



EI ALERT

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Fatal falls second leading cause of work-related deaths

NIOSH recommends strategic precautions

Once the third leading cause of work-related deaths across all industries, falls have surpassed workplace homicide to become the second leading cause for workplace fatalities after motor vehicle crashes. Last year alone, some 717 workers (an average of nearly two deaths per day) died of injuries caused by falls from ladders, scaffolds, buildings, or other elevations. In the construction industry, falls lead all other causes of occupational death, but the risk is present in virtually every kind of workplace. It may occur in many forms, from standing on a ladder to change a light bulb, to connecting bolts on steel girders hundreds of feet above the ground.

In a new report, the U.S. Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) recommends strategic precautions to prevent fatal, work-related falls. This report provides a practical on-site resource for assessing individual workplaces, identifying risk factors for falls, and developing effective preventive measures. It is designed for employers and workers, as well as for safety professionals.

NIOSH recommends that employers design and use comprehensive fall-protection programs to reduce the risk of serious or fatal injuries. At a minimum, employers should (1) incorporate safety in work planning, (2) identify all fall hazards at a work site, (3) conduct

safety inspections regularly, (4) train employees in recognizing and avoiding unsafe conditions, and (5) provide employees with appropriate personal protective equipment (PPE) and train them in use of the PPE.

As tools for such programs, the new report includes:

- Extensive recommendations for preventing falls from ladders, scaffolds, buildings, fork lifts and stationary vehicles, and trees. The recommendations reflect current government and industry standards, as well as NIOSH research findings.
- All 90 case reports that NIOSH has issued from investigations of fatal job-related fall under its Fatality Assessment and Control Evaluation program. Covering a wide range of work activities, these findings and recommendations will be useful to employers and workers in identifying and reducing risks in similar situations.

To obtain a copy of this report, call NIOSH at (800) 356-4674.

EI provides consultation and training services on work-related fall prevention. For information about consultation and training, call EI at (800) 717-3472. Also, please refer to the brochure insert of this publication for upcoming training courses.

Can you identify the safety hazards in these photos? (See back page for answers.)



New storm water permit option now available

The 1990 storm water regulations for Phase I of the federal storm water program identify 11 categories of industrial activities that must obtain a National Pollution Discharge Elimination System (NPDES) permit. Operators of certain facilities within category 11, commonly referred to as “light industry,” were exempted from the definition of “storm water discharge associated with industrial activity,” and the subsequent requirement to obtain an NPDES permit, provided their industrial materials or activities were not “exposed” to storm water.

As revised in the Phase II Final Rule, the conditional no exposure exclusion applies to **all** industrial categories listed in the 1990 storm water regulations, except for construction activities that disturb five or more acres (category 10).

Under the original no exposure provision, a light industry operator was expected to make an independent determination of whether there was “exposure” of industrial materials and activities to storm water and, if not, simply not submit a permit application. An operator seeking to qualify for the revised conditional no exposure exclusion, including light industry operators must:

- Submit written certification that the facility meets the definition of “no exposure” to the NPDES permitting authority once of every five years.
- Submit a copy, upon request, of the No Exposure Certification to the municipality in which the facility is located.
- Allow the NPDES permitting authority or, if discharging into a

municipal separate storm sewer system, the operator of the system, to: (1) inspect the facility and (2) make such inspection reports publicly available upon request.

North Carolina already has already adopted by reference the Conditional No Exposure Exclusion currently available to all industrial facilities.

For more information about the Phase II Final Rule, visit the N.C. Division of Water Quality online at: <http://www.epa.gov/owm/sw/phase2/>

EI's environmental department provides consulting services in storm water management, spill control, and pollution prevention. For more information, call EI at (800) 717-3472.

Environmental Briefs

EPA sets first-ever water quality criteria for nutrients, methylmercury

EPA is taking a significant step to protect waters from excessive nutrients that can choke waterways and lead to algae blooms, including *Pfiesteria* and red tide, resulting in fish kills and potentially harmful human health effects. For the first time, the agency is setting water quality criteria, which serve as recommendations to states and tribes for water quality standards for nutrients, including nitrogen and phosphorous. Based on the new criteria states are expected to adopt or revise their nutrient standards by 2004. At the same time, EPA is protecting human health from methylmercury, the form of mercury that is found in contaminated fish, which if consumed can be toxic to the nervous system.

Additional information is available at EPA's Office of Water Web site at: <http://www.epa.gov/ost/criteria/methylmercury> and <http://www.epa.gov/ost/standards/nutrient.html>.

N.C. DENR Web site makes permit information more accessible

The N.C. Department of Environment and Natural Resources (DENR) has developed a new one-stop permit information and application tracking portal as part of its Customer Service Center Web site, www.envhelp.org. The new portal is designed for businesses and citizens to obtain information about the department's various permit categories and to guide applicants through the regulatory process. For more information, call the Customer Service Center toll free at (877) 623-6748.

N.C. DENR plans to limit mercury emissions

The N.C. Environmental Management Commission (EMC) has passed new rules requiring power plants and other industries to reduce their emissions of ozone-forming pollutants by more than two-thirds by 2006. Under the new rules, allowable utility emissions would drop from 89,000 tons of nitrogen oxide (NOx) per year in 2000 to 37,294 tons in 2004 (a 58-percent reduction), then to 28,100 tons in 2006 (a 68 percent reduction). Reductions also would be required at other NOx sources, including large industrial boilers, electric cogeneration plants, and petroleum pipeline compressor stations. For more information, visit N.C. Division of Air Quality's Web site at <http://daq.state.nc.us>.



EPA proposes new controls on industrial feedlots

EPA is proposing strict new controls on animal wastes from large, industrial feedlot operations, one of the nation's leading causes of water pollution. The new requirements would apply to as many as 39,000 concentrated animal feeding operations (CAFOs) nationwide. Currently only an estimated 2,500 large and small livestock operations have enforceable permits under the Clean Water Act. A CAFO is currently defined as having 1,000 or more cattle or comparable “animal units” of other livestock. Smaller operations also may be classified as CAFOs if they are a threat to water quality. More information is accessible at www.epa.gov/owm/afo.htm.

Occupational Health and Safety Briefs

● **New NIOSH asphalt report notes needs for studies, ways to minimize exposures**

A new report by the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) reviews current scientific data on health effects related to occupational exposures to asphalt, describes further research needs in this area, and suggests measures to minimize worker exposures while studies continue.

The new report, "Hazard Review: Health Effects of Occupational Exposure to Asphalt," DHHS (NIOSH) Publication No. 2001-110, is part of NIOSH's ongoing work with diverse outside partners to explore the complex questions pertaining to job-related asphalt exposures and health effects, and to develop practical and effective exposure controls based on known data.

Current research findings support a NIOSH assessment from 1977 that exposure to asphalt fumes is associated with eye, nose, and throat irritation, according to the report. Recent studies also have found evidence of lower respiratory tract symptoms among workers exposed to asphalt fumes. Those data are being further analyzed to assess the relationship between symptoms and exposures.

The new report also discusses studies that associate asphalt exposure with potential long-term health effects, such as chronic bronchitis and lung cancer. The report reviews data from those studies that relate to potential long-term effects under different conditions of use, including exposures from paving, roofing, and asphalt-based paint formulations.

Additional studies are needed to better characterize occupational exposures to asphalt fumes, vapors, and aerosols, and to further evaluate the risk of chronic disease, including lung cancer. In the meantime, NIOSH recommends that possible health effects from exposures to asphalt, asphalt fumes and vapors, and asphalt-based paints be minimized. Exposures can be minimized, the report suggests, by adhering to NIOSH's current recommended exposure limit of five milligrams of asphalt per cubic meter of air

over any 15-minute period, and by:

- Preventing skin exposure.
- Keeping the application temperature of heated asphalt as low as possible.
- Using engineering controls and good work practices at all work sites to minimize worker exposure to asphalt fumes and asphalt-based paint aerosols.
- Using appropriate respiratory protection for workers.

Copies of "Health Effects of Occupational Exposure to Asphalt," DHHS (NIOSH) Publication No. 2001-110, are available by calling NIOSH at (800) 356-4674. The report is also available online at www.cdc.gov/niosh.

El's Occupational Health and Safety Departments provide self-audit consulting services, among other services. For further information, contact El at (800) 717-3472.

● **Needlestick law amends Bloodborne Pathogen Rule**

In November 2000, a new amendment was signed that directs an amendment to OSHA's bloodborne pathogen standard that will ensure more widespread use of safer medical devices to prevent dangerous needlesticks.

Each year one in seven medical professionals experiences a needlestick while caring for sick or injured patients. Safer and newer equipment that is readily available could prevent many of these injuries. Our nation's health care providers deserve effective protection against deadly and debilitating bloodborne diseases such as AIDS and hepatitis B. This legislation gives it to them by clarifying that OSHA's regulation requires employers to identify and provide safer equipment for their staffs to use. For more information regarding the bloodborne pathogen standard, refer to *Alert* Volume 10, Number 1.

El's Occupational Health Services Department provides consultation and training services regarding bloodborne pathogens. For further information, contact El at (800) 717-3472.



OSHA's new Ergonomics Standard now in effect



The Occupational Safety and Health Administration (OSHA) recently issued the ergonomics standard, effective Jan. 16, 2001. The new standard addresses disorders such as back strains and chronic hand/wrist pain in workplaces.

This federal standard is designed to address nationwide nearly 600,000 musculoskeletal disorders each year, to help save workers from long work absences, and to protect businesses from soaring workers' compensation costs.

OSHA issued the standard after receiving more than 8,000 written public comments and listening to more than 700 witnesses testify at public hearings.

According to OSHA, the rules would cost businesses some \$4.5 billion to implement but would help save businesses \$9 billion a year in medical expenses and in workers' compensation.

Changes from the 1999 proposed standard include cutting back on workers' restriction protection (WRP) for injured workers and modifications to the action trigger. The trigger action now covers all general industry instead of focusing on manufacturing and manual handling jobs, and the "softening" of the "grandfather" clause in response to industry complaints that not a single company would have met the stringent criteria of the proposed rule.

For more information about the ergonomics standard, visit www.osha.gov.

El's occupational health and safety departments provide consultation and training services regarding ergonomics and federal and state rulings. For information about consultation, call El at (800) 717-3472. For training information please refer to the brochure insert of this publication.

Can you identify the safety hazards in these photos? Answers from page 1.

PHOTO 1: Change of elevation of 19 inches.
Way to correct action: An OSHA-approved ramp, ladder, or steps should be used to get from one elevated surface to another.

PHOTO 2: Fall protection.
Way to correct actions: OSHA requires that a guardrail, mid-rail, and toe-boards be mounted on the open side of a scaffolding platform that is 14 inches or more away from the working surface. If plastering and lathing are being performed, the allowable distance increases to 18 inches. OSHA also requires proper guardrailing on scaffolding higher than 10 feet.

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