Miller, Diane M. (CDC/NIOSH/EID)

From: Geoff Hewitt [geoff.hewitt@ionscience-americas.com]
Sent: Sunday, December 19, 2010 12:07 PM
To: NIOSH Docket Office (CDC)
Subject: NIOSH comments
Attachments: nioshdocket.doc

Please find attached comments related to this project.

Thank you.

Geoff Hewitt

President

ION Science (Americas)

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nioshdocket@cdc.gov
Subject: 220 - Components for Evaluation of Direct-Reading Monitors for Gases and Vapors and Addendum

Dear Sir,

I am an active member of the AIHA Gas and Vapor Detection Committee and have been involved in the industry for 30+ years.

I would like to comment on your draft document reference NIOSH 220, 'Components for Evaluation of Direct-Reading Monitors for Gases and Vapors ' in response to your website inviting public content through December 20th.

In general I interpret this document's purpose as to provide a template for the evaluation of units for the first responder/hazmat community.

The way this document reads to me is the manufacturer decides what compounds to test and what data to present.

Step one should be to come up with a list of critical chemicals and evaluate units' capabilities against that list, qualitatively and quantitatively. Otherwise the evaluation of units will continue to be a "beauty contest".

As an example of what I mean, a FEMA report from 2004 which evaluated units for DHS, "Multi-Sensor Meter Chemical Detectors Assessment Report", rated highest a unit that its manufacturer's technical data clearly states does not respond to Mustard, Tabun, MDI and a number of other critical chemicals. Another unit, with independently documented response to those compounds at the ppb level, was rated last because of ease of use limitations and cost. A review of that document will find no comment on any unit's qualitative or quantitative response to any critical chemicals or to a cost differentiation between ppm and ppb units.

I would like to see a process whereby NIOSH establishes a framework which first evaluates detection capability within a class of units, rates the units accordingly, then only goes on to the rest of the process on those that pass step one.

Secondly, the impact of atmospheric conditions such as humidity, significantly affect individual units' response. Again, if we go back to report I referenced above, the preferred unit has by far the greatest loss of signal at high humidity while the one rated last gives the truest response all the way up to 99% RH.

Third, marketers of the some of the units in question are not afraid to muddy the waters by seemingly confusing resolution with detection limits. A unit with ppb resolution but a detection limit of about 2 ppm cannot be considered a ppb unit!

I believe that NIOSH has a key role to play in protecting the first responder community as well as the public at large. That responsibility should be played out by ensuring that any evaluation process selects the best available technology.

If appropriate, I would be prepared to help with the development process.

Regards,

Geoff Hewitt