Pollution Monitors

Intelligence for Tomorrow

Natural Gas and Carbon Monoxide Monitoring for Boilers

Most modern industrial and commercial buildings use Natural Gas as fuel to drive the boilers within the plant room. The boiler room is usually a confined but ventilated space, containing gas piping and associated gas burning equipment. To connect all the equipment many fittings and joints are used, which will present a small but potential risk of leakage. BS 6644: 2005, Specification for the Installation of Gas-fired Hot Water Boilers of Rated Inputs between 70 kW and 1.8 MW, outlines the strict requirements and must be complied with for such boiler installations.

FEATURES AVAILABLE

- Catalytic gas sensors to detect explosive atmospheres as % LEL
- Infra Red gas sensors to detect Natural Gas (Methane) only as % LEL
- Electrochemical cell sensors to detect Carbon Monoxide at ppm levels
- Multi channel control panels to interface with various gas type sensors
- Audible, visual alarms
- Sequential sampling systems
- Wireless communication for text messaging alarms/faults ideal for unmanned sites
- Add refrigerant gas sensors to the multi-channel control panel to centralise gas detection on site

FACILITIES AVAILABLE

- Design
- Manufacture
- Installation
- Delivery
- Commissioning
- Demonstration
- Training
- Servicing

Whilst there is no legislation that compels the use of gas detection systems in boiler rooms, it is generally considered good working practice. You should assess the risk of leakage along the complete length of pipe work, which may include the gas valve, fittings around the boiler(s). The Health and Safety Executive (HSE) has produced guidelines under its safety report assessment www.hse.gov.uk/comah/sragtech/techmeascontsyst.htm and the gas industry in general does indicate that where a risk is identified that may create a hazard, control measures should be introduced to either alleviate or reduce the risk.

Under the Health and Safety at Work Act you as the employer must take responsibility to *"assess the risks to Health and Safety of your employees"* and it further states that you must also *"take precautions against danger from flammable, explosive and potentially dangerous hazards"*.

Where no natural ventilation is present in the Boiler Room your risk assessment should also consider the potential of incomplete combustion creating Carbon Monoxide build up in the area and the use of fixed continuous gas detection as part of your safety measures.

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Underground Car Park Gas Detection

Where natural or forced ventilation is not possible or practical, a Carbon Monoxide gas detection system is an essential part of the project design to monitor build up of vehicle fumes (carbon monoxide). Without fitting gas detection the site operator may be forced to run extraction fans permanently. Zoned carbon monoxide sensors around the Car Park can pin point areas of build up allowing only the fan in the affected area to operate. This control measure reduces energy costs, reduces the Carbon Footprint and Climate Change Levy.

We can supply dedicated sensors on a range of pillars throughout the car park, or run sample line tubing to each area and draw a sample of the air to a single cabinet containing a sensor. The sampling system would sequence every few minutes and latch on the area causing concern. Volt free contacts can be provided for different stages of alarm for interface with the site control system.

FEATURES AVAILABLE

- Dedicated sensor system
- Sequential sampling system
- Audible, visual alarms
- Three stage alarms and fault outputs
- Addressable systems for reduced installation costs

FACILITIES AVAILABLE

- Design
- Manufacture
- Project Management
- Installation
- Commissioning
- Demonstration
- Training
- Servicing

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