Cardiorespiratory Effect of Respirators in Mild Respiratory Disease - FY15 (939011S)

Objective

The goal of this study is to assess the cardiopulmonary effects of three types of respirators during low- and moderate-intensity exercise in workers with mild respiratory disease. Findings will improve the current paradigms governing decision-making regarding a worker's ability to wear a respirator.

Applicable standards

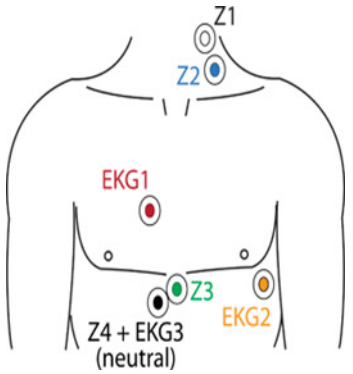
- ANSI Z88.6
- OSHA 1920.134

Key Partners

- ANSI Subcommittee for "Respiratory Protection – Respirator Use. Physical Qualifications for Personnel"
- PSDB

Stakeholders

- OSHA, healthcare users, manufacturers, ISO



PhysioFlow® Signal Morphology-based Impedance Cardiography (SM-ICG™) technology

Project Scope

- Write protocol for external peer review.
- Submit protocol for NIOSH-IRB/HSRB review.
- Procure respiratory protective devices.
- Recruit & test volunteers with and w/o COPD
- Analyze test results.

Milestones – FY2015

- Q1-4: Prepare protocol for external peer review. Purchase respirators.

Outputs

- Presentations at national meetings
- Presentation at NPPTL Stakeholder's Meeting
- Published manuscript in peer-reviewed journal

Outcomes

- Publication(s) cited in update of ANSI Z88.6 Standard
- Findings used by NPPTL PSDB in future updates of 42 CFR Part 84