

Health Hazard Evaluation of Deepwater Horizon Response Workers

On May 28, 2010, BP requested a health hazard evaluation of Deepwater Horizon Response workers. The eighth in a series of interim reports from this health hazard evaluation was issued October 26, 2010. In this report, NIOSH presents the findings of the evaluations of equipment and boat repair/decontamination and waste management work sites.

NIOSH industrial hygienists conducted a quantitative exposure assessment at two decontamination sites in Port Fourchon, Louisiana. Additionally, teams of two NIOSH investigators evaluated 499 workers at 17 work sites in Louisiana, Alabama, Florida, and Mississippi. NIOSH found the following:

- Although several potential occupational hazards were identified the work sites generally had effective programs to manage these hazards.
- Heat stress was the primary occupational health hazard for most repair/decontamination and waste management workers and was exacerbated by the use of personal protective equipment. Work site supervisory personnel were vigilant about monitoring the heat and humidity and utilizing appropriate workplace controls.
- Workers performing pressure washing of contaminated materials or equipment could be exposed to contaminants via dermal or inhalation routes. Dermal contact was limited during pressure washing activities by the use of barrier PPE. Although a specific respiratory hazard was not identified in these evaluations, the potential for aerosol inhalation during these work activities is an important consideration.
- Airborne concentrations of measured contaminants, including 2-butoxyethanol and other glycol ethers, limonene, benzene, ethyl benzene, toluene, xylenes, total hydrocarbons, diesel exhaust, PAHs, and CO were all well below occupational exposure limits.
- Exposure monitoring showed the potential for noise exposures above the NIOSH REL during pressure washing.
- Workers faced ergonomic hazards from unique work activities such as handling and moving booms and operating the pressure washers.

NIOSH made recommendations related to

- 1) use of controls (engineering, administrative, and personal protective equipment) to minimize potential occupational exposures during repair, decontamination, and waste management work, including pressure washing,
- 2) heat stress management, including consideration of the role personal protective equipment may have in adding to workers' heat stress risk,
- 3) work practices and controls to minimize potential for musculoskeletal disorders,
- 4) use of hearing protection during pressure washing as part of a hearing conservation program,
- 5) management of stress and fatigue among response workers, and
- 6) routine reporting of illnesses and injuries.



To read Interim Report #8 and view updates on this health hazard evaluation visit <http://www.cdc.gov/niosh/topics/oilspillresponse/gulfspillhhe.html>.

