



## Press Release

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### **JOINT INDUSTRY PROJECT TO INVESTIGATE THE POTENTIAL BENEFITS OF CLAMP-ON FLOWMETERS IN THE OIL AND GAS INDUSTRY**

**Clamp-on flowmeters are to be independently evaluated by TUV NEL in a joint industry project (JIP) funded by major companies in the oil and gas sector.**

The use of non-invasive flow metering (NIFM) techniques potentially offers significant benefits to the oil and gas industry, but there is currently little data available to confirm the claims of accuracy and suitability being made by meter manufacturers. The TUV NEL led JIP will address this and companies are being encouraged to become partners in the project.

"A wide range of non-invasive flow metering technology is being applied in many industry sectors but so far there has been very little done in terms of independent comparison of the different meters and technologies," states TUV NEL's Business Development Manager, Jim Holt.

"TUV NEL has an international reputation in flow meter calibration and testing, which stretches back over many years and our facility in East Kilbride is one of the few places where such a wide range of meters can be fully tested under various operational conditions."

The potential benefits of non-invasive meters are well known. The primary benefit is that production is not interrupted. Other benefits include no contact with hostile fluids, no moving parts to wear or break, no fluid leakage or process contamination and no pressure drop or energy loss. In addition there are operational benefits such as the ability to cope with change of use of plant or pipeline and ease of removal for maintenance, recalibration or replacement.

"This list makes a strong argument in favour of the application of non-invasive meters in the oil and gas industry," continues Jim Holt, "especially at a time when many operators are looking at new applications for their existing assets. However, meter accuracy is vitally important for allocation and fiscal reporting and so far there is little or no independent confirmation that the growing range of meters and technologies available meet the required standards. This is what the new JIP will primarily test."

There are six key technologies being applied in NIFM that the JIP will examine:

- Ultrasonic
- Sonar
- Nucleonic
- Acoustic emission (AE)
- Pulse-echo
- Tomography

TUV NEL will test and compare a variety of different non-invasive flow meters from 18 different manufacturers. The meters will be applied to the flows they are designed for including, liquids, gases, two-phase flows and multiphase flows.

ConocoPhillips was one of the first partners to sign up to the JIP. Gordon Stobie, supervisor of Flow Measurement Engineering within ConocoPhillips's Production Technology Group, comments:

"We believe that this new technology will prove very valuable to major operators such as ourselves as more marginal fields come on stream and primary assets mature as we can ensure accurate flow measurement without the need for costly intervention.

"The TUV NEL JIP is a very important part of ensuring that the benefits of non-invasive flow metering are realised by the industry."

In addition to testing meter performance and accuracy, the JIP will investigate the influence of system effects such as bends and straight pipe lengths, installation effects and the usefulness of fluid property data provided by some of non-invasive flow meters.

The JIP will also look at the potential of combining different meters and technologies to enhance performance.

"The JIP will build on previous studies on specific NIFM technologies carried out by TUV NEL in the past few years," explains Jim Holt.

“With the wide range of benefits offered by non-invasive flow monitoring techniques in terms of reliability, cost and operation, we are sure that they will become commonplace in the oil and gas sector, but to do this the manufacturer claims have to first be independently tested and verified.”

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