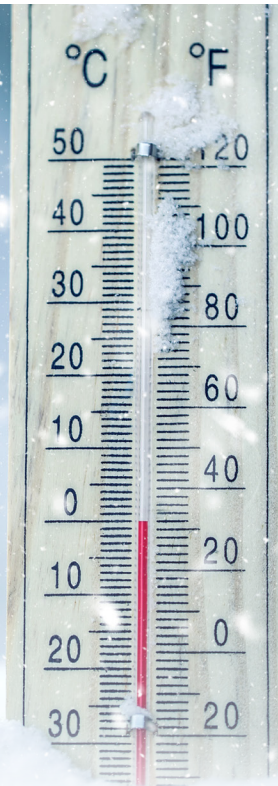




Is Your Sprinkler System Ready For Winter?

Freezing temperatures can cause costly damage to improperly maintained sprinkler systems and impair their ability to provide life safety and protection.



Severe winter weather can affect almost every building in the US. The northern and central parts may be more at risk, but the south is not exempt from ice storms and arctic blasts. Every facility must prepare for winter weather, and part of this preparation **MUST** include the **fire protection systems**.

The most common type of sprinkler problem during winter is freezing water in pipes. Two issues are most prevalent: water accumulating in dry pipe sprinkler systems from the compressed air in the sprinkler pipes and inadequately heated portions of wet pipe sprinkler systems.

The following checklist focuses on these two issues. It's designed for a building owner or responsible party to supplement an existing sprinkler system maintenance program. *It is not meant as an all-inclusive or replacement for regular fire protection equipment inspection, testing, and maintenance.*

Winter Weather Preparedness Checklist

Wet Pipe Sprinkler Systems

- Ensure that the building shell is in good condition; close up any unnecessary openings
- Maintain building heat at a minimum of 40°F in all normally heated areas and any area with a wet pipe sprinkler system
- Check coldest points of building to ensure temperature is at least 40°F (i.e., eaves, over shipping doors, spaces without direct heat)
- Consider low temperature alarms in areas where heat is suspect
- Identify vulnerable areas – such as crawl spaces, attics, and above suspended ceilings – where water piping pass through and provide a way for heat to reach these areas
- Place thermostats and/or low temperature alarms at strategic locations to monitor building temperature
- Check insulation in attic areas or other areas near wet pipe sprinkler pipes

Dry Pipe Sprinkler Systems

- Maintain heat in dry pipe valve rooms, fire pump rooms, and all areas protected by wet pipe sprinkler systems at a minimum of 40°F
- Heaters should be thermostatically controlled; use of portable heaters is discouraged
- It is the building owner's responsibility to drain all low point drains weekly before and during freezing weather; have additional drains installed if necessary
- All low point drain and drum drip piping should be extended into a heated area
- Have air leaks repaired to keep system from tripping if compressor power is lost
- Air supplied to the compressor should come from a dry, room-temperature source. If this is not possible, or moisture build-up is a problem, consider installing an air dryer or using nitrogen instead of air
- Have the pitch checked on any pipes where the pipe or hangers have been hit, altered, or appear sagging

Hydrants, Control Valves and Fire Department Connections

- Check private hydrant fittings for tightness
- For areas prone to significant snow, identify hydrants with flags or markers located above the average snow line
- Check around hydrants and post indicator valves for soft or wet ground; this is an indication of a leaky underground piping and should be further assessed
- Ensure all control valves are in their normal operating position and secure from tampering
- Check fire department connections for accessibility. Keep clear by shoveling away snow to access connections

Antifreeze systems

- Have antifreeze solution checked for mix strength

Gravity and Suction Tanks

- Flush heaters, water circulating equipment, and piping
- Turn on heaters and water circulating equipment, and monitor equipment throughout winter months

IT IS THE OWNERS RESPONSIBILITY TO ENSURE THE FIRE PROTECTION SYSTEMS ARE MAINTAINED ON AN ONGOING BASIS.

If you would like qualified personnel from our office to perform any task listed above, please call Ellis Fire at (781) 995-0235.

Owners responsibilities:

- Ensure that the systems are inspected, tested, and maintained per the requirements of NFPA 25.
- Provide access to system components as needed, have needed repairs and corrections completed, and keep records.
- Evaluate the adequacy of existing systems if changes are made to the building, its use, or other conditions that could impact system performance.
- Understand and comply with any local requirements regarding qualifications for performing inspections, test, and maintenance along with reporting and record keeping.
- Put procedures in place to address any impairments that occur, whether planned or unplanned.