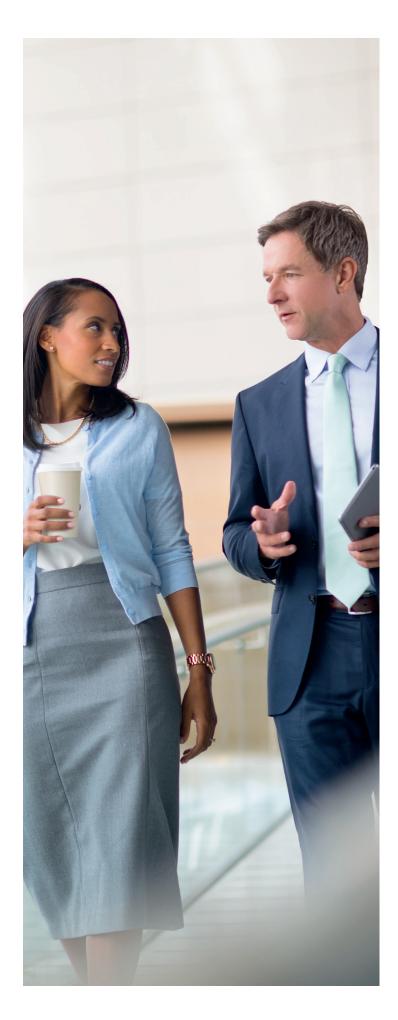


A cure for water damage to your property: Planning and preparation





Accidental water releases within office and habitational buildings are among the most costly and disruptive claims that property owners can experience, causing direct physical damage. In addition, water damage in these types of structures can impact not only revenue, but also people's jobs and quality of life.

To help prevent significant losses due to water release, owners and managers of office and habitational structures should plan and implement water damage prevention programs. Effective programs will involve:

- Engineering controls such as excess flow shutoffs
- Administrative controls such as education of staff on reporting small leaks and locations of shutoff valves
- **Emergency procedures** such as having equipment on hand to mitigate the effects of a spill

Mitigate damage the moment leakage is discovered

Below is a list of quick actions you should take as soon as a water release is found:

- Turn off power immediately, if safe to do so. Do not energize wet equipment.
- Track down and shut off the cause of leakage.
- Cover up equipment if leaking occurs from above.
- Begin removing the water, if it is safe to do so.
- Remove wet items and anything that can hold moisture as soon as possible.
- Begin cleanup and drying procedures as soon as it is safe to do so.
- Apply proper preservatives to equipment (note: material should not promote corrosion, conduct electricity or create a fire hazard).
- If you are a Zurich customer, call the Zurich Claims Reporting Care Center at 800-987-3373
- Call professional cleaners and restorers.

Emergency phone numbers should be readily available to all management and personnel responding to or overseeing the incident. Examples of phone numbers that should be available include a professional cleanup company, professional equipment restoration company(s), Zurich Claims

Reporting Care Center (800-987-3373), servicing companies for critical and valuable equipment (especially technical representatives) and sources for renting additional wet vacuums and dehumidifiers, if required.

Water damage is among the costliest of risks

The leading cause of property losses in offices, apartments and other real estate facilities is from water damage. A review of Zurich claims data shows there is nearly a 50 percent chance that the next property claim will be water related. If it is, the loss will cost, on average, three times as much as a claim that does not involve water damage. The high dollar amounts result from payment for cleaning and drying out the building. Tenant or rentable spaces may need to remain vacant until dried out and rehabilitated.

Water damage originates from a number of sources, including:

- Domestic water lines and systems
- Drains and drain lines
- Sewage systems
- · Cooling and heating piping and radiators
- Sprinkler piping
- Surface water
- Leaky roof

Protecting your piping

Piping and other systems in older facilities are more prone to failure. Greater maintenance and testing is needed to assure the integrity of the pipe, fittings and equipment. Some areas of the country have public or private water supplies containing certain minerals that increase the corrosion rate of water. Proper water treatment, system maintenance and testing of the integrity of systems must be practiced.

Spill response cart and pipe repair supplies

A spill kit, or cart and emergency pipe repair supplies, should be available for quick accessibility and use anywhere in the facility. The following list contains some suggestions for a spill response kit:

- Plastic sheets or nylon tarps to throw over and protect equipment, furnishings and documents (should be readily available in the applicable areas for use by operators)
- Contractor-strength plastic or trash bags to dispose of wet material
- Wet vacuums (commercial grade with effective GFIs) or other water removal-equipment (squeegees, mops, buckets, etc.)

- Portable pump(s) and hose
- Rain gear, Tyvek or other types of disposable suits
- Water-displacing solvents for applying to electrical equipment and supplies
- Towels for wiping up
- · Absorbent socks to contain and absorb spills
- Pipe clamps to place around and stop a leak (pipe repair kit)
- Diagrams of piping systems with valve locations highlighted
- Dehumidifiers (or have a ready rental source available if unable to keep one at hand)
- Boots
- Portable dikes for diverting surface water away from below-grade doorways and possible points of water entry (this would be necessary during unusually heavy rains and especially if the facility has a history of water accumulating near certain doorways, loading docks, parking ramps, etc.)

Note: The maintenance and/or engineering departments should be involved in selecting the contents and locations of the kit. Materials may be needed in several areas if the facility is large or involves multiple buildings. Quick accessibility is the goal.

WATER DAMAGE: \$100,000 leaking away

Loss example: A frozen pipe burst and water leaked down four floors. The pipe was located just inside an exterior wall. A tenant space had the heat shut off when it was vacated and the space was not inspected. An inspection may have noted the fact that a window was open in the space, which coupled with the shut-off of the heat, led to the line freezing. The loss was over \$100,000.

Protecting your building

Pipe breaks often occur during earthquakes. Facilities should be evaluated for earthquake bracing and retrofitted as needed. Real estate facilities in earthquake-prone areas should be prepared for leaks and breaks. When an earthquake and the resulting leaks occur, immediate and proper action is vital to help reduce further damage and assure a faster return to normal services. Even after an earthquake occurs, testing should be done to determine if unseen damages have occurred.

The following actions can help your staff begin the cleanup process. Professional cleaners have the equipment necessary to quickly remove large volumes of water and properly clean and treat buildings and furnishings. Professional equipment restorers have the experience and

resources to effectively clean and repair electronic equipment and get it recertified if necessary.

- Remove wet items such as carpeting, padding and ceiling tile, or anything that holds moisture to an exterior location or cuts off dock area.
- Use all available and rentable water vacuum equipment to eliminate water on floors as soon as possible. Also use squeegees and mops.
- Set up any available dehumidifiers if outside temperature is greater than 16° C.
- Open any doors and windows to help reduce humidity if weather is appropriate.
- Use fans to help circulate the air and assist drying.
- Open drawers and closet doors to enhance drying.
- Blot hard surface furniture dry. Place non-staining blocks or aluminum foil under furniture legs.
- Lift draperies off carpet and suspend.
- Move photos, paintings and art objects to a safe, dry location.
- Remove damp books from shelves and spread them in a stable and dry environment.
- Leave the heat on if damage occurs during a cool season.
- Utilize air conditioning if damage occurs during a warm season.

WATER DAMAGE: From renovation to repairs

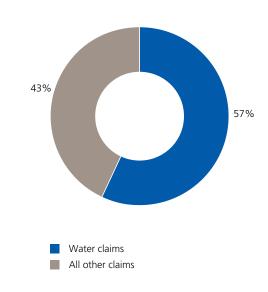
Loss example: Water leaking from a water line abandoned during renovation, but still energized, leaked for an unknown extended period of time. The water pressure eventually broke through the plaster and damaged four floors of a building, including several tenanted units. It is estimated that the water column rose as high as four levels before breaking out. The loss was over \$500,000.

Protecting your equipment

In multi-tenanted buildings, care should be taken to control the installation of domestic hot water tanks. Inspection and maintenance of these units should be tracked, even though it is the responsibility of the tenant in many cases. Ideally, the tanks remain in the care and control of the building owner. The installation site for these tanks relative to the tenants adjacent to the installation site is important as well.

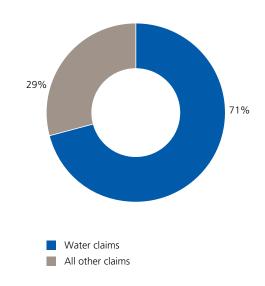
Real Estate claims by number

Water damage claim frequency



Real Estate claims by loss dollars

Water damage claim dollars



Source: Zurich claims data

Curbing around the tank to direct accidental flow, and drains and shutoffs nearby should be considered. When leakage occurs, immediate and proper action is vital to preventing further damage and assuring a faster return to normal services.

- Turn off power immediately, if safe to do so. Do not energize wet equipment!
- Do not re-energize equipment until authorized by qualified restoration personnel or the manufacturer's technical representative.
- Open cabinet doors, side panels, covers, chassis drawers; drain all water.
- Remove equipment to a cool, dry area after wiping down and removing as much moisture and contaminants as possible.
- Set up fans to move ambient air through equipment.
- Blow water out with clean compressed air (or preferably liquid nitrogen) and/or hair dryers or a portable utility blower.
- Wipe down and dry metal surfaces as soon as possible.
- Follow up with professional restoration services.

Taking quick and effective action when water infiltration occurs can help you reduce the number and size of losses related to equipment. Reducing the likelihood of such incidents also helps minimize the disruption to operations.

WATER DAMAGE: A hot mess!

Loss example: A major leak from a failure in a hot water tank relief valve damaged nine floors of an office building as the leak ran through an entire weekend. The tank had been installed without the owner's knowledge and risk-transfer provisions between the owner and the tenant were not sufficient. A pipe corroded near a coupling. Prior evidence of staining indicated that a small leak was present for some time. A loss of \$600,000 occurred.

Reducing damage from water, sewage and other types of liquids

Focusing on the following areas will help you identify some of the risk for liquid damage, check for preparedness and help in the response to leaks that may occur.



Mitigation and reduction of water damage — A key measure in reducing losses from water damage is to perform a self-assessment. This may help you to determine what needs to be done.

Critical equipment areas — Critical equipment areas, such as tenant equipment, main telephone rooms, electronic data processing center, etc., can exacerbate even a small water leak. Take time to determine your level of exposure in these key areas.

Roof evaluation — Water entry into buildings from outside can also cause serious damage. As with interior exposures, much of this potential risk can be identified in advance, with proper evaluation of your roof.

Handling losses — When a loss does occur, dealing with it properly can help mitigate the damage. Be sure to examine losses from both a facility manager and a risk manager perspective.

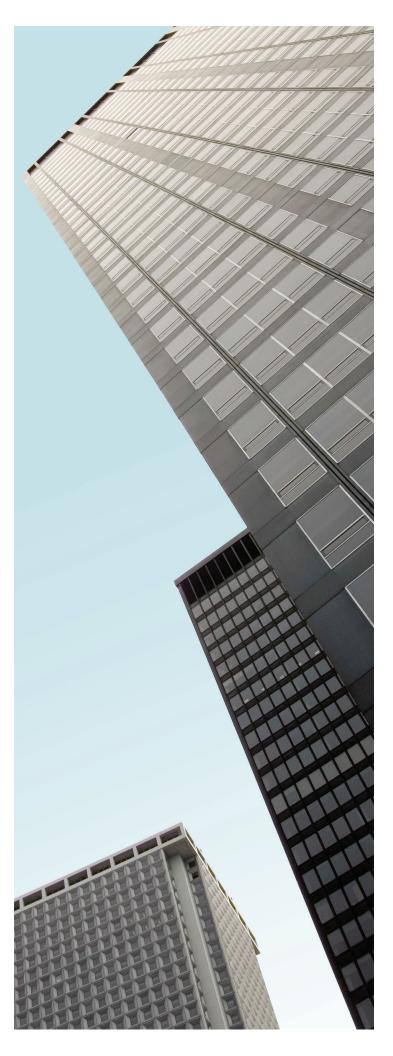
Vendor phone list for emergencies — Having a list of key vendors who can assist in the event of a water damage loss can help you mitigate a loss. Zurich's Claims Reporting Care Center line (800) 987-3373 can provide assistance as well.

For more information on preparation and recovery due to severe weather, visit **www.zurichna.com/severeweather**

Doing new construction or renovation?

From where equipment is placed, to testing valves and pipes, consider these helpful tips during your construction or renovation project:

- When valuable equipment is added or moved, or a tenant moves in or changes equipment layout, a checklist for critical equipment areas should be developed and used to reduce the chance of potential problems.
- Valuable equipment should be located on floors at or above grade.
 This includes telephone equipment rooms and computer centers.
- Designers should route all liquid-carrying systems away from ceilings over critical and valuable equipment.
- Valves should be located where readily accessible. Consider adding valves if needed to help improve response time in isolating a leak.
- Valves should be marked to identify their purpose and the zones or areas each controls.
- The floors above areas containing critical and valuable equipment should be waterproofed. Openings around floor penetrations made for conduit and ducts and other utilities should be well sealed.
- Pipes should be pressure-tested per code, witnessed by an owner's representative, with all leaks properly repaired and the pipes retested.
 Pipes should not be sealed off in walls until tested and signed off.
- Rooms containing fuel tanks, hot water tanks or any other liquid containing equipment and vessels should be provided with secondary containment and drains.
- Identify new construction/landscaping on adjacent properties, especially those being conducted at slightly higher elevations. Storm water runoff can be a major problem when natural water diverting means, such as grass, is temporarily removed during a project.
 Debris from construction projects and landscaping can also clog storm drains in the area during exceptionally heavy rain events.
- Have a procedure in place for plans to be reviewed by leasing or other departments responsible for tenants.
- If the project is a "green" project, appropriate engineering studies should be presented showing prevention and control of water entry.



Protect against water-related risks under your own roof

While weather-related flooding grabs headlines, the potential for property damage and business disruption due to an unanticipated water release inside your own facility demands just as much concern and preparation. By raising your own awareness of your risks, you will be better able to take proactive, positive steps toward prevention. We hope that some of the tips provided in this publication may be of assistance in that journey.

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