

Detection of Oxygen Leaks in CC-SCBA FY 12 (927ZJPL-2)

Objective

Develop sensor to detect facepiece leakage in CC-SCBA in order to warn the wearer of impending danger if exposed to open flames and/or high radiant heat.



Applicable Standards related activities

- 42 CFR 84 – Subpart Q

Key Partners

- MSHA

Stakeholders

- NFPA
- IAFF
- IAFC
- UMWA
- CC-SCBA manufacturers



Project Scope

- Develop sensor/s which would concentrate on oxygen detection in the atmosphere directly surrounding the user's facepiece or any other part of the CC-SCBA and then to recommend new comprehensive test standards for certification. Results obtained will be used to reassess NIOSH's current position to limit the use of positive-pressure, closed-circuit self-contained breathing apparatus

Milestones

- University of Maryland currently conducting research and testing

Outputs

- Sensor to detect oxygen leaks in the facepiece.
- Draft certification standards for oxygen sensors in CC-SCBA
- Revised policy on the limitations on and precaution for safe use of positive-pressure closed-circuit self-contained breathing apparatus

Outcomes

- Improved overall performance, reliability, and safety of this type of respirator

Updated: 2 Apr 12