APPLICATIONS

Battery Rooms

The Customer

This company is a leading global information services provider, meeting worldwide needs in the financial, education and business information markets. The company operates a high tech data center that houses all its computer systems and a battery backup system that is used to protect their computers in the event of power interruption or failure.

The Process

The back up power system consists of batteries and battery chargers stored on racks in three large rooms. The battery chargers recharge the batteries whenever their voltage drops, and prevent overcharging when the batteries are fully charged. The instant a power interruption or failure occurs, the battery backup system takes over with no interruption in their computer operations.

The Problem

During the charging process small quantities of hydrogen gas are released from the batteries. The amount of gas is typically minimal and not usually a problem. However, if the battery charger fails and the batteries are overcharged, large amounts of hydrogen gas can be produced. This can result in a fire or explosive hazard. Since no one is continuously present in the battery charging rooms, the need to have a monitoring system to warn of high gas levels is imperative.

The Solution

The customer chose a SmartMaxII catalytic diffusion system to monitor the battery rooms for hydrogen in the 0-100% LFL range. They chose this system for a number of reasons. First, the customer felt confident with Control Instruments experience (over twenty years) in designing and manufacturing hydrogen monitoring systems for battery room applications. In addition, each SmartMaxII can continuously monitor the readings from four independent sensors. Sharing the SmartMaxII with more than one sensor dramatically lowers the cost of the gas detection system—there's less equipment to buy, install and maintain.

The SmartMaxII includes three internal alarm relays that can be used to activate external horns and lights. The catalytic sensors are an economical and highly effective way to monitor for hydrogen, and will provide the customer with many years of reliable service.

Sensor Placement

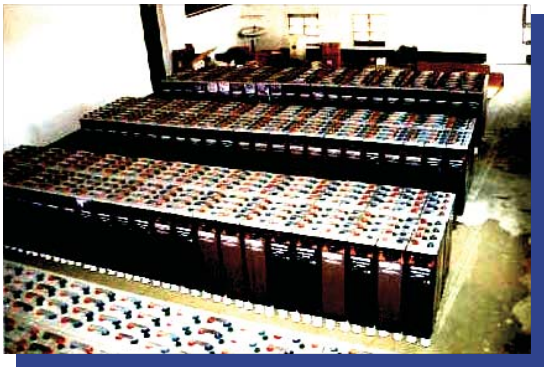
Four sensors are mounted on the ceiling in each battery room because hydrogen gas is lighter than air and will rise to the top of the room when present. A SmartMaxII control monitor is located on the wall outside each room.

Industry

Battery backup storage rooms are found in many industries that use computers to run their operations and /or store their data.

Some industries include:

- Telecommunications/Computing
- Utilities
- Financial Services
- Publishing
- Transportation Services
- Automotive



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