

# Validation of Cleaning Procedures for Fire Fighter Personal Protective Equipment – FY17 (93906CE)

## Objective

To provide information and data to support the development of cleaning validation procedures and/or detailed guidance that can be used to assess the efficacy of specific laundering equipment, detergents, and other factors associated with the advanced or specialized cleaning of turnout clothing.

## Applicable Standards

- NFPA, 1851 (Selection, Care, and Maintenance (SCAM) Ensembles),

## Key Partners

- NFPA/NFPRF
- IAFF, IAFC, NVFC

## Stakeholders



## Project Scope

- Identify potential sampling and analysis strategies for assessing contaminant levels on firefighter turnout clothing.
- Qualify and/or quantify individual chemicals and chemical classes found on soiled firefighter turnout gear.
- Identify residual biological contaminants on soiled firefighter turnout gear.
- Assess NFPA method 1851 for its ability to remove chemical and biological contaminants from firefighter turnout clothing and make recommendations to the Fire Protection Research Foundation and the National Fire Protection Association standards committee(s) for changes to the method if needed.
- Assist in establishing techniques to contaminate representative clothing samples simulating field exposure under laboratory conditions and apply these techniques to evaluate the efficacy of cleaning processes on full clothing at selected independent fire fighter gear cleaning facilities.

## Milestones FY17

Develop contamination method  
Develop extraction technique  
Develop methods of analyzing extract

## Outputs

- Provide the basis for specific requirements and for appendix information to be incorporated into the future edition of NFPA 1851, *Standard for the Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*.
- Presentations to stakeholders and SDOs (FDSOA, IAFF, FIERO)

## Outcomes

- Use findings to develop cleaning parameters
- Provide findings and information to SDOs to support revising existing standards and in developing new standards
- New research projects

Updated: 3 April 2017