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From: Johnson, Tim [tjohnson@tsi.com]
Sent: Saturday, January 31, 2009 2:03 PM
To: NIOSH Docket Office (CDC)
Subject: 008-A - Powered Air-Purifying Respirator (PAPR) Discussion Topics
Attachments: Docket008A-TSI_Comment.pdf

Attached is my comment on the Docket number 008-A - Powered Air-Purifying Respirator.

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January 31, 2009

NIOSH Docket Office
Robert A. Taft Laboratories M/S: C-34
Reference: Docket 008 A - Powered Air-Purifying Respirators
4676 Columbia Parkway
Cincinnati, Ohio 45226

The following is my comment submitted to Docket 008 A – Powered Air-Purifying Respirators

The last public version of this proposal was the December 17, 2008 Concept Paper. We would like to request that NIOSH posts an updated proposal. In order to have equipment available that best meets the requirements of this proposed standard we need to have the most updated version of the standard available to work from. The instrument, TSI model 3120, that TSI delivered to NIOSH several years ago for testing PAPR filters was a prototype. TSI has been waiting for updated information before we finalize the design of the filter tester for testing Powered Air-Purifying Respirator filters.

Of particular concern are the flow rate requirements. The model 3120 filter tester has a maximum flow rate of 500 liters per minute. This flow rate was specified by NIOSH when that tester was ordered. The current draft lists a maximum flow of 235 liters per minute.

Filter testing equipment performs best when it is optimized for the highest required flow rate and doesn't require significant changes in settings to accommodate other flow rates. Having filter test equipment designed for the needed flow rate, and not a higher flow rate that may be needed in the future, will improve the repeatability and reproducibility of the test results and result in a more robust test.

The maximum flow rate also influences the choice of pumps which in turn affects the noise level of the test system. Pump noise was a concern expressed by Gary Walbert in a presentation at the NIOSH public meeting on December 2, 2008. A smaller pump, for lower maximum flow rates, will lower the noise level of the filter testing system.

Best Regards,

A handwritten signature in black ink that reads "Tim Johnson". The signature is written in a cursive, flowing style.

Tim Johnson
Technical Support Services – Filter Tester products
TSI Incorporated