

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

From: Jesse Wells [WELLJ@novachem.com]

Sent: Tuesday, January 06, 2009 9:38 AM

To: NIOSH Docket Office (CDC)

Subject: 148 - Development Plan for Air-Fed Suit Respirator Performance Requirements

A note concerning my background:

I served 26 Years in the City of Chesapeake, Va. Fire Department where I retired as a Captain assigned as a shift commander for the Homeland Security Team . I have been certified as a Hazardous Materials Technician for 20 years and have served on regional hazardous material response teams in Va. And Pa.. Additionally, I have been a hazmat instructor at the local and state levels in public service and as an instructor in private industry. My current responsibilities are as leader of the fire brigade, hazmat team and technical rescue team for NOVA Chemicals in Monaca, Pa.

My comments:

The design and use of air fed suits should be linked to a specific level of expected protection similar to the current EPA and OSHA designations of Level A, B, C, and D protective ensembles. This is critical especially in light of some of the comments I heard at the public hearing. The current design of some air fed suits in Europe and the desire of some vendors to sell those same suits in the U.S. is of particular concern.

The air fed suit that was on display at the public hearing was encapsulating except for the hands. The suit had simple gathered sleeves and enclosed feet but no boots. The fabric appeared to be equivalent to a light weight limited duty saran coated suit fabric that is used every day here in the U.S. This configuration could easily be construed to be equivalent to a Level B ensemble if the proper boots and gloves were added. This is where I have a concern. Considering this air fed suit to be equivalent to a Level B ensemble assumes that the suit material will provide the same level of protection as a chemical suit used in conjunction with a Self Contained Breathing Apparatus (SCBA) or Supplied Air Breathing Apparatus (SABA-inline air system). I do not believe this to be the case. Light weight, limited duty suit material is too easily breached to offer the same level of protection. SCBA and SABA units are very robust and will continue to protect the respiratory system after a suit has been breached.

Of even more concern is the fact that these suits, with simple gathered sleeves, are being marketed as a "gas-tight" suit which could lead one to believe there is an equivalence to our Level A protection. Again, when the suit becomes the breathing apparatus you have lost a "layer" of protection. Even though the suit is considered to be under positive pressure, any breach of the suit material will potentially expose the user to dangerous or even fatal

atmospheres. In addition, the non-integrated gloves are not acceptable for Level A applications.

In conclusion, think that the air fed suit will certainly be a useful item in some applications. However, I do not believe that a "gas-tight" air fed suit offers the same level of protection as our current Level A or Level B ensembles. And, I believe we need to be very careful in designating the level of protection provided by these units and how they equate to our current level of protection standards.

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