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RESULTS OF FOCUS GROUPS ON RESPIRATOR USE AND PRACTICES AMONG ROAD AND TRANSPORTATION BUILDERS. B. Doney, M. Greskevitch, D. Groce, CDC/NIOSH, Morgantown, WV.

Many airborne hazards present at workplaces can cause pneumoconiosis, a lung condition that resulted in over 120,000 deaths from 1968–2000. Pneumoconiosis can be prevented, in part by the proper use of respirators. During May 2001–September 2003, we conducted seven focus group meetings in cooperation with the road and transportation building industry: two with union workers and five with management representatives of companies that employed union or nonunion workers. In the focus groups, we studied the types of airborne hazards present at workplaces, control measures used to reduce these hazards, types of respirators used, and barriers impacting respirator use. Focus group participants reported the following exposures: asbestos, asphalt fumes, carbon monoxide, concrete dust and silica, diesel and gasoline fuels, hydrogen sulfide, lead, paint vapors, and welding fumes. Control measures included use of water to suppress dust, local ventilation, closed cabs on equipment, fans or natural air movement, and the use of respirators. Barriers to proper respirator use include high ambient temperatures, fogging of respirator facepieces, difficulty wearing safety glasses with respirators, difficulty communicating while wearing respirators (voice muffled by the respirator and background noise), difficulty or inability to communicate with non-English speakers, high worker turnover and short duration of jobs (making training, medical evaluation, and air monitoring difficult), educational level of workers, and employer difficulty with enforcing correct use. Some of the perceived barriers are design issues that could be resolved by selection of respirators with current advanced technologies or by development of new respirator designs. Other barriers such as worker turnover, education, training, medical evaluation, and language are best addressed by development of improved program administration tools. In 2005, NIOSH is planning a respirator intervention pilot project at highway construction sites to identify remedies for respirator usage barriers identified by the focus groups.

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CONTROL BANDING PRINCIPLES USED TO REDUCE RISKS OF POTENTIALLY IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH) ENVIRONMENTS. A. Weinrich, CDC/NIOSH, Cincinnati, OH; M. Hoover, CDC/NIOSH, Morgantown, WV.

Control banding is a simplified approach to protecting worker health that uses qualitative exposure assessment to focus resources on exposure controls. It does so by identifying hazard bands relevant to the chemical and exposure conditions and then implementing a series of hazard control practices appropriate for the conditions. Control banding should be especially valuable to small employers and in less developed countries, where resources are limited. Potential exposures to chemicals at IDLH concentrations may occur routinely in areas such as confined spaces or result from unplanned events, such as fires and chemical releases. Incorporation of control banding principles may improve standard hazard control procedures that reduce the likelihood that IDLH environments will occur and limit risks associated with entering environments that may be IDLH.

We have proposed a hierarchy of hazard bands for potentially IDLH environments.

1. Fatal
2. Escape-impairing
   a. Acutely neurotoxic
   b. Severe eye irritation
   c. Severe respiratory irritation
3. Irreversible nonlethal effects

The following hierarchy of exposure control practices anticipates potential chemical releases that may lead to IDLH environments.

(1) Develop emergency action plan
(2) Educate workers
(3) Substitute less hazardous chemicals
(4) Minimize hazardous chemical quantities
(5) Dike or enclose process
(6) Apply other engineering controls
(7) In case of release, employ good OH practices, especially
   a. Air monitoring
   b. Personal protective equipment
   c. Observation and back-up for personnel
   d. Decontamination procedures

Applying control banding principles may help to systematize hazard control practices typically applied by occupational hygiene professionals that offer substantial, if imperfect, worker protection in many situations and environments. Because research has not verified the efficacy of these practices under representative circumstances, expert OH advice should be sought and IDLH values or other, reputable, acute exposure guidance applied, especially when chemicals and exposure conditions may result in the most severe hazard bands.

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HAZARDOUS SUBSTANCES EMERGENCY EVENTS SURVEILLANCE SYSTEM (HSEES) IN POLAND—PILOT STUDY. S. Czerczak, A. Palaszewska, Nofer Institute of Occupational Medicine, Lodz, Poland.

The Hazardous Substances Emergency Events Surveillance System (HSEES) maintained by The Agency for Toxic Substances and Disease Registry (ATSDR) was established to collect and analyze information about acute releases of hazardous substances that need to be cleaned up or neutralized according to particular legislation, as well as threatened releases that result in a public health action such as an evacuation. Data concerning the environmental releases of dangerous substances are frequently lacking regarding the adverse health effects of these exposures on the impacted population. HSEES is the only tracking system that identifies emerging public health threats from acute hazardous environmental exposures in the area of 15 states. HSEES's goals in the United States are in compliance with ATSDR's mission to prevent exposure and adverse human health effects and diminished quality of life associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of pollution present in the environment.

Because HSEES is web-based and can be accessed from anywhere via the Internet with the appropriate security measures, this system can be readily used by any international partners.

According to the HSEES goals in the United States, including the reduction of the morbidity and mortality connected with hazardous substances events, the purpose of the pilot HSEES in Poland is to:

- Describe the spatial and temporal distribution of hazardous-substances emergencies
- Describe the morbidity and mortality experienced by employees, responders, and the general public
- Identify the risk factors associated with the morbidity and mortality
- Develop strategies to reduce subsequent morbidity and mortality

Effects of pilot study comprising implementation of HSEES solutions within one of the Polish voivodships:

- The voivodship of Lodz are to be shown

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THE SAFETY DATA SHEET FOR A DANGEROUS SUBSTANCE OR A DANGEROUS PREPARATION IN POLAND. S. Czerczak, M. Kupczewska-Dobecka, Nofer Institute of Occupational Medicine in Poland, Lodz, Poland.

The safety data sheet for a dangerous substance or a dangerous preparation shall include a set of information on dangerous properties of a substance or a preparation as well as on the principles and recommendations for their safe use. It is addressed primarily to the professional users in order to enable them to take the necessary measures in the workplace to ensure safety and to protect human health and the environment. It is forbidden to use dangerous substances and dangerous preparations for professional purposes without having a safety data sheet.

The person placing a dangerous substance or a dangerous preparation on the market on the territory of Poland is obliged to provide the safety data sheet to the recipient of this substance or preparation free of charge not later than on the day of the first supply.

If the safety data sheet does not contain required information, the inspector of chemical

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May 21–26, 2005
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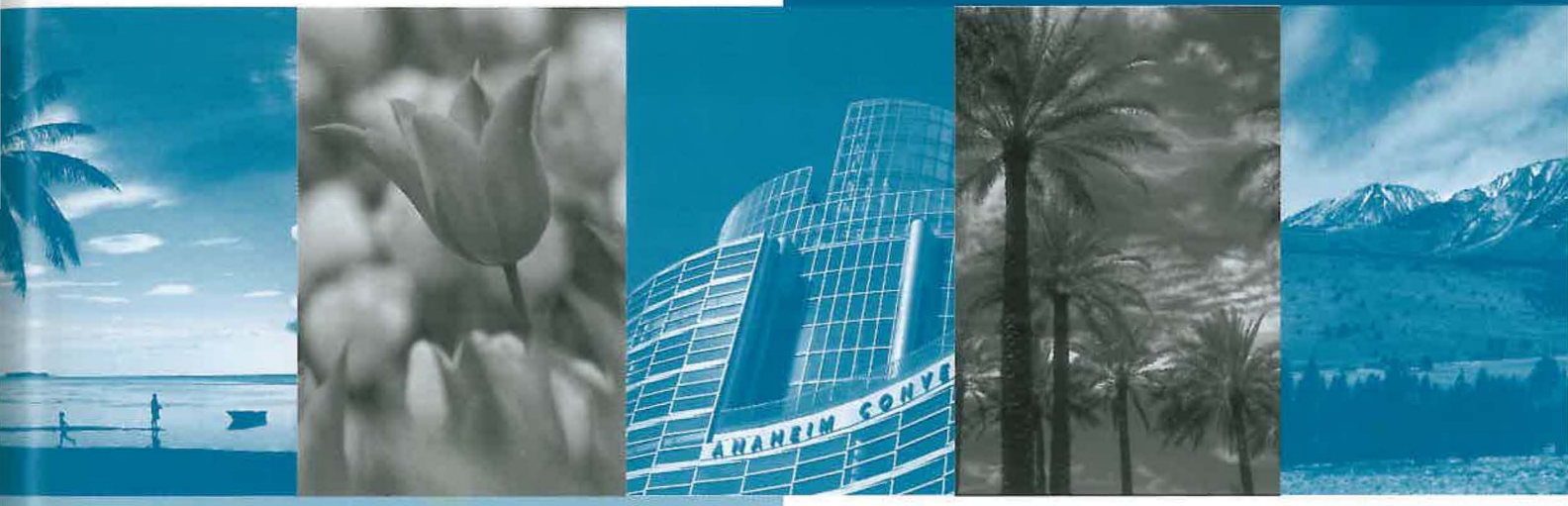

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