



Personal Protective Clothing and Equipment Issues Related to CONUS Response to CBRN Events

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... Why ?? ...



CBRN Analytical Framework





The "S H E D I" Model

- ◆ **Situation:** The mission environment and its characteristics at a given point in time
 - ✓ **Planning:** Intelligence gathering, hazard identification, threat analysis, etc.
- ◆ **Hazard:** A natural or manmade phenomenon that has the potential to adversely affect human health, property, activity, or environment
 - ✓ **Preparedness:** Things to reduce magnitude of event if it occurs, like PPE fitting & training, immunizations, physical security, etc.
- ◆ **Event:** Delivery of a hazard at a defined location with respect to a targeted unit or area



The "S H E D I" Model

- ✓ **Mitigation:** Activities that prevent, eliminate or reduce impact of an event, such as PPE, immunizations, health risk communication, etc.
- ◆ **Damage:** Harm or injury that impairs the value or usefulness of something, or the health or normal function of persons
 - ✓ **Response:** Provide emergency assistance to victims, secure infrastructure, and reduce likelihood of secondary damage
- ◆ **Impact:** Measure of the change in either mission or normal operating conditions as a result of the damage
 - ✓ **Recovery:** Activities directed at restoring essential services and normal operations



The InterAgency Board for Equipment Standardization and Interoperability

- ◆ Sanctioned by the Attorney General of the U.S. & founded in October 1997 to...
 - ✓ Ensure equipment standardization and interoperability
 - ✓ Encourage research & development of advanced response technologies
 - ✓ Assist First Responders in establishing and maintaining a robust crisis and consequence management capability





The IAB – Strategic Objectives



- ◆ Achieve unity of effort throughout the CBRNE response community by way of a national standardized equipment list
- ◆ Assist in leveraging programs and other means to purchase CBRNE response equipment
- ◆ Transfer military knowledge, expertise, and technology regarding CBRNE detection, warning, protection, and decontamination to local, state & federal personnel
- ◆ Promote interoperability among designated civil and military response units at local, state and federal levels



The IAB - Membership



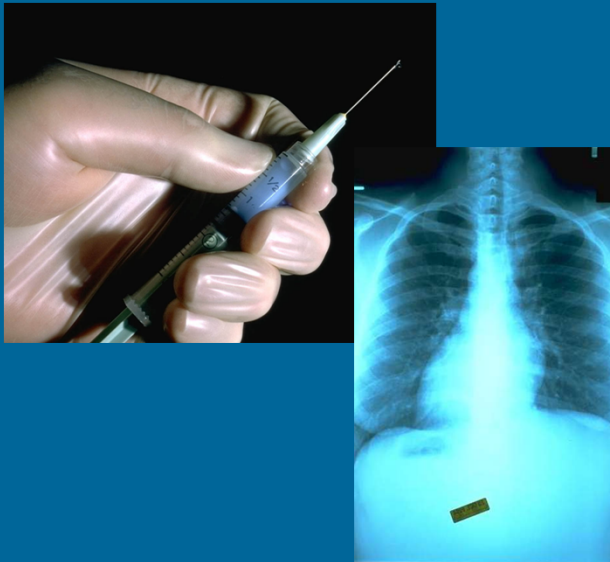
- ◆ **Federal Partners:** includes CDC, USACHPPM, SBCCOM, Natick, FEMA, NIOSH, NIST, USCG, USMC, DOE, DOJ, FBI, OSHA, EPA, VA, and more...
- ◆ **First Responders:** Representatives from several county & metropolitan Fire Departments as well as state and local Police Departments and emergency medical & operations personnel...
- ◆ **Other Agencies:** NFPA, OK City Nat'l Mem Inst for Prev of Terrorism, Int'l Assoc of Firefighters, Nat'l Sheriff's Assoc, Battelle, several universities, and more...



The IAB - Equipment Subgroups



- ◆ **Medical** – addresses casualty treatment for victims of a CBRNE attack



- ◆ **Personal Protective and Operational Equipment** – addresses individual equipment, support systems, and area protection for CBRNE response



The IAB - Equipment Subgroups



- ◆ **Interoperable Communications and Information Systems** – addresses communications, info management, technical info support, and public awareness issues

- ◆ **Detection and Decontamination** – focuses on intrusive & non-intrusive detection; monitoring, sampling, & analysis of suspected toxins; methods to mitigate or dissipate contamination





The IAB – Technical Subcommittees



- ◆ **Science and Technology** – focuses on advanced concepts entering development and newly emerging technologies that might be applied to crisis and consequence management
- ◆ **Standards Coordination** – ensures that CBRNE response equipment and technology is integrated into the existing standards boards and regulatory bodies
- ◆ **Federal Coordinating Committee** provides interface between the IAB and the sponsoring federal government agencies and departments



The IAB – Standardized Equipment List



- ◆ The “**SEL**” is a guideline for voluntary use by first responders when developing and acquiring CBRNE response equipment
- ◆ Updated ~annually
- ◆ Categories include PPE, operational equipment, explosive device mitigation and remediation equipment, interoperable communications and information systems, detection equipment, decon equipment, and medical equipment
- ◆ Available on the IAB website at www.iab.gov



CBRN Respirator Standards Development

- ◆ Started with the NIOSH-DoD-OSHA sponsored workshop on chemical and biological respiratory protection, Morgantown, WV, in March 1999
- ◆ Committee formed to develop respirator standards for protection against CBRN
- ◆ Key players = NIST, NIOSH, SBCCOM, & USACHPPM





NIOSH CBRN Respirator Certification Standards



CBRN Agent Approved

See Instructions for Required Component Part Numbers, Accessories, and Additional Cautions and Limitations of Use

- ◆ SCBA CBRN Certification Standard published in December 2001
- ◆ APR CBRN Certification Standard published in March 2003
- ◆ Certification Standards under development
 - ✓ Escape masks (due Oct 03)
 - ✓ PAPRs (due Mar 04)





Chemical & Biological PPE Standards Development

- ◆ Committee formed in June 2001
- ◆ Key Players = NIST, SBCCOM, Natick Labs, USACHPPM, US Navy, Dugway Proving Ground
- ◆ Goals
 - ✓ Recommend standards that CB PPE should meet
 - ✓ Recommend tests to determine if the PPE meets the standards
- ◆ Focus is primarily on protective suits





Chemical & Biological Detector Standards Development

- ◆ Committee formed in June 2001
- ◆ Key Players = NIST, SBCCOM, USACHPPM, US Navy, Dugway Proving Ground
- ◆ Goals:
 - ✓ Recommend standards that CB detectors should meet
 - ✓ Recommend tests to determine if the detectors meets the standards





New ANSI Z88.14 Subcommittee

- ◆ "Respirator Use for Emergency Response and Operations Against Terrorism and Weapons of Mass Destruction"
- ◆ Established in April 2003
- ◆ Purpose: to fill the gap not covered by the Z88.2 standard (which currently does not cover the use of respirators under military combat conditions, domestic preparedness and counterterrorism)



USACHPPM Technical Guide 275

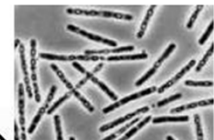
- ◆ A comprehensive guide for the selection of PPE for CONUS fixed military hospitals and clinics that receive victims from a terrorist or WMD event
- ◆ Personnel covered include EMT staff, triage/clinical staff, ancillary care staff, perimeter security, and decon personnel

COMING SOON !!

May 2003

Technical Guide 275

**Personal Protective Equipment Guide
for Military Medical Treatment Facility
Personnel Handling Casualties from
Weapons of Mass Destruction and
Terrorism Events**



USACHPPM
Readiness thru Health



USACHPPM Technical Guide 275

- ◆ **Section I:** Background info on CBRN agents and TICs
- ◆ **Section II:** PPE selection guide for CBRN agents and TICs
- ◆ **Section III:** Program requirements for PPE use



The End !!





Questions





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