Next Generation Pulsar Feeders Reduce Maintenance, Saves Time

Overview

In the City of Fullerton, California, the City had directed its Facilities Maintenance Department to find ways to further reduce service time spent at its pools. To help achieve that end, the department switched out three of the city's calcium hypochlorite (cal hypo) chlorination systems with the new Pulsar® Precision calcium hypochlorite feeders from Sigura. This decision was based on the results from a recent indoor pool trial conducted at this site. The Pulsar® Precision feeder ran non-stop for six months without any maintenance or cleanings. Minimizing the frequency of scheduled feeder maintenance frees up more man-hours within the department to devote to other critical tasks.

Indoor & Outdoor Locations

The City of Fullerton maintains multiple pools at two locations – the Janet Evans Swim Complex at Independence Park and the Fullerton Community Center. The Fullerton Aquatics Sports Team (FAST) manages the aquatic facilities and the City of Fullerton's Facilities Maintenance Department maintains all systems and equipment. All of the city's pools use calcium hypochlorite for chlorination. The community center's two outdoor pools switched from ozone to calcium hypochlorite for water disinfection 15 years ago and since then have used Pulsar® cal hypo feed systems exclusively in conjunction with Pulsar® Plus Briquettes that work with the feeders to produce a fresh concentrated liquid chlorine solution.

The pools inside the community center initially used a sodium hypochlorite chlorination system, but it was taken out of service after two years and replaced with Pulsar® cal hypo feed systems. This was done primarily to reduce total dissolved solids (TDS) levels, which had been adversely affecting the pool's water clarity, feel and balance. Following the switch to Pulsar® calcium hypochlorite feed, TDS levels in pool water were reduced considerably, and regular swimmers at the facility immediately noticed the positive change in the clarity and feel of the water.

New Directive

"The city wants us spending more time out in the field and less time with the pools," Bryan Trapp, City of Fullerton Aquatics Senior Maintenance Technician, says. "So, we're finding ways to reduce our aquatic facilities' scheduled maintenance demands. This is what prompted us to conduct our long-term trial of the Pulsar® Precision feeder."

The feeder trial was conducted at Fullerton's 110,000-gallon indoor community center pool, replacing the pool's existing Pulsar® 140 unit installed in 2014. The Pulsar® Precision feeder's recirculating, pressurized erosion system is designed to produce a fresh concentrated liquid chlorine solution. The recirculation process within the Precision feeder's erosion zone concentrates the solution. Level sensors dictate the recirculation pump's run cycles to keep the solution in optimum suspension for providing consistent solution strength.

Long-Term Performance

"Karl Schultz with Knorr Systems, Inc., the city's long-time aquatic services and systems supplier, wanted to demonstrate how long this 2 Fullerton Case Study new feeder would run without any attention," Trapp says. "He instructed us to just keep the unit's dry hopper filled with briquettes and to maintain the system above set point. Other than that, we weren't to touch it, but to notify him when the unit failed to reach ORP set point. We finally had to notify him six months later."

The Pulsar® Precision system was installed the last week of November 2019. When the city's indoor pools were closed about four months later, due to the nationwide Covid-19 alert, the Pulsar® Precision feeder was still operating with no issues. The city continued to run the feeder non-stop until May 2020 with six months of continuous operation.

"With the previous feed unit serving that pool, I had to remove and clean its screen every two to three weeks," Trappsays. "And, I needed to clean out the unit's basin about every other month or so. Neither jobs were terribly timeconsuming, but the Pulsar® Precision ran uninterrupted for six months with no cleaning. And once we did clean it, which only took a few minutes, the pool came up to set point very quickly. We determined that, under normal use, this new feed system would significantly reduce scheduled basin clean-outs and screen cleanings."

Trapp also likes the Precision feeder's 2-in-1 dust reduction funnel for loading briquettes and capacity extension. "It's a cone lid that attaches to a Pulsar® Briquette pail. Then, you just flip the pail over onto the top of the hopper, then you can lock it on like you would a jug of water onto a water cooler" he says. "It adds more capacity, if needed, and it really minimizes the dust in the air."

Results

Based on the results of the performance trial, the city replaced two additional feeders with Pulsar® Precision systems at its 100,000-gallon outdoor pool at Independence Park. Trapp says that he is confident they will provide far less cleaning frequency for him and his crew and perform quite well even during the hottest, busiest days of the year.

Fullerton's Facilities Maintenance Department is finding that minimizing the frequency of scheduled calcium hypochlorite feeder maintenance at its pools can free up valuable man-hours to devote to other critical tasks around the City – while continuing to maintain safe, clean, clear pool water at all times.

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