Fire Protection to Meet Sizeable Facility's Diverse Mix of Growing Needs

Background

When Sledd Co. made a 100,000 square-foot, $15 million addition to an already enormous multi-purpose storage facility, the convenience-store distributor knew it would have its hands full finding fire protection that could meet all of its needs. The Wheeling, West Virginia-based company is a growing business that has nearly doubled its workforce over the last decade and now delivers to customers in its home state as well as Pennsylvania, Ohio, Virginia, Maryland and Kentucky.

Sledd Co. added a refrigerated dock, along with a large dry storage space to its main building to accommodate its expanding business. Its huge warehouse was outfitted to house offices and a customer training site - complete with a full-service restaurant. From a fire protection perspective, getting this mix of large spaces to be covered by one, code-compliant system would require a unique solution. Unfortunately, the facility's existing conventional fire alarm could not handle the added capacity and control requirements.

"We were told the current system was a good one, but old," explained Thomas George, Manager of Operations Administration at Sledd Co. "We could not expand with the system we had in place."

Problem

The Sledd Co. building presented several major challenges for fire alarm specialist Nick Markowitz of Markowitz Electric and Integration in Verona, Penn. First and foremost was the sheer size of the structure, according to Markowitz. With a conventional fire alarm system, a building that large would require immense wiring and be complicated to configure as well.

"Just in the one sprinkler room in the new addition alone they had two wet systems, two pre-action systems and a diesel generator that had to be monitored," Markowitz explained. "There were almost 50 points I had to monitor just in that room. Normally you might have 100 points. On this job I was up over 200."

Additionally, with a restaurant, offices, a warehouse, a sprinkler room and a host of other unique features, any fire protection equipment that Sledd Co. installed would need to provide a wide array of features and be eminently flexible. In other words, this was a unique job that required a unique solution.

"We needed all kinds of special services. For instance, we needed the system to control gates to open up automatically and it needed to be able to open doors automatically," Markowtiz added. "I came up against basically everything you could think of on a job."

Last but certainly not least, Markowtiz and his crew needed to remove the facility's existing 10-Zone conventional fire alarm system and install a new solution. That meant that whatever

was installed needed to be easily integrated with the facility's existing electrical infrastructure to avoid a lengthy deployment process that would be burdensome for the dealer and expensive for Sledd Co.

On a site this large, the cost and speed of installation were huge concerns. Yet to ensure this investment would fit the changing needs of such a diverse and growing facility, the new system's flexibility must be the overriding deliverable.

Solution
After some deliberation, Sledd Co. and Markowtiz selected the IntelliKnight 5820XL, an addressable fire alarm control system from Silent Knight with a broad range of capabilities. It includes a standard capacity of 127 points, which can be easily expanded to a total of 792 points for projects of this size.

"This building had everything you could think of, so I used pretty much every single one of the products they make for that panel," Markowitz said. "The flexibility of the Silent Knight system was a big plus. You have one big system for everything. Sometimes on a large job I'll see guys tying several panels together to try and make it work, and we didn't have to do any of that."

The new system was run on just two standard wires, avoiding the common scenario of installing costly shielded wire or twisted-pair cable to support many of today's addressable systems.

"It was a dream," Markowitz said. "I had an older electrician on the job with me, and he had been wanting to work on an addressable system, because he was used to the conventional systems. And he just couldn't believe the ease with which this system went in. He was used to the old days where you had to drag all these wires back and run them all over the place. Now it's all done on two."

Results
The Silent Knight system saved Sledd Co. thousands of dollars in wire and labor costs over a large majority of today's conventional and addressable systems. And despite the enormity of the building and the diversity of its layout, it is completely compliant with all regulatory codes. When the local fire marshal came to inspect the new building addition, the new system passed with flying colors.

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> *Fire Alarm Specialist*
> *Markowitz Electric & Integration*

"The 5820XL meets the requirements of UL 864, and I feel it is the best on the market at this time," George said. "The benefits we've received include ease of programming the panel and temperature settings; AC loss reporting delay; auto daylight savings adjustment; communication with a remote computer; and self system testing to name a few."

Additionally, the Silent Knight system allows Sledd Co. to make further modifications to its main facility as it continues to grow, which Markowitz and George both said is likely to occur in the near future.

"They're always adding on up there. They ask me 'Can the system handle this?' because they want to put in an elevator, change doors, do this or that." said Markowitz. "And I always tell them 'Yes.' We have a lot of expansion left that we can do."

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