The Nation’s Forgotten Responders

Recent Report to NIEHS Finds Significant Training Gap for Skilled Support Personnel:
Construction, Trade Personnel Are at Risk If Called Upon to Respond to Incidents of Terrorism or the Use of Weapons of Mass Destruction

BRUCE LIPPI, CIH, CSP, DIRECTOR, NATIONAL CLEARINGHOUSE FOR WORKER SAFETY AND HEALTH TRAINING

Recent safety and health training requirements for “skilled support personnel”—a term used by OSHA for the construction trades needed during disaster responses—are insufficient to protect these workers during responses to weapons of mass destruction (WMD) incidents, according to a report released in December by the National Clearinghouse for Worker Safety and Health Training. The report, commissioned by the National Institute for Environmental Health Sciences (NIEHS) Worker Education and Training Program (WETP), contains recommendations for improving current federal training requirements for skilled support personnel, and examines the feasibility of a national registry of trained workers that could be used by emergency management organizations during future responses.

Improving the Training of Skilled Support Personnel for Responding to Terrorist Actions: A Review of the Problems and Feasible Solutions focuses on training needs for “skilled support personnel” (SSP)—a worker population that includes heavy equipment operators, truck drivers, iron workers, carpenters, and laborers—many of whom worked at the World Trade Center site for months. The lessons learned from the WTC site, the study suggests, necessitate a review of current OSHA training requirements for these workers and argues against their current status under the OSHA standard as merely “temporary workers” at emergency response sites.

“As a member of a team performing exposure assessments of heavy equipment operators at the World Trade Center site, I saw first-hand the inadequacies of the training for skilled support personnel,” said Bruce Lippy, Director of the National Clearinghouse and co-author of the report.

“Subsequent studies by Mount Sinai Medical Center have indicated that over half of the 2,500 workers they have screened as of November 26, 2002 are still suffering respiratory symptoms. This indicates a real need for better training of these worker populations: we can give them the training the workers need to deal with the hazards they face.”

— Bruce Lippy

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Relevance of the HAZWOPER Standard to Terrorist Actions

OSHA's HAZWOPER standard is the most applicable—and proactive—federal standard for protecting workers who respond to terrorist destruction. The standard applies to “emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.”

Even though the standard was not applied at the cleanup of the World Trade Center disaster, experts representing NIEHS argued that it was appropriate because it provides a “comprehensive basis for the training of workers, medical surveillance, exposure monitoring, and worker protection levels.”

Several key misunderstandings appear to have guided the decision at the World Trade Center to ignore the OSHA HAZWOPER standard. New York City officials appear to have believed that lower Manhattan would have inevitably been declared a Superfund site if the HAZWOPER standard were enforced. The truth is that many actions—such as underground storage tank cleanup—are covered under HAZWOPER but not under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). OSHA considered the recent cleanup of anthrax contamination as covered by HAZWOPER even though no one would reasonably call the Brentwood Post Office a Superfund site. Another concern expressed at the site was that HAZWOPER would force workers into overly protective garments and respirators, slowing down the work and jacking up the price.

The truth is that HAZWOPER only requires that the level of protection be commensurate with the level of hazard, as determined by an assessment of the risks. Most of these key practices of HAZWOPER—such as creating a site-specific health and safety plan, establishing zones of control, training workers, and decontaminating...
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more than the three-hour training we provided three months after the attack.”

The report contains significant conclusions, developed as a result of a five-month review conducted by the National Clearinghouse for Worker Safety and Health Training, which involved agency and current NIEHS WETP grant recipients, skilled support personnel populations, and local and state-level emergency management organizations:

- Current training requirements for SSP under OSHA’s hazardous waste worker standard (HAZWOPER) only mandate “awareness training” of unspecified duration, which is not sufficient to protect construction workers during responses to WMD incidents.
- The OSHA HAZWOPER 40-hr general construction worker course should be required for SSP, and should be supplemented with trade-specific training for responding to acts of terrorism.
- Training requirements for SSP must differentiate between pre- and post-incident conditions.
- A national registry of trained SSP should be pursued further, and must include consideration of the communications links between such a registry and local emergency management organizations.
- Greater focus on prevention is needed to minimize the consequences for all worker populations—including SSP, emergency responders, chemical and transportation workers.
- All terrorist incidents start as local events, and it is therefore critical that local incident commanders be aware of safety and health protections for skilled trade workers who respond to an incident. Likewise, SSP need to be trained about the incident command structure (ICS) so that they may work more effectively at a response site.

Earth moving equipment cleaning up debris at the World Trade Center.
(Photo courtesy of the National Clearinghouse for Worker Safety and Health Training)

This report represents the latest in a series of studies undertaken by the federal program to assess training needs for various worker populations involved in response, recovery and cleanup operations to WMD incidents. Representatives of the WETP conducted the first safety and health training assessment on the WTC site. Awarded of the program subsequently developed and delivered the official 3-hour safety and health awareness course on the site, in addition to conducting respirator fit testing.

The program then released a report in August of this year, Learning from Disasters: Weapons of Mass Destruction Preparedness Through Worker Training, that identified several matters specific to worker training that should be considered in order to improve our nation’s response to actual WMD incidents. Each of these reports can be found on the National Clearinghouse for Worker Safety and Health website, located at http://www.wetp.org.

About the NIEHS WETP—The NIEHS WETP was created in 1987 by Congress as part of the Superfund Program to support the development of a network of non-profit organizations that are committed to protecting workers and their communities by creating and delivering high-quality, peer-reviewed safety and health curricula to target populations of hazardous waste workers and emergency responders. Through NIH grants, the WETP awards cooperative agreements to support the development of curricula and training programs throughout the country to help employers meet OSHA requirements under 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

About the National Clearinghouse—The National Clearinghouse for Worker Safety and Health Training is the centralized distribution point through which members of the worker education and training community can access technical documents and workshop reports, safety and health update information, and curricula produced by the National Institute of Environmental Health Sciences (NIEHS) Worker Education and Training Program (WETP) awardees. http://www.wetp.org

* NIEHS has been a part of NIEHS Worker Education Training Program since its inception in 1987
Does a Collateral Duty Require Less Protection: Workers, Hazardous Materials Emergency Response, and OSHA’s Failure to Protect

BY CRAIG SLATIN AND EDUARDO SIQUEIARA

Trash Collector Dies after Inhaling Discarded Acid
By Laurence Van Gelder, New York Times, November 13, 1996

New York—A city worker died Tuesday after he inhaled the fumes of a corrosive acid from a discarded container that burst under the compacting blades of a garbage truck making routine collections in Brooklyn. Fire Department hazardous materials experts identified the substance as hydrofluoric acid, often used to etch glass. A second sanitation worker was injured in the incident, which brought the Mayor and Sanitation Commissioner rushing to the burn unit of New York Hospital-Cornell Medical Center, touched off by police and sanitation departments and raised the possibility of homicide charges against those responsible for leaving the acid to be picked up. The source of acid was not known Tuesday night.

...The dead man was identified as Michael Hanly, 49, of Brooklyn, a Sanitation Department worker for 22 years. His injured partner, who suffered burns on the face and hands when he came to Hanly’s aid, was identified as Thomas Giammarino, a member of the Department for 15 years...

This incident presents an example of the health and safety risks resulting from exposures to hazardous waste by workers engaged in waste management activities. Comprehensive health and safety programs, which address these risks can be implemented as part of efforts to prevent fatalities and injuries resulting from exposure to hazardous waste. To be effective, such programs should address the potential for exposure to hazardous waste materials, even though a particular set of tasks does not primarily place workers in contact with hazardous wastes. For many workers, like these sanitation workers, addressing and responding to a hazardous materials emergency incident is a likely “collateral duty.” That is, although they have not been hired as hazardous waste operations workers, a potential for exposure to hazardous waste materials exists in the nature of their work. This potential should be considered a part of the job for most workers engaged in waste management activities.

Waste management activities are widespread throughout most industrial sectors, and hazardous materials are a component of the waste of almost every aspect of industry—from manufacturing and processing to health care and research. Workers with a collateral duty to manage hazardous waste, regardless of the industrial sector, require health and safety protection provisions that include measures for an emergency response to a hazardous materials incident (spill, release, explosion, combustion, and so forth). Unfortunately, OSHA has failed to appropriately acknowledge this threat to workers and has been confusing and inconsistent in the interpretation and enforcement of its regulatory requirements for training workers with such a collateral duty.

OSHA’S HAZWOPER STANDARD, 29 CFR, 1910.120

The Superfund Amendments and Reauthorization Act (SARA) of 1986, Section 126, mandated that the Occupational Safety and Health Administration (OSHA) and the U.S. Environmental Protection Agency (EPA) regulate health and safety protection of hazardous waste operations and hazardous materials emergency response workers. The regulation was to include mandatory health and safety training. The resulting regulatory standard, 29 CFR, 1910.120 (and 40 CFR, Part 311) so that all public workers left unprotected by OSHA would be protected by a corresponding EPA standard established, among other training requirements, training for workers who would be engaged in any of certain levels of hazardous materials emergency response. The levels were...
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based upon those established and made standard by the National Fire Protection Association (NFPA). The NFPA levels of response actions were; First Responder Awareness, First Responder Operations, Technician, Specialist, and Incident Commander.

OSHA has established training requirements for each level of hazardous materials emergency response work. A mandatory number of training hours was established for all but the Awareness Level training. The number of hours of training is not wholly clear as stated in the standard, and usually does not allow time to address all of the mandated topics. However, the standard's training requirements (for emergency responders and hazardous waste operations workers) represent the most comprehensive training mandate from OSHA for any industrial processes.

Between 1989 and 1993, OSHA personnel from all regions of the country provided numerous responses to employer inquiries regarding which workers should receive some level of emergency response training. By 1993, OSHA published these responses as Quips to 29 CFR 1910.120. Following is a discussion of the agency's responses regarding training for Awareness Level Emergency Response workers.

In the Quips, OSHA defined First Responders at the Awareness Level as: "... those individuals who are likely to witness or discover releases of a hazardous substance and who have been trained, and whose duty it is, to initiate an emergency response sequence by notifying the proper authorities of the release."

In the New York City case described above, this scenario is applicable to Thomas Giammarino, the worker who got burned when he tried to help Michael Hanly. After the spill happened, he was the "first-on-the-scene" of the incident and might have been better able to avoid injury had he been properly trained. The Awareness Level training curriculum mandated by OSHA covers what to do in case of incidental releases of unknown hazardous chemicals.

The Quips also state that: "in applying OSHA's standard it is important to look at the statutory purpose, which is to protect workers. The training requirements of both the Hazard Communication standard, 29 CFR 1910.1200 (HAZCOM) and the Hazardous Waste Operations and Emergency Response standard must be applied in a way which will provide meaningful and adequate training to the workers to ensure their safety. More employees are likely to be covered by the training requirements of HAZCOM than the training requirements for First Responders under 29 CFR 1910.120. However, it is important that the population of adequately trained First Responders be large enough to provide the necessary protection in the event of an emergency."

We believe that this interpretation suffices to justify the training of public sector waste management workers at the Awareness Level in order to prevent many injuries and even deaths, such as the one in New York. The Awareness Level training curriculum mandated by OSHA includes identifying and recognizing the potential hazards of dealing with unlabelled hazardous materials containers. Nonetheless, OSHA has refused to establish this as an agency policy and instead leaves interpretation to the employer rather than clearly mandating worker protection.

We believe that OSHA has failed to extend its protection to workers who face a potential set of exposures that, as in the case of the New York City sanitation workers, can result not only in serious injury but also in death. This is a callous and irresponsible act on the part of OSHA. The agency itself has told employers that they need to provide adequate training, even though they won't commit themselves to a clear definition of the workers to be trained. Undoubtedly, the agency finds itself too politically vulnerable to state that employers in most sectors of industry, including the service sector, have a responsibility to provide emergency response health and safety training to a vastly expanded set of workers from that which is currently defined. Nonetheless, political vulnerability is no excuse for blatant underprotection that can lead to a worker's death. Above all else, OSHA is a public health agency and has an obligation to prevent injury, illness, and death.

OSHA should revise Appendix (e) and make its interpretation and enforcement of the standard consistent so that collateral duty emergency response workers are protected by the standard.

ACKNOWLEDGEMENTS

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This article originally ran in the Fall 1998 edition of the TNEC Quarterly (Vol.9, No. 3). It was excerpted from a longer version that appeared in New Solutions, June 1998. Copyright Beyondwood Publishing Co. We choose to reprint it here because workers with collateral duty responsibilities are being asked and/or expected to assume many new risks and additional job functions in the face of new threats and unexpected incidents.

The issues raised here are even more important now.
Whistleblower Report Raises Serious Concerns

According to newly released Environmental Protection Agency documents, which were made available by the Public Employees for Environmental Responsibility (PEER), a Washington-based advocacy group that advises environmental whistleblowers, unexploded munitions at 16,000 inactive military ranges, including chemical and biological weapons, pose "imminent and substantial" public health risks and could require the largest environmental cleanup program ever implemented by the US government. Unexploded munitions on inactive ranges have contaminated ground water and soil on 30 million to 40 million acres, an area roughly equivalent to the state of Florida. Most unexploded ordnance, the document says, contain chemicals defined as hazardous under federal law. The document goes on to point out that "the potential presence of explosives" further complicates the cleanup process. Before standard investigative activities can be undertaken to define the extent of hazardous chemical contamination, it is necessary to identify "the true nature of the explosives or unexploded ordnance threats."

That document says the EPA is "concerned" over the failure of the Army Corps of Engineers and the military services to comply with EPA regulations and "adequately coordinate with federal, state, and tribal regulatory agencies."

Raymond P. DuBois, deputy under-secretary of defense for installations and environment, acknowledged that cleaning up unexploded ordnance could cost anywhere from $14 billion to "several times" that much, depending on the eventual use of the land. But DuBois denied that the Defense Department has attempted to conceal the magnitude of the problem and said the Bush administration has pledged to fully cooperate with the EPA and other federal and state agencies in an aggressive cleanup effort.

One senior EPA official, whose office produced two of the documents made public, said both are more than two years old and cite problems related to Pentagon cleanup practices that have since been rectified.

PEER Executive Director, Jeff Ruch, whose organization has opposed Pentagon attempts to exempt itself from an array of hazardous waste and anti-pollution laws takes issue with this statement. "The true magnitude of this unfolding ecological disaster is masked by the Pentagon's unwillingness to complete a reliable inventory or adopt credible cleanup rules."

(Readers can access the EPA Interim Report—April 2000 on the PEER website http://www.peer.org/press/292.html).

Two High-Risk New England Toxic Sites Denied Cleanup Funds

According to a recent EPA Inspector General's report, the federal Environmental Protection Agency office denied funds this year for ongoing cleanup work at seven high-priority toxic-waste sites. Two of the cleanup projects are in New England: the abandoned Elizabeth Mine in Strafford, Vermont where copper runoff is polluting a nearby river, and a former wire-tack and steel nail manufacturer, Atlas Tack Corporation in Fairhaven, Massachusetts where cyanides and heavy metals, including arsenic have caused groundwater contamination that has spread into surrounding estuarine areas. Regional EPA and local environmental officials have warned that the sites continue to pose serious environmental and health risks.

EPA's Office of Solid Waste and Emergency Response (OSWER) denied regional officials' requests for funds necessary to continue this year's work. OSWER officials say the government has poured $48 million into those projects, and there were more urgent cleanup sites to focus on. However, local officials state that the projects pose ongoing serious short- and long-term environmental risks to drinking water supplies and wetlands.

The report by Inspector General NikkiTinsley has rekindled a controversy over the Bush administration's handling of the Superfund and concerns that insufficient financing was curtailing cleanup work needed to protect human health and the environment. This year, EPA completed work on 42 toxic-waste sites and last year completed 47. By comparison, Superfund cleanups averaged 80 sites per year throughout the mid- to late-1990s, according to agency documents. There are 1,234 sites on the government's national risk-based priority list, including 455 with ongoing construction projects.


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personnel and equipment—eventually became part of the procedures at Ground Zero. But they arrived slowly and unevenly. Unlike the HAZWOPER requirements, personal decontamination was never mandatory at Ground Zero and medical screening was not widely performed during the entire rescue, recovery, and cleanup.

There is, however, no ambiguity about whether HAZWOPER is applicable to acts of bioterrorism. OSHA's official policy is that, "the release of anthrax spores into a workplace as an act of terrorism is an emergency situation. Compliance with Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120, is required for emergency response personnel responding to a possible anthrax release."

Additionally, the training subcommittee for the National Response Team (NRT) has endorsed HAZWOPER first responder operations level as the core competency for response to terrorism.
### TNEC 2003 Open Enrollment Training Calendar

University of Massachusetts Lowell, One University Avenue, Falmouth 202, Lowell, MA 01854  
Phone: 978.934.3197, Fax: 978.934.2012 or 978.452.5711  
[www.uml.edu/tnc](http://www.uml.edu/tnc) e-mail: tnc@uml.edu

All TNEC trainings are held at the TNEC Training Center, Wannamancit Mills, 600 Suffolk Street, 5th Floor, Lowell, MA, unless otherwise stated.

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| Worker      |            |            |            |            |            |
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| 8-Hour         | Tue. 11     | Tue. 13    | Tue. 15    |
| Emergency      |             |            |            |
| Refresher      |             |            |            |

*This course will be offered in Manchester, NH.

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