

# To The Point Flood Recovery

CHUBB®



Flood waters invaded your business. You implemented your Flood Emergency Response Plan (FERP). Your next priority is to restore your facilities and equipment so you can resume operations.

After a flood, promptly setting priorities for critical business functions and assessing property damage are the first steps in resuming operations. Consider the following tips when facing the aftermath of a flood.

## **Employee Safety**

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The safety and health of your employees must be a top priority when returning to a flood-damaged facility. Floodwater is often contaminated with sewage, agricultural or industrial chemicals, hazardous agents, or harmful bacteria that can present a health risk.

- Wear sturdy rubber boots. The American Red Cross reports that the most common injury following a disaster is foot laceration.
- Keep skin covered and away from contact with floodwater. Use

waterproof gloves.

- Do not allow anyone to enter a flooded building until local authorities indicate that it is safe to do so.
- Never cross wet floors to shut off the electrical power at the main switch.
- Stay away from standing water—electrical currents from power lines and underground wires travel through water.
- Wear respiratory protection to avoid breathing potential fungal spores from wet building materials.
- Be aware of hidden damage to buildings that may make them unsafe. Gas leaks or damage to electrical systems or waterlines can create additional hazards. Flood water often weakens a building's foundation, causing sinking or cracked floors, and in extreme situations, buildings can collapse.
- Do not assume that any part of a flooded electrical system is safe, even if the main switch is in the off position. Some electrical equipment can store energy that can cause shock even when it is unplugged.
- Do not use electric pumps, dryers or heaters. Only use fuelpowered equipment and use only in the open air.

## Risk Engineering Services

## Property & Equipment

After a flood, the preparation and startup of equipment is critical. The inundation of water, mud, and debris can cause damage to equipment as well as present dangerous conditions during startup. The following tips can help prevent damage to equipment and reduce the potential for personal injury.

- Conduct a preliminary inspection to verify stability before entering a flooded building. If there is extensive damage, have a professional engineer or architect certify that the building is safe for work.
- All personnel working on equipment, or energizing electrical equipment, should have the proper protective clothing and take appropriate safety precautions to prevent injury from electrical shock or arc flash.
- When using a generator, be sure that the main circuit breaker is off and locked out prior to starting the generator. This will prevent inadvertent energizing of power lines and help protect utility line workers from possible electrocution.
- Remove and discard porous materials that have become wet or visibly contaminated.
- Have professionals inspect gas, water, electrical lines, and appliances for damage.
- Manufacturers of HVAC equipment and water heaters strongly urge that water-damaged equipment be replaced regardless of apparent condition. Flood exposure voids the equipment warranties. Operating exposed equipment could cause electrical shock, fire, or explosion.
- Controls, gas valves, and electrical wiring on boilers, pressure vessels, and equipment are highly susceptible to permanent damage from water, rendering the device a fire hazard and/or unreliable to perform as designed. Even if not submerged, water and sediment can enter these components through splashing or wicking and from moisture from the air. Exposed devices

should be replaced.

- Thoroughly inspect and service boilers, with particular attention paid to:
  - Cleaning sediment and corrosion from tubes, pipes, manifolds, orifices, and flues.
  - Replacing insulation including jacket insulation, combustion chamber insulation, and refractories.
  - Replacing any vents that show signs of corrosion to prevent flue gases from entering the building.
  - Replacing oil burners because leaks, valve failures, and electrical faults can occur.
- Inspect all equipment for moisture, mud, and debris. De-energize, inspect, clean, dry, and test all equipment before energizing or starting. This applies especially to:
  - Transformers, dry and oil filled.
  - Electrical motors. This may need to be done by an electrical contractor with the proper equipment to inspect and dry large motors.
  - Electrical switchgear.
  - Mechanical equipment, checking critical areas such as gear drives and rotating parts that may require disassembly to properly clean and dry.
- For equipment with oil sumps or separate oil supplies, test the oil for evidence of water. If water is present, the oil should be removed, and the sump should be cleaned and refilled with new oil.

## Maintain Your Plan

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Once you have resumed operations, be sure to update your business continuity plan based on lessons learned in this incident. Protect your business from the next flood with proper flood insurance and a comprehensive business continuity plan that includes disaster preparation, a flood emergency response plan, and a business recovery plan.

**Chubb. Insured.<sup>SM</sup>**