Critical Environment Technologies™

QCC + LPT-A H2S, O2, CL2 & CXT CH4 MONITORING SYSTEM

Waste Water Treatment Plant Applications

Peace of mind. Guaranteed.

Continuous monitoring of common hazardous gases found in waste water treatment plants.

A waste water treatment facility is a wet maze of rooms, pipes, pumps, wells, chambers, concrete tanks and settling basins. Each treatment stage the waste water goes through involves hazardous gases that may already be present, are produced, or are added to complete the process.

The most common gases found in this type of facility are hydrogen sulphide, methane, ammonia, carbon monoxide, chlorine and oxygen deficiency. Some facilities might also use ozone, chlorine dioxide or sodium hypochlorite with the chlorine during the sanitization process and sulphur dioxide is often used at the end to de-chlorinate the water.

To ensure the safety of the workers, equipment and facility, every area presenting a gas hazard should be monitored, including the gas storage rooms, ozone generator room and any room that gas passes through. In the larger, open areas, a fixed gas detection system is suitable; in confined spaces that operators enter and where gas may be present, portable gas detectors are more appropriate.

Critical Environment Technologies Canada Inc. (CETCI)'s **QCC** Quad Channel Controller with four LPT-A transmitters are an ideal fixed gas detection system for this type of application.

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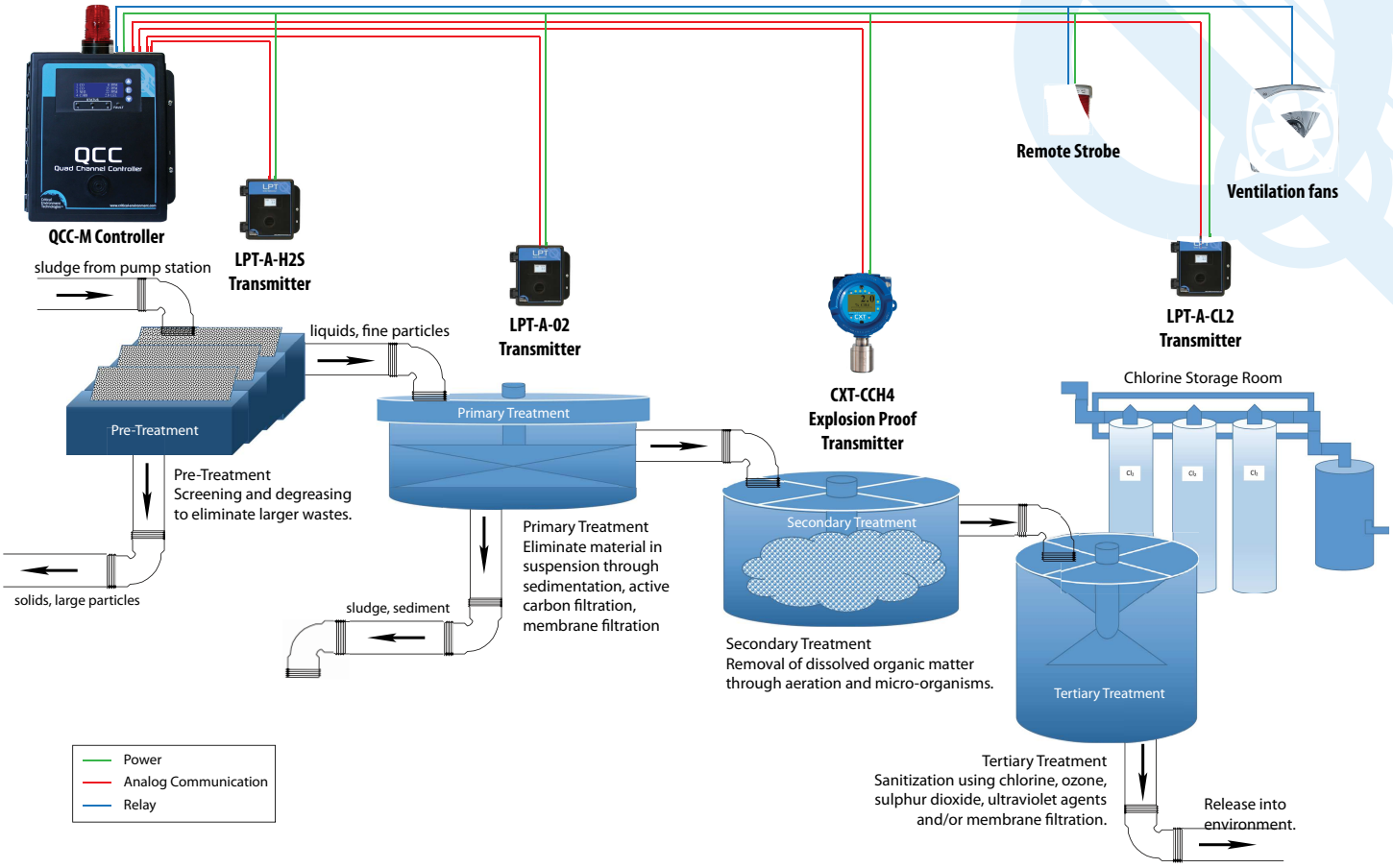
Waste Water Treatment Plant Applications

Typical Waste Water Treatment Plant Monitoring System



The treatment of waste water involves a combination of physical, chemical and biological processes that create several toxic and combustible gases. Some areas are enclosed spaces where gases can build up and deplete oxygen levels. In these areas, workers should be equipped with personal gas monitors to ensure the air is safe to breathe. Other areas are open and a fixed gas detection system is appropriate because it will provide continuous monitoring of the gases to ensure the area is safe.

The QCC Quad Channel Controller offers a continuous gas monitoring solution with four gas channels, three programmable relays, a door mounted audible alarm and a standard ModBUS® RS-485 or optional BACnet RS-485 output signal for communication with a building automation system. The four gas channels can be configured with any combination of analog or digital transmitters with the same or different gas sensors. For applications that require more than four gas sensors, multiple QCC controllers can be networked together, each providing another four gas channels and three relays. The QCC should be located in a central area where it is easily accessible. If required, a QCC Remote Display can be connected and offer the ability to view the gas level readings in a separate location from the controller and transmitters.

In this application example, four analog transmitters are monitoring gases along different stages of the waste water treatment process. Each transmitter is connected to the QCC and sends a signal back to the QCC which in turn displays the gas reading levels for each transmitter. When gas levels exceed the setpoint, the alarm on the QCC will be triggered and the relays will actuate equipment such as a remote strobe or horn, ventilation fans, etc.

Other value added, optional features for the QCC include an Analog Output Module with a data logger, a top mount strobe, manual equipment ON/OFF switch and a Remote Module Display.

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