



Monthly Topic: Gas Detection for Wastewater Treatment Plants

- Wastewater treatment (also called sewage treatment) facilities take disturbed or unhealthy water and make it environmentally safe. This water which can contain chemicals, oils and human waste, endures a process of cleansing which consists of chemicals and toxins that can become a potential threat to personnel at the facility or the facility itself.
- Toxic and combustible gases are one of the largest threats that come from the water treatment process. Throughout these facilities you will find enclosed spaces where these gases may settle. Constant monitoring of gases has become one of the main safety protocols in these facilities.
- The three main gases that will be found in these plants are combustible gases (methane, propane, etc.), carbon monoxide and hydrogen sulfide. There are many other gases that are found in these plants that have the potential to be hazardous. Please check with the AHJ on what is recommended for you to monitor for at your specific location.



Types of Gases Found	Areas where Gases May be Found
• Combustible Gases (methane, propane, etc.)	• Engine rooms
• Carbon Monoxide	• Confined Spaces
• Hydrogen Sulfide	• Water Treatment Processes
• Chlorine	• Collection Tanks
• Sulfur Dioxide	• Distribution Area
• And Many More	• And Many More

- There are many different types of detectors found in these facilities. Class 1 Division 1 (Explosion Proof) detectors are the most common. Links below will take you to the data sheets for optional explosion proof units. These fixed-point systems have the ability to detect gases 24/7 and report as necessary. Within the framework of a fixed system, you can tie in a control panel, BAS or even use them stand alone.
- Another common type of detector found in these facilities are portable monitors. Portable monitors are considered PPD's (personal protection devices). The monitors are designed to give a real-time alarm when someone is in bad air or in danger of breathing in something toxic which can become fatal. A monitor like the MG-1 (linked below) detects several different gases at one time and has the ability for data/event logging. This data/event logging feature will give the personnel the ability to keep up to date if an area of the facility is deemed hazardous at certain points of operation.

Macurco Gas Detectors	Gas in the News	Learn More
• 5100-XX-IT	• Wastewater Gases	• Breakdown of a Plant
• 5100-02-IT	• CO from a Generator	• Hydrogen Sulfide - OSHA
• MG-1	• Natural Gas in Iowa	• Wastewater per NFPA
• GS-1	• Death at Plant	• Macurco Brochure

Visit our website: www.macurco.com
 Questions or Comments? Email info@aerionicsinc.com or Call 877-367-7891
 Aerionics Inc. 3601 N. St Paul Ave Sioux Falls, SD 57104