

Environmental Control at Indoor Pool:

New ECS System Eliminates Chronic Air Quality Woes For New York School District Pool.

CUSTOMER: HORSEHEAD CENTRAL SCHOOL DISTRICT, HORSEHEAD, NEW YORK

EQUIPMENT: USFILTER'S STRANCO PRODUCTS ECS SYSTEM

INSTALLED: JULY 1998

BACKGROUND: For many years, the 185,000-gallon, six-lane indoor pool serving the Horsehead, N.Y., Central School District battled problems associated with undesirable chlorine byproducts. High levels of chloramines in the water resulted in irritated eyes, skin and sinuses, and foul-smelling air that corroded the facility's air handling equipment. Lowering high combined chlorine levels (1.0 to 1.5 ppm) proved troublesome, and fluctuating bather loadings made it difficult to maintain balanced water chemistry in the 29-year-old pool. According to Director of Facility Services, Tom Pollard, "when you were walking in the hallway towards the pool, you would begin smelling chlorine once you were within 300 to 400 feet of the pool door. And the door was closed!"

Pollard said facility management took numerous steps to try to alleviate the problem, including shocking the pool and increasing the air handling equipment. "We increased our ventilation and put in new fans and tried various airflow strategies such as blowing fans across the pool," said Pollard. "In addition to the existing dehumidifying system, we installed other exhaust fans to try to suck the bad air out of the building." Despite taking these steps, air quality at the Horsehead District pool remained poor. Even the dehumidification system's condensate was displaying high levels of combined chlorine.

The district was preparing to invest in a bromine/ozone system to replace the existing liquid chlorine system as a possible means to alleviate the problem, when USFilter's Stranco Products introduced the Strantrol® ECS – Environmental Control System, designed to assure clean air and crystal clear pool water at all times.

ACTION STEPS: The Horsehead School District installed a Strantrol ECS, the state-of-the-art process control system that controls not only the rate of oxidation, but also the types of oxidation reactions that take place in pool water. The facility also switched from liquid chlorine to calcium hypochlorite.

RESULTS: After the ECS system was installed, the pool's water balance was optimized to achieve a Ryznar Index of 6.5. The formation of volatile chloramines is prevented by the optimized and controlled rate of oxidation of all organic nitrogen compounds that enter the pool and serves as the basis of the ECS technology. After seven days of operation, and after years of never experiencing continued chloramine-free air, the pool odor problems were eliminated. Combined chlorine levels in the dehumidification system's condensate were also undetectable.

The Horsehead School District was the first to install an ECS system in New York State. "We have not had a single complaint after putting in the new ECS system," said Pollard. "Our pool water is extremely clear and there are no chloramine odors."

**FOR MORE
INFORMATION:**

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