

Environmental Control at Indoor Pool Complex:

## New ECS System Optimizes Air & Water Quality at Colorado Recreation Center.

**CUSTOMER:** PARKER RECREATION CENTER, PARKER, COLORADO

**EQUIPMENT:** USFILTER'S STRANCO PRODUCTS ECS SYSTEM

**INSTALLED:** NOVEMBER 1998

**BACKGROUND:** Since opening in 1994, Parker Recreation Center in Parker, Colorado, struggled to maintain balanced water chemistry in its indoor 188,000-gallon main pool and adjacent 14,000-gallon splash pool. Undesirable chlorine byproducts caused foul-smelling air and irritated eyes, skin and sinuses. Additionally, the high level of chloramines in the air corroded the facility's air handling system and general hardware and equipment. According to former Aquatics Coordinator Barb Kloberdanz, the dehumidification system's condensate was displaying combined chlorine levels of 0.6 to 0.8 ppm. "Only a year and a half after startup, the fans and coils in the ventilation and heating system showed visual signs of corrosion," said Kloberdanz. Lowering (1+ ppm) combined chlorine levels proved difficult, and the problem was compounded by the facility's high fluctuation in bather load.

Center management aggressively tackled the problem by initiating a superchlorination program that shocked the pool water up to two times a month. In addition, an ozone system was implemented in an attempt to alleviate the combined chlorine in the facility's air. During this time, the air handling system at Parker Recreation was operated at 100 percent fresh air exchange as much as possible and air circulation devices were blown across the top of the pool. Despite these efforts, combined chlorine levels continued to run high and air quality at the center remained poor. "We were preparing to invest in larger air handling equipment when a possible solution was brought to our attention," said Kloberdanz. On the advice of the pool's contractor, the center decided to try a process control system designed to provide precise control for pool water chemistry and air quality in indoor aquatic facilities.

**ACTION STEPS:** The Parker Recreation Center installed USFilter's Stranco Products Strantrol® ECS (Environmental Control System™). The state-of-the-art process control system controls not only the rate of oxidation, but also the types of oxidation reactions that take place in pool water.

**RESULTS:** At startup of the ECS, the water balance was optimized to achieve a Ryznar Index of 6.5. Within seven days of operating the new system, Parker Recreation's pool air quality problems were eliminated. The ECS technology provides for a sustained Air Quality rating of 100 percent. Now, combined chlorine levels in the dehumidification system's condensate are undetectable, resulting in prolonged equipment life and less maintenance caused by corrosion of pool and facility hardware.

"Guests and instructors have complimented us on both the water and air quality," said Kloberdanz. "Complaints of skin rashes, eye burn and sinus irritation are now a thing of the past." The recreation department has also found cost savings in terms of chemical consumption. With the ECS, a reduction in the amount of chemicals needed to maintain optimum water and air quality resulted in the system paying for itself in approximately one year.

**FOR MORE  
INFORMATION:**

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