CASE STUDY

Shutting Down Plumbing Leaks in Commercial Mechanical Rooms

Undetected plumbing leaks in multi-unit commercial buildings can quickly spiral into a major event, with water spreading to affect multiple tenants and causing tens of thousands of dollars in damage. Mechanical rooms, laundry facilities, breakrooms and other water-reliant facilities located on upper floors further amplify the potential for catastrophic damage.

THE CHALLENGE

Owners of a 12-floor, 87-unit condo building in Brooklyn, N.Y. learned this lesson the hard way when a top-floor boiler gasket failed and caused substantial damage to four units below. The approx. $600,000 insurance claim brought additional expense with it, in the form of increased rates and deductibles.

To protect the building from future incidents, the insurance company recommended a plumbing leak detection system with automatic water shut-off. Unfortunately, a second boiler sprung a leak while the head office was reviewing the proposal. The system was ordered with the building's engineer standing in three inches of water!

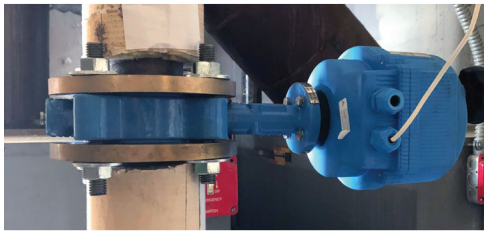
THE SOLUTION

RDT designed a wide-area system to monitor the building's mechanical rooms, containing domestic/potable hot water heaters and heating system boilers. A trio of FloodMaster® **RS-080-MK6** kits with 2" and oversized 2-1/2" shut-off valves and plenum-rated electrical components cover three key feed points. An additional pair of RS-096-MK6 alarm boxes and a total of 11 wired sensors were deployed to cover an approx. 750 square-foot area spanning the building's two upper floors.

When a leak is detected, the three valves automatically shut off the water supply. Integrated **RSC-900-W** wireless technology provides immediate smartphone app-based system notification and allows staff to quickly pinpoint the location of any leaks.

THE RESULT

The system has already paid huge dividends. A month after installation, another boiler gasket let go in the middle of the night. The system quickly detected the leak and shut off the water supply. When staff arrived a short time later, they found the floor dry and the water off. Had the off-hours leak gone undetected, it could have easily resulted in damage that was at least as substantial as the first incident.



Oversized automatic shut-off valve sizes and plenum-rated electrical components make the RS-080-MK6 an ideal solution for many commercial leak detection applications. Wired sensors were integrated with RSC-900 wireless system technology to provide real-time system status notifications via RDT's free smartphone app.

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