

Below you will find an e-mail I sent to Dr Peter Walsh, a colleague of mine who sits on BSI Committee GEL/31/19. As the representative of the Health and Safety Executive on this Committee, Peter has a prime responsibility within the HSE to research the availability of gas detection instruments for use by the Factory Inspectorate to measure the hazards of toxic and flammable gases found in industry - below my e-mail you see his reply:

“About 3 months ago JMS Consultants changed its stance with respect to the LEL of flammable gases and I started advocating / teaching the 'new' - actually 11 years old - LEL figures, as published in the normative Annex A of BS EN61779 ..... and of course, the figure most at the forefront of the gas detection industry is the changed values for methane of 4.4% vol - LEL and 17% vol - UEL

This is not new information as it was first published by Germany and accepted at the TC31 meeting held in Durban in October 1995 - however such changes take time and industry in general ignored it!

In the last year or so, a few of my clients have been mentioning the changed figure; RWE Innogy and Pfizer have adopted the change, in addition Draeger are now calibrating returned instruments to the new figure

The action that triggered my acceptance of the new figures was when BS EN 61779 was published in the 'OJ' (The Official Journal of the European Communities), as in my mind this action is Europe's formal mechanism of acceptance - the Standard attained 'street-cred.'

The change from 5% vol. to 4.4% vol. as the LEL of methane represents a 12% increase in sensitivity of the detector and I just 'have a feeling in my water' that with this realisation and the 'duty of care' that industry is now seen to be adopting to it's workforce, what manager would knowingly send his gas tester into the workplace with a product, having a safety monitoring function, that he knows is under-sensitive - with all the ramifications that would follow if an incident occurred and subsequently came to Court

The only aspect of the change I don't like is the appearance of a decimal point, particularly when interpolating the LEL range to say, 20% LEL = 0.88% vol. Such inferred accuracy is wholly out of place in safety related gas detection

I would welcome your views

Brgds

John M. Sonley – Chairman, BSI Committee GEL/31/19 – Gas Detectors  
Chairman, CENELEC Committees SC31-9 and TC216

John

4.4% methane. Timely! I've just sent out a note (last week) to HSE Specialists asking for comments on 4.4% as a few people have been asking me about it. Again my (as yet unofficial) view is that the weight of Standards referring to 4.4% and the OJ reference, as you mention, means that 4.4% and 17% are here to stay and it's goodbye to 5/15%. There is also a new -ish Standard BS EN 1839 on Determination of LEL/UEL of gases, which in its Validation Section, quotes 4.4%, so all test apparatus has to be calibrated/adjusted by reference to this new figure. The Standard also supports the essential requirements of EU Directives, including ATEX. - I'll keep you posted.

All the best

Peter

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