National Personal Protection Technology Laboratory

Air-Fed Ensembles Panel Discussion

September 17, 2009

CDC Workplace Safety and Health | NIOSH | NPPTL Research to Practice through Partnerships

Docket Information

Stakeholder input can be submitted

By Mail:

NIOSH Docket Office

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Reference: Docket 148A – Air-Fed Ensembles

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Panel Discussion - Classifications

- Classification of NIOSH approved ensembles to indicate intrinsic safety?
- What works, is there a common language?
- Type I: A design such that the air supply to the suit and the respiratory inlet covering is interdependent
- Type II: A design such that air supply to the suit can be disrupted without affecting respiratory protection

Panel Discussion - IDLH

- Feasibility of including escape cylinders, APER?
- Development and use of SAR/PAPR combination ensemble?
- Test methods to determine the "escape time" potentially offered by an ensemble?

Panel Discussion – Use Concerns

- What classifies an ensemble as disposable or reusable?
- What methods are used to ensure proper functioning prior to reuse?
- Storage and use temperature concerns?

Panel Discussion – Flammability

- Worker tasks that require the use of an ensemble and flame resistance?
- Ignition resistance?
- Identifying the test method to measure this property?
- Should it be specific to the classification or intended use environment?

Panel Discussion – Flammability

- NFPA 701-1989, Flame Resistant Textiles and Films

- EN 1174 1997 Respiratory protective devices for self-rescue. Self-contained open-circuit compressed air breathing apparatus incorporating a hood (compressed air escape apparatus with hood). Requirements, testing, marking

Panel Discussion – Visor/Harness

- Visors evaluated for impact and penetration resistance? For specific users or classification?

- External harnesses used with ensembles? How?

Panel Discussion – Physical Properties

- Tensile and burst strength, tear and flex cracking resistance?
- Puncture resistance and abrasion resistance (combined with CO_2 dead space test)?
- Seam strength, penetration and permeation resistance
- Material permeation, liquid penetration, and particle penetration resistance

Panel Discussion – Physical Properties

- Should these properties be classification or use specific?
- Data available to indicate the performance level of ensembles currently used?