

Pharmaceutical plants utilize various toxic gases in the production of their product. Ethylene Oxide is used in sterilization of various pieces of equipment in the industry. 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 so it is necessary to utilize fixed gas detection systems in addition to personal safety monitors. Build up of combustible gases could cause a hazard to the facility in an unoccupied area. 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.



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** are ideal for this industry with their remote mounting capabilities allowing the sensor element to be located in the best area for monitoring the hazardous gas and the display/transmitter in the best location to read the display and perform calibration.

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 Pharmaceutical plants operating on DH+, Profibus, Modbus, ControlNet or EtherNet/IP. Of particular importance in this industry are validation requirements for Building Automation Systems. The U.S. Food and Drug Administration requires documented assessments of all systems serving the pharmaceutical, bio-tech and medical device facility spaces. Thus it is necessary to enable the process control operation of the plant to access data from the building automation and fire safety systems in the facility. The FieldServer Gateway provides the solution to this need, with its ability to provide the interoperability functions needed between building automation and fire alarm panel protocols and process control protocols.