

Risk Alert



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Low temperatures increase risk of frozen sprinkler systems and plumbing pipes

Frozen pipes are a major wintertime problem. Throughout the winter months of 2010, Church Mutual received 571 claims involving frozen pipes or frozen sprinkler systems. Contrary to what one might think, losses due to frozen pipes occur more frequently in climates that are not normally associated with cold weather, especially when unexpected cold fronts sweep through a region.

Where pipes need protection

Locations that are typically more prone to freezing are attics, crawl spaces, unheated rooms and pipes in exterior walls. Problems are also more likely to occur in areas where pipes have previously frozen, especially if preventative actions were not taken after the previous occurrence.

Reduce the chances of frozen pipes

Sprinkler systems and plumbing pipes are more likely to freeze when insufficient heat is provided to the building or enclosed area. One of the easiest things to do to prevent frozen pipes is to keep the building temperature above 50 degrees Fahrenheit. Also discontinue the use of low, nighttime thermostat settings during periods of extreme cold to help maintain a higher overall interior temperature.

Another critical step to help reduce the chances of frozen pipes is to ensure that exposed pipes maintain sufficient temperature levels. Also, all areas of your building need to be amply heated and should adequately retain warmth. The following are steps you can take to help maintain temperature levels:

- Add insulation to attics and crawl spaces. Avoid running pipes on top of attic insulation.
- Where false ceilings are installed underneath sprinkler pipes or under piping with pendent heads, ensure that the concealed spaces receive sufficient heat. One way to accomplish this is by removing a few ceiling tiles located around the area to allow warm air to circulate into the concealed space.
- Search for and seal isolated drafts or cold air leaks and keep doors and windows tightly closed.

It might be practical to relocate pipes and use pipe insulation to provide increased protection from extremely cold temperatures. This is a key point to consider during your next remodeling project.

Draining the system

If the building will not be in use during part of the winter season, consider turning off the water and draining the plumbing pipes. Arrange for someone to conduct a daily check of the property for signs of a drop in building temperature and water damage.

(Over)

Because sprinkler systems can be even more susceptible to cold weather and often require expensive repairs after freezing, it might be necessary to drain them during severe weather conditions. If this is not done, ice plugs can obstruct the piping and possibly damage fittings and sprinkler heads. Consult with your sprinkler contractor before making any alterations or taking your sprinkler system out of service.

Become familiar with the operation of your systems and draining procedures before the onset of cold weather. In addition, notify Church Mutual if you will be taking a fire sprinkler system out of service. Finally, before a sprinkler system is restored back into service, have your sprinkler contractor or a qualified individual check for cracked fittings, ruptured pipes and leaking sprinkler heads.

What to do if pipes become frozen

If a pipe becomes frozen, open the faucets on frozen fixtures to help relieve pressure and reduce the chances of a pipe bursting. Turn up the thermostat to increase the temperature in the area. A space heater can be used to warm individual rooms. Open cabinet doors to help warm air reach frozen pipes located under sinks.

Heat may be applied to pipes by using rags or towels soaked in hot water. Use of electrical equipment should be limited to prevent electrical shock.

Thawing a frozen pipe with a torch should be left to a professional. Applying a torch to a frozen pipe — in addition to being a high fire risk — can overheat the pipe, causing water inside to boil and the pipe to explode. Check with your local licensed plumbing professional for recommended methods of safely thawing frozen pipes.

If a pipe bursts, immediately turn off the water at the main shut-off valve and contact a licensed plumber. Check other pipes located in the immediate area to ensure that further bursting and freezing has not occurred.

For a complete collection of the *Risk Alert* series, visit our website and look in the Safety Resources section.