

Case Study: Ohio Hospital Puts Safety and Needs of Patients First In Fire Sprinkler System Retrofit

Mercy Medical Center is a 476-bed Catholic hospital serving five central Ohio counties and parts of Southeastern Ohio. It has over 550 physicians on its medical staff and employs 2,700 people. In order to keep its facilities maintained so that the highest quality care can be provided to its patients, Mercy focused its attention on the renovation of three floors, encompassing over 60,000 sq. ft. As part of the renovation, they decided to install a fire sprinkler system that would provide lasting performance with limited disruption of the patients during the installation.

Less Intrusive Installation

A major priority of the Mercy facilities staff was to ensure that the installation of the fire sprinkler system would not disrupt their daily routine. They also wanted to maintain the privacy of the individuals, so Mercy hoped to reduce the downtime of the rooms and keep the installation quiet to ensure that patients could continue to receive care in the adjoining areas without disruption.

Installation Challenges

In order to achieve the most clean, quiet and fast installation possible, Mercy Medical facilities manager, Steve Zehnder, and Nick Bagnolo, director, plant engineering & facilities, consulted with Marco Mayo and Steve Comunale of Barberton, Ohio-based S.A. Comunale, Inc., an 80-year-old, national fire sprinkler company.

Recognizing that drywall ceilings might present problems in retrofitting a steel fire sprinkler system, S.A. Comunale recommended using a BlazeMaster® CPVC fire sprinkler system, which offers a faster, easier installation without the inconvenience and mess of installing steel systems.

"We explained to Mercy that CPVC pipe was the best possible material for their installation," explained Comunale. "In hospitals, CPVC fire sprinkler systems make the most sense because of the space constraints. There's no space above the ceilings and plastic fittings require less space than steel."

CPVC systems allow for a cleaner, safer retrofit, and they are easy to design into many types of buildings. Using CPVC pipe instead of steel eliminates the mess associated with cutting and threading steel pipes. CPVC pipe can be installed in places nearly impossible to install steel pipe. The fire sprinkler contractor simply cuts the pipe on site to exact measurements, whereas steel piping requires fabrication off-site.

CPVC pipe is also easier to install than steel because it is substantially lighter - a piece of one-inch CPVC pipe weighs approximately one-sixth the weight of a one-inch piece of steel (Schedule 10) pipe. "Steel is heavier and bulkier and takes up a lot of space, which you don't have in a hospital retrofit," said Comunale. "With BlazeMaster® CPVC pipe, you don't need as much space, and when you cut the pipe, there's no mess."

CPVC Fire Sprinkler Systems



S.A. Comunale installed the CPVC fire sprinkler system using only a two-man crew, retrofitting the CPVC fire sprinkler system at an average of two rooms per day - twice the rate of a steel system. And, most importantly for Mercy, patients did not need to be evacuated during the installation.

Lasting Results

Along with the faster, cleaner and quieter installation, CPVC fire sprinkler systems provide long-lasting performance and reduced maintenance compared to metal systems. CPVC fire sprinkler systems are reliable because they offer excellent corrosion resistance, low flame spread, low smoke emission levels and have a life expectancy of 50 years with a safety factor of 2.

BlazeMaster® pipe and fittings are listed by Underwriters Laboratories, Inc. and are fully approved for use in all NFPA 13 Light Hazard applications.