Monroe County Waste Treatment Facility Improves Safety with Wireless Monitoring of Safety Showers

RESULTS
• Improved safety / man-down awareness
• Eliminated need for I/O infrastructure
• Low installed cost

APPLICATION
Eyewash station monitoring

CUSTOMER
Monroe County Pure Waters, Van Lare plant in Rochester NY and the Northwest Quadrant (NWQ) plant in Hilton, NY. These wastewater plants are located on the south shore of Lake Ontario. Van Lare dates back to 1916 and is the largest treatment plant in Monroe County with a rating currently at 135 million gallons a day with a capability of handling 660 million gallons a day.

CHALLENGE
Water treatment facilities are often spread over a large area, and utilize potentially harmful chemicals like Hypochlorite. Jeff Helfer, who is in charge of maintaining both the Van Lare plant and the NWQ plant 12 miles away (and pump stations up to 20 miles away), had one brief misstep at the plant that put him in a precarious position. “In 2009, I was working in the FEV Scrubber building on a hypo flowmeter. I had failed to isolate the chemical line properly causing sodium Hypochlorite to spray on my face and upper body. Although I was protected by the proper PPE, I still used a nearby emergency shower to dilute the hypo. Despite my best efforts, the line continued to leak and I was unable to call for radio help. I had to run to the solids control room for help.”

In the ensuing years, Helfer had been thinking about the response an employee could expect if he or she was injured and activated a remote emergency eyewash/shower and was unable to call for help. The solution was to equip remote eyewash/shower units with a device which would trigger an alarm on the operator screen in the FEV Control room, which would notify that operator of the location of the activated unit. Unfortunately, the distance spanned over 2000 feet. “The plant is a mile long, front to back. A wired solution was too expensive to consider, except for the stations near the control room in each plant,” said Helfer.

“These devices require no power to operate, are non-contact direct sensing with no exterior moving parts to break and are waterproof. They are also resistant to extreme environments; high/low temperatures, dust, dirt, moisture, wash down, physical abuse, electrical noise and radio frequency interference. With this system in place, an injured employee can depend on a quick response to their exact location so medical assistance can be summoned in a timely manner.”

Jeff Helfer
Instrument Technician
Monroe County Pure Waters, Rochester and Hilton, NY

For more information:
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