



WATER RELEASE LOSS PREVENTION

Challenge

Builders' risk and Construction Defect claims arising from water release from water supply lines and sprinkler supply lines continue to plague developers, owners, GCs and plumbing contractors. This includes both commercial buildings, high-end homes, Hotels and multi-family, habitational buildings. Whether it is plumbing joints that do not get properly cemented or pipes or fittings that fail during construction, if water is allowed to run all night while the job site is not monitored, water will drain to the lowest level damaging wall board, electrical equipment and elevator equipment. In warmer, more humid environments, standing water left unaddressed over a 48-hour weekend could lead to substantial mold growth in wall board and wood flooring. The same situation could happen in colder climates where a lack of heat in a building under construction could lead to a frozen water supply pipe or sprinkler supply pipe, for which the pipe splits and allows water to run un-checked all weekend.

Once the building is commissioned and turned over to the owner, we have observed similar if not worse property damage, business interruption, and construction defect claims arising out of improperly cemented or installed plumbing joints or frozen water pipes in concealed and non-conditioned spaces. Once again this includes multi-family habitational buildings, hotels as well as a variety of real estate and manufacturing properties.

Low Cost Loss Prevention Solution



Prior to and during construction, Developers and GCs can reduce improperly cemented PVC pipe, for both water supply and fire sprinkler supply lines by requiring plumbing contractors to use ultra-violet indicating PVC cement ([example here](#)). This empowers Quality Assurance personnel the ability to walk the job in the dark and use a "black light" to check for full cement of all PVC joints. On a recent hotel project, with elevated attention to Quality Assurance, 3% of the rooms had incomplete plumbing cement in at least one fixture properly identified using an indicating PVC cement.

Water Monitoring Loss Prevention Solutions



In order to truly and quickly address unwanted water releases, both during construction and after construction, water monitoring is becoming more and more widely specified into new building construction and offered on buildings after construction to limit property damage, business interruption, and construction defect claims through the statute of repose. We have also seen this technology deployed after a first water event, to respond more quickly to subsequent events, as well as to identify leaking appliances and take advantage of water conservation through lowered utility bills and mold reduction in multi-family and senior living buildings.

Four vendors vetted by Hartford, Hanover and FM Insurance Companies are reviewed below:



ALERT LABS

Alert Labs currently partners with Insurance Companies such as Hartford and Hanover and their property insureds to affix portable water monitoring devices over positive-displacement turbine water meter valves during construction. In addition, addressable water monitoring pucks installed near high-volume water devices such as boilers and water heaters or near areas with high-value equipment (e.g. elevator shafts) will monitor and alert via cellular service water flow events after-hours on active construction sites to dispatch personnel to manually shut off water valves. For plumbing contractors or GCs, these could be removed once the building is completed and reconfigured on the next construction project. Insurance carriers oftentimes will pay for the cost of the equipment and monitoring for the life of the construction project to protect the Builder's Risk Insurance product. GCs and plumbing contractors would be advised to consider the same investment on their part to protect their insurance deductible. Ultrasonic water meters would require a permanent, in-line water monitor and automatic shutoff valve that can provide protection against water release events after commissioning to protect the construction defect coverage through the statute of repose. Costs are approximately \$20/month/flow valve that are cellular with batter backup. Temperature monitors are also available for colder climates to alert of freeze conditions. Contact: Ian Mosher ian@alertlabs.com.



HYDROPOINT

The Water Compass from HydroPoint offers only a permanently installed water flow monitor and emergency shut off valve. But it also offers water detection and weather detection equipment. Water usage is monitored and any anomalies, including irrigation water, are reported for investigation by building maintenance or shut-off valves can be closed automatically via a mobile device application.



WINT WATER INTELLIGENCE

Wint offers only a permanently installed water flow monitor and emergency shut off valve. This solution may be more palatable to developers and owners where the cost of the device can be included into the construction cost, and the only ongoing cost would be monitoring services. Wint also offers water detection devices around water heaters and to protect high-value equipment such as data rooms. Projects insured by Hanover and Hartford may qualify for the costs of the equipment, installation and monitoring to be underwritten by the insurance company for year one, with the building owner taking over the monitoring costs on year two. Savings in water usage in certain areas have been shown to pay for the monitoring costs. Water usage is monitored and any anomalies, including irrigation water, are reported for investigation by building maintenance, or shut-off valves can be closed automatically via a mobile device application. Temperature monitors are also available for colder climates to alert of freeze conditions.



THE DETECTION GROUP

The Detection Group offers a cost-effective monitoring technology as well as monitoring and automatic shut-off valves and detection wire. They are approved by FM Global.

This material is for general information only and should not be considered as a substitute for legal, medical, tax and/or actuarial advice. Contact the appropriate professional counsel for such matters. These materials are not exhaustive and are subject to possible changes in applicable laws, rules, and regulations and their interpretations.