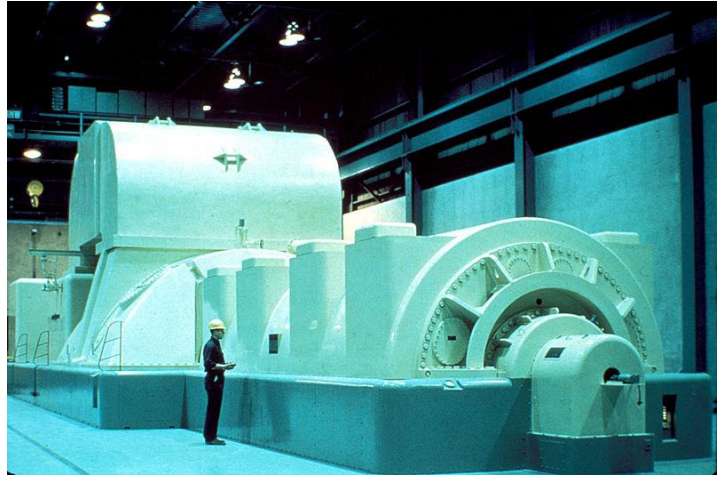


Fixed Gas Monitoring For Power Station Generator Rooms

Overview :

All Generators in power stations over 200mW are filled with hydrogen to improve the efficiency. The Hydrogen reduces friction losses by lowering the drag of the rotor inside the generator. An additional benefit is that hydrogen has an extremely good thermal conductivity which assists in the cooling of the alternator.

After a shutdown due to maintenance or when the generator is new the Hydrogen is re-filled and during normal operation when Hydrogen is topped up, there is an explosion risk. It is therefore important for any leaks to be detected early.



Source NRC

New European legislation has reclassified Power station generator rooms as Zone 2 areas and thus operators are required to follow procedures to alleviate any explosion risk

Solution :

The Riken Keiki SD-1 detector head with built-in display and signal converter is a state-of-the-art hazardous area gas detection transmitter for ppm and %LEL combustible vapours. The IECEx ATEX certified flameproof enclosure is even suitable for Hydrogen environments making it ideal for use in a fixed detection system in power station generator halls. It can detect hydrogen at ppm levels giving plenty of warning of a leak.

Key Features :

- ATEX / IECEx approval
- Flameproof enclosure (Exd II CT5) suitable for Hydrogen
- IEC EN 60079-29-1 by TIIS Japan
- Small, rugged, dust and weather proof construction
- IP65/67 ingress protection
- Signal Converter 4-20mA linear output
- Relay Output (configurable)
- Diffusion sampling type (standard)
- Sample drawing using aspirator adaptor.
- Energy efficient; electrical power saving (Max. 3W)
- 7 segments LED (4 digits)
- Self diagnosis by microprocessor
- One man calibration
- Magnetic key used for hazardous area maintenance

