

*Institute Of Medicine
National Academy of Sciences*

*Committee on Personal Protective
Equipment in the Workplace*



Dino Mattorano, MS, CIH
CDR, USPHS
EPA – National Decon Team
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Agenda

- EPAs role
- Review EPA Levels of PPE
- Address questions

EPAs Role

- Protect workers – recommend PPE
- Provide guidance on Hazardous Waste Site Activities

Hierarchy of Controls

⊗ Engineering Controls

- Elimination
- Substitution
- Isolation
- Ventilation

⊗ Administrative Controls

- Schedule work
- Housekeeping

⊗ Personal protective equipment

NIOSH/OSHA/USCG/EPA

Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Institute for Occupational Safety and Health

United States
Environmental Protection
Agency

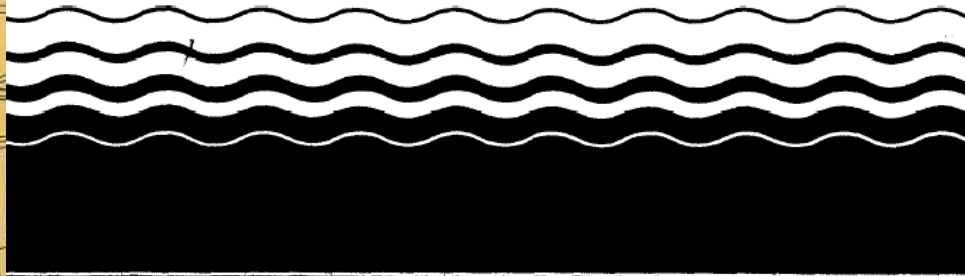
Office of Emergency and
Remedial Response
Washington, DC 20460

Publication 9285.1-03
PB92 - 963414
June 1992

Superfund



Standard Operating Safety Guides



Review EPA PPE Levels

Level D

- Work uniform for nuisance contamination control
- Coveralls
- Safety Boots/shoes, steel toe and shank
- Safety glasses or chemical splash goggles



Level C

- **Level D +**
- **Full-facepiece respirator with cartridges (NIOSH-Approved)**
- **Chemical-resistant protective suit**
- **Gloves – chemical resistant**
- **Boots/shoes – chemical-resistant**



Level B

- Level C +
- SCBA – FF, PP, PD with escape SCBA
- NIOSH-Approved



Level A

- Level B +
- Fully-encapsulating chemical-resistant protective suit



Areas of Inconsistency or Overlap

- Respirators used in Workplace
 - OSHA - must be NIOSH-Approved
- Respirators used by general public
 - no testing or certification required
- Protective clothing
 - OSHA requires selection based on hazard
 - Manufacture – who is required to certify or approve?
 - Test clothing using accepted guidelines

Areas of Inconsistency or Overlap

- Respirator Fit-factors
 - NIOSH and ANSI
- Respirator - Workplace Protection Factors
 - Evaluation done while working
 - PAPRs showed increased protection
 - Filter-facepiece showed decreased protection
- Same work should be done with protective clothing

Areas of Inconsistency or Overlap

- Improve existing standards
 - Respirator
 - Evaluate using specific agents and activities
 - Protective clothing
 - Evaluate under multiple environmental conditions
 - Evaluate in workplace

Should PPE be Certified?

- YES
- Government or Certifying Org
- Under conditions more like work environment
- Respiratory protection (NIOSH)
 - Particulate
 - Chemical
 - Bacteria and virus (???)
- Protective clothing
 - Manufacture conducts testing or may pay third party
 - Research groups may evaluate limited items

Optimal way to ensure rigorous approval process?

- Develop comprehensive evaluation standards
 - Respirators and Protective clothing
 - NIOSH, OSHA, FDA, EPA, MSHA, states, local, etc...
 - ANSI, ASTM, UL, NFPA, etc...
- Certification conducted by recognized groups:
 - Government agencies and/or
 - Certifying organizations

Ensure Identification of effective PPE?

- Labeling PPE with standard and certification
- Education and Training
- Marketing
 - Agency publications
 - Surgeon General
 - States and Locals
 - Hospitals
 - Journals
 - Conferences and meetings
 - Unions

Summary

- PPE - very important part of protecting workers and the general public
- Inconsistencies and overlap exist with PPE standards and certification
- Develop comprehensive standards and certification processes to ensure effective PPE
- Get the word out



Question or Comments