Reducing/Minimizing Water Damage Claims

Since 2007, there has been a significant increase in water-related property claims involving CURIE members.

The following charts highlight the cost and frequency of water damage claims in CURIE 4 and CURIE 5 underwriting periods.

An analysis of CURIE claims has identified the following key loss exposures (in order by frequency):

1. Frozen pipes (below freezing interior temperature issues)
2. Accidental sprinkler system discharge (poor maintenance, pipe failure and inadequate inspection frequency)
3. Extreme Weather – heavy rainfall
4. Deficient/incorrectly installed water lines (contractor related)
5. Sewer backups
6. Accidental sprinkler system and standpipe discharge due to vandalism
7. Accidental sprinkler system discharge due to exposure to high temperature
8. Accidental sprinkler system discharge due to lack of protection to sprinkler heads

A review of member losses that were not claimed through CURIE revealed that the most prevalent causes of loss are (in no specific order):

- Aging infrastructures and deferred maintenance
- Construction Deficiencies
- Human Behavior – taps left running, toilets being flushed when plugged, windows being left open during cold weather
- Weather – Heavy rainfalls resulting in ingress into buildings when storm sewers cannot handle the load

The Canadian Universities Reciprocal Insurance Exchange (CURIE) is a non-profit cost-effective alternative to traditional insurance. Formed in 1988, CURIE is a risk sharing pool with a membership of 61 Canadian universities. CURIE risk management, campus loss control and focused training programs are designed to specifically meet the varied and complicated risks of large and small Canadian universities.
Risk Mitigation Strategies

The following may be useful to CURIE members to reduce the frequency and minimize the impact of water damage claims to your institutions.

1. FROZEN PIPE RELATED ISSUES:
   a) Identify cold spots in buildings, log them, and then monitor them during cold weather.
   b) Install temperature sensors in stairwells on the exterior wall of buildings with fire sprinkler standpipes.
   c) Permanently secure windows in mechanical spaces where there is domestic water or chilled water piping. (Eliminates the possibility of windows being propped open during work hours and forgotten.)
   d) Add freeze temp alarms to any location where outside air can directly contact water pipes. This includes stairwells and entrances but could also include any exterior building access panels and even areas by exterior windows if those windows can be opened.
   e) Prevent pipes from freezing during construction by use of adequate insulation or supplemental heating systems.
   d) Ensure annual inspection and testing of all plumbing fixtures and apparatus including sprinkler systems; ensure the replacement of older/deteriorated pipes and connections.
   e) Conduct regular (e.g. quarterly) inspections of high pressure pipes.

2. WATER SYSTEMS (ACCIDENTAL DISCHARGE):
   a) Ensure all water shut off valve locations are clearly identified and accessible and staff members are aware of their location in their area.
   b) Conduct regular patrols of unpopulated areas of premise after hours to facilitate timely detection of leaks.
   c) Conduct regular inspections of all areas with water systems/pipes to confirm adequate insulation and heating including stairwells, underutilized/vacant rooms, fire pump and sprinkler riser rooms.
   d) Ensure annual inspection and testing of all plumbing fixtures and apparatus including sprinkler systems; ensure the replacement of older/deteriorated pipes and connections.
   e) Conduct regular (e.g. quarterly) cleaning of main sewer lines using a pressurized water system.
   f) Conduct regular inspection/cleaning of gutters and downspouts; ensure drainage directs water away from the building.
   d) Conduct regular inspections of roof coverings and seams.

3. SEWER AND DRAINAGE SYSTEMS:
   a) Ensure the use of audible failure alarms and backup batteries/power sources for all sewer sump pumps.
   b) Conduct regular (e.g. quarterly) cleaning of main sewer lines using a pressurized water system.
   c) Conduct regular inspection/cleaning of gutters and downspouts; ensure drainage directs water away from the building.
   d) Conduct regular inspections of roof coverings and seams.

4. HIGH-VALUE EQUIPMENT:
   a) Avoid locating high-value equipment below grade and below areas where liquid spills frequently occur (e.g. cafeterias, rest rooms, and mechanical rooms).

For more information on reducing/minimizing water damage:

RESOURCES:
University of Minnesota Water Damage Team Prevention Report (2011)
www.dehs.umn.edu/PDFs/WETFORCE2011011.pdf
Zurich Insurance Water Damage Mitigation Program (2011)

Contact your university’s insurance/risk management staff or contact:
John Breen, Manager, Risk Reduction & Loss Control at jbreen@curie.org or call 1.888.462.8743.