SENSING EXCELLENCE

Multisensor

CASE STUDY

Spill Detection System at Engine Manufacturing Plant

Application Dossier: No. VII

Application

Spill Detection System at Engine Manufacturing Plant

Product

MS1000, upgraded to MS1100, 4-20 mA output + modification that allows air to be drawn from the drain as sampling of water was not possible.

MS1200
Oil in Water Monitor

Application

Monitoring drains to detect spillages that lead to pollution, fines and loss of reputation.

Customer

Engine manufacturer, UK.

Problem

During an engine's testing phase, spillages of diesel and other harmful substances can happen. After previous pollution events the company decided to implement a detection system to prevent this from happening.

Product

MS1000, upgraded to MS1100, 4-20 mA output + modification that allows air to be drawn from the drain as sampling of water was not possible.

Installation Facts

The system was installed after a heavy fine was issued for breaching emission limits. The system draws air into the analyser from the drain with a fan.

The instrument is used to drive an audible alarm and warning light as well as implementing an automatic fuel shut off in the event of a leak being detected.

A picture of the unit installed in the manufacturing plant.

Did you know?

Leaks are a significant source of VOC emissions in engine testing facilities, arising from the handling and storage of fuels, oils, and other volatile substances. Fuel systems, including storage tanks, pipelines, hoses and connectors, can develop small cracks or loose fittings, allowing VOCs to escape into the atmosphere and drains. During engine testing, dynamic conditions such as pressure changes and vibrations can exacerbate these leaks, increasing the likelihood of emissions. Even minor leaks can cumulatively release substantial amounts of VOCs over time, contributing air quality issues, posing risks to workers, and damage to the environment.

A photo of the testing site.

In addition to fuel system leaks, lubricants and solvents used in testing facilities can also emit VOCs when improperly stored or handled. Open containers, poorly sealed drums, and outdated equipment may allow volatile chemicals to evaporate, especially in high-temperature environments.

Another photo of the testing site.

Preventing and mitigating leaks requires a proactive approach, such as regular equipment maintenance, the use of leak-detection technologies and adherence to proper storage and handling practices.

Monitoring and addressing leaks are essential activities not only for regulatory compliance but also for maintaining a safe working environment and reducing the environmental footprint of the facility.

Why Multisensor?

The customer had implemented an alternative system which proved ineffective after high costs of installation. Multisensor was able to use the existing infrastructure and work closely with the customer to produce a reliable implementation.

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For more information

Visit: www.multisensor.co.uk
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Front Image Credit: BUICK REGAL, 2011 BUICK REGAL - Plant assembly line (stock image not the actual site)

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Multisensor Systems is a developer and supplier of Water and Gas Analysers specialising in oil in water and hydrocarbon analysers, oil in water detectors, VOC monitors and THM analysers based in the United Kingdom.

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