

Detection of Oxygen Leaks in CC-SCBA FY 13 – (927PP18_02)

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

- Determine if a leak detection system in CC-SCBA is possible and then to recommend new comprehensive test standards for certification. Positive results will enable NIOSH to reassess its' current position to limit the use of positive-pressure, closed-circuit self-contained breathing apparatus.

Milestones FY13

- Final draft contract was submitted by the University of Maryland in February 2013.
- Final contract report was submitted 03/2013.

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: 18 Apr 2013