

Respiratory Protection during Post-Fire Activities – FY15 – (93900BS)

Objective

- Identify the type and quantity of the acute and chronic health-relevant chemical gases, vapors, and particulates in the post-fire environment
- Evaluate using a case-control design the effectiveness of APR respirators fitted with CBRN canisters (or cartridges, whichever performs better during the current controlled live-fire study), for providing adequate respiratory protection from the hazards in the post-fire environment

Applicable standards

- Potential Applicability as a NFPA Overhaul Respirator Standard

Key Partners

- NIOSH DRDS
- NIOSH DSHEFS
- University of Arizona
- Fire Service

Stakeholders

- IAB
- NFPA
- IAFF

Project Scope

- Technology evaluated is commercially available and readily accessible to the end users;
- Research methodologies applied throughout the program are being performed in partnership with First Responder collaborators
- Generate data such that First Responders have the necessary information needed to establish appropriately protective, and acceptable, post-fire operating procedures
- Research could result in a NFPA standard for a fire fighter overhaul respirator standard.

Milestones

- FY 14 – Completed evaluation of Canister /Cartridge performance
- FY 15 – Ongoing: Pilot Scale Field Evaluation of post fire exposures
- FY 15/16 – Field Evaluation of post fire exposures
- FY 16/17 - Case Control efficacy evaluation

Outputs

- Guidance Documents
- Technical Reports

Outcomes

Results from this work will inform post-fire respiratory protection procedures and policy, nationally, to better protect responders in post-fire activities primarily including overhaul, arson investigation, criminal investigation by law enforcement, coroner services, and forensic evaluation.

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