NPPTL Partners

- U.S. Army Soldier and Biological Chemical Command
- National Aeronautics and Space Administration (NASA)
- National Science Foundation (NSF)
- U.S. Bureau of Labor Statistics (BLS)
- Los Alamos National Laboratories
- National Institute for Standards and Technology (NIST)
- U.S. Department of Energy (DOE)
- Mine Safety and Health Administration (MSHA)
- Occupational Safety and Health Administration (OSHA)
- Other partners include contractors, stakeholders, academia, labor, professional organizations, and numerous representatives from the public and private sectors.

National Institute for Occupational Safety and Health

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NPPTL Vision

Providing world leadership to prevent and reduce disease and death among workers relying on personal protective technologies.

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CDC
WORKPLACE SAFETY AND HEALTH

National Personal Protective Technology Laboratory (NPPTL)

DEPARTMENT OF HEALTH & HUMAN SERVICES • USA

NIOSH

National Personal Protective Technology Laboratory

The Challenge:

The National Personal Protective Technology Laboratory (NPPTL) was created by the National Institute for Occupational Safety and Health (NIOSH) in 2001. Its mission is to prevent disease, injury and death for millions of workers who rely on personal protective equipment[1] including miners, emergency responders, and healthcare, agricultural, construction, and industrial workers.

The Commitment:

NPPTL brings together experts from many disciplines dedicated to reducing the risk to workers of job-related injury, illness, and death.

The Solution:

NPPTL, through targeted partnerships, research, service, and communication, focuses on new and enhanced personal protective equipment for workers including first responders during terrorist attacks or other disasters.

[1] **Personal Protective Equipment** includes respirators, chemical-resistant clothing, hearing protectors, gloves, safety goggles and glasses, hard hats, sensors to detect hazardous substances, communication devices used for safe deployment of emergency workers.

NPPTL Activities:

Surveillance

- Conduct surveys of respirator use in workplaces
- Investigate ways to evaluate respirator use by mobile workforces, such as construction crews, road workers, and others
- Understand the work requirements, challenges, and PPE needs of first responders

Research

- Establish PPE end-of-service-life indicators (computer models and sensors)
- Improve respirator fit test methods
- Conduct product field audits
- Develop test methods for respirators
- Improve emergency responder PPE
- Integrate PPE components into wearable ensembles that are safe and functional
- Determine decontamination effectiveness and the reusability of Chemical Protective Clothing (CPC)
- Evaluate respirator filter performance

Intervention

- Develop new respirator standards, including those for CBRN[2] response
- Conduct respirator testing for certification
- Investigate reported problems with certified respirators in the field
- Investigate the performance of Self Contained Breathing Apparatus (SCBA) following fire fighter fatalities

Health and Safety Communication and Training

- Evaluate the extent and effectiveness of PPE safety training
- Develop PPE guidelines for emergency responders
- Respond promptly to information requests
- Maintain an interactive Internet web site

[2] Chemical, Biological, Radiological, and Nuclear