



## WINTER RISKS

Winter 2020

**As winter approaches, it is important that businesses are protected against adverse weather conditions. After an extraordinarily difficult year, now is the time to take stock of the measures you have in place to ensure you can continue to operate if the next few months provides the usual challenges of heavy rainfall, freezing temperatures, icy conditions and snowfall.**

### PROPERTY

Damage resulting from escape of water is one of the most common causes of property claims.

You should ensure all drainage on your sites are running clear and free. With leaves dropping during Autumn a build-up can lead to blockages.

If you store fuel and bulk liquids, tanks and pipes are liable to being damaged by freezing temperatures. A common problem for tanks is burst

pipework as temperatures drop. Make sure they are protected against corrosion or other damage.

Freezing pipes is a very common cause of water damage. As ice forms, it expands causing pipes to burst. When the pipes thaw, water can escape if they are not protected. Water may be released over key equipment damage disruption will result. You may be able to shield or relocate critical equipment or re-route piping if water damage exposure is considered excessive.

### DEPLOY TECHNOLOGY TO TACKLE BURST PIPE THREATS

Water damage claims cost the insurance industry hundreds of millions of pounds every year and are thought to account for over 50% of business interruption claims.

Prevention rather than cure is very much the answer, but even if reasonable precautions are taken, leaks and bursts can still occur. The alarming thing with water is the speed at which it can escape and the extent of damage that can be very rapidly caused before the leak or burst is detected, particularly if the property is unoccupied at the time.

That's why several insurers now encourage their policyholders to take measures that go beyond the usual steps such as regular maintenance, lagging pipes and making sure temperatures are maintained above freezing levels.

One widely recommended measure is the installation of automatic leak prevention and detection devices such as those supplied by Leaksafe. Whilst catering primarily for escape of water from standard plumbing and heating installations, they can also cater for the risk of water escaping from the likes of air conditioning and sprinkler systems.

Leaksafe functionality can include:

- Wireless-controlled valves on incoming water mains so that the mains water supply can be turned off the moment you leave the premises

- Installation of wired or wireless leak detection tape to detect pipe leaks, particularly those that may initially go unnoticed in concealed areas
- Remote real time monitoring and alerts including e-mail and SMS text alerts
- Connection to other monitored alarm systems such as intruder alarms
- Flow monitoring devices that can automatically switch the water supply off if flow is detected for longer than a pre-set length of time (or, where maintenance of flow is critical, an absence of flow can trigger an alert)

Additional benefits apart from standing a much greater chance of avoiding the very considerable interruption to a business or inconvenience to tenants caused by a catastrophic burst pipe incident include:

- Insurance premium discounts may be available to reward the installation of such devices
- Installation costs may qualify under the HMRC Enhanced Capital Allowance scheme

For more information, visit <https://www.leaksafe.com/>

This year, with lockdown and a long summer, heating systems are likely to have been switched off for an extended period. Your system should be checked before switching it back on to ensure tanks and pipes are not damaged to avoid the risk of oil spills.

It is essential that the structure of your building cannot be breached by collapsing roofs or adjacent trees, equipment and ice flows. Keep the interior of your building warm enough to prevent freezing.

Remember, weather conditions can change quickly and could hamper your ability to react to an unexpected emergency. Public transport, roads, power and fuel supplies along with key services, can impair your emergency response, so be prepared for unusual situations. It may be a good idea to discuss with staff a plan to protect your property.

Below are some helpful checklists to help you keep your buildings safe

# BEFORE FREEZING CONDITIONS ARRIVE

## EMERGENCY PREPERATIONS

Established, a weather watch. Employee rota set-up for nominated staff to monitor weather conditions and to make the pre-warning call.

Establish a severe weather emergency response plan.

Emergency use materials checked/replenished: tarpaulins, fuel, antifreeze, salt, grit, sand, sandbags etc.

Emergency use tools checked/replenished: cold weather clothing and footwear, snow shovels, mops, buckets, squeegees, waste bags etc.

Plans and tools made ready to isolate and drain down tanks, boilers, water pipes and sprinkler systems (only in an emergency situation) if temperatures drop excessively.

Owned emergency equipment maintenance checks done: hand-held hot air guns, space heaters, power generators, snow blowers, snow ploughs, gritters etc

Emergency equipment pre-contracts re-confirmed, contact details re-verified and ready at hand. Rental contracts started/set-up for key equipment without pre-contracts.

Refresher training completed on the use of hand-held air guns/blowers to thaw water pipes plugged with ice. Employees and contractors reminded that they MUST NOT use open flame heat guns or space heaters.

## BUILDING

Checklist and rota set up for regular site inspections and internal/external building inspections by employees and/or contractors during the freeze period.

Water drainage channels at roof level checked by a competent roofing contractor to clear leaves and other debris. Includes roof gutters, valley drainage channels, hoppers, parapet outlets and downpipes.

Ground drains, including culverts, checked to be clear of leaves, branches, waste and other debris.

Risk of ice dam formation in roof level gutters checked: loft spaces re-insulated where internal temperatures found to be high enough to cause them to develop.

Thermostatically controlled heating installed in freeze exposed areas of a building containing water tanks and water pipes. Includes loft spaces, attics, plant rooms and other isolated areas. Heating confirmed as able to maintain 4°C or more from floor to ceiling.

Remotely monitored thermometers fitted in freeze exposed locations. Low temperature alarms verified as functioning to indicate failed heaters or insufficient heating to an area.

Checked building management system (BMS) alarms are functioning correctly for power supply failures, low-water fuel trips on boilers, low building temperatures, low water temperatures in exposed tanks and water ingress/leak detectors (if installed).

Checked BMS text / bleeper / e-mail alert messages are being received by emergency responders for overnight periods, weekends and during planned shutdowns from all buildings, including vacant premises.

## WATER SYSTEMS

Vacant areas or exposed areas with freeze history: drained equipment/pipes carrying water or susceptible to condensation or freezing. Antifreeze added to systems that cannot be drained.

Boilers protected against freeze, particularly drain lines, sight glasses and condensate lines.

Boilers not in use or not needed during the period of freeze have been drained down

Master water supply shut off valve to each building located and physically tested to ensure it can be closed. Sub-divisional valves within the buildings located and tested.

Outdoor water filled equipment and tanks prone to wind chill have been shielded/lagged.

Indoor plant and pipework located behind open louvres in plant rooms have been shielded.

Alternate sprinkler systems normally switched to 'air' for the winter period completed at a planned Autumn visit by sprinkler contractor or completed in advance of threatened freeze period, if earlier.

Checked lagging and trace heating for indoor and outdoor exposed wet sprinkler pipework and valves.

Space heating verified as functioning to maintain 4°C or higher for cold loft spaces, valve chambers and other isolated areas that have wet sprinkler pipework. A frost-stat must be provided, set to switch on the heating when the temperature falls below 10°C within any sprinkler pump house containing diesel pumps.

Sprinkler contractor has inspected and freeze proofed all fire pump houses, fire hydrants, fire system water tanks and the associated pipework.

Pre-planned fire control impairment permit procedure is in place ready for emergency sprinkler system isolations if required, with Red Tags or Lock-Out Tags ready for use

Refresher training on the procedure done for sprinkler contractors and employees.

## DURING FREEZING CONDITIONS

Daily cold temperatures and forecasts being monitored.

Emergency materials / tools / equipment inspected, protected and kept replenished.

### BUILDING

Site / building inspections active, including vacant areas and unoccupied premises.

Access roads/pathways and yards kept clear of deep snow and ice build-up. Contractors engaged as necessary.

Roof and ground drains kept open and free of ice in a safe manner. Contractors engaged as necessary.

Ice-dam formation monitored in roof level gutters.

Temperatures checked and recorded for vulnerable areas during the day, at night and at weekends.

Snow monitoring active for roofs – drifts and accumulations being cleared before they reach unsafe levels. Contractors engaged as necessary.

BMS checked as operational and key parameters being monitored.

### WATER SYSTEMS

Trace-heating systems checked to be operating correctly. Boilers / heaters operating satisfactorily.

Equipment checked for signs of freeze – localised heating, lagging and shielding in place.

Sprinkler systems checked to be ice-free on pipework and valves.

Access to fire hydrants, fire pumps, sprinkler valve houses kept clear of snow and ice.

Water tanks maintaining water temperature above 4°C and tank roofs kept clear of snow build-up.

Fire pump house maintaining temperatures above 10°C and sprinkler valve houses maintaining temperatures above 4°C.

Emergency sprinkler system isolations done using fire control impairment procedure with Red Tags or Lock-Out Tags hung on the isolated system.

## AFTER FREEZING CONDITIONS

Emergency materials / tools / equipment inspected, replenished and stored away safely.

Learnings from emergency responses and communications taken on-board and plans revised/updated.

### BUILDING

Site/building repairs completed as required.

Access roads/pathways and yards cleared of remaining snow, ice and water. Contractors engaged as necessary.

Roof and ground drains checked and cleared. Contractors engaged as necessary.

Roof level snow drifts and accumulations cleared. Contractors engaged as necessary.

Temporary alarms or BMS settings re-set.

### WATER SYSTEMS

Indoor/outdoor equipment and pipework inspected and checked for signs of damage, with repairs completed. Contractors engaged as necessary.

Isolated equipment re-instated and tested to ensure correct functioning.

Isolated sprinklers checked for damage, reinstated and impairment permits closed.

Emergency sprinkler system isolations done using fire control impairment procedure with Red Tags or Lock-Out Tags hung on the isolated system.

## WINTER CONSTRUCTION RISKS

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Cold Temperature Exposures, Injuries, and Controls on site should be covered as part of any toolbox talks or training programs.

- Wearing the proper clothes / PPE may be the most significant precaution to reducing cold stress.
- Drink plenty of fluids, preferably warm. Thirst is suppressed in a cold environment and dehydration may occur when fluid intake is reduced.
- Increase caloric intake when working in cold environments which needs to be considered at break times.

- If required, especially during extreme cold conditions consider introducing morning warm-up sessions before and during the working day.
  - Avoid the cold if you are becoming exhausted or immobilised.
  - Engineering controls can be effective such as using heaters in areas, where practical, shielding work areas from winds and drafts.
  - Educate employees on symptoms of cold-related stresses: heavy shivering, uncomfortable coldness, fatigue.
- Also considerations when working at height on scaffolding or work platforms as surfaces can become slippery during winter conditions.

*This information is not intended to constitute any form of opinion and recipients should not infer any opinion from its content. Recipients should not rely exclusively on the information contained in the bulletin and should make decisions based on a full consideration of all available information. If you have any concerns at all about property maintenance, you should seek advice from a trusted local tradesman.*

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