

Physiological Evaluation of Tight- and Loose-Fitting PAPRs – FY15 (927ZJRP)

Objective

The primary objective of this study is to evaluate the metabolic and respiratory responses of wearers of tight- and loose-fitting PAPRs at three exercise intensities on a treadmill. Findings will be provided to the PSD Branch in support of module development.



Applicable standards

- 42 CFR Part 84

Key Partners

- PSD Branch

Stakeholders

- Manufacturers
- Wearers
- States which mandate PAPR use for Ebola patient care



Project Scope

- Modify NIOSH IRB-HSRB protocol for PI & staff changes
- Accelerate procurement of PAPR specimens, filters & hoods; test & dry-run DAQ system with ABMS
- Collect & analyze human subject & ABMS data

Milestones FY14

- Q1-3: Complete 100% of human subject testing. Begin data reduction and analysis.
- Q4: Prepare abstract for 2016 ACSM conference (Denver, CO)

Outputs

- Presentation at ACSM conference May 2015, San Diego, CA
- Standards committee/stakeholder presentations: COPPE IOM workshop (The Use and Effectiveness of Powered Air-Purifying Respirators in Health Care), Washington, DC, August 2014
- Published manuscript in peer-reviewed journal (0 to date)

Outcomes

- Results incorporated into updates to PAPR module proposed for Title 42 CFR Part 84

Updated: 19 Feb 2015