Contamination Control Campaign Workshop
Best Practices Database

Current Sources of Best Practices
- Different professional organizations
  - "Taking Action Against Cancer in the Fire Service," Firefighter Cancer Support Network
  - IAFF, IAFC, NVFC
  - Various product and service providers
- As the result of specific projects
  - "Healthy in, Healthy Out," State of Washington Department of Labor & Industries
  - "How Clean is Clean," Fire Protection Research Foundation

FCSN White Paper
- Part of comprehensive white paper to address firefighter cancer awareness and prevention
- 11 key actions – simple steps oriented toward individual

Washington Chapter - FCSN
- Broad program to capture key ways for creating fire service awareness and providing procedures for reducing cancer risk
- Colorful, photo-rich publication available both in print and on-line
- Includes model guidelines, glossary, and resource list

Globe Guide to Cancer Prevention
- Consolidation of short articles by Jahnke, Stull, and IFSI
  - Change out your PPE after every fire
  - Always shower after every fire
  - Never place dirty PPE in living areas, including your car
  - Clean PPE regularly regardless of appearance
  - Exhaust is deadly
  - Remember to get annual physicals
NVFC NFPA 1851 Compliance Guide

- Specific overview of NFPA 1851 standard with commentary to suggest methods of compliance
- Offers further insight on NFPA requirements
- Has checklist as part of guide

What Makes a “Best Practice”

- An agreed upon action or set of procedures that is considered by the majority of persons knowledgeable in the specific topic area, which provides the preferred approach

Categories of Best Practices

- Contamination avoidance
- Wearing of PPE
- Gross decontamination at scene
- Contaminated item handling and transport
- Contaminated item cleaning and decontamination
- Personal hygiene
- Wellness and health
- Documentation and recordkeeping
- Apparatus design and cleaning
- Station facility design and cleaning

Contamination Avoidance

- Teach personnel how to recognize contamination hazards
- Delineate hazard zones at emergency scene
  - Designate HOT, WARM, and COLD zones
- Keep unprotected personnel away from contaminated areas

Wearing of PPE

- Select appropriate PPE
  - Conduct thorough hazard assessment
- Ensure that selected PPE is properly integrated to provide needed level of protection
- Wear PPE according to manufacturer instructions
- Continue wearing PPE where hazards still remain

Gross Decon at Scene

- Integrate contamination control as part of member rehabilitation procedures
- Start cleaning as soon as possible after coming out of the emergency scene
  - Perform appropriate forms of gross decontamination (cold weather?)
- Maintain protection until principal contamination is removed
Contaminated Item Handling
- Properly remove PPE to avoid contamination transfer
- Isolate and bag contaminated PPE
- Provide clean clothing for personnel at scene
- Avoid transporting contaminated PPE in apparatus or personal vehicles
- Apply proper cleaning to other contaminated items

Cleaning and Decontamination
- Clean all contaminated items
  - Other items: SCBA, boots, gloves, hoods, hose, tools should be addressed
- Subject contaminated items to proper cleaning
  - Pick effective processes
- Ensure that items can be safely returned to service

Personal Hygiene
- Change out of station wear and undergarments as soon as possible following exposure
- Take a shower as soon as possible after exposure
  - Controversies over water temperature and advocating use of steam rooms or sauna
- Practice frequent handwashing

Wellness and Health
- Get baseline physicals with appropriate benchmarking / diagnostic tests
- Have follow up annual physicals or as needed
- Eat healthy, hydrate frequently, maintain level of fitness
- Undertake good lifestyle habits

Documentation / Recordkeeping
- Document all exposures with sufficient detail
- Provide monitoring where possible
  - Retain information and link to exposures
- Maintain records for all personnel
  - Apply in medical exams

Apparatus Design & Cleaning
- Choose apparatus with storage compartments for contaminated items
  - Alternatively, use separate transport where possible
- Apply appropriate cleaning and disinfection to apparatus following use in contamination events
**Contamination Control Campaign Workshop**

**Best Practices Database**

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**Fire Station Design / Maintenance**

- Control exposures at fire station
  - Apply segregation of clean versus contaminated areas
  - Use transition zones
  - Ensure separate areas for cleaning contaminated items
  - Provide for proper storage of PPE and other frequently contaminated items
- Practice appropriate station hygiene procedures

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**Qualifying Best Practices**

- "Intuitive" approach
- Application of independent data validate benefits of approach
  - Study shows benefits of practices
  - Multiple sources confirm findings
  - Work is peer-reviewed, where possible
- Consideration of resource requirements
  - Simple, practical solutions vs. use of new technology

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**Synthesizing Best Practices**

- Use imperative language versus standards language
  - "Do this" versus "You shall do this"
- Document current findings and science behind recommended procedures
  - Provide links to related data or studies that demonstrate value
- Provide detailed procedures that can be adapted by different organizations (e.g. standard operating procedures)
- Consider cost of implementation
  - Offer inexpensive, low resource alternatives where possible

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**Sample SOPs and SOGs**

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**Referencing Best Practices**

- Recommendation 1
  - Develop comprehensive best practices document covering span of contamination control
  - Apply NFPA committee process for development of best practices, but populate with heavy end user representation
  - Separately reference other standards and information sources where appropriate
- Recommendation 2
  - Highlight different best practices and related information from existing organizations

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**Best Practices Questions**

- **BP1** – Should a purpose of the campaign be to consolidate a comprehensive list of best practices or simply reference existing guidelines?
- **BP2** – Which features make best practices useful to you/your organization?
- **NEW QUESTION** – What gaps do you see in the current set of listed best practices
Addressing Products / Services
• Various products or services have emerged to address specific “contamination control” issues
  - Multiple claims about efficacy
  - Claims should be validated or based on standardized testing
• No oversight for many products and services
  - Difficult to police industry
  - Use DHS for possible SAVER program?

SAVER Program
• System Assessment and Validation for Emergency Responders (SAVER)
• Provides basis for independent evaluation of specific products
• Consumer Products Guide-like approach

Cleaning Process Validation

Sanitizer Experimental Results
• Preliminary data indicate that outer shell materials are not being fully sanitized
• Results are worse than small scale “sterile” results
• Possible effects of competing non-test bacteria

Best Practices Questions
• BP3 – What tools did you see today that will support you in your efforts to address fireground contamination issues?
• BP4 – What additional tools do you need to support you in your efforts to address fireground contamination issues?

Best Practices Questions
• BG5 – Should the best practices database include sample standard operating procedures (SOP) from existing fire departments or other organizations?
• BG6 – Should the best practices database include reviews of new technologies or equipment related to contamination control?
• BG7 – What criteria should be applied for determining appropriate best practices to be cited?
Best Practices Questions

• **BG8** – If conflicts exist between practices, what process should be used to make the appropriate choice? Should a choice be made?
• **BG9** – Do you think NFPA or some other organization should view decisions on contamination control through a committee process that is similar to the standards development process?