

Looking Ahead: The Fire Protection Research Foundation's Strategic Research Agenda

NIOSH National Personal Protective Technology Laboratory (NPPTL) - <http://www.cdc.gov/niosh/npptl/>

Emergency responder personal protective equipment (PPE) and occupational safety and health

National Occupational Research Agenda (NORA) National Public Safety Agenda

<http://www.cdc.gov/niosh/nora/comment/agendas/pubsafsub/>

- **Fire Service (Including Wildland Fire Fighting)**
- **Law Enforcement**
- **Emergency Medical Service**
- **Corrections**

NFPA Correlating Committee on Fire and Emergency Services Protective Clothing and Equipment

The Fire Protection Research Foundation

Summary of 2013 Strategic Research Agenda Survey Results

- **Emergency Responder PPE**
- **New Materials**
- **Firefighter Tactics**
- **Firefighter Health**
- **Firefighter PPE**
- **Wildland Interface Fires**

InterAgency Board (IAB)

Position Paper: Evaluation of Hazards in the Post-Fire Environment

https://iab.gov/Uploads/evaluation_of_hazards_in_the_post-fire_environment.pdf

Work in this environment includes: victim recovery, salvage & overhaul, origin & cause investigation, and criminal investigations

**IAB Stakeholder Workshop on Evaluation of Hazards and Operations in the Post-Fire Environment
February 7, 2013 – New Orleans, LA**

<https://iab.gov/equip.aspx>

IAB Stakeholder Workshop on Evaluation of Hazards and Operations in the Post-Fire Environment

Exposure Hazards and Data Presentations:

- **No Smoke, No Fire, No Hazard: Fire Fighters Perspective on the Hazards of Fire Overhaul and How to Protect Against,**
Dawn Bolstad-Johnson, MPH, CIH, CSP, Phoenix FD
- **Firefighter Health Effects: Overhaul and Beyond**
Dr. Jeff Burgess, MD, MPH, MS, University of Arizona
- **Firefighters' Unique Exposure Profiles and their Implications on Health,** Dr. Kenny Fent, PhD, NIOSH

IAB Stakeholder Workshop on Evaluation of Hazards and Operations in the Post-Fire Environment

Fire Service Panel Session: Discuss issues related to FD standard operating procedures (SOP's), monitoring equipment, doffing SCBA decision point, and training requirements

- **IAFC Safety, Health, and Survivability Section**
- **Fire Department New York**
- **Sarasota (FL) County Fire Department**
- **Portland (OR) Fire Department**
- **NFPA Committee on Fire Service Training**
- **Cincinnati (OH) Fire Department**
- **National Volunteer Fire Council**
- **New Haven (CT) Fire Department**
- **Metro Fire Chiefs Association**
- **Fairfax County (VA) Fire & Rescue**

Conclusions & Recommendations

All fire ground scenes during knock-down and over-haul should be treated as a HAZMAT incident

There are no available direct read instruments to identify all toxic hazards present at the fire/overhaul scene

Validation of the use of appropriate handheld multi-gas detectors (meters) to make decisions on doffing SCBA during over-haul and post-fire environment.

Research and development of an appropriate fire fighter handheld/wearable IDLH sensor

Conduct research on the protective performance of structural fire fighter ensemble (NFPA 1971) against dermal exposures.

Development of nationally accepted and enforced SOP's for field expedient fire fighter decontamination procedures and PPE decontamination/laundry immediately after an event

Development of alternative respiratory protective equipment to SCBA for post-fire (overhaul) operations such as air-purifying respirators (APR) or powered air-purifying respirators (PAPR)

Define SOP's for respiratory protection from Fire and Arson Investigators

**Further research is required on exposures to female fire fighters
*On-going breast milk study with City of Phoenix Fire Fighters
(University of Arizona)***

Effect change in fire service organizational culture, department and personal accountability, and training related to post-fire/overhaul operations and investigations.

Quality Partnerships Enhance Worker Safety & Health



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Disclaimer: The findings and conclusions in this presentation have not been formally disseminated by the National Institute for Occupational Safety and Health and should not be construed to represent any agency determination or policy.