



# Adverse Weather Precautions

## Preventative Measures

### INTRODUCTION

**Weather extremes are becoming more common. Adverse weather such as heavy rain, flooding, snow, freezing conditions and drought - can be a major hazard to all types of businesses.**

Water damage, whether it is caused by a simple burst pipe following a hard freeze or by a blocked drain following heavy rainfall, can damage plant and machinery, ruin stock and bring production to a grinding halt. Drought conditions can exacerbate the risk of fire and also reduce the ability of the fire services to tackle the blaze. Sustained dry conditions can also affect the uptake of water by vegetation, leading to potential subsidence problems.

While adequate insurance cover can deal with the damage to property and immediate interruption to business, these risks raise the very real possibility of losing disappointed customers, who might give their trade to a competitor. The potential for long term damage to the business should not be underestimated.

In extreme circumstances a simple burst pipe or blocked drain could prove a catastrophic blow to a business. The weather should be an issue of the greatest concern for those charged with looking after the welfare and viability of an organisation.

### PROACTIVE ACTION NOW IS BETTER THAN REACTIVE ACTION WHEN IT'S TOO LATE

Every year the insurance industry handles hundreds of thousands of claims caused by adverse weather conditions. Hundreds of millions of pounds are paid out in claims settlements.

The insurance industry is, of course, here to meet these claims. But it would be in everyone's interest if the frequency and severity of these incidents could be reduced. The fewer claims that are made, the greater our ability to negotiate lower premiums and any prudent business would wish to avoid disruption to their operation and the accompanying hassle of coping with damaged premises and/or injuries to staff and customers.

Most of the guidelines provided in this section are little more than common sense and good business practice, but it is surprising how many losses are caused each year by failure to implement these relatively simple measures.

Remember, they could keep you in business.

### PREVENTATIVE MEASURES — EXTERIOR OF THE BUILDING

It is common sense to regularly attend to all areas of your building which might be affected by severe weather.

#### WET WEATHER

- Undertake regular planned preventative building and yard maintenance including inspection and clearance of roofs, valley gutters, storm gutters and gullies, downpipes and drains. Particular attention will be required where gullies and drains cross doorways or where yards and adjacent roads slope towards buildings.
- Where trees overhang, or are immediately adjacent to buildings, their condition should be checked and where necessary pruned back.
- External manholes and access to external stopcocks should be regularly checked.

Flooding is frequently caused by melting snow or intense storms when drainage systems cannot cope. The following measures can help deal with this risk:

- Check for a history of flooding in the vicinity of the building, or for recent developments that may make it more likely;
- Ensure you understand local authority flood warnings in England and Wales or Scotland and prepare an emergency plan;
- Keep a watch for early signs of drains overflowing; and
- Inspect drains to ensure they are adequately sealed outside the building.

Where flooding is a known possibility consider the:

- Installation of intervening walls and banks;
- Provision of flood gates, boards and sills to doorways and gateway openings in walls;
- Blocking up of unnecessary openings; and
- Provision of sandbags.



### COLD WEATHER

External plant, particularly water tanks, sprinkler installations and pump houses need to be inspected, with specific checks on condition of any lagging or trace heating provided to these installations.

Following snowfall or during freezing weather, it is necessary to ensure that employees, customers, suppliers and other visitors can gain safe access whether on foot or by vehicle. Where necessary snow clearance and treatment of pathways, car parks and yard areas should be undertaken to ensure safe entry.

Check that external lighting to yards, loading bays and means of access is sufficient, even in adverse weather conditions, so allowing for safe working or access.

### DRY WEATHER

Materials stored in the open, particularly flammable chemicals, are more vulnerable to ignition during very dry weather and, where possible, these should be stored away from direct sunlight and buildings. High ambient temperatures also increase the chances of spontaneous combustion so careful monitoring of bulk materials should be undertaken.

Drought conditions also greatly increase the risk of subsidence or damage to drains from tree roots. A regular inspection should be undertaken of trees adjacent to buildings and, where necessary, a qualified tree surgeon should be employed to control them.

It is important that vegetation surrounding the property, particularly dead grasses and the like, are regularly cut and disposed of, since they can enable fires to spread very rapidly across a wide area.

### PREVENTATIVE MEASURES — INTERIOR OF THE BUILDING

The interior of the premises is equally vulnerable to extreme weather conditions. For example, burst pipes can wreak havoc by causing essential machinery to break-down and computer systems to fail. Stock can also be ruined by water damage.

### WET WEATHER

- Check all internal down pipes, drains and drain covers.
- Check ceilings and internal surfaces for any signs of water ingress and staining, and where identified, ensure that any leaks are promptly dealt with.
- During holiday and shut down periods, visit the premises daily to make sure that precautions are effective and to ensure early detection of any problems.

With regard to flooding you should ensure that:

- All stock, especially water vulnerable materials, are placed on racking pallets or stillage at least 100 mm (4 inches), and wherever possible 150 mm (6 inches), above floor level;
- Drains are regularly inspected to ensure that they are adequately sealed;
- Basements have adequate drainage, and, where necessary, sump pumps; and
- Sump pumps are maintained, operate automatically, and have waterproof motors and controls.



### COLD WEATHER

- Identify the location of all pipe work, tanks, valves and stopcocks including the main stopcock and ensure they all operate correctly. Produce suitable plans showing their positioning and the location of main electrical switches and boiler controls. Importantly, make sure that instructions for their use in an emergency are prepared.
- Ensure that all keyholders have copies of the plan and are familiar with the operation of all controls.
- Have all water and central heating systems checked and tested periodically by a qualified plumber/heating engineer.

Make sure all pipes are protected from freezing by taking the following simple measures:

- Install at least 25mm thick, good quality, non-combustible, securely fixed lagging to pipes to resist overnight 'snap frosts'.
- Heating either the entire premises or to specific vulnerable areas. Ensure that heating is left on when freezing conditions are predicted and when premises are shut down for weekends or longer periods in the winter months, particularly during holiday periods. Where frost-stats are not installed, central or localised heating should maintain a constant temperature of at least 5°C.
- Consider the installation of trace heating (electrical heating tapes) on pipes remote from heated areas in roof spaces and outside buildings.
- Relatively simple and inexpensive automatic water control valves can be used to detect bursts or exceptional flows and act to automatically cut off the mains water supply.
- Wherever practical, drain down tanks and pipes in vulnerable areas when not in use.
- Install immersion heaters in storage tanks.
- Whenever buildings are left unoccupied or shut down without any form of heating, all water apparatus should be isolated from the mains water supply and fully drained down. Warning notices should be posted next to control valves and control panels advising that the equipment has been drained down to prevent the risk of damage when the boiler or plant is subsequently reactivated.
- Do not forget sprinkler installations. Unless your system is specifically designed as an alternate or dry pipe system it is vital that areas protected by sprinklers are heated to 5°C.
- Remember that, during exceptional severe weather, electricity supplies to your premises may fail. Consider the provision of emergency power generation to at least maintain essential supplies to heating systems, security alarms, etc.
- Ensure that your heating and lighting systems will provide adequate safe working conditions for all employees during the winter months.

### FROZEN AND BURST PIPES: EMERGENCY ACTION



If pipes freeze:

- Isolate the frozen pipe by closing the stopcock or feed from the mains or tank.
- Water leakage is possible so protect wiring, machinery or stock in the immediate vicinity.
- Open the tap nearest to the frozen section.
- Use a gradual heat source such as a hot water bottle or hair dryer against the pipe or raise the temperature of the surrounding area by space heating.
- Do not heat by blow lamp, electric hot air gun or similar high output heating units as sudden application of heat will cause the pipe to burst.
- Remember, never use a naked flame.

If pipes burst:

- Isolate the mains water supply at the stopcock.
- Switch off the electrical supply into the building or to the affected area.
- Open doors and any internal or external drains to allow water to run away freely.
- Raise as much property as possible from wet areas of floors or beneath burst to allow the drying out process to begin.
- Call an emergency plumber.

### EMERGENCY PLANNING

Even if considerable time, effort and resource are invested in controlling risks from adverse weather, there is always the danger of unforeseen incidents impacting upon a business. For this reason, every business should have an emergency plan. This will be a series of well thought-out contingency measures designed to restore normal operations as quickly as possible.

Each business will need a bespoke plan meeting the particular risks it faces. That said, every plan should include the following key elements:

- Ensure early detection by daily inspection of the premises particularly during shutdown periods.
- Pre-plan the best methods of drying out and clearing the premises.
- List the telephone numbers of emergency contacts such as: Insurance Broker; Plumber; Builder/Roofing Contractor; Drainage Contractor; Power Generator and Pumps provider.
- Provide a list of all emergency contacts to all keyholders and other responsible staff and ensure that copies of these details are kept off-site.
- Develop a full disaster recovery and business continuity plan to minimise any interruption to your business.

### FURTHER INFORMATION

**Floodline** 0845 988 1188

**Environment Agency Flood Map** [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

**Scottish Environment Protection Agency** [www.sepa.org.uk](http://www.sepa.org.uk)

**Water Control Valve Information** [www.floodcheck.co.uk](http://www.floodcheck.co.uk)

**Weather Forecasts/Warnings** [www.metoffice.gov.uk/weather/uk](http://www.metoffice.gov.uk/weather/uk); [www.bbc.co.uk/weather](http://www.bbc.co.uk/weather); [www.accuweather.com/ukie](http://www.accuweather.com/ukie)