning committee and to each recovery team leader. The plan can be in any format as long as all support personnel are able to access it at any time, both from home and from any business location in the world. Once the planning committee and recovery team leaders approve the documents, release the final copy to all recovery team members. Each member should have multiple copies of the plan in the event they need to distribute them during a disaster.

7. Exercise
Establish procedures for testing the business recovery plan. Incorporate the following types of tests in your business continuation plan:

- **Structured Walk-Through Test:** Members of each recovery team meet to verbally review each step of their continuation procedures. The teams should evaluate the effectiveness of each continuation activity.
- **Checklist Test:** Each recovery team should meet to review its response procedures to ensure that all information is current. Leaders of recovery teams should verify that all team members are aware of their duties and each team member has multiple copies of the Recovery Team Action Plan.

Tabletop Exercise: All members of the Business Continuation Planning Committee and all recovery team leaders meet to discuss responses to various disasters.

Simulation Test: Simulate a disaster without impacting normal operations. The simulation test validates the effectiveness of the plan.

- **Full Interruption Test:** This test involves activating the complete business continuation plan. It includes mobilizing personnel and resources to an alternate site. Once testing procedures are built into the plan, it is critical that they be followed. Conduct realistic tests of the business continuation plan at least once a year. All planning committee and recovery team members should participate in test exercises. Make arrangements to run all backup systems when and where appropriate. Review and evaluate the results of all tests. Make appropriate changes to the business continuation plan based on lessons learned during test exercises.

8. Program Revision
Develop a system to update names, responsibilities and contact information in the business continuation plan. Establish procedures for the planning committee to review and revise the continuation strategies frequently. Schedule quarterly or semiannual update meetings with the committee. Annual reviews may be adequate for less dynamic business organizations.

Business Recovery Planning Schedule

Activity												
Program Management Phase	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Obtain Top Management Support for Project												
Select A Likely Disaster Outcome - i.e. Main Site Lost For 30 Days												
Select Committee Meeting Dates												
Assign Project Assignments to Team Members												
Develop Business Continuation Planning Schedule and Budget												

Activity												
Risk Assessment & Mitigation Phase	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
BCP Team Completes Vulnerability Assessment Matrix												
Consider Historical Events when Assessing Possible Hazards												
Assess Site Specific Parameters when Identifying Potential Hazards												
Estimate Probability of Each Hazard												
Consider Potential Impacts of Each Hazard (Human, Property & Business)												
Score the Existing Mitigating Factors for Each Hazard												
Tally the Scores for Each Hazard And Rank by Total Score (High to Low)												
Consider Risk Mitigation Solutions to Reduce Impact of Hazard(s)												

Impact Analysis Phase	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Identify Business Units Required to Complete the BIA Questionnaire												
Train Department Representatives on Completion of BIA Questionnaire												
Establish Deadline for Completion of BIA Questionnaires												
Interview Department Representatives to Verify Suggested RTO's												
Prepare BIA Summary Report for Top Management Review												
Consider Prevention Strategies												
Complete Business Resumption Timetable												
Obtain Approval of BIA Report Results from Top Management												

Resource Management Phase	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Establish Recovery Agreements With Other Entities (if required)												
Quantify Resources Requirements For Each Critical Function												
Complete a Resource GAP Analysis												
Obtain Funding to Eliminate Gaps (if possible)												

Activity												
Planning Phase	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Conduct Exercises with BCP Team												
Complete Functional Tests for Critical IT Applications												
Review and Evaluate Exercise / Test Results												
Make Appropriate Changes / Updates to BCP Plan												
Finalize BCP Documentation / Collate Plan												
Submit BCP Draft to Top Management for Approval												

Activity												
Training Phase	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Develop Specific Training Program(s) For New Plans												
Conduct In-depth training for BCP Team												
Complete Orientation Training for All Staff												
Exercise Phase	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Conduct Exercises with BCP Team												
Complete Functional Tests for Critical IT Applications												
Review and Evaluate Exercise / Test Results												
Make Appropriate Changes / Updates to BCP Plan												

Activity												
Develop Business Case for Unfunded Strategies												
Program Revision Phase	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Document BCP Program Revision Requirements												
Request Updates to Plan Documents (at least annually)												
Verify RTO's, Continuity Strategies and Resource Requirements												
Document Changes and Train Staff												

Planning Business Recovery Checklists

Engineering

Relocation

Restoration

Engineering Checklist

In many businesses, the functions within engineering are crucial to accomplishing vital jobs during an emergency. This checklist addresses the need for backup, maintenance and restoration plans for utilities, such as water and power.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Taking precautions, as necessary, to protect equipment during shutdowns and to preserve it over extended periods of nonuse?	
2. Creating damage assessment reports?	
3. Establishing and testing shutdown procedures?	
4. Maintaining drawings that show locations of utility key valves, switches, underground piping and hazardous areas?	
5. Preparing and maintaining a list that identifies source, location and availability of resources (e.g., dump trucks, fuel) to support disaster cleanup operations?	
6. Making provisions for repairs and restoration of facility and services?	
7. Restoring utilities to critical and essential facilities?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

Relocation Checklist

Movement of employees and their families to prearranged locations requires extensive planning and coordination. Some companies elect to evacuate threatened areas as organizational units and, if feasible, continue operations in a limited capacity at an alternate location. Be sure to align your company's emergency organization with governmental emergency management protocols.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Coordinating with civil authorities in preparation of the relocation site?	
2. Arranging transportation for vital records, supplies and equipment?	
3. Providing transportation to relocation site for employees?	
4. Providing employees with instructions on what to take to the relocation site, where to meet and how to get there?	
5. Arranging lodging and shelter assignments for employees and dependents?	
6. Consigning resources (e.g., skilled workforce, equipment and material) to support reception area logistic operations?	
7. Informing employees of relocation plans, the roles expected of them and the provisions being made for them and their families?	
8. Making staff assignments at the relocated workplace (including line of succession to take responsibility for providing personnel requirements)?	
9. Designating primary and secondary evacuation routes, including detailed maps of the routes with staging areas, rest stops and destination points clearly marked?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

Restoration Checklist

Restoration activities are a key component for your business continuation plan. Restoration planning helps prepare you to return sales, production and operations to pre-disaster levels.

Completed By:	Date:

Quick Reference Action List. Are You...	Response
1. Conducting and documenting salvage operations?	
2. Conducting employee briefings?	
3. Developing and documenting a list of procedures for quick procurement of machinery, equipment and software?	
4. Documenting building permit and facility certification procedures?	
5. Documenting specialized production facilities and reconstruction plans?	
6. Documenting the decisions made on the damage costs, and the repairs?	
7. Ensuring adequate financing for restoration activities?	
8. Identifying and documenting new building codes that may increase the cost of reconstruction.	
9. Identifying and preparing potential relocation sites?	
10. Identifying critical machinery, software, materials and vendors?	

11. Implementing established recovery team responsibilities and priorities?	
12. Implementing strategies to reach pre-disaster operational capacity as quickly as possible?	
13. Launching plans to return to pre-disaster sales and revenues?	
14. Notifying all employees, vendors, customers and governmental agencies regarding the restoration plans?	
15. Obtaining building permits or zoning changes before restoration is needed?	
16. Reviewing considerations that may increase construction time?	
17. Taking inventory of all damages?	
18. Verifying that facility and equipment designs, drawings and blueprints are part of the vital records storage program and duplicated off-site?	

Action Items	Assigned	Date
1.		
2.		
3.		
4.		
5.		

5. Planning Forms/ Questionnaires

Business Impact Analysis Questionnaire

The purpose of the Business Impact Analysis (BIA) is to develop a common understanding of the business functions that are critical to the organization. This questionnaire is designed to collect the information necessary to support the development of business continuity plans and recovery strategies for the organization's critical functions.

Instructions

Please answer all questions, among the provided choices or "fill in" the blank. When possible, please provide additional information to qualify and clarify your answers.

For purposes of this survey, "business function" should not be confused with "business process." Business processes are the activities that allow you to complete the business function. In the event that there are multiple functions in your area, please complete one questionnaire for each function.

Please direct any questions that you have in completion of the form to your Business Continuity Coordinator.

This document should be completed by: _____ .

Thank you in advance for your commitment and efforts towards this initiative.

Respondent Information

Name: _____

Title: _____

Telephone Number: _____Ext: _____

Email: _____

Department (if applicable): _____

Business Function (e.g., IT, central billing, legal): _____

Please complete one questionnaire for each business function performed by your department.

1. Briefly describe the business function.
A description of work that is preformed to accomplish the specific requirement of the organization. Examples of business functions include delivering raw materials, paying bills, receiving payments, and inventory control (DRII Glossary).

_____

_____

2. Please list and briefly describe each process for the business function.
Note: As indicated in the instructions, "business function" should not be confused with "business process." Business processes are the activities that allow you to complete the business function.

_____

_____

Process List	Description Of Process
a.	
b.	
c.	
d.	
e.	
f.	
g.	

3. What is the maximum period of time that the function could be disrupted without having a significant impact to the organization?

Expect that the disruption will occur at the worst possible time. Please use your knowledge of the function and organization to determine "significant impact."

Max period of time:_____

a) Is there critical time for the function (i.e. Day, Week, Year, report filing deadlines)? _____

b) Are there critical seasons (i.e. Holiday Sales)? ◯ Yes ◯ No

Indicate how dependent this function is on the various types of resources including specialized equipment, check stock, IT applications, documentation (electronic / printed), etc.

Resource Type	Dependency

Indicate how dependent your function is to upstream activities from other functions. An example of an upstream dependency is incoming mail. Select your response by considering the upstream dependencies the function is reliant on and whether it could continue its processes.

Function	Dependence

4. Indicate how dependent your function is to external organization, i.e. service providers to your organization (e.g., Storage Area Network (SAN), banks, etc.).

Examples of external dependencies include printing supplies and materials from an outside vendor. Select your response by considering which external vendors your function is dependent and how well your function could continue in the absence of these external firms.

Function	Dependence

5. Indicate how dependent other functions are dependent on this function.

An example of a downstream dependency is a printed check or a QC lab test result. Select your response by considering the extent of dependency other functions, and how well these other functions could continue in the absence of your function.

Function	Dependence

6. What is the expected revenue loss to the organization if this business function were not completed for the time periods indicated following a disaster?
Expect that the disaster will occur at the worst possible time. Please use the most appropriate measure for the time period.

Time Period	Level Of Impact		
	On Revenue ($)	On Market Share (%)	
a. Immediately:			
b. 24 hours:			
c. 48 hours:			
d. 1 Week:			
e. 1 Month:			
f. > 1 Month			
Please briefly explain how you determined the above values.			

7. Estimate what additional costs (e.g., transportation fees, overtime, expediting fees, lost customers, hiring temporary help) would be incurred if this business function were not completed following a disaster.
Expect that the disaster will occur at the worst possible time. Please use the most appropriate measure for the time period.

Time Period	Level Of Impact		
	On Revenue ($)	On Market Share (%)	
a. Immediately:			
b. 24 hours:			
c. 48 hours:			
d. 1 Week:			
e. 1 Month:			
f. > 1 Month			

Please briefly explain how you determined the above values.

8. Would a disruption to this business function impact the ability to meet legal requirements?
Identify the impact of a disruption to this function for the following time periods. Expect that the disaster will occur at the worst possible time. Examples of the possible reputational impact would be penalties from failure to perform or meet prescribed metrics, loss/cancellation of lucrative contracts or litigation expenses, etc.

Time Period	Level Of Impact		
	On Revenue ($)	On Market Share (%)	
a. Immediately:			
b. 24 hours:			
c. 48 hours:			
d. 1 Week:			
e. 1 Month:			
f. > 1 Month			
Please briefly explain how you determined the above values.			

9. Would a disruption to this business function impact the ability to meet regulatory requirements?

Identify the impact of a disruption to this function for the following time periods. Expect that the disaster will occur at the worst possible time. Examples of the possible reputational impact would be governmental fines or shutdown of operations for extended periods of time.

Time Period	Level Of Impact		
	On Revenue ($)	On Market Share (%)	
a. Immediately:			
b. 24 hours:			
c. 48 hours:			
d. 1 Week:			
e. 1 Month:			
f. > 1 Month			

Please briefly explain how you determined the above values.

10. Would a disruption to this business function impact the brand image or reputation of organization?

Identify the impact of a disruption to this function for the following time periods. Expect that the disaster will occur at the worst possible time. Examples of the possible reputational impact would be degradation of customer service levels or lowered employee morale.

Time Period	Level Of Impact		
	On Revenue ($)	On Market Share (%)	
a. Immediately:			
b. 24 hours:			
c. 48 hours:			
d. 1 Week:			
e. 1 Month:			
f. > 1 Month			

Please briefly explain how you determined the above values.

11. Has your function experienced a business interruption in the last 5 years? ◯ Yes ◯ No
If so, briefly describe the event, its length, what caused it, potential for re occurrence and cost impact to your firm.

_____

12. Are your revenues dependent on a few customers? ◯ Yes ◯ No
If so, briefly explain why and approximate % of total sales.

_____

13. Do your customers have a contingency plan in case your product or service is not available? ◯ Yes ◯ No
If no, briefly explain.

_____

_____

14. Do your customers have a time of day, season of the year, etc., when your product or service is most critical? ◯ Yes ◯ No
If yes, briefly explain when.

_____

_____

15. Is this function dependent on a single source (sole) supplier(s)? ◯ Yes ◯ No

16. Does your supplier have a contingency plan? ◯ Yes ◯ No

17. Is this function dependent on key individuals? ◯ Yes ◯ No
If yes, please list:

_____

_____

Name	Title

Part A:
Return Time Objectives (RTO) for Critical Business Functions

Using the Business Impact Analysis Questionnaires as guides, list the Critical Business Functions (CBF) you will need to restore in the time frames that have been established. Remember, these time frames are estimates and can be flexible. If a different set of time frames work better for your organization, use it.

When completing this section, be sure to prioritize functions that need to be restored before other functions can become operational (e.g., Information Technology may need to be restored before HR and Accounting can properly perform their duties).

Business Resumption Timetable

Return Time

Critical Function	< 8 Hours	1 Day	2 Days	3-5 Days	6-14 Days	15-30 Days	> 1 Month
1.							
2.							
3.							
4.							
5.							

Part B:
Staff Requirements and Locations for Critical Business Functions

In this section, you evaluate how many employees are necessary to restore each Critical Business Function listed above. First, enter the Critical Business Function. Beneath each function, list the departments/functions/tasks you need to restore within that CBF. Indicate the number of employees that will be needed at the various sites to do so. The totals at the bottom of the sheet will give you an overall picture of the number of employees needed to successfully resume operations.

Business Resumption Timetable

Critical Function CBF:	< 8 Hours	1 Day	2 Days	3-5 Days	6-14 Days	15-30 Days	> 1 Month
1.							
2.							
3.							
4.							

Critical Function CBF:	< 8 Hours	1 Day	2 Days	3-5 Days	6-14 Days	15-30 Days	> 1 Month
1.							
2.							
3.							
4.							
Staffing requirements:							

Resource Requirements - Critical Functions

Critical Function	Recovery Time Objective	Staffing	Facilities	Equipment (Desk & Telephone Assumed)	Documentation (Paper Only)	IT Apps / Services (Email / Internet Access Assumed)

Resource Requirements - Critical Functions

Critical Function	Recovery Time Objective	Staffing	Facilities	Equipment (Desk & Telephone Assumed)	Documentation (Paper Only)	It Apps / Services (Email / Internet Access Assumed)

Recovery Team Action Plan

Recovery Team Name:

Team Member Names	Work Phone	Home Phone	Email	Cell Phone
Leader				
Alternate Leader				
Responsibilities				
Tasks (Primary Facility)				
Tasks (Alternate Site)				

Alternate Contacts	

6. Glossary

Return

Glossary

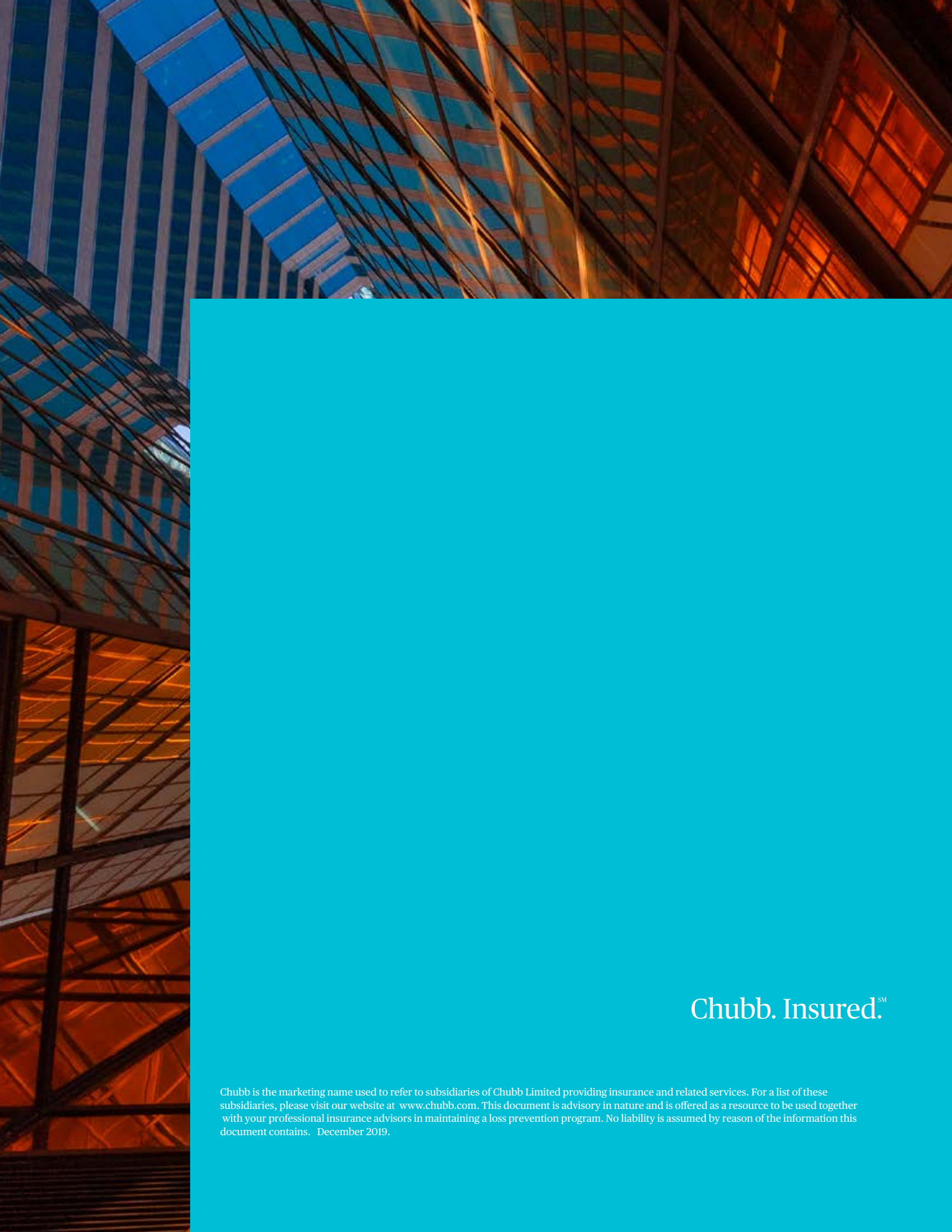
Welcome to the International Glossary for Resiliency, courtesy of Disaster Recovery Institute International (DRII)

The world of keeping your business protected and safe is changing all the time, and so do the terms that define it. That's why DRII has created an online "living" glossary of terms, updated regularly. What's more, there are multiple language versions of the glossary, email updates, and other valuable resources.

Accessing the glossary is easy, free, and carries no further obligation.

Simply visit https://drii.org/login and create a log in today!*

*Requires latest version of Internet Explorer.



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