

US Introduces New Mandatory Measurement and Reporting of Greenhouse Gases

Tough new EPA rules mean vehicle and engine manufacturers will be required to measure and report CH₄ and N₂O emissions from model year 2011.

In April 2009 the US EPA proposed a new mandatory greenhouse gas reporting program. Although the sheer volume of CO₂ in the atmosphere means that it is by far the biggest contributor to the greenhouse effect, there are other gases that also have a measurable impact. As an example CH₄ is up 148% on pre-industrial emissions to the year 2005 and N₂O up by 18%. Factoring in the relative heat trapping capability and atmospheric lifetime of these gases means that CH₄ actually has 21 times the greenhouse effect of CO₂. With this regulation the EPA is looking to improve the accuracy of the greenhouse gas emissions inventory submitted annually to United Nations, intending to balance maximizing the accuracy of the reporting whilst excluding small emitters to minimize any unacceptable financial burden.

The major change this proposed legislation will bring is that all types of vehicle and engine manufacturer will be expected to directly measure and report CH₄, separate to any current total or non-methane hydrocarbon requirements. In addition, all except aircraft engines will be required to directly measure and report N₂O. The only exclusion is C3 marine diesel engines whose emissions monitoring requirements remain largely unchanged.

Methane is already a recognized pollutant with standard methodology agreed for its measurement. N₂O, however, is new to emissions regulations and as yet no standards have been agreed for reference method analysis. There is a new draft ISO standard to cover N₂O, ISO/DIS 21258 and Signal have updated the already very successful Model 7000FM NDIR analyser to meet these specifications.

The broad intention of these regulations is to add CO₂, CH₄ and N₂O to facilities already measuring other pollutants. Many manufacturers of emissions monitoring equipment supply standard packages and so to add these gases will mean a whole new system. Signal work in a different way, manufacturing components to be integrated into bespoke systems or added as cost effective bolt-ons to existing emissions equipment. To

Signal Group Ltd.

Press Information September 2009 – for immediate release

respond to this new requirement they have released a new updated Model 7000FM
Analyser for N₂O featuring a lowest range of 0-10ppm and just 0.01ppm noise.

Signal Group is the largest UK manufacturer of source emissions test equipment. It provides a wide range of gas analysers, systems and sample handling components for every kind of industry and application. Further information is available at www.signal-group.com

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Words: 409