Little Sisters of the Poor

Regardless of the type of facility, when a fire alarm is activated, it's serious business. Everyone must remain calm. Established procedures must be followed. Response by the appropriate personnel must occur quickly. And of course, it must be determined whether or not there is an actual fire emergency.

Now, with all of these concerns, imagine if the vast majority of the people in the facility are unable to leave the property on their own. The gravity of the situation would be increased exponentially.

This is the challenge faced by the Little Sisters of the Poor in Gallup, New Mexico. Originally created as a private, non-profit, Catholic nursing home, the three-acre facility now features a modern, assisted living component added two years ago. This new three-story complex is connected to the main facility and enables residents who don't need a comprehensive nursing home atmosphere to live independently while giving them access to the services they might need from time to time.

Still, at least 95% of the residents in the two buildings would require some level of assistance evacuating the premises should a fire alarm go off. While some might need minimal help, others would require wheelchairs and other assistive devices. While nurses and other personnel in the facility are trained to handle this task, both residents and workers would like to avoid it unless absolutely necessary. In order to keep disruption to a minimum, the workers would need to be able to quickly determine if there is actually a fire and if there is, be able to determine its exact location so only the people in proximity to the fire have to be evacuated.

Until recently, neither of these capabilities was possible with the existing fire protection system. A conventional, 10-zone panel with about 300 points of protection incorporating pull stations, smoke detectors, and duct

Silent Knight Addressable Fire Protection Helps Residents at the Little Sisters of the Poor Nursing Facility in Gallup, New Mexico, Stay Put - and Safe.

detectors had originally been installed in the facility. If a fire alarm was activated, the panel might show something like, "Zone 1 North Wing." The problem was a zone might contain 20 to 30 protection points, and facility personnel had to try to isolate exactly where the problem occurred. Determining if there was a true fire emergency was very time-consuming and consequently, in the interest of safety, everyone had to be evacuated - to the dismay of both workers and residents.

In addition, because the emergency could not be readily identified, the fire department had to err on the side of caution and dispatch engines to the scene. Given the size of the facility as well as the physical limitations of the residents, the fire department would normally send two or three fire trucks along with support equipment. Financially, the facility is responsible for costs incurred when fire trucks are dispatched. Since the ongoing costs of unnecessarily dispatching the fire department are significant, minimizing false alarms was of paramount importance.

The solution to this dilemma was clear: an addressable system that would not only pinpoint the exact location of a potential fire "situation" but allows personnel to determine

its true nature. Joe Mesich, owner of Advanced Technical Services, also in Gallup, provided this solution in the form of a fire protection system from Silent Knight. Silent Knight has been developing innovative fire protection solutions for over 30 years, and offers industry-wide compatible fire alarm solutions for small to mid-size institutions and commercial sites.

At the heart of this Silent Knight system is an IFP-1000 intelligent analog/addressable fire control panel. The basic IFP-1000 system has a single Signaling Line Circuit (SLC) loop, which can support 127 SLC devices, expandable to 1016 points (eight total SLC loops with a maximum of 127 devices per loop) using simple expansion cards. It features six on-board Flexput™ circuits that can be configured for notification outputs or for conventional smoke detector inputs. Ultimately, this is a flexible system that can be customized to suit Little Sisters' needs as they expand and change.

According to Mesich, the ability to pinpoint exact locations within the system is by far the primary benefit.

"Between the nursing home side and the

assisted living side, we've installed about 300 points of protection," said Mesich, who has been using Silent Knight systems since 1998 and feels their products and programming make them far superior to competitive offerings. "The second a fire alarm goes off, personnel are instructed to go to whichever annunciator is closest to them. At every annunciator [one on each floor and one in the maintenance department] we have a list of all the points of protection, so personnel can scroll down and determine the exact location of the alarm.

"Concurrently, when a fire alarm goes off, our communications center will call the facility. They're instructed to verify whether there is actually a fire or if someone simply tripped a pull station or burned something in the kitchen. We don't actually dispatch the fire department unless they know it's a fire, which saves time, money, and resources. And if there is no fire, residents do not have to be evacuated. Both the residents and staff appreciate that aspect."

Mesich says that the effectiveness of addressable systems virtually eliminates the need for conventional systems.

"We don't actually do conventional systems any longer," he said. "If someone comes to us with a conventional system, we will insist on

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converting it to an addressable system. The only time we have installed a conventional system in the last five or six years is if we have to do a fire riser and maybe just one or two points."

Another advantage of the Silent Knight system is the calibration capability of the smoke detectors. If a smoke detector starts to get dirty, a signal is sent to the control panel with

specific information about location and nature of the trouble. Facility personnel will then call and inform Mesich that there is a problem. His people will then know exactly where to go and clean or replace the detector.

The fact that the system was installed in both buildings was somewhat opportune. The general contractor that was working on the assisted living addition had decided to put in a new addressable fire protection but only for the new site. However, when the construction crew was installing plumbing in the ground for the addition, they cut through the fire alarm conduits that connected the two buildings due to an error by the previous system installer. When Mesich's people attempted to put the system back together, it became apparent that the job would be more difficult than anticipated. Consequently, Mesich convinced Little Sisters' management that it would be better to simply convert the entire system over to an analog addressable system.

"We started on the nursing home side making the conversion," said Mesich. "That process took about three months. By that time the assisted living site was about ready to go, so we began working on that. We then tied the whole facility together in one panel. The whole process took about six months."

Little Sisters' now has a fire protection system that keeps its residents and workers safe while minimizing the disruptions to their daily lives that are caused by false alarms and unnecessary evacuations.