

Oil refineries, petrochemical plants, LPG plants, offshore platforms and chemical plants all utilize or produce a wide range of hazardous gases including combustible gases and toxic gases. In addition, the processes could produce non-toxic gases which, when accumulated in confined spaces, could deplete the oxygen in the room causing a hazardous oxygen deficient condition dangerous to individuals entering the area without proper protection.

Where the hazardous conditions are the greatest, it is necessary to have a plant-wide monitoring system that can constantly monitor the conditions even if humans are not presently in the area. Personal gas monitors cannot detect build-up of combustible gases in a non-occupied area that could cause a hazard to the facility. Depletion of oxygen would be hazardous to individuals entering the unoccupied area, and even small amounts of toxic gases can cause serious injury or death to workers entering an unoccupied area.

The **Sentry Gas Detection System** is designed for monitoring these hazardous conditions and providing the necessary information efficiently and in a comprehensive manner so that operators can quickly make decisions to protect the plant and personnel. Sentry's unique data communications capabilities enable Sierra Monitor to provide the important hazardous gas information effectively and efficiently to operators who need to make the decisions to protect the plant and the personnel.

The **IT Series gas sensor modules** provide the power operators demand to accurately monitor for hazardous gas conditions yet easily interface to plant-wide controls via 4-20 mA output, relay output, Modbus RTU RS-485 interface, or the full-function easy-to-understand digital display/menu. In addition, through the use of Sierra Monitor's FieldServer gateway the IT Series (and the Sentry System) are easily interfaced to common process control system protocols.



The Sierra Monitor **Model 4400 In-Stream Hydrogen Sulfide Analyzer** is an easy-to-use, low-cost to operate, in-stream monitor for detection of low levels of Hydrogen Sulfide in a Methane gas stream. Such monitoring is important at transfer stations.

The Sierra Monitor **Industrial Flame Detector** is designed to detect the flames generated by the various combustible gases found in chemical and petrochemical plants, not only those flames from hydrocarbon based gases, but also from non-hydrocarbon gases such as Hydrogen or Silane.

The **FieldServer Gateway** provides the interface necessary for safety devices, process equipment and facility controls so that these various individual systems and devices can communicate to the distributed control systems found in such plants operating on DH+, Profibus, Modbus, ControlNet or EtherNet/IP.

