Eval. WOB test method and proposed RPD performance requirements FY17 (93902JT)

Objectives

- NPPTL evaluates proposed resistance and flow methods of ISO RPD standards
- Comparative analysis of proposed methods and standards and those in current certification scheme for all classes of RPD
- Determine their applicability in certification scheme
- Identify their applicability to proposed requirements in research and standards development

Applicable Standards

- ISO 16900-12,16900-13, 16900-8, 16900-5, ISO 17420-1,17420-2 (ISO 16900-9)
- 42 CFR Part 84 (and standard test procedures)
- NFPA 1981

Key Partners

- ANSI, ISO (head form task group), NIOSH

Stakeholders

- Respiratory Protection Standards Development Organizations
- Respirator manufacturers
- Respirator users

Project Scope (all years)

1. **Develop NPPTL WOB methods**
2. **Characterize WOB for current respirators**
3. **Compare WOB to NIOSH methods**
4. **Determine effects of headform size**
5. **Evaluate human responses to RPD with high WOB**

FY17 Milestones

- Q3. Evaluation of WOB method for ability to assess NIOSH requirements
- Q4. Apply WOB in research topics

Outputs (completed and/or planned)

- Comparison of ISO WOB and NIOSH APR ISRP Yokohama (11/2016)
- ISO visitors discussion (10-2016)
- Paper on method, experience and results (internal review)
- Paper Comparing WOB and NIOSH methods(draft)
- Paper discussing effect of head form on WOB(planned)

Outcomes (completed and/or planned)

- Support the development of respiratory protective device ISO test methods and performance standards, ISO 17420-1 and 2 Table 1 in ISO 16900-5 revised and approved
- Provide basis for NIOSH to determine the utility of these method(s)