National Personal Protective Technology Laboratory

Air-Fed Ensembles

Policy and Standards Development Branch Jonathan Szalajda

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Topics

Introduction

Concept Overview

O₂/CO₂ Physiological Response

Supplied Air Suit Overview

Panel Discussion

Public Comment Period

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Performance/Evaluation Concept Air-Fed Ensemble Product

protection for a configuration where national standards do not currently exist Objective is to create criteria to ensure appropriate

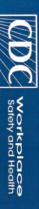
NIOSH certification for the respiratory protection criteria will be based on the results of the evaluation the ensemble dermal protection performance respirator performance evaluation with and without





Performance/Evaluation Concept Air-Fed Ensemble Product

- Initial focus based on stakeholder interest will be air fed currently certified under 42 CFR subpart J. ensembles that are comparable to supplied air hoods
- NIOSH certification for respiratory performance would be under this subpart
- Approval for protective characteristics would be based on National consensus standards
- Compliance with the appropriate subparts of 42 CFR Part 84 will be required regardless of the evolution of the ensemble performance criteria





Performance/Evaluation Concept Air-Fed Ensemble Product

Present:

Respiratory Protection

- Compliance with appropriate 42
 CFR Part 84 subpart
- Additional requirements per para 84.60(b) and para 84.63(c)
- Reasonable test standard need to be developed for CO2 buildup in suit
- Reasonable test standard must be developed for ensemble TIL

Dermal Protection

ASTM (2009)or other SDO consensus standards

Future (circa 2012 and beyond):

Respiratory Protection

- Compliance with appropriate updated 42 CFR Part 84 subparts
- Air Fed Ensemble Module
- SAR Module
- PAPR Module
- SCBA Module(s)
- Additional requirements per para. 84.60(b) and para. 84.63(c)

Dermal Protection

 ASTM or other SDO consensus standards





Performance/Current STP Development Air-Fed Ensemble Product

- Modifications to the new CO₂ dead space test configuration continue
- Human subject breathing STP development requires enhanced probe methods
- development Facility and equipment updates ongoing to facilitate preliminary TIL testing and STP





Air-Fed Ensembles

Stakeholder Input can be submitted by

Mail:

NIOSH Docket Office

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Reference: Docket 148 – A Air-Fed Ensembles

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