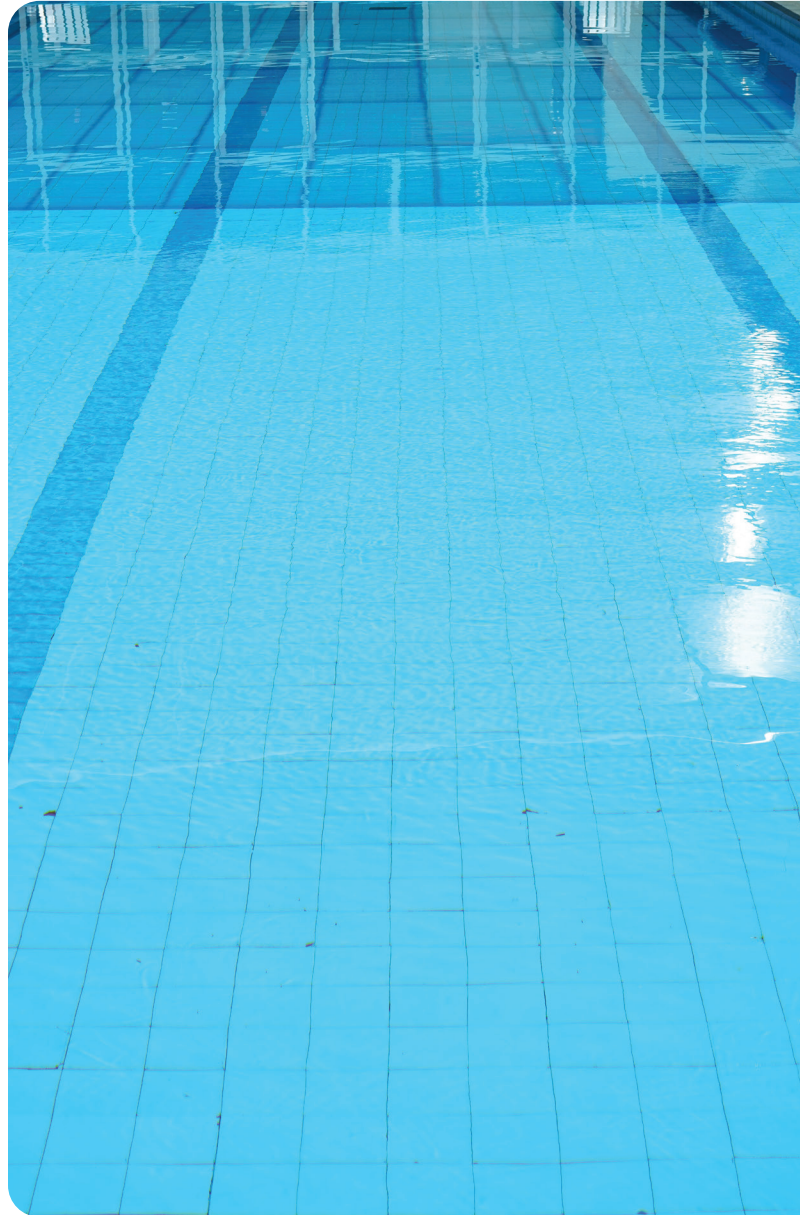# Peace of mind.
# Guaranteed.

Continuous monitoring of chlorine and ozone for indoor swimming pools in recreation facilties or hotels.

Indoor swimming pools provide exercise and recreational fun for all ages. In addition to complying with indoor air quality regulations, being able to detect a leak early can reduce costs that could be incurred from escaping gas and excess energy use.

Many facilities use Chlorine and Ozone to keep the water clean and sparkly. Chlorine is a common disinfectant used for water treatment programs and ozone offers excellent disinfection and oxidation properties. Ozone helps prevent the accumulation of deposits on pipes and increases the comfort of patrons by reducing red eyes, swimsuit fading and other chlorine-related issues. To help ensure the health and safety of patrons and facility maintenance workers, it is important to have a continuous gas detection system to monitor for leaks in the Chlorine feed and storage room and the Ozone generator room. If a leak is detected, you want the peace of mind that comes with a properly installed gas detection system.

Using Critical Environment Technologies' FCS Multi Channel System Controller with an CGAS-D transmitter with a chlorine sensor and another CGAS-D transmitter with an ozone sensor will provide the coverage required.

Facilities that use ozone and chlorine as part of their disinfection program, require the Chlorine feed room and the Ozone generator room to be monitored for potential gas leaks. This is best accomplished by using a four channel FCS Controller mounted outside one of the doors with CGAS-D gas detector with the appropriate sensor type inside each room plus an RDM mounted outside any other room door beside the inspection window so both the FCS Controller and the RDM Remote Display Module can provide a visual confirmation of the gas level readings prior to entering the rooms.

The CGAS-D-CL2 transmitter should be mounted inside the Chlorine gas feed and storage room, close to the area of a potential leak to provide continuous monitoring. Chlorine is heavier than air and tends to collect in low-lying areas, so the CGAS-D-CL2 transmitter should be mounted 6 inches above the floor.



The CGAS-D-O3 transmitter should be mounted inside the Ozone generator room, beside the equipment and between the generator and the destructor. Pure Ozone is slightly heavier than air but does not necessarily settle to the floor. If additional reaction tanks or destructors are more than 16 ft (5m) away from the existing sensor, an additional sensor may be required.

The FCS Controller has a resistive touch display, audible alarm and 4 relays, comes pre-programmed and is field adjustable. Configurable settings include relay assignment, time delays, logic control, sensor types and ranges, alarm set points, etc.. If there is a Chlorine leak, the FCS will alarm and trigger relays to shut down the ventilation system until it is safe to exhaust the gas from the contaminated area or activate the ventilation system, depending on local regulation codes. If there is an Ozone leak, the FCS can be configured to trigger relays to activate the emergency air exhaust fans. The same gas detection system is available with optional analog inputs and CGAS-A transmitters. Either system can be configured with an optional AO module that offers four 4-20 mA outputs. The FCS is available with BACnet® or Modbus® output to a building automation system.

A remote visual alarm device such as the Remote Strobe (RSA-24V) should be mounted on the ceiling or wall inside the pool area to provide an additional visual alert in the event of a leak inside either room.

During routine maintenance when workers change the Chlorine cylinders, the potential for a leak is increased. It is recommended that a portable gas monitor with a Chlorine sensor be used as an additional health and safety choice.

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