Evaluating the stability of stockpiled respirators – FY15 (93902JV)

Objective

To facilitate the design and maintenance of respirator stockpiles for large scale public health emergencies by enumerating and analyzing significant respirator degradation mechanisms that could affect the performance of respirators stockpiled for lengthy periods.

Applicable Standards

- 42 CFR Part 84

Timeline

- Phase 1: **2013 - 2014**
- Phase 2: **2014 - 2016**
- Phase 3: **2015 - 2017**
- Phase 4: **2017 - 2018**

Key Partners

- Strategic National Stockpile (SNS)
- State Stockpiles
- 3M, Gerson
- Conformity Assessment

Project Scope

1) Protocol development, partnership development, create test stockpile
2) Develop test procedures for components, evaluate fit testing
3) Assess effect of storage conditions, develop accelerated aging protocol
4) Communications and outreach

Milestones FY15

- Q2 Submit test protocol for peer review
- Q3 Submit strap aging paper
- Q3 Start human subject testing
- Q4 Complete initial testing of exhalation valves from Shelf Life Study

Outputs

- Stockpile project final report
- Letter to Manufacturers and Other Interested Parties
- Manuscripts published in peer-reviewed journal
- Presentations at national/international conferences & stakeholder meetings

Expected Outcomes

- Stockpile administrators better prepare for pandemics and other public health emergencies
- Respirator manufacturers develop suitable respirators for stockpiling
- NPPTL considers shelf life claims of respirators submitted for certification
- Government agencies use project information to develop guidance documents and recommendations for efficient stockpiling
- Other researchers utilize project findings to conduct further research on performance of aging respirators