

JSHQ

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Assistant Secretary's Message



R. Davis Layne

R. Davis Layne
Acting Assistant Secretary of Labor
for Occupational Safety and Health

Where is occupational safety and health headed at the beginning of the 21st century? Focused squarely on prevention, OSHA will be working with employers and employees to continue the downward trend in on-the-job injuries and illnesses.

President George W. Bush has nominated John L. Henshaw to head OSHA, and we are looking forward to his confirmation and having him join the agency soon. Henshaw has a strong background in occupational safety and health as health and safety director for Astaris, LLC, a St. Louis chemical company. He is also a past president of the American Industrial Hygiene Association.

Secretary of Labor Elaine L. Chao has said worker safety and

health are her top priorities and that prevention is the key to greater success. She intends to enforce worker protection laws using common sense and avoiding a one-size-fits-all approach.

In her remarks on OSHA's 30th anniversary, Secretary Chao noted, "Every time we hear of a worker who dies or an employer who is cited for violating an OSHA standard, we should ask, 'What could have been done to prevent the problem in the first place?' If we take a preventive approach, we can bring down the numbers of injuries, illnesses, and fatalities even further."

From the beginning of her tenure, Secretary Chao has recognized the dedication and experience of career employees in OSHA and other agencies. She has emphasized that she knows she will be able to accomplish her goals because she has a strong, capable team working with her.

The Secretary has made it very clear that she welcomes ideas and recommendations from DOL career staff. Well aware of the importance of the work of frontline public servants and OSHA's commitment to excellence, Secretary Chao is depending upon everyone at OSHA to come through for American workers. I know the agency will not disappoint her.

During any time of transition, many issues remain to be resolved. That doesn't mean that OSHA's goals will change, but there may be new approaches and new priorities.

We know that we need to address ergonomics. Musculoskeletal disorders continue to constitute one-third of all serious injuries. President Bush has said that he wants to pursue a

comprehensive approach to ergonomics. Secretary Chao has pledged to listen to stakeholders on this issue and to find a common ground. She has indicated that she is willing to consider new rulemaking, guidelines, or a legislative solution.

Toward that end, the Secretary has outlined six guiding principles in the reevaluation of ergonomics: prevention, sound science, flexibility, feasibility, clarity, and incentive driven. Three public forums in July will provide further opportunity for the public to comment on outstanding issues including how to define an ergonomics injury; how to identify whether an ergonomics injury stems from work, other activities or some combination; and what are the most useful and cost-effective types of government involvement to address these injuries. OSHA will also take written comments on these issues through August 3. The Secretary intends to announce the approach she plans to follow on ergonomics in September.

At the beginning of the 21st century, OSHA faces both ongoing issues such as ergonomics and newly emerging concerns. To meet these challenges, we will build on the solid foundation laid by the many career OSHA employees who have dedicated their professional lives and personal energies and talents to ensuring safe and healthful workplaces for all working Americans. I am confident that we will continue our strong history of success as we start our fourth decade. [JSHQ](#)

Q I'm a supervisor at a cellular telephone tower construction site. What OSHA standards cover my crews?

A OSHA's steel erection standard does not address the construction of communication and broadcast towers specifically. OSHA, however, issued Directive CPL 2-1.29, *Interim Inspection Procedures During Communication Tower Construction Activities*, on January 15, 1999, to help reduce the accidents and injuries associated with tower erection. The directive ensures uniform enforcement by OSHA's field enforcement staff of the provisions that address fall protection and safe access to communications towers during construction. It also includes *Title 29 Code of Federal Regulations*, Part 1926 references on personal protective equipment, cranes and derricks, fall protection, and ladder safety devices. Appendix A of the directive clarifies that under specified conditions, employers are permitted to use platforms and hoist lines to lift employees to tower work stations over 200 feet high.

Q I'm a furniture refinisher who regularly strips furniture of paint and coatings and works with furniture that's been chemically stripped. How can I protect myself and my family against lead poisoning?

A The best way to protect yourself, your family, and, if applicable, your employees against lead exposure is through good hygiene—for your work area, your work clothing and tools, and yourself. This involves keeping your work area and living quarters separate, reducing the

amount of lead dust generated, and preventing its spread. If you have employees, be aware that they may be covered by OSHA's General Industry Lead Standard, *Title 29 Code of Federal Regulations* 1910.1025.

To prevent the spread of lead dust, maintain an area exclusively for your work and keep it clean. During cleanup, use a vacuum cleaner with a special high-efficiency particulate air (HEPA) filter. If you grind or sand with power tools, use a HEPA filter vacuum attachment. While in the work area, avoid eating, drinking, smoking, or applying cosmetics, because you may inadvertently ingest lead through hand-to-mouth contact.

Before leaving the work space, wash your skin and hair, paying special attention to cleaning under your fingernails where lead dust can get caught and be ingested. Vacuum your clothing before going on break, and when you finish your work for the day, remove and bag all contaminated clothing. Avoid shaking the clothes to remove the

lead dust, and avoid washing them with your family's laundry. Work clothes, shoes, and other items such as tools should be used only in these work areas and should remain there unless you decontaminate them. This requires that you wash them thoroughly and collect the water used in a metal drum or other appropriate container for proper disposal.

If you send your work clothes to a cleaning service, you must inform the service personnel in writing of the potentially harmful effects of lead exposure if your (or your employees') exposure is above the OSHA permissible exposure limit of 50 micrograms per cubic meter, as outlined in *Title 29 CFR* 1910.1025. The container with the clothing must be labeled: "Caution: Clothing contaminated with lead. Do not remove dust by blowing or shaking. Dispose of lead-contaminated wash water in accordance with applicable local, state, or federal regulations." You may wish to wear disposable clothing while working to eliminate the need to launder it. Disposable clothing must be bagged and disposed of in accordance with local, state, or federal regulations.

Other personal protective equipment includes gloves to protect you from the chemical stripper, protective goggles, a hat, covers for shoes, and depending on the amount of lead dust or chemical vapor generated, an appropriate respirator. These items must be cleaned thoroughly between uses and before being removed from the work area.

If you believe that you or others in your family may have been exposed to lead dust, blood lead screening may be advised, especially for any young children or pregnant women in the

The best way to protect yourself, your family, and, if applicable, your employees against lead exposure is through good hygiene—for your work area, your work clothing and tools, and yourself.

household, even if they appear healthy. Lead poisoning affects virtually every system in the body and can be particularly dangerous to children.

For more information, visit the Technical Links page for lead on the OSHA website at www.osha.gov. Other valuable information sources include the following:

- *Lead Paint Safety Guide*, produced by the U.S. Department of Housing and Urban Development's Office of Lead Hazard Control and the Centers for Disease Control and Prevention and available by calling (800) 424-5323 or visiting www.hud.gov/offices/lead.
- *Protect Your Family—Reduce Contamination at Home* [NIOSH Publication 97125], produced by the National Institute for Occupational Safety and Health and posted at www.cdc.gov/niosh/thtttext.html; and
- *Occupational and Take-Home Lead Poisoning Associated with Restoring Chemically Stripped Furniture—California, 1998*, an article in the April 6, 2001 issue of the CDC's *Morbidity and Mortality Weekly Report*, posted at www.cdc.gov/mmwr/preview/mmwrhtml/mm5013a2.htm.

It is important to be aware that lead is not the only dangerous substance you work with when stripping and refinishing furniture. Chemical strippers contain solvents such as methylene chloride and trichloroethane and can cause severe health effects if used without proper precautions. Methylene chloride is specifically regulated by OSHA under *Title 29 CFR 1910.1052*. For information about the chemicals you use, contact the merchant and ask for a material safety data sheet. It will provide

The best way to protect yourself against Lyme disease is to avoid brushy, overgrown grass and wooded areas where ticks are likely to be found.

you with more information about the substance, protective measures, and the type of personal protective equipment required.

Q I'm a land surveyor who spends a lot of my workday in the woods. How can I protect myself against Lyme disease?

A Lyme disease is caused by *Borrelia Burgdorferi*, a bacterium carried in the gut of certain ticks. When infected ticks attach to the human body, often in the armpits, groin, scalp, or other hairy, hidden body areas, they feed slowly and may transmit the bacterium to their host within 36 to 48 hours. Young ticks are especially abundant and in search of hosts in late spring and early summer, although adult ticks can transmit infection as well.

The risk of Lyme disease is greatest in the mid-Atlantic and eastern New England states, as well as the Wisconsin-Minnesota border areas. The best way to protect yourself against Lyme disease and other tick-borne diseases is to avoid brushy, overgrown grass and wooded areas where ticks are likely to be found. Protect your skin by wearing a hat

and high boots or closed shoes, as well as light-colored clothing so you can detect ticks more easily. Tuck pant legs into socks or boots, and wear long sleeves if possible. If you are an adult, you might want to spray appropriate insect repellents on exposed non-facial skin and permethrin on clothes. Check your clothing and skin regularly for ticks. If you find one, remove it quickly with tweezers and cleanse the skin with an antiseptic to reduce the risk of infection. After work, shower thoroughly and wash and dry your clothes at a high temperature.

More than half of people with Lyme infection develop a "bull's-eye" rash, and many exhibit flulike symptoms such as fever, lymph node swelling, headaches, and joint or muscle aches. Seek medical attention for these symptoms, especially after a tick bite in a high-endemic area. Most cases of Lyme disease, if detected early, can be treated easily and successfully with antibiotics. People who live or work in high- or moderate-risk areas and have frequent or prolonged exposures to tick habitats may want to consider getting a Lyme disease vaccine. For more information about the vaccine and Lyme disease and its prevention, visit the OSHA website at www.osha.gov or the Centers for Disease Control and Prevention website at www.cdc.gov. **JSHQ**

What's Happening?

OSHA News

President Nominates Henshaw to OSHA

President George Bush has nominated John Lester Henshaw to be the new Assistant Secretary of Labor for Occupational Safety and Health. The President sent the nomination to the Senate for confirmation on June 13.

Henshaw is the Director of Environment, Safety and Health for Astaris, LLC, in St. Louis, MO, and was previously the Director of Environment, Safety and Health for Solutia, Inc. From 1975 to 1995, he was with the Monsanto Company in a variety of positions including Corporate Director of Quality and Compliance Assurance and Corporate Stewardship for Environmental Safety and Health, and Corporate Industrial Hygiene Director. He served for 16 years in the Air National Guard as a Bio-Environmental Engineer and is a member of numerous professional organizations. He received a bachelor's degree from Appalachian State University and a Master's degree from the University of Michigan.

President Submits OSHA Budget

The president's Fiscal Year 2002 budget request for OSHA includes \$425.8 million that emphasizes compliance assistance and enforcement programs.

The proposed budget represents a slight increase over Fiscal Year 2001 levels. Compliance assistance programs would receive \$57.2 million, an additional \$1.4 million over last year's levels, and enforcement activities would be boosted by \$3 million for a total of \$154.8 million.

The request also includes \$13.9 million for safety and health standards; \$88.1 million for state programs; \$19.6 million for technical support; \$48.8 million for state consultation grants; \$8.2 million for training grants; \$26.3 million for safety and health statistics; and \$9 million for executive direction and administration.

The budget calls for trimming 94 positions from OSHA's management ranks and its reinvention office. Acting Assistant Secretary for Occupational Safety and Health R. Davis Layne says the cuts will be made through attrition and retirement.

Recordkeeping Rule Takes Effect in January

Secretary of Labor Elaine L. Chao announced on June 29 that OSHA's rule on recordkeeping will largely go into effect as scheduled on January 1, 2002. The final recordkeeping rule is the culmination of an effort begun in the 1980s to improve how the government tracks occupational injuries and illnesses. The rule increases employee involvement, creates

simpler forms, and gives employers more flexibility to use computers to meet OSHA regulatory requirements.

The Department will seek comment on two proposed modifications to the rule's recordkeeping requirements. It will propose that the criteria for recording work-related hearing loss not be implemented for 1 year pending further investigation into the level of hearing loss that should be recorded as a "significant" health condition. The Department also will propose to delay for 1 year the recordkeeping rule's definition of "musculoskeletal (MSD) disorder" and the requirement that employers check the MSD column on the OSHA log.

The Department plans to develop a comprehensive plan to address ergonomic hazards and has scheduled a series of public forums on ergonomics. The issues to be decided as a result of these forums include the appropriate definitions of the terms "ergonomic injury" and "MSD."

Cotton Dust Amendments Adopted

Textile manufacturers that use an improved method of washing raw cotton to eliminate the risk of byssinosis are now exempt from most provisions of the OSHA cotton dust standard. Based on amendments that took effect April 6, manufacturers that use the "batch kier" cotton washing method are exempt from all provisions of the cotton dust standard except the requirements for recordkeeping and medical surveillance.

In batch kier washing, raw cotton is washed repeatedly in a giant kettle. Research and testing by the Task Force for Byssinosis Prevention indicates that advances



Acting Assistant Secretary for Occupational Safety and Health R. Davis Layne presents highlights of the proposed budget.

Photo by Donna Miles

in the batch kier method help protect workers against byssinosis or “brown lung.”

Upcoming Events

NSC Congress and Expo Planned

The National Safety Council’s annual congress and expo are slated for September 21-28 at the Georgia World Congress Center in Atlanta. This year’s theme is “The Odyssey Starts Here.”

Attendees will choose from more than 170 educational sessions on general as well as industry-specific topics, some presented in Spanish. More than 800 exhibitors will display their products and services September 24-26.

For more information or to register, call (800) 621-7619 or visit www.congress.nsc.org.

Summer Institute Slated

The North Carolina Education and Research Center at the University of North Carolina at Chapel Hill will present its 24th annual Occupational Safety and

Health Summer Institute August 6-10 in Norfolk, VA.

Participating industrial hygienists, safety professionals, health care professionals, and industry representatives will choose from some 35 occupational safety and health training sessions.

For more information, call toll-free (888) 235-3320 or visit www.sph.unc.edu/osherc/.

Farm Safety and Health Week Observed

The National Safety Council’s 58th National Farm Safety and Health Week event is scheduled for September 16-22. This year’s theme, “Kids #1 in 2001,” focuses on preventing accidents involving children and youth on America’s farms and ranches.

Among the hazards the NSC campaign will target are extra riders on farm tractors and machinery. Most tractors, combines, and other farm machinery have one seat and are designed to carry just one rider, but operators sometimes carry children along as extra riders. This exposes them to

the risk of run-over incidents when they accidentally fall or are thrown from the equipment and land under the machinery’s wheels.

For more information about National Farm Safety and Health Week and farm safety topics, call (800) 621-7615, extension 2023, or visit the NSC website at www.nsc.org.

Initiatives and Outreach

Site Promotes Teen Safety and Health

School is out until fall, and many students are spending their summer vacations in the workforce. Unfortunately, some of those young workers are likely to get hurt on the job. According to statistics from the National Institute for Occupational Safety and Health, about 70 teens die from work injuries in the United States every year. Another 70,000 get hurt badly enough to go to a hospital emergency room.

A new NIOSH website is designed to help reduce those statistics by promoting young workers’ awareness about safety and health. The site offers information for young workers as well as their employers to promote workplace safety. It is posted at www.cdc.gov/niosh under “Young Worker Safety and Health.”

NIOSH also distributed the brochure, *Are You a Working Teen? What You Should Know About Safety and Health on the Job*, and a poster about workplace safety to every high school in the United States.

Publications

NIOSH Reports Worker Deaths, Injuries

The rate of workplace fatalities decreased by 45 percent between 1980 and 1997, according to a



July is Eye Injury Prevention Month, sponsored by the American Academy of Ophthalmology. The academy emphasizes eye safety practices in the workplace, including the use of appropriate protective eye wear.

Photo by Michael Carpenter

Work Zone Safety

NIOSH Recommends New Initiatives

A new NIOSH report recommends ways to build on current safeguards to better protect workers in highway and street work zones from serious injury and death. According to the report, *Building Safer Highway Work Zones: Measures to Prevent Worker Injuries from Vehicles and Equipment*, existing industry and government standards and guidance do not go far enough to ensure worker safety. The report recommends that:

- employers continuously identify, evaluate, and mitigate hazardous conditions as activities, work locations, and other work zone conditions change;
- employers provide high-visibility apparel for all workers in highway construction zones, not just those who help direct traffic flow;
- employers train highway and street construction workers on the hazards of being struck by moving construction vehicles and equipment;
- contracting agencies consider incorporating the costs of worker safety protection into bid specifications as a standard practice;
- contractors, contracting agencies, policy makers, manufacturers, law enforcement officials, and the research

community work in partnership to prevent work-zone injuries;

recent National Institute for Occupational Safety and Health study, published in the Centers for Disease Control and Prevention *Morbidity and Mortality Weekly Report*. The report credits new technology, stricter safety regulations, and a shift in the economy toward safer service-industry jobs for the decrease.

Between 1980 and 1997, 103,945 workers in the United States died from work-related injuries. The report cites motor vehicle crashes as the leading cause of on-the-job deaths since 1980. Despite improvements in occupational safety and health, 16 U.S. workers are killed during an average workday, the report says.

extensive information on the numbers, rates, and causes of work-zone-related injuries and fatalities, and comprehensive information to help employers and employees address potential hazards at individual worksites.

In a separate report, NIOSH says U.S. workers were treated in emergency rooms for 3.6 million work-related injuries during 1998. Men were injured nearly twice as often as women per hours worked, and younger workers had more injuries than older workers.

The report, *Nonfatal Occupational Injuries and Illnesses Treated*



Promoting Awareness

Camille Villanova, a safety and health specialist in OSHA's Directorate of Construction, left, and Elaine Papp, a program analyst in the Office of Legislative Affairs, visit with "Coneman" from the Georgia Department of Transportation during recent National Work Zone Awareness Week activities in Washington, DC. OSHA joined the Federal Highway Administration and a wide range of other federal, state, and private-sector organizations to promote public awareness of work zone safety and mobility. The event included a memorial of 868 orange cones representing the 868 people killed in work-zone-related crashes in 1999. *Photo by Donna Miles*

community work in partnership to prevent work-zone injuries;

- policy makers work together to ensure that regulations from agencies with overlapping jurisdiction are compatible; and
- transportation safety and construction researchers collaborate on work zone safety research.

The report also provides

extensive information on the numbers, rates, and causes of work-zone-related injuries and fatalities, and comprehensive information to help employers and employees address potential hazards at individual worksites.

For a free copy of the report, call (800) 35-NIOSH or visit www.cdc.gov/niosh.

in *Hospital Emergency Departments—United States, 1998*, says about one-fourth of the injuries involved lacerations or punctures, particularly to hands and fingers. Another one-fourth of the injuries involved sprains and strains. Adolescents were more likely than older workers to receive burns.

For more information, visit the CDC website at www.cdc.gov.

NIOSH Releases New Publications

The National Institute for Occupational Safety and Health has several new publications on workplace safety.

Hazard Review: Carbonless Copy Paper (NIOSH Publication No. 2001-107) reviews current scientific information on the health effects of working with carbonless copy paper. Among the more common symptoms are irritation of the skin and the mucus membranes of the eyes and upper respiratory tract. The publication recommends good industrial hygiene and work practices to reduce or eliminate symptoms.

Hazard Review: Health Effects of Occupational Exposure to Asphalt (NIOSH Publication No. 2001-110) discusses the health effects of job-related asphalt

exposures. These effects include eye, nose, throat and lower respiratory tract irritation, as well as long-term effects such as chronic bronchitis and lung cancer. The report suggests measures to minimize worker exposures while studies continue.

Safety and Health Resource Guide for Small Businesses (NIOSH Publication No. 2000-148) is designed to help small businesses locate services and resources for preventing job-related injuries and illnesses. The guide lists sources of free occupational health and safety information from government agencies, professional associations, and other organizations.

Simple Solutions: Ergonomics for Farm Workers (NIOSH Publication No. 2001-11) offers tips to help farm workers reduce the risk of repetitive motion injuries. The booklet offers suggestions on how to modify tools to reduce the risk of backaches and chronic pain in the upper extremities, and on establishing worker and management ergonomics teams.

Women's Safety and Health Issues at Work is a fact sheet that highlights hazards facing women in the workforce. It also discusses ongoing NIOSH research in musculoskeletal disorders, job stress, workplace violence, and other areas of particular concern to women.

For a copy of these publications, call (800)35-NIOSH or visit www.cdc.gov/niosh.

Committee Update

ACCSH Meets in DC

Secretary of Labor Elaine L. Chao recently thanked “the dedicated professionals” of the Advisory Committee on Construction Safety and Health for helping promote safety in the construction industry.

Greeting ACCSH at its quarterly meeting this spring in Washington, DC, Chao said she looks forward to working with the committee to “reach out to people with a lot of common-sense approaches” to workplace safety. “Most people want to do the right thing to protect worker’s safety and health,” she said. “So let’s work together to help them do that.”

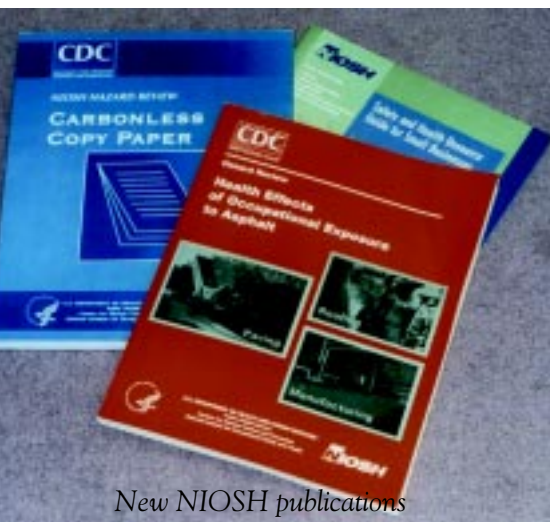
She urged committee members to be “students as well as teachers” as they tackle the new and ever-changing challenges in occupational safety and health.

During its 2-day meeting, ACCSH appointed two new work groups to address some of those challenges. According to chair Robert Krul, one work group will study the feasibility of transferable training certification for states and territories that run their own OSHA-approved occupational safety and health programs. Another new work group will evaluate the challenges of communicating health and safety information and warnings in multilingual work environments.

Bonfiglio Named to NACOSH

Salvatore Bonfiglio, a member of the Voluntary Protection Programs Participants’ Association, was appointed recently to serve on the National Advisory Committee on Occupational Safety and Health.

Secretary of Labor Elaine L. Chao made the appointment to one of two NACOSH positions reserved to represent U.S. business interests. Bonfiglio is corporate director of safety and risk management with Aventis Behring, LLC, in King of Prussia, PA, where his focus is the safety, health and environmental performance of industrial facilities worldwide. He



New NIOSH publications



Secretary of Labor Elaine L. Chao chats with ACCSH members in her office about the challenges ahead. Photo by Donna Miles

is co-chair of VPPA's Regulatory and Legislative Affairs Committee and served as chapter chair of the association's Region II board from 1995 to 1997.

Partnership News

OSHA Forges Partnership with Shipbuilders

A landmark new partnership between OSHA and the Shipbuilders Council of America, Houston Area, is expected to have a big impact on the safety and health of shipbuilders in the region.

The goal of the partnership is to increase training and enhance safety and health programs within the shipbuilding industry to prevent serious accidents.

The OSHA Consultation Service will provide assistance in safety and health program enhancement to eligible employers who request it. OSHA will conduct inspections to verify that the employer's performance under the agreement focuses on eliminating amputations, falls, electrical hazards, confined space hazards, lead and silica overexposures, and other sources of injuries.

Ray Skinner, OSHA Area Director in Houston, calls the

partnership a positive step toward the agency's strategic goal of reducing injuries and illnesses in the shipbuilding industry nationwide.

Construction Partnerships Gain Popularity

How much does it cost to partner with the Occupational Safety and Health Administration? And where do I sign? These questions came from not one but two commercial contractors following a multiemployer jobsite inspection by OSHA's Area Office in Cincinnati, OH.

A recent planned inspection of a large commercial project demonstrated the benefits of participation in the Allied Construction Industries Partnership with OSHA, formed in February 2000. The general contractor and several contractors on the site who had met the rigorous partnership requirements and joined the partnership were given the opportunity to correct other-than-serious hazards without receiving citations for those hazards during a focused jobsite inspection under the partnership guidelines. Other companies were inspected based on routine procedures and were issued citations accordingly.

After seeing the ACI/OSHA partnership at work, two additional contractors were anxious to join the program. Although the partnership requires commercial construction employers to demonstrate that they have effective safety programs at their sites, participants receive incentives such as opportunities to correct minor violations without penalty and discounted fines for more serious violations. In addition, no programmed OSHA inspections are scheduled for 1 year following a verification inspection by OSHA.

In a related development, the Builders Exchange of Central Ohio recently formed a partnership with OSHA to promote construction safety. OSHA and the 1,400-member trade group unveiled a 1-year program and related training guidelines to reduce workplace injuries.

In addition, the Associated General Contractors of America and the Associated Builders and Contractors both recently entered into a formal agreement with OSHA to promote safety at construction sites nationwide.

Contributed by Terry Phillips, Safety Director, Allied Construction Industries.

Colorado Nursing Home Corporations Join Partnership

The OSHA Englewood and Denver Area Offices and Colorado OSHA Onsite Consultation Program recently entered into a 3-year partnership with Pinon Management, Inc., and RTW Colorado, Inc., to improve workplace safety and health at 7 nursing homes.

Pinon Management manages the homes, and RTW Colorado performs risk management consultation services.

Although the partnership is intended to reduce all work-related injuries in nursing homes, its primary focus is on ergonomics hazards related to back injuries during resident transfers.

The goal of the partnership is to reduce lost-workday injury and illness rates for participating nursing homes by 10 percent per year, develop and implement a comprehensive safety and health program for nursing homes, and cut workers' compensation costs by reducing the number and severity of injuries and illnesses.

Under the terms of the agreement, Colorado OSHA Onsite Consultation has given primary consideration for a free consultation visit to one nursing home, with representatives from other partnering homes participating as observers. OSHA, Colorado Consultation, the OSHA Denver Region, and the National Institute for Occupational Safety and Health will provide training and education services on selected topics.

In addition, RTW Colorado will evaluate the progress of participating nursing homes in meeting the partnership goals. Pinon Management will conduct self-audits and evaluate employee training at the facilities.

VPP Update

DOE Facility Achieves VPP Status

The Department of Energy Strategic Petroleum Reserve Big Hill site at Winnie, TX, recently became the first DOE fossil energy facility to achieve OSHA's Voluntary Protection Programs recognition.

DynMcDermott, the operations and maintenance contractor at the site, applied for acceptance into the program when DOE transferred regulatory jurisdiction for the site to OSHA. Following an intensive 4-day onsite audit of all aspects of the company's safety and health management system, OSHA's Dallas Region recommended approval of DynMcDermott's request.

DOE supports Big Hill's participation in VPP and continues to administer its own VPP program for DOE sites under its jurisdiction.

New and Recently Reapproved VPP Members

Federal Program

New Star Sites

- Appleton Papers, Inc.-Spring Mill, Roaring Spring, PA
- Duracell Global Business Management Group, LaGrange, GA
- GE Capital Railcar Services, Dothan, AL
- Huntsman Polyurethanes, West Deptford, NJ
- Kama Corporation, Avenel, NJ
- Lucent Bell, Holmdel, NJ
- Lucent World Headquarters, Murray Hill, NJ
- Monsanto Agricultural Sector, Stonington, IL
- McDermott Bayou Choctaw, Plaquemine, LA
- Sonoco High Density Film Products, Milesburg, PA

17-Year Star Sites

- ExxonMobil Polyethylene, Beaumont, TX

8-Year Star Sites

- Solutia Pensacola, Gonzalez, FL

6-Year Star Sites

- CIBA McIntosh Plant, McIntosh, AL
- Kerr-McGee Hamilton Pigment Plant, Hamilton, MS
- Milliken Hillside Plant, LaGrange, GA
- PCS Savannah Ammonia Terminal, Savannah, GA

3-Year Star Sites

- Babcock and Wilcox Fossil Power, West Point, MS
- Equistar Victoria, TX
- Georgia Pacific, Madison, GA
- Georgia Pacific, Monticello, GA
- Georgia Pacific Savannah River Mill, Rincon, GA
- Georgia Pacific, Warm Springs, GA
- International Paper Hazleton, Hazleton, PA
- International Paper Morton Mill, Morton, MS
- Kerr-McGee Oklahoma City Technical Sales and Service Lab, Oklahoma City, OK
- Kerr-McGee Texarkana Wood Preserving, Texarkana, TX
- Masonite Towanda Mill, Towanda, PA
- Mead Covington, GA

- Milliken Alan B. Sibley Plant, Lavonia, GA
- Milliken Newton Plant, Hartwell, GA
- Milliken Pine Mountain Plant, Pine Mountain, GA
- OxyVinyls Houston Operations/Battleground Chlor-Alkali, La Porte, TX
- OxyVinyls Houston Operations/ Deer Park Chlor-Alkali, Deer Park, TX
- OxyVinyls PVC, Deer Park, TX
- WestPoint Chipley, Chipley, FL

Star Conditional Status

- CNH Grand Island Plant, Grand Island, NE
- Weyerhaeuser Barnesville Plant, Barnesville, GA

Return from Star Conditional Status

- Gardner Cryogenics, Bethlehem, PA
- Sterling Texas City Plant, Texas City, TX

Merit to Star Sites

- GE Capital Railcar Services, Sayre, PA
- Honeywell International, Houston, TX
- Huntsman, Longview, TX
- Taylor Packing, Wyalusing, PA

Merit Sites

- Ciba, Newport, DE
- Dick/Barton Malow's PNC Baseball Park Construction Project, Pittsburgh, PA
- Georgia Pacific Palatka Chip-N-Saw, Palatka, FL
- Georgia Pacific Peterman Plant, Monroeville, AL
- Havens Steel, Ottawa, KS
- Honeywell, Anniston, AL
- International Paper Riverdale Mill, Selma, AL
- International Paper, Jefferson, TX
- Rigging and Welding Specialists, Houston, TX

Merit Reapproval

- Rockwell Collins, Melbourne, FL

Demonstration Reapproval

- L.P.R. Construction Company, Loveland, CO

State-Plan State Programs

New Star Sites

- Air Logistics of Alaska, Fairbanks, AK
- BAE Systems, Fort Wayne, IN
- General Electric Vallecitos Nuclear Center, Sunol, CA
- International Paper, Quinnesec Mill, Norway, MI
- International Paper, Sartell Mill, Sartell, MN
- Johnson Controls, Athens, TN
- Precise Technology, Inc., West Lafayette, IN
- Tyco Kendall Wateree Plant, Camden, SC
- UT Electronic Controls, Huntington, IN

Merit Sites

- Lilly Technology Center, Indianapolis, IN [JSHQ](#)

As of May 1, 554 sites were participating in the Federal VPP: 491 in Star, 61 in Merit and 3 in Demonstration. In addition, 180 sites were participating in State-Plan VPPs: 171 in Star and 9 in Merit.

Preventing Needlesticks

by Susan Fleming

New rules affirm the need for safer devices to protect some 5.6 million workers who handle medical sharps.

Following a 90-day outreach and education effort, the Occupational Safety and Health Administration begins enforcing new provisions of its bloodborne pathogens standard on July 17.

States and territories operating their own OSHA-approved programs have until October 17 to adopt comparable changes in their bloodborne pathogens standards. OSHA extended the deadline 3 months to provide 90 days for outreach and education.

The changes, which went into effect on April 18, will help reduce needlesticks among some 5.6 million health-care workers and others who handle medical sharps.

The updated standard does the following:

- calls for employers to solicit input from frontline employees in choosing safer devices to ensure that workers who use the equipment have the opportunity to provide input into purchasing decisions.
- requires employers to establish a log to track needlesticks and help both employers and

employees identify problem areas or operations. Employers must maintain the privacy of employees who have suffered these injuries.

- clarifies and emphasizes the importance of employers' yearly reexamination of their exposure control plan, as mandated in the original bloodborne pathogens standard. As part of this review, employers must adopt, where

feasible and commercially available, safer needle devices—those with engineering controls to protect against accidental needlesticks. The Centers for Disease Control and Prevention estimated in March 2000 that selecting safer medical devices could prevent from 62 to 88 percent of sharps injuries in hospital settings. The requirement to use engineering

OSHA's Outreach and Education

To guide employers in complying with the new provision, OSHA has developed a fact sheet (see the *Toolbox* entry on page 41) and answers to frequently asked questions about needlesticks. Both items are available on the agency's website at www.osha.gov.

In addition, OSHA is working with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other groups to develop video conferences and publications and to recommend curriculum to help educate employers and workers in health-care settings.

In conjunction with OSHA's Training Institute, the agency's Office of Health Compliance Assistance designed a 29-slide presentation on the revised standard for use in outreach and education efforts.



Singer Naomi Judd, a needlestick victim herself, is a crusader for safer needle devices. Photo courtesy of Front Page Publicity

Judd Promotes Needlestick Safety Awareness

The revised bloodborne pathogens standard has what might appear to be an unlikely advocate—blockbuster country music star Naomi Judd.

During the early 1980s, before she and her daughter Wynonna together sold more than 20 million albums, Naomi worked as a registered nurse in an intensive care unit. She received a needlestick injury and contracted hepatitis C that forced her to put her music career on hold in 1991.

After nearly a decade of treatment, she returned to the stage last year.

Today Judd is strong proponent of safer needles that protect health-care workers. She has conducted many media interviews to support new provisions of the *Needlestick Safety and Prevention Act* designed to increase worker protections.

“If safer needle devices were available when I was a nurse, it could have changed my life dramatically,” says Judd. “I encourage all nurses and doctors to protect themselves.”

controls—safer medical devices—to reduce or eliminate worker exposure to sharps has been in effect since 1992. The changes to OSHA’s existing bloodborne pathogens standard mandated by the *Needlestick Safety and Prevention Act* clarify this requirement by defining “engineering controls” and specifying their already required use.

- incorporates new definitions for “sharps with engineered sharps injury protections” and “needleless systems.”
- modifies the definition of engineering controls to include as examples “safer medical devices, such as sharps with engineered sharps injury protections and needleless systems.”

OSHA published the changes to its bloodborne pathogens standard on January 18 in accordance with the *Needlestick Safety and Prevention Act*. Passed unanimously by the Congress last November, the law

directed OSHA to revise its bloodborne pathogens standard within 6 months. The legislation exempted OSHA from certain rulemaking requirements so the changes could be adopted quickly.

OSHA’s original bloodborne pathogens standard was published in 1991 to protect 5.6 million workers, primarily in health-care jobs, against the risks posed by bloodborne hazards such as HIV, hepatitis B, and hepatitis C. The standard required each employer with employees exposed to blood and other potentially infectious materials to establish an exposure control plan to identify how the facility intended to reduce exposure risks. The plans must be reviewed every year to keep them up to date as new technologies and strategies emerge for preventing worker exposures to bloodborne pathogens.

On November 5, 1999, OSHA published an updated compliance directive for the bloodborne pathogen standard emphasizing the

importance of reviewing control plans and the use of engineering controls to prevent exposures. The directive highlighted the employer’s obligation to adopt newer, safer devices as they become available. The *Needlestick Safety Prevention Act* clarified and codified those requirements, adding new requirements for employers to consult with employees in selecting safer devices and to track needlesticks and sharps injuries.

“Safe needles protect workers from deadly injuries,” said R. Davis Layne, Acting OSHA Administrator. “All of us want our nation’s health-care system to be as safe as possible. This rule and our accompanying education effort are a positive step in that direction.”

JSHQ

Fleming is a public affairs specialist in OSHA’s Office of Public Affairs, Washington, DC.

Safety by the Numbers

A new Bureau of Labor Statistics report shows a continuing downward trend in lost-time injuries and illnesses.

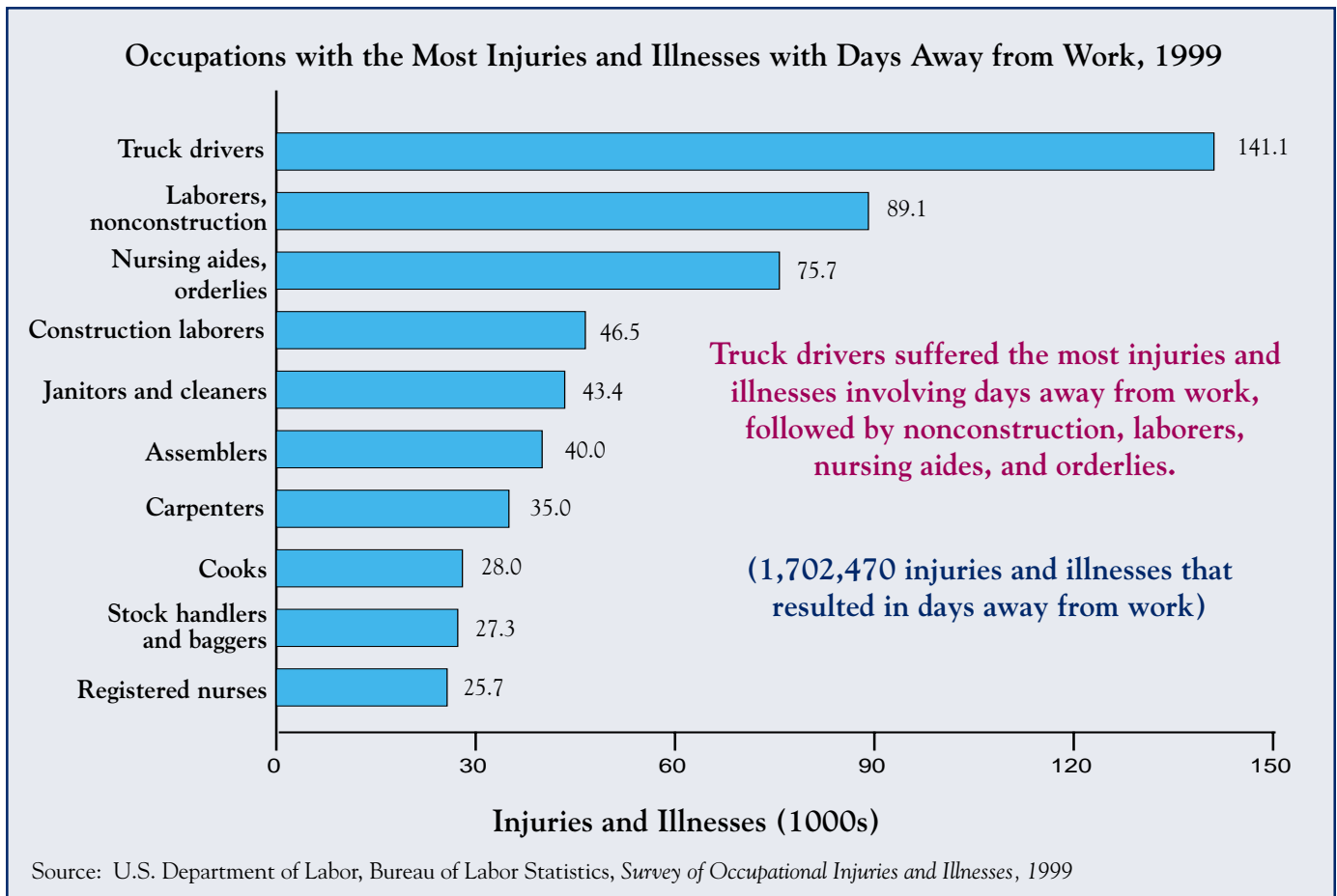
by Fred Walters

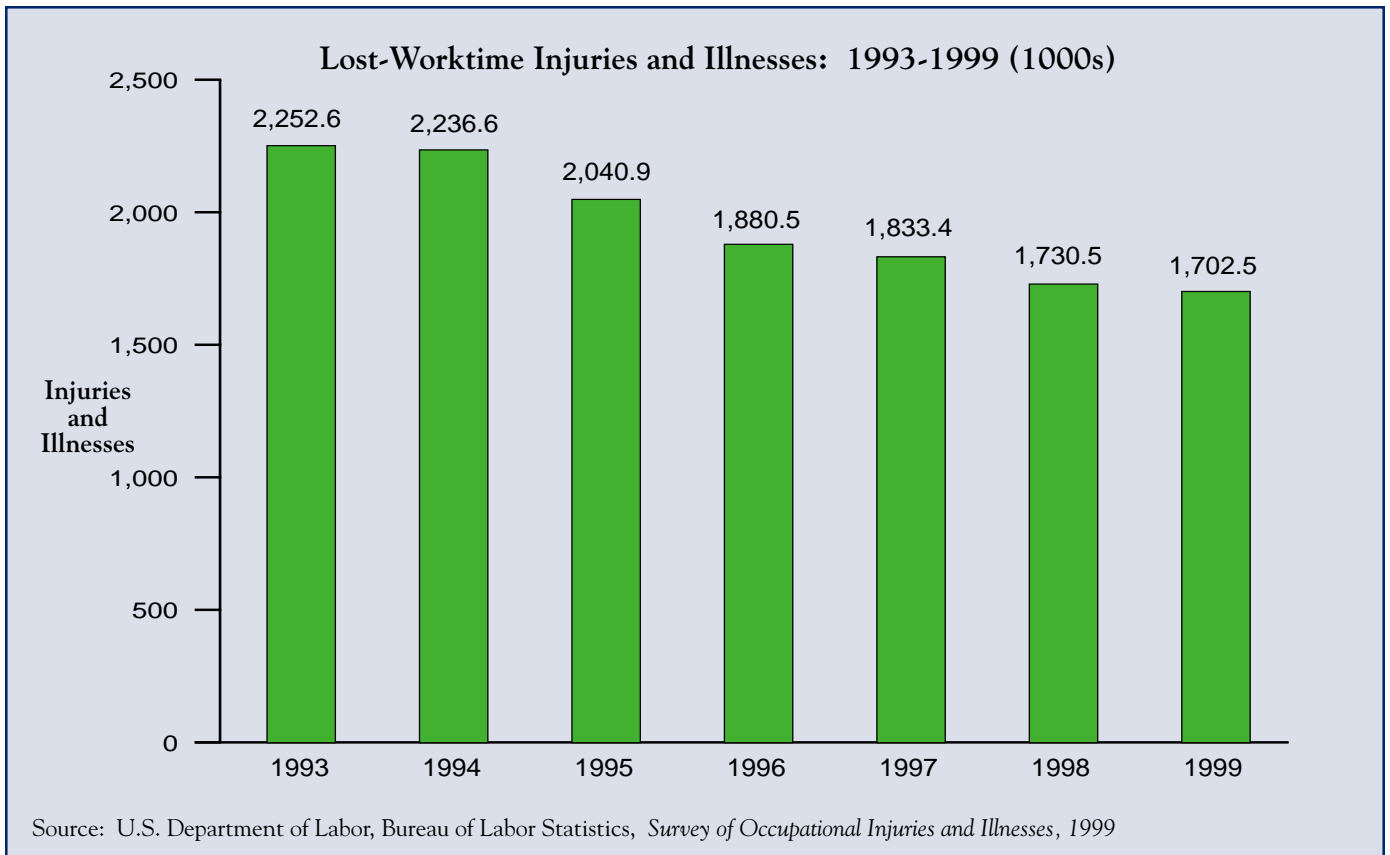
The numbers on lost-time injuries and illnesses for America's workers during 1999 are in—and the news is good. The downward trend continued with slightly fewer private-sector employees missing days away from work due to workplace injuries and illnesses than in 1998.

According to the most recent Bureau of Labor Statistics report on lost-time injuries and illnesses, 1.7 million workers needed time off to recuperate after incidents in 1999. In 1993, more than 2.2 million missed workdays to recover.

Secretary of Labor Elaine L. Chao challenged businesses,

unions, safety organizations, Congress, and the Labor Department to continue working together to help reduce these injury rates and to promote safer and more healthful workplaces. She called the downward trend in lost-time illnesses and injuries encouraging and emphasized the need to



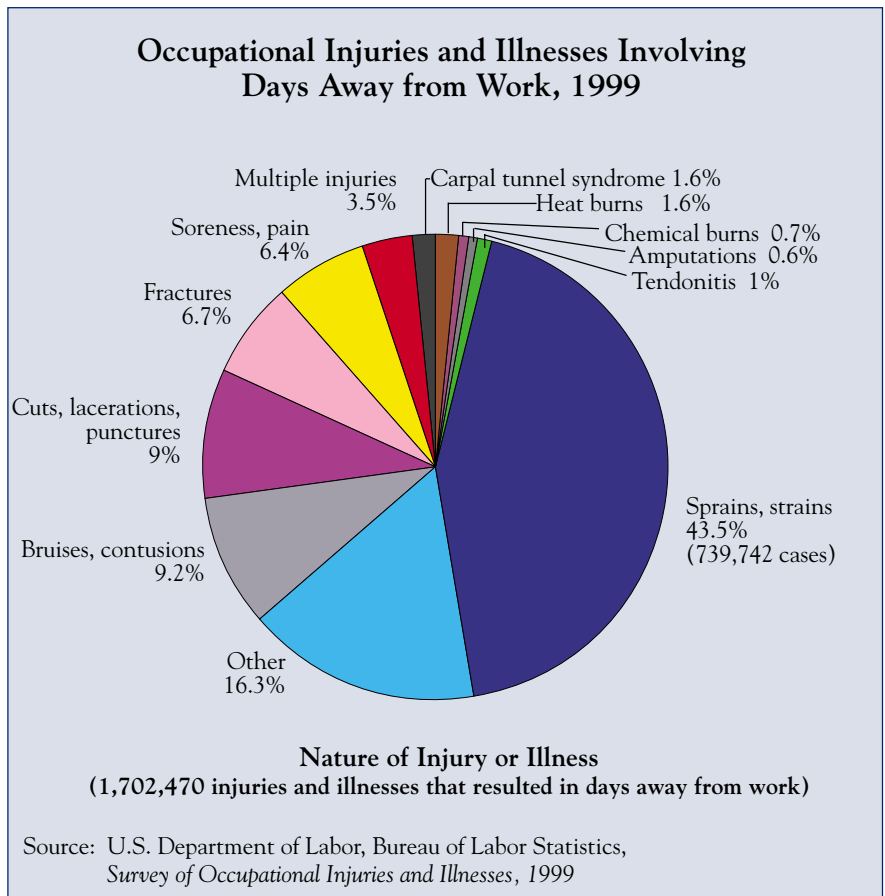


continue the momentum. “The safety and health of America’s workers is vital to our nation’s overall well-being and is my first priority,” she said.

BLS collected data from approximately 174,000 private-sector businesses in a joint effort with state agencies. The report excludes work-related deaths and nonfatal injuries and illnesses involving the self-employed; federal, state, and local government employees; and workers in private homes or on farms with fewer than 11 employees.

For more information or to read the full text of the report, *Lost-Worktime Injuries and Illnesses: Characteristics and Resulting Time Away from Work, 1999*, visit the BLS website at www.bls.gov. Click on *Worker Safety and Health*. **JSHQ**

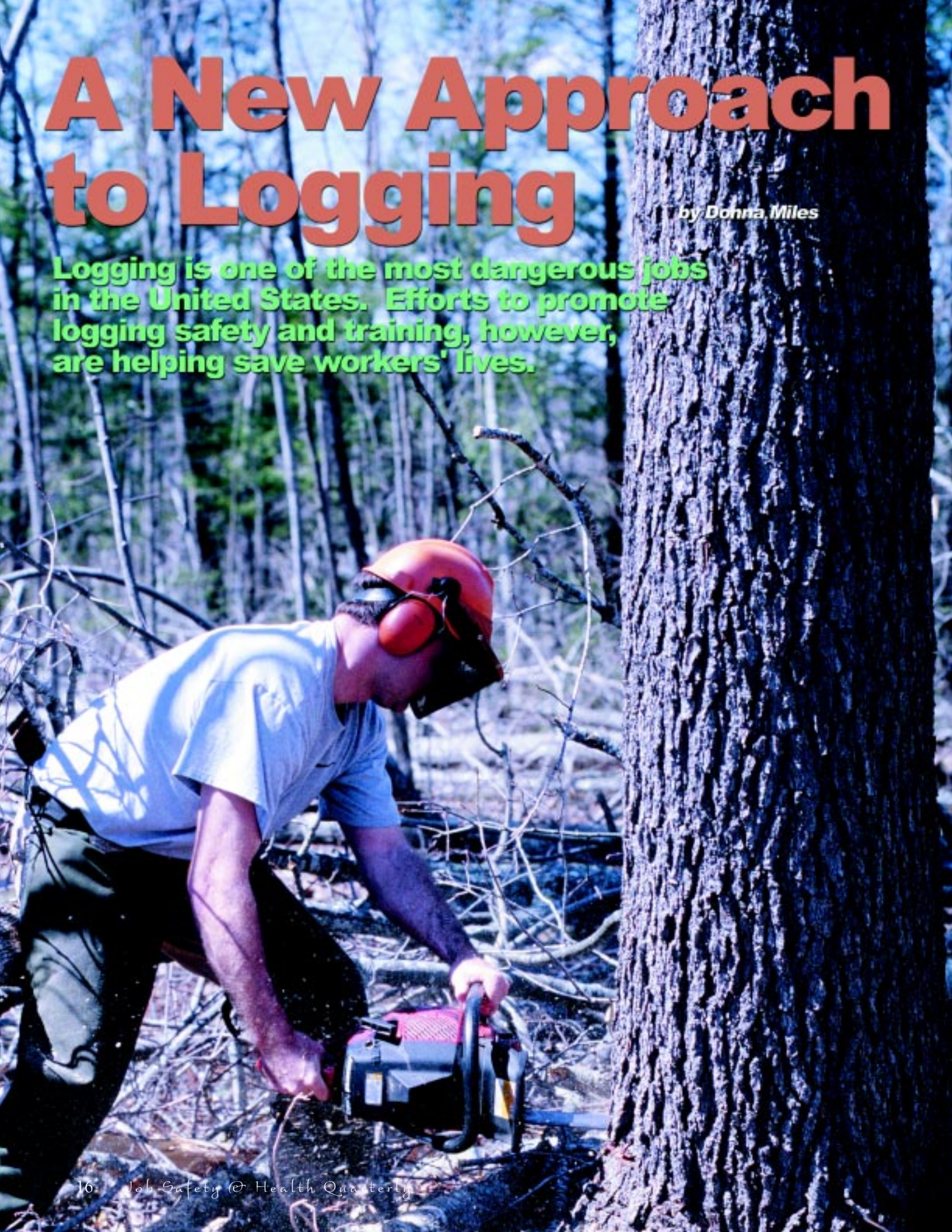
Walters is a writer-editor in OSHA’s Office of Public Affairs, Washington, DC.



A New Approach to Logging

by Donna Miles

Logging is one of the most dangerous jobs in the United States. Efforts to promote logging safety and training, however, are helping save workers' lives.



The invincible Paul Bunyan never thought much about logging safety.

While the legendary lumber-jack crossed the United States with his giant blue ox, Babe, clearing hundreds of acres of forests and digging Puget Sound to float his logs to the mill, it's unlikely that he ever worried about the dangers of his work.

Yet in real life, rugged terrain, unpredictable weather conditions, heavy equipment, razor-sharp tools, and falling trees weighing up to several tons each make logging one of the most dangerous occupations in the United States. During 1997 alone, logging accounted for 128 deaths per 100,000 workers nationwide, according to 1997 data from the Bureau of Labor Statistics. The bottom line is that loggers are 27 times more likely to die on the job than are workers in all other occupations combined.

A new study, *Review of Logging Fatalities Investigated by the Occupational Safety and Health Administration in FY 1996 and 1997*, reveals that more than half of the loggers killed during the 2 years studied were working directly where trees were being felled. According to Paul Cyr, OSHA's leading expert in logging safety, most of the workers killed were timber fallers who cut trees at the stump, limbers who remove the branches, and buckers who cut logs into shorter lengths.

In addition, loggers working on or inside heavy equipment represented a full one-third of the logging fatalities. Many equipment operators died after being struck by trees, branches, and other debris, or crushed between or beneath equipment.

The OSHA report revealed a disturbing trend: 98 of the 107 fatalities could have been prevented if the companies had developed, communicated, and enforced work procedures based on the OSHA logging standard, Logging Operations, outlined in *Title 29 Code of Federal Regulations 1910.266*. Cyr says the most frequently violated rule was the requirement for employers to train their employees in safe logging practices.

Rugged terrain, unpredictable weather conditions, heavy equipment, razor-sharp tools, and falling trees weighing up to several tons each make logging one of the most dangerous occupations in the United States.

"You can have all the rules you want, but if employers don't enforce them and don't communicate them, they're of no value," says Cyr. "Rules don't change the work environment. People do that."

Changing long-standing attitudes and practices is no easy task, Cyr admits, but OSHA is counting on a

strong education and outreach effort to improve logging safety. The agency's goal is to reduce logger deaths by 15 percent by September 2002.

This is an ambitious goal, Cyr admits, considering the challenges of reaching out to the hundreds of small logging operations that dot the country. Two-thirds of all logging companies have fewer than 10 employees and, not surprisingly, experience the largest percentage of logging injuries and deaths.

"Getting the safety message out to these operations isn't easy," Cyr says, "but it's critical if we're going to see any improvement in logging safety."

Fortunately, logging safety has been getting increased emphasis these days—not only among federal and state regulators, but also among industry representatives concerned about the alarming death and injury rates.

OSHA is working closely with the logging industry through its consultation and outreach efforts to deliver training, in Cyr's words, "for loggers, by loggers, and whenever



Left, training in safe logging techniques is helping reduce injuries and fatalities nationwide. Photo by Eric Johnson, The Northern Logger Magazine. Above, a logger secures a load for transport.



Instructors for Maine's Certified Logging Professional Program review tree-felling skills. Photo by Stewart Hall

training, which costs \$500 per student.

The program includes a 4-day workshop, with 3 days in the classroom and 1 day in the woods, followed by a field evaluation. According to program manager Mike St. Peter, more than half of the students who attend have never received formalized logger safety training.

Figures released last year by the Maine Department of Labor show a steady decline in logging injuries and illnesses since the program began—down from 24.9 per 100 full-time workers in 1988 to 3.6 per 100 workers in 1999. Amazingly, injury and illness rates for Maine loggers are now lower than for Maine workers in all other private-sector occupations combined.

“This is a great example of the difference logger safety training can make,” says Cyr. “It’s the kind of success we’re working to see more of throughout the country.”

As a result, workers’ compensation rates for participating companies have plummeted. Companies with workers certified through the program pay as

possible, delivered directly at the stump.”

In addition, the OSHA Training Institute’s week-long logger safety training program is drawing record attendance. The instruction is practical, with 3 days of the week-long session conducted in the woods, with a hands-on application of safety principles and techniques. The most recent class took place this summer in Duluth, MN.

Demand also remains steady for OSHA’s *Safety and Health Resources for Logging*, a CD-Rom released by the agency’s Salt Lake Technical Center in late 1999 to provide logging safety instruction. It examines logging procedures, explains OSHA’s logging standard, and links to specific sections of the standard, a tree-felling video, and other information sources. OSHA’s website also provides detailed technical information at www.osha.gov

States with large logging industries are making strides, too. Here are examples of outreach initiatives under way in four regions of the country.

Maine’s Logger Certification

In Maine, a voluntary logger certification program has helped dramatically reduce both accident rates and workers’ compensation costs during the past 10 years.

The Certified Logging Professional Program, founded by loggers, landowners, environmental specialists, and safety consultants, provides professional training and certification for Maine loggers. More than 4,000 loggers and other workers in the logging industry have attended the



A new OSHA study reveals that more than half of loggers killed in 1996 and 1997 worked directly in the tree-felling zone. Photo by Stewart Hall

Enforcing Logger Safety

Virgle Howell is a man with a mission. A long-time logger and logging inspector, he has lost too many friends and colleagues to logging accidents. He understands the fickle nature of woods—the everchanging work conditions and the simple fact that no two trees are exactly alike or fall in exactly the same way. Most of all, he understands that no matter what precautions loggers take, there is no guarantee that they won't get hurt.

“But I also know that if you break enough rules, the woods are definitely going to get you,” he says.

Howell is committed to protecting loggers' lives. As a compliance officer for OSHA's Boise Area Office, he inspects worksites to ensure workers comply with safety standards. He admits he is not always welcomed with open arms when he arrives at a worksite, but he is convinced that he and other OSHA inspectors are helping save loggers' lives.

Among the most common mistakes Howell finds at logging operations include the following:

- Improper felling techniques. This increases the likelihood that a tree will fall in an unintended direction and injure or kill someone. Precise felling techniques give loggers more control over where a tree will fall.
- Improper separation of logging activities on site. Loggers must maintain a distance of at least two full tree lengths from other loggers, while at the same time staying within visual and audible contact. Howell says many loggers either work too closely to other loggers, or fail to carry whistles or radios so they are able to maintain audible contact during noisy logging operations.
- Improper use of personal protective equipment such as hard hats and leg protection. Howell says some loggers avoid wearing a seat belt when they

are working on heavy machinery, too, believing that they will be safer jumping from the equipment than staying inside if it starts to roll over. In fact, the workers often are crushed when the equipment rolls over them.

- Lack of proper maintenance to ensure logging equipment operates safely. Failed vehicle brakes, inoperable chain brake mechanisms on chainsaws, and damaged guards on log-loading equipment result in far too many logger injuries and fatalities, Howell says.

“These are practices used in the woods every day by people who are in a hurry or just don't believe that an accident can happen to them,” says Howell. “But the numbers show that accidents can happen to them—and do. My job is to teach loggers how to do their jobs as safely as possible so they can protect themselves against some of these senseless deaths and injuries.”

much as 71 percent less on their premiums. In addition, some larger paper companies will buy timber only from companies participating in the Certified Logging Professional Program.

“Certification through the program isn't mandatory,” says St. Peter, “but the industry is helping to make it mandatory if a logging company is going to stay in business and stay competitive.”

North Carolina Logging Program

Alarmed when logging fatalities in their state peaked at 13 during Fiscal Year 1993, the North Carolina Department of Labor's Occupational

Safety and Health Division joined forces with the North Carolina Forestry Association to help reduce the injury and fatality rates.

The main focus of their partnership is the Pro Logger Program, launched in 1993 to train loggers and logging industry representatives in safe logging techniques and practices. According to Willard Whitley, a safety consultant supervisor for eastern North Carolina, the partnership offers the 48-hour course in the evenings through the state community college network. Participants learn about virtually all aspects of logging operations, from how to run a logging business and maintain logging equipment to how to comply with logging safety

States with large logging industries are using a wide range of education and outreach initiatives to promote safe logging practices and techniques among their workers.



North Carolina's Pro Logger Program covers the proper use of logging and personal protective equipment.

Photo by Myrton Hall

standards. The safety portion of the training includes classroom instruction and a day in the field. Instructors from both the state and association demonstrate manual felling procedures and the proper use and inspection of logging and personal protective equipment.

In addition, the state Occupational Safety and Health Division offers extensive training to logging companies through its Consultative Services and Education, Training, and Technical Assistance Bureaus. The state printed 15,000 copies of its *Logger Safety Checklist* booklet to distribute to loggers, industry representatives, and compliance officers. Whitley says the booklet provides "everything a logger needs to do to implement a complete safety program," including outlines for periodic training and an easy-to-understand interpretive guide to the state standards that apply to logging.

The state-association partnership also trains state compliance officers and consultants. Since 1994, more than 200 state compliance officers and consultants have received basic and advanced-level logging safety training that covers logging site operations, chain saw operation, tree felling, and logging-specific safety and health issues. The North Carolina Forestry Mutual Insurance Company provides a 1-day workshop on

investigating logging fatalities. Loggers and industry representatives frequently attend the sessions.

The partnership's heavy emphasis on logging safety helped bring about a dramatic decrease in logging fatalities, down to one per year during both 1997 and 1998. However, Whitley says optimism changed dramatically in 1999 when seven North Carolina loggers died, five from being hit by overhead hazards such as falling limbs and debris.

As a result, the partnership introduced its Heads Up For Hazards

program to increase loggers' awareness of overhead hazards. It produced and distributed a *Heads Up for Hazards* pamphlet and a commemorative decal for loggers' hard hats to serve as a reminder to take precautions.

Whitley says the partnership is committed to logging safety. "There's a great deal of emphasis on safety within the entire industry," he says. "Together, we're making great strides, and we're committed to building on the heightened sense of awareness to save lives."

"Together, we're making great strides, and we're committed to building on the heightened sense of awareness to save lives."

Minnesota's LogSafe Program

Minnesota provides free, 8-hour logger safety classes to some 1,100 loggers—95 percent of the state's full-time logging workforce.

The Minnesota legislature launched the LogSafe program 10 years ago in response to skyrocketing workers' compensation costs that were driving many logging companies out of business. Sawmill owners agreed to pay 30 cents for every cord of wood they purchased or



Ed LaFavor teaches a chainsaw safety seminar for Minnesota's LogSafe Program.

Photo by James Honerman

processed annually above 5,000 cords into a special logger's fund.

Of the money paid into the fund each year, \$125,000 covers the cost of the state's LogSafe training program. Participating logging companies receive the remainder as rebates on their workers' compensation premiums.

Ed LaFavor, the training program director, varies the subject matter to cover a broad range of topics and keep loggers interested. Seminars cover CPR and first-aid, chainsaw safety, and ways to develop a safety and health program for workers, among other topics.

LaFavor says employers particularly like the program because, if they send all their workers through the training, the logger's fund pays them 11 cents on every dollar they spend on workers' compensation premiums. The average

rebate last year was \$5,300 and one participating company received a whopping \$39,000.

LaFavor says the training program's best endorsement comes from loggers themselves. "I know it's making a difference because people tell me all the time that because of what they learned in the program, they stopped and thought about what they were doing, then did it a different way," he says.

"I know it's making a difference because people tell me all the time that because of what they learned in the program, they stopped and thought about what they were doing, then did it a different way."

Two Minnesota loggers recently died on the job, ending 1-1/2 years in the state with no logging fatalities. LaFavor says both deaths involved dangerous practices covered in LogSafe classes, but neither of the loggers killed had ever attended LogSafe training.

"I can't say that if they'd attended that they'd be alive today," he says. "But I can say that the material we offer gives loggers food for thought and helps promote safer logging practices."

Northwest Logging Training Committee

When they evaluated their safety training programs, loggers in the Pacific Northwest recognized that

most focused on ground logging—the type of harvesting used on flat terrain. They needed a program that emphasized cable logging, the method most commonly used in the steep terrain found in the Northwest United States.

In response, several states joined forces with OSHA's Seattle Regional



Northwest loggers use a cable yarding system to move logs from steep slopes.

Office and the National Institute for Occupational Safety and Health to form the Northwest Logging Training Committee. The committee, which includes representatives of the states of Washington, Oregon, Idaho, Montana, and Alaska, is working to improve and standardize logger training throughout the region.

Committee members found that most logging companies trained their new workers informally on the job, with more seasoned loggers teaching new loggers. Tom Ford, logging and forest products safety specialist for Washington State OSHA, says some logging companies had good programs with a strong safety emphasis, but some did not.

The Northwest Logging Training Committee hopes to change that to ensure all loggers in the Pacific Northwest receive equal access to



Trees weighing several tons each contribute to the dangers of logging.



OSHA's Paul Cyr demonstrates techniques for safe logging for Potlatch Corporation employees. Photo by Van Howell

high-quality safety training. Once they finish developing their training program, they plan to introduce it throughout the region.

Participants in the Northwest Logging Training Committee are taking their own safety initiatives, too. OSHA's Boise, ID, Area Office recently formed a local partnership with one of the state's largest land and mill owners to promote voluntary compliance with logging standards. In a program modeled after OSHA's Voluntary Protection Programs, the Potlatch Corporation agreed to inspect its contractors and subcontractors to ensure they meet OSHA's logging standards. In return, OSHA conducts fewer scheduled inspections of partnering logging contractors and subcontractors.

In addition, OSHA conducted a 1-week logging safety class in April for Potlatch Corporation employees, and in June for members of the Montana Logging Association.

Washington State's OSHA Office

“We’re doing whatever it takes to make sure all loggers get to go home at night in one piece.”

recently added an employee to its staff specifically to work with small contractors who make up the bulk of the state's logging industry. The state has also formed an informal partnership with large landowners to encourage them to hire only contractors that promote logging safety.

“Our job is to promote logging safety and logging safety awareness throughout the industry, from the workers to the employees to the land and mill owners,” says Ford. “We’re doing whatever it takes to make sure all loggers get to go home at night in one piece.” [JSHQ](#)

Harwood Grants Promote Logging Safety

Three nonprofit organizations are providing safety and health training targeted to loggers through funding from OSHA's Susan Harwood Training Grant Program. The program funds initiatives to train workers and employees to recognize, avoid, and prevent safety and health hazards.

The grantees' efforts, which have proven to be successful in reaching loggers through onsite training sessions, currently are in their third year of OSHA funding, which ends September 30. The grantees are as follows:

- Eastern Washington University in Cheney, WA. This organization is working with

logging associations in Washington and northern Idaho to recruit loggers for worksite safety training that emphasizes the OSHA logging standard. The program includes train-the-trainer sessions and helps logging firms establish safety and health programs.

- Lumberjack Resource Conservation and Development Council in Tomahawk, WI. This grantee works with the Forest Industry Safety Training Alliance to conduct in-woods training on chainsaw safety and mechanized logging operations for loggers in Illinois, Iowa, Kansas, Michigan, Minnesota, North Dakota, South Dakota,

and Wisconsin. The program includes informational classroom sessions on the OSHA logging standard.

- Northern Vermont Resource Conservation and Development Council in Berlin, VT. This grantee provides administrative direction to the Yankee Forest Safety Network, which conducts logging safety training and visits to logging worksites to improve safety practices. The training, offered in Vermont, New Hampshire, Connecticut, Massachusetts, and Rhode Island, concentrates on chainsaw operation, felling techniques, and job planning.

Safety at the Showroom

New-car dealers in eastern New York have shifted into high gear to promote worker safety and health in their vehicle repair facilities.

by Deborah Dorman



Participating dealers keep service areas clean and well lit to help prevent injuries.

Photo by Michelle Pensack

On a hot day, a worker grabs a soda can and takes a long swallow—of gasoline. A maintenance worker is knocked off a ladder when someone accidentally turns on the overhead door he was repairing. The incessant blast of an air compressor threatens employees' hearing. A cigarette ignites the vapors from an

aerosol can, causing a wall of flames. The slightest friction from shoes on a floor creates a spark large enough to cause an explosion from ungrounded paint cans.

Where is this dangerous place? Nowhere more exotic than the average vehicle repair shop. During 1999 alone, 82 workers died and 32,000 were injured in

automotive repair shops nationwide, according to 1999 data from the Bureau of Labor Statistics. The cost to industry is exorbitant, not only in terms of workers' health and safety, but also in productivity, morale, employee turnover, and insurance and workers' compensation rates.

New-car dealers in eastern New York have shifted into high gear to promote safer and more healthful work environments in repair shops within their industry. The Eastern New York Coalition of Automotive Retailers (ENYCAR), a trade association for new-car franchised dealers, recently expanded its workplace safety program. The Dealer, Employee, and Environment Program, called "DEEP," is the product of a local emphasis program started 10 years ago by ENYCAR and the Occupational Safety and Health Administration's Albany Area Office. At the time, Office Director John Tomich says his staff was focusing its inspections on high-risk businesses, including auto repair facilities.

Concerned about injury rates at its member dealers, ENYCAR approached OSHA's Albany Area Office for help. In response, Tomich's staff taught the trade association about OSHA's regulatory requirements, how to conduct technical inspections at dealerships, and how to produce technically accurate training materials for members. After the initial sessions, Tomich says ENYCAR "ran with the ball" to launch the DEEP program.

The program, which now includes more than 300 dealerships, combines training, inspections, and other assistance to promote worker safety.

DEEP's inspection program begins with an unannounced site inspection by an ENYCAR staffer

to identify workplace hazards using a checklist developed specifically for vehicle dealerships. Among the most common problems inspectors find in their initial inspections are the following:

- failure to label transfer containers;
- tampering with safety latches on lifts;
- failure of employees to use appropriate personal protective equipment; and
- use of frayed or taped electrical cords.

After the initial inspection, ENYCAR inspectors discuss their findings with the dealerships and recommend corrective measures to eliminate hazards. They also provide any training needed to promote workplace safety.

Later, ENYCAR inspectors revisit the site to review the dealer's safety program and recordkeeping procedures. After that, the



Bob Doty, right, DEEP supervisor at a participating dealership, discusses the program with a coworker. Photo by Michelle Pensack

association staff conducts two annual comprehensive site inspections per dealership. Dealers quickly correct any hazards identified during an inspection, and the same hazard is rarely if ever found twice at the same dealership.

Training is a major component of the DEEP program. ENYCAR

provides monthly training sessions for dealership employees and at least two safety supervisor training sessions each year. In addition, the association gives participating dealerships manuals with written programs and compliance materials, individualized employee and supervisor training on specific hazards, and research and technical assistance.

The DEEP training program emphasizes face-to-face training with simple materials. The goal is to make the training as personal and accessible as possible so more employees are likely to participate—something small associations are uniquely able to do.

The program content initially targeted employees in the dealers' service, parts, prep, and body shop departments. But a new training component expands the program's reach to a broader spectrum of dealership employees. Among the new tools introduced is a workbook that teaches the basics of the safety program in a scavenger-hunt format. Like the program's other training programs, the workbook is intentionally "low tech" and does not require computer access and skills not always available in all dealerships.



ENYCAR inspectors look for neat, orderly work areas with first-aid kits, proper cords, and use of labels. Photo by Michelle Pensack

Meanwhile, ENYCAR maintains a close relationship with the OSHA Albany Area Office. OSHA staffers help the association develop training materials, visit dealerships to provide presentations on safety topics, and provide technical advice for interpreting regulations.

ENYCAR keeps participating dealerships up to date on new regulations and training opportunities involving workplace safety. Dealerships in the DEEP program show significant improvements in workplace health and safety.

“During the past 10 years, OSHA has had little if any need for enforcement activity involving the program participants,” says Tomich. “We always stand ready to respond to complaints, referrals, and reports of fatalities. But thanks to DEEP, those calls are few and far between. New-car dealerships in the region are now far safer places to work.”

That makes employers and employees happy, too. The DEEP program continues to expand, and the participating dealerships praise the program for helping reduce injury rates and improve employee morale. Carl Keegan, Vice President of Orange Motors in Albany, NY, calls DEEP the association’s “most important and useful program” that he said “has had a dramatic effect on our dealerships.”

To celebrate the program’s successes, ENYCAR hosts an annual awards program to recognize participating facilities with the best safety programs. The association invites representatives of the OSHA Albany Area Office to its awards ceremonies to present certificates as well as the keynote address.

DEEP’s successes are getting noticed beyond eastern New York. Three more associations—the Rochester and Niagara Frontier

Tips for Safer Auto Repair Facilities

Based on the Top 10 Standards Cited During OSHA Inspections Since 1998

- Develop, implement, and maintain a hazard communication program.
- Inform workers about and train them to work safely around hazardous chemicals.
- Provide suitable facilities to quickly drench the body or flush the eyes.
- Provide adequate work rests on offhand grinding machines.
- Keep material safety data sheets in the workplace for each hazardous chemical used.
- Follow automotive lift manufacturer’s recommendations on inspection and maintenance.
- Provide an adequate peripheral adjustable member (tongue guard) on abrasive wheel machinery.
- Use covers on all pull boxes, junction boxes, and fittings.
- Ground all circuits, equipment, and enclosures using a permanent and continuous path.
- Avoid using compressed air for cleaning at pressures above 30 pounds per square inch.

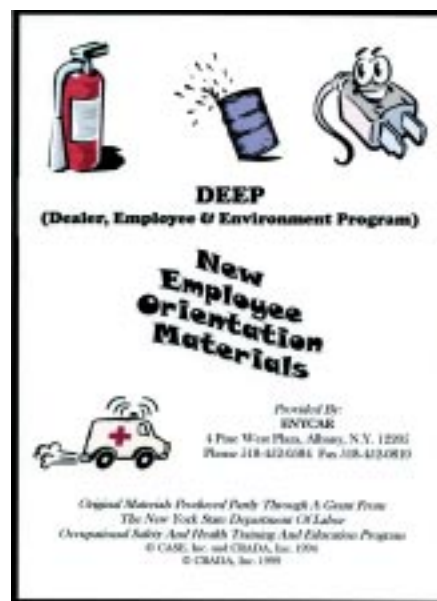
Automobile Dealer Associations in New York and the Cleveland Automobile Dealer Association in Ohio—have introduced the

program to promote worker safety in their regions.

“This program is a win-win situation,” says Tomich. “It’s a positive example of the role an association can play in promoting health and safety to its members. It’s also an example of how OSHA and industry, working cooperatively together, can make a positive difference in workplace safety.”

JSHQ

Dorman is President of the Eastern New York Coalition of Automotive Retailers, Inc.





Reaching Out for Safety

OSHA's new compliance assistance specialists are working at the grassroots level to help promote safer, more healthful workplaces.

by Susan Hall Fleming

Marilyn Clark-Alston of Little Rock, AR, served in the military, then as an elementary school teacher before joining OSHA as a compliance officer. Now she's applying her diverse experience and skills in a whole new career field, working closely with local employers and employees to help them provide safer, more healthful work environments.

Clark-Alston is among OSHA's 45 new compliance assistance specialists—CASs for short. By the end of the fiscal year, OSHA expects to have a compliance assistance specialist serving each federal area office.

Just what exactly are these compliance assistance specialists? And what do they do every day? According to the official job description, a compliance assistance specialist is expected to “provide advice and assistance to business, particularly small

business employers, local labor affiliates, and other stakeholders.” The goal is to help achieve OSHA's compliance assistance goals through effective outreach, training, education, and information sharing.

Rich Fairfax, who heads the OSHA Directorate of Compliance Programs, sees compliance assistance specialists as OSHA's front-line support force for employers and employees looking for more effective ways to provide safer, more healthful work environments. “They make contacts with professional organizations, unions, and community groups; and develop and conduct training,” he says.

According to Paul Cyr, OSHA's national coordinator for the CAS program, the job focuses on the grassroots. Compliance assistance specialists zero in on local needs and issues, he says, while at the same time helping to achieve

national goals related to the agency's strategic plan.

It's a job that requires enthusiasm, energy, initiative, creativity, experience, and great people skills as well as a strong motivation to work in a cooperative environment. Experience in training and compliance is a strong plus, as is an understanding of enforcement issues, because clients often want to know about inspections.

"Some of our best compliance officers have taken these jobs," Fairfax says. "These are the OSHA staffers with the background and experience to respond to requests for information and training and to seek out opportunities to promote occupational safety and health in creative and innovative ways."

Fairfax noted that these experienced staffers have specifically expressed an interest in

It's a job that requires enthusiasm, energy, initiative, creativity, experience, and great people skills as well as a strong motivation to work in a cooperative environment.

working in a cooperative relationship with employers and employees.

Safety and Health Brokers

Herb Gibson, a compliance assistance specialist in Denver, thinks of himself as a "safety and health broker" as he draws on the

experience he gained as an OSHA compliance officer, industrial hygiene supervisor, and assistant area director. "People come to you and you point them in the right direction to get information to assist them," he says.

Compliance assistance specialist Nancy Quick in Aurora, IL, says she enjoys the "hands-on" aspect of the job and the gratification of "working with people to effect change in a positive manner."

Most compliance assistance specialists participated significantly in outreach efforts long before they accepted their new positions. Dave Berard, for example, says he was "doing outreach 20 to 25 percent of the time" before he became a CAS in Concord, NH. He had developed and presented about a dozen courses for the Concord Safety Council's training facility.

In Boise, Van Howell signed on as a compliance assistance specialist because he liked public speaking, training, and other outreach work. He had been involved in developing partnerships with employers and employees since 1995.

"I always enjoyed outreach," agreed Clark-Alston. "After I completed an inspection, I would discuss abatement and then do training right on the spot for issues that needed to be addressed."

Although many compliance assistance specialists coordinate their efforts with the OSHA consultation programs run by state authorities, their responsibilities are fundamentally different. "The CAS position focuses on off-site support and assistance," says Gibson. "We don't walk through facilities, conduct a comprehensive review of a site, analyze specific hazards, or track progress." Rather, Gibson explains that he might discuss construction safety issues with 25 workers at a drywall



CAS Herb Gibson, center, tells members of the Broomfield Chamber of Commerce about compliance tools available from OSHA.



CAS Marilyn Clark-Alston enjoys working with employers proactively to support safety and health programs.

contractor. Or he might create a PowerPoint presentation tailored for small businesses in a rural area, focusing specifically on recent OSHA citations and common hazards found at businesses in a single county.

“The key thing about the compliance assistance specialist position is outreach,” says Howell, “letting clients know what OSHA can do for them.”

Responding and Reaching Out

The compliance assistance specialists’ job is twofold. It involves responding to requests from stakeholders who call for help and reaching out to organizations and groups, or, as Gibson put it, “We do unprogrammed outreach as well as planned outreach.”

The outreach part of the job focuses on increasing awareness of occupational safety and health issues, establishing relationships to build a foundation for future efforts, and forming partnerships focused on local safety and health concerns and strategic plan goals.

“Before now, outreach was hit or miss,” says Howell. “We turned down sessions. Now we hardly ever

turn down anyone’s request. Employers feel they are getting something positive for their tax dollars, and we are able to provide more training.”

At the national level, Cyr is working to get the word out to trade, labor, and professional organizations to let them know that training is available if they want it. “We want to let national groups know that we’re ready to help our stakeholders in a new way, to extend a helping hand.”

In Denver, Gibson is excited about the opportunity to tailor training to meet the specific needs of his clients, rather than simply putting on generic “All About OSHA” sessions. “One size doesn’t fit all,” says Cyr, “and we want area offices to be able to respond specifically to local needs.”

Of course, a balance must be

struck when developing specialized training. Nationwide, the information transmitted must be consistent. But it also must be appropriate for the audience to provide the greatest benefit. Contractors, for example, would probably prefer to focus their time and attention on fall protection, whereas health-care providers are more likely to want to know the latest information on changes in the bloodborne pathogens standard.

CAS Strategies

Compliance assistance specialists use a variety of strategies to encourage and help workers and employers develop and maintain a safe and healthful work environment. Some send periodic newsletters. Quick, for example, sends an electronic newsletter via email to about 1,200 subscribers in the

A Dozen Ways CASs Are Making a Difference:

Sample Compliance Assistance Specialist Projects

- Conducted workshop on safety for residential construction.
- Held safety information sessions for local boatyards.
- Discussed cranes and rigging at a safety meeting.
- Discussed safety and health in the health-care industry with representatives from 100 physicians’ offices.
- Spoke to national conference of audiologists on hearing preservation.
- Discussed occupational safety and health with safety equipment suppliers.
- Held training for health-care workers for whom English is a second language.
- Issued email newsletter for local employers covering new standards and most frequently cited current standards.
- Talked with local community college representatives about organizing seminars on safety and health topics.
- Joined local employers to present safety and health training for high school students.
- Discussed potential partnerships with the Small Business Administration, Environmental Protection Agency, local health departments, nonprofit groups, trade associations, and unions.
- Developed a small business safety and health training seminar.

Aurora area several times a year. Each newsletter covers "...what the top citations are, new standards and directives, and technical information from the 'Net," she says.

Quick also works with community and faith-based groups to promote workplace safety. Together with representatives from the Employment Standards Administration's Wage and Hour Division, the Equal Employment Opportunity Commission, and the Illinois Department of Labor, she has conducted training for workers' rights advocates. "We're seeking to build relationships so people feel more comfortable coming to us with complaints, and so they know what we can and can't do," Quick says.

She also developed a videotape on roofing hazards in cooperation with the Illinois Consultation Project, put on classes for small businesses as part of "Safety Days" in western Illinois, and worked with the Illinois Department of Commerce and Community and Small Business Development Centers to conduct half-day seminars for small businesses on safety and health.

Howell works with the nation's first logging partnership to improve safety at logging sites. In April, OSHA employees gave two training sessions on new, safer timber cutting practices for the Potlatch Corporation and its 26 logging subcontractors. (See related logging article, page 16.)

Howell also is helping the American Society of Safety Engineers with its extensive training program and judging student competitions in safety at a local community college that offers a minor in safety as part of its construction management degree.

In Denver last year, Gibson and members of his area office's



CAS Van Howell, right, conducts a partnership evaluation with a foreman from Genter Masonry.

strategic team gave more than 40 presentations at trade and vocational schools and apprenticeship programs to promote safety among students soon to enter the work force. Gibson has also developed programs for the stone fabrication industry to reduce silica exposure, protect against lockout/tagout injuries, enhance hazard communication, and provide effective respiratory protection.

Compliance assistance specialists use a variety of strategies to encourage and help workers and employers develop and maintain a safe and healthful work environment.

Clark-Alston is building on a partnership she helped form between OSHA and 26 Texas construction companies to reduce construction fatalities. As a compliance assistance specialist, she "borrows" trainers from Texas to conduct a Spanish version of OSHA's 10-hour construction safety class in Little Rock. She also has reached out to small businesses, most recently through a Little Rock television program, "Inside Small Business," which interviewed her about a recent safety forum held jointly with the Small Business Administration in Little Rock.

Berard also has a long history of working in partnership with construction groups. He has taught classes for the Associated General Contractors as well as the Associated Builders and Contractors, focusing on excavation, fall protection, and scaffolds. He worked with the Concord Safety Council to offer 4-hour seminars on machine guarding and lockout/tagout protection. He also teaches

a half-day session on fire safety at one of New Hampshire's eight technical colleges. "It's a new ball game," says Berard. "We're developing strategies as we go along."

During their outreach efforts, compliance assistance specialists regularly introduce stakeholders to the OSHA website and encourage them to refer to it as an important information source. Gibson, for example, begins many of his presentations by showing audiences safety and health information available on their own organizations' computer home pages. Then he clicks onto the OSHA website, "walking" the group through references to standards, technical links, and software advisors. In addition to providing specific, relevant information for his audiences, he

Those holding compliance assistance specialist positions say they have the best of all worlds.

also teaches them how to find information for themselves. In addition, he encourages organizations to establish links directly from their own websites to OSHA's.

Best of All Worlds

Those holding compliance assistance specialist positions say they have the best of all worlds.

They are helping make workplaces safer, and their clients are eager to receive their help.

Quick, for example, says the opportunity to work with people one-on-one and use creativity in presentations and problem solving are the best parts of the job.

Cyr says he sees OSHA's new emphasis on compliance assistance as an important counterpart to its traditional enforcement mission. "Enforcement is a necessary part of what OSHA does," he says. "But for the rest of my career, I'm looking forward to making a big impact through compliance assistance."

"We do need strong enforcement," agrees Clark-Alston. "But to avoid injury and illness, we must also be proactive. I love this job!" **JSHQ**



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Beating the Heat

by Donna Miles

Soaring heat and humidity can be deadly to workers. But, with increased awareness and some basic precautions, many heat-related injuries can be prevented.



It was a hot, humid day in central Texas. A 46-year-old worker from a temporary labor service had been assigned to the cleanup crew for a precast concrete company. His job was to sweep up excess concrete and scrap metal, then to shovel it into the bucket of a backhoe. It was heavy labor under any conditions, but especially in scorching conditions with temperatures soaring to 100° F by mid-afternoon.

The worker complained to his coworkers that he was thirsty and not feeling well, then collapsed. His coworkers responded quickly, moving him to a shaded area and administering cardiopulmonary resuscitation until an emergency response team arrived. The worker had stopped breathing and had no heartbeat or blood pressure. His core body temperature had skyrocketed to 108° F—almost 10° above normal. Despite continued CPR and efforts to cool his body with ice packs and water, the

During hot-weather months, conditions in kitchens, bakeries, laundries, and foundries can be stifling. Photo by Wendy Johnson



Drinking a cup of cool water every 15 to 20 minutes is one of the best defenses against heat-related injuries. Photo by Donna Miles

worker was pronounced dead at the hospital.

The deadly combination of heat, humidity, and physical labor had claimed another victim.

During 1999 alone, excessive heat exposure caused 34 worker deaths and 2,420 occupational injuries and illnesses involving days away from work, according to 1999 data from the Bureau of Labor Statistics. The Occupational Safety and Health Administration reported that five of the workers died from heat-related injuries during a single 14-day period between late July and early August.

Despite these alarming statistics, state and federal agencies estimate that heat-related illnesses are vastly underrecognized and underreported.

Many workers, including those in foundries, laundries, bakeries, and restaurants, face hot working conditions year-round. During hot-weather months, these conditions

can become stifling, despite efforts to cool the areas with air conditioners, fans, or open windows.

For people who work outside, particularly those involved in heavy labor such as construction, roofing, and farming, blazing summer temperatures can be especially unforgiving.

Consider the 47-year-old airline employee who passed out while loading luggage onto a plane in Texas and died on the way to the hospital. Or the 29-year-old Virginia slaughterhouse worker who responded positively when he was treated for signs of heat stress, but later had a seizure and died. Or the 56-year-old worker who collapsed and died while sandblasting pipe at a Kansas wastewater plant. He was wearing a neoprene suit when the heat index registered between 105° and 110° F.

The Body's Response

When exposed to severe heat, the body works to maintain a fairly constant internal temperature. It increases blood flow to the skin,

Forms of Heat Stress

- Heat cramps—mild. Result from dehydration and a slight imbalance in electrolytes. Victims respond well to rest and rehydration with fluids.
- Heat exhaustion—more severe. Involves removing the person from the hot environment to a cool, shaded location and rehydrating with cool fluids. Treatment may require intravenous fluids to replace lost fluids if drinking water does not relieve the condition.
- Heat stroke—most severe. A medical emergency that requires extensive intervention and support. Occurs most often when workers perform strenuous work in hot, humid weather for an extended period.

where it releases excess heat. The body produces sweat that, when it evaporates, cools the skin.

But in extreme conditions, this process doesn't work as nature planned. When muscles are being used for physical labor, less blood is available to flow to the skin and release body heat. And sweat doesn't evaporate from the skin in high humidity. The body can't

heat-related injuries frequently occur. That was the case for a roofer who collapsed and died from heat stress his first day on the job during an unseasonably hot May day in West Virginia. After an adjustment period of 5 to 7 days, most workers are able to work with less strain and stress. However, their bodies must be reacclimated after an absence from the hot environment, such as after they take a vacation.

Prevention Saves Lives

As severe as heat-related injuries can be, Trese Louie, a health scientist in OSHA's Office of Technical Programs and Coordination Activities, says they are among the most preventable. She urges workers to drink plenty of water—from 5 to 7 ounces every 15 to 20 minutes—to replace the 2 to 3 gallons of sweat they may lose during a workday. She also encourages workers to take short but frequent breaks from their work in a cool, shady area. And whenever possible, she recommends that employers alter work hours so employees do their most demanding physical work before or after the hottest hours of the day.

Keith Piercy, a compliance safety and health officer in OSHA's Tampa, FL, Area Office, says employers at most of the worksites he inspects "do a very good job" of providing their workers plenty of water and electrolyte drinks in hot weather. He says some employers go the extra measure, offering their workers special crystal-filled scarfs that, when soaked in water and wrapped around their necks, help cool their bodies, or misting stations like those used to cool professional football players.

Yet Piercy says he notices two areas where some employers are missing the mark. Although they may encourage workers to take

How to Protect Workers

- Encourage workers to drink plenty of water—about a cup of cool water every 15 to 20 minutes, even if they are not thirsty—and to avoid alcohol, coffee, tea, and caffeinated soft drinks that dehydrate the body.
- Help workers adjust to the heat by assigning a lighter workload and longer rest periods for the first 5 to 7 days of intense heat. This process needs to start all over again when a worker returns from vacation or absence from the job.
- Encourage workers to wear lightweight, light-colored, loose-fitting clothing. Workers should change their clothes if they get completely saturated.
- Use general ventilation and spot cooling at points of high heat production. Good airflow increases evaporation and cooling of the skin.
- Train first-aid workers to recognize and treat the signs of heat stress and be sure all workers know who has been trained to provide aid. Also train supervisors to detect early signs of heat-related illness and permit workers to interrupt their work if they become extremely uncomfortable.
- Consider a worker's physical condition when determining fitness to work in hot environments. Obesity, lack of conditioning, pregnancy, and inadequate rest can increase susceptibility to heat stress.
- Alternate work and rest periods, with rest periods in a cooler area. Shorter, more frequent work-rest cycles are best. Schedule heavy work for cooler times of the day and use appropriate protective clothing.
- Monitor temperatures, humidity, and workers' responses to heat at least hourly.



People who work outside can help cool their bodies with frequent breaks in a shaded area.

release excess heat, so its core temperature rises and the heart rate increases.

As a result, the person starts to lose concentration and has difficulty focusing on tasks. Some people begin to feel sick or irritable and lose the desire for the fluids they so desperately need. Some may faint or even die if they do not receive immediate care to lower their body temperature.

Not everyone reacts equally to heat. A worker's age, weight, fitness level, and medical condition play a role. Low-sodium diets, consumption of alcohol or caffeine, and some medications increase the risk.

Acclimation is another important factor. The first days in a hot environment are generally the hardest on workers, and when

more frequent breaks in particularly hot weather, they often do not set aside a cooler or shaded area for those breaks—meaning that the workers are not able to cool themselves effectively before returning to work.

And although many of the larger companies Piercy visits take steps to teach their workers about heat-related illnesses, he says some of the smaller companies fall short on education. “What employers aren’t always good at is impressing on their employees how much caffeine and alcohol affect their ability to work in the heat,” he says, “or the benefit of wearing lighter-colored clothing that reflects heat instead of absorbing it.”

With some basic precautions, many heat-related injuries and deaths can be prevented.

Louie says worker education is key in helping prevent heat injuries at work. “Workers need to know how to avoid heat injuries and how to recognize signs of heat stress not only in themselves, but in their coworkers, too,” she says. “By looking out for each other, they can help protect each other.”

One tool to help them is OSHA’s Heat Stress Card (OSHA 3154). This laminated, fold-up card, available free to employers to distribute to their workers, provides a quick reference about heat-related injuries, including warning signs and prevention tips. Employers can order the cards through the OSHA website at www.osha.gov, which also provides additional information about heat-related injuries.

“Heat-related injuries take their toll on too many workers,” says Louie. “With increased awareness and some basic precautions, many of these illnesses and deaths can be prevented.” JSHQ



OSHA Training Institute, Des Plaines, IL

121 Introduction to Industrial Hygiene for Safety Personnel

Covers the general concepts of industrial hygiene, including hazard evaluation and control methods.

Tuition: \$1,200

Dates: September 18-28

201 Hazardous Materials

Introduces OSHA general industry standards as well as other consensus and proprietary standards related to hazardous materials.

Tuition: \$1,064

Dates: October 18-26

203 Basic Electrical Principles

Teaches the basic principles of electricity as well as electrical hazard recognition, OSHA electrical standards, and inspection procedures.

Tuition: \$560

Dates: October 16-19

205 Cranes and Rigging Safety for Construction

Covers crane operations, inspection, maintenance, rigging inspection, reading load charts, and corresponding OSHA and consensus standards.

Tuition: \$480

Dates: September 18-21

207A Fire Protection and Life Safety

Shortened version of course #207 addresses potential fire hazards, emergency operations, and applicable safety code references.

Tuition: \$728

Dates: October 22-26

228 Recognition, Evaluation and Control of Ionizing Radiation

Introduces the fundamental principles of ionizing radiation, applicable standards, industrial sources, use of radiation instruments, and control methods.

Tuition: \$480

Dates: September 11-14

300 Safety and Health for Oil and Gas Well Operations

Deals with the safety and health aspects of on- and off-shore oil and gas well operations with hands-on participation. Course is offered at Texas A&M University in Abilene, TX.

Tuition: \$560

Dates: November 6-9

308 Principles of Scaffolding

Covers the safety aspects of scaffolding and current OSHA requirements, with a 1-day field exercise.

Tuition: \$560

Dates: November 27-30

310 Applied Spray Finishing and Coating Principles

Identifies the hazards associated with spray finishing and coating operations with a review of industrial processes and applicable requirements and standards.

Tuition: \$480

Dates: September 11-14

311 Fall Arrest Systems

Focuses on the state-of-the-art technology for fall protection and current OSHA requirements. Includes a 1-day field exercise.

Tuition: \$560

Dates: November 16-19

500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry

Trains private-sector personnel to teach the 10- and 30-hour construction safety and health course to their employees and interested groups. Graduates receive cards verifying their qualification to teach the construction course.

Tuition: \$728

Dates: November 5-9

510 Occupational Safety and Health Standards for the Construction Industry

Trains private-sector personnel in OSHA policy, procedures, and standards as well as construction safety and health principles. Graduates receive cards verifying completion of OSHA's 30-hour construction and health course.

Tuition: \$728

Dates: October 29-
November 2

600 Collateral Duty Course for Other Federal Agencies

Introduces federal agency collateral duty safety and health personnel to the *Occupational Safety and Health Act* and other federal codes related to workplace safety and health.

Tuition: \$644

Dates: November 26-30

Course dates are subject to change. For more complete course descriptions or to register for courses or request a training catalog, call (847) 297-4913; visit www.osha.gov and click on *Outreach*; or write: OSHA Training Institute, 1555 Times Drive, Des Plaines, IL 60018.

OSHA Training Institute Education Centers

The OSHA Training Institute has a program for other institutions to conduct OSHA courses for the private sector and federal agencies. These include Eastern Michigan University/United Auto Workers, Ypsilanti, MI, (800) 932-8689; Georgia Technological Research Institute, Atlanta, GA, (800) 653-3629; Great Lakes OSHA Training Consortium, Minneapolis, MN, (800) 493-2060; Keene State College, Manchester, NH, (800) 449-6742; Metropolitan Community Colleges–Business and Technology Center, Kansas City, MO, (800) 841-7158; National Resource Center for OSHA Training, Washington, DC, (800) 367-6724;

National Safety Education Center, DeKalb, IL, (800) 656-5317; Niagara County Community College, Lockport, NY, (800) 280-6742; Red Rocks Community College and Trinidad State Junior College, Lakewood, CO, (800) 933-8394; Texas Engineering Extension Service, Mesquite, TX, (800) 723-3811; University of California, San Diego, (800) 358-9206; and University of Washington, Seattle, (800) 326-7568.

Course dates are subject to change. For tuition rates and registration information, contact the institution offering the courses or visit OSHA's website at www.osha.gov.

201A Hazardous Materials

Eastern Michigan University-United Auto Workers
Livonia, MI October 22-25
Online Course November 1

Keene State College
Manchester, NH September 24-28

Niagara County Community College
Lockport, NY October 22-25

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO November 5-8

204A Machinery and Machine Guarding Standards

Great Lakes OSHA Training Consortium
St. Paul, MN September 24-27

Keene State College
Manchester, NH October 29-November 2

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO November 12-15

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO October 2-5

Texas Engineering Extension Service
Houston, TX November 5-8

University of California-San Diego
San Diego, CA October 15-18

222A Respiratory Protection

Eastern Michigan University-United Auto Workers
Livonia, MI September 17-20

Georgia Technical Research Institute
Atlanta, GA October 16-18

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO October 15-18

Niagara County Community College
Lockport, NY September 17-20

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO October 30-November 2

University of California-San Diego
San Diego, CA September 17-20

225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders

Eastern Michigan University-United Auto Workers
Livonia, MI November 26-28
Online Course November 1

Great Lakes OSHA Training Consortium
Minneapolis, MN October 31-November 2

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO September 24-27
November 26-29

National Resource Center for OSHA Training
Morgantown, WV October 9-12

National Safety Education Center
Decatur, IL October 23-25

Niagara County Community College
Lockport, NY October 15-18

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO September 5-7

Texas Engineering Extension Service
Mesquite, TX September 17-19
San Antonio, TX November 26-28

University of California-San Diego
Santa Clara, CA October 22-25
San Diego, CA October 15-18

University of Washington
Seattle, WA November 5-7

226 Permit-Required Confined Space Entry

Eastern Michigan University-United Auto Workers
Livonia, MI September 26-28
November 14-16
Online Course November 1

Great Lakes OSHA Training Consortium
Cincinnati, OH October 24-26

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO October 1-3

Niagara County Community College
Lockport, NY October 29-November 1

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO November 19-21

Texas Engineering Extension Service
Mesquite, TX September 17-19

University of California-San Diego
San Diego, CA November 5-7

University of Washington
Seattle, WA November 27-29

301 Excavation, Trenching and Soil Mechanics

Keene State College
Manchester, NH October 9-12

Niagara County Community College
Lockport, NY September 24-27

Texas Engineering Extension Service
Mesquite, TX November 13-15

University of Washington
Richland, WA October 1-4

309A Electrical Standards

Eastern Michigan University-United Auto Workers
Livonia, MI October 22-25

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO September 6-9
November 5-8

Niagara County Community College
Lockport, NY November 5-8

University of California-San Diego
San Diego, CA October 8-11



Dr. Melinda Treadwill teaches an industrial hygiene course at Keene State College in Manchester, NH. Photo by Peter Finger

311 Fall Arrest Systems

Eastern Michigan University-United Auto Workers
Livonia, MI November 5-8

Great Lakes OSHA Training Consortium
Cincinnati, OH October 9-12

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO September 6-9

Niagara County Community College
Lockport, NY October 9-12

Texas Engineering Extension Service
Mesquite, TX October 22-25

University of Washington
Richland, WA October 29-November 1

Keene State College
Auburn, ME October 22-26
Manchester, NH November 26-30

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO September 13-16
October 22-25

National Resource Center for OSHA Training
Charleston, WV November 13-16
Morgantown, WV October 2-5
Silver Spring, MD September 17-20
November 3-6

National Safety Education Center
Hillside, IL November 5-9

Niagara County Community College
Lockport, NY October 9-12

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO September 10-13
October 8-11
November 5-8

Texas Engineering Extension Service
Corpus Christi, TX September 10-14
November 5-9
Houston, TX September 24-28
Mesquite, TX October 15-19
November 26-30

University of California-San Diego
Las Vegas, NV October 29-November 1
San Diego, CA October 1-4

University of Washington
Portland, OR October 15-18



The National Safety Education Center offers OSHA training courses at Northern Illinois University in Naperville. Photo by Joe Whinnery

500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry

Eastern Michigan University-United Auto Workers
Findlay, OH October 15-18
Livonia, MI November 12-15
Ypsilanti, MI September 17-20

Georgia Technical Research Institute
Atlanta, GA October 29-November 2
Jacksonville, FL September 10-14
Miami, FL November 12-16

501 Trainer Course in Occupational Safety and Health Standards for General Industry

Eastern Michigan University-United Auto Workers
Findlay, OH November 12-15
Livonia, MI October 8-11
November 26-29

Georgia Technical Research Institute
Atlanta, GA September 17-21
November 5-9
Charlotte, NC October 8-12

Great Lakes OSHA Training Consortium
Cincinnati, OH November 13-16
St. Paul, MN September 10-13

Keene State College Groton, CT Manchester, NH Springfield, MA	November 5-9 September 17-21 October 22-26 November 26-30	Great Lakes OSHA Training Consortium Cincinnati, OH	November 27-29
Keene State College Manchester, NH		Keene State College Manchester, NH	September 5-7 November 5-7
Metropolitan Community Colleges-Business and Technology Center Kansas City, MO	September 10-13 October 8-11	Metropolitan Community Colleges-Business and Technology Center Kansas City, MO	September 24-26 November 26-28
National Resource Center for OSHA Training Huntington, WV Morgantown, WV Richmond, VA	November 13-16 September 24-27 October 16-19 September 10-13	National Resource Center for OSHA Training Morgantown, WV	November 27-29
National Safety Education Center Appleton, WI Itasca, IL Naperville, IL	October 22-26 September 17-21 November 12-15	National Safety Education Center Hillside, IL	September 11-13 November 27-29
Niagara County Community College Lockport, NY	September 10-13 October 1-4 November 5-8	Niagara County Community College Lockport, NY	September 4-6 November 12-14
Red Rocks Community College-Trinidad State Junior College Lakewood, CO	September 10-13 October 15-18 November 12-15	Red Rocks Community College-Trinidad State Junior College Lakewood, CO	October 22-24
Red Rocks Community College-Trinidad State Junior College Lakewood, CO	September 10-13 October 15-18 November 12-15	Texas Engineering Extension Service Mesquite, TX	September 24-26
Texas Engineering Extension Service Austin, TX Baton Rouge, LA Houston, TX Mesquite, TX	November 5-9 October 1-5 September 10-14 October 29-November 2 September 24-28 October 22-26 November 26-30	University of California-San Diego San Diego, CA	October 17-19
University of California-San Diego Las Vegas, NV San Diego, CA San Francisco, CA	October 8-11 September 24-27 October 29-November 1 September 17-20	University of Washington Seattle, WA	September 24-26
University of Washington Portland, OR	November 13-16	503 Update for General Industry Outreach Trainers	
502 Update for Construction Industry Outreach Trainers		Eastern Michigan University-United Auto Workers Livonia, MI	September 26-28 October 8-10 November 1
Eastern Michigan University-United Auto Workers Livonia, MI	September 12-14 November 26-28	Online Course	November 1
		Georgia Technical Research Institute Atlanta, GA	November 27-29
		Great Lakes OSHA Training Consortium Cincinnati, OH	November 28-30
		Keene State College Groton, CT Manchester, NH	September 5-7 November 7-9
		Metropolitan Community Colleges-Business and Technology Center Kansas City, MO	October 1-3

National Safety Education Center
Naperville, IL October 16-18

Niagara County Community College
Lockport, NY September 5-7
November 13-15

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO October 24-26

Texas Engineering Extension Service
Mesquite, TX September 26-28
November 13-15

University of California-San Diego
San Diego, CA September 10-13
October 22-24

University of Washington
Seattle, WA September 10-12

510 Occupational Safety and Health Standards for the Construction Industry

Eastern Michigan University-United Auto Workers
Livonia, MI November 5-8

Georgia Technical Research Institute
Atlanta, GA October 1-5

Great Lakes OSHA Training Consortium
Cincinnati, OH November 13-16

Keene State College
Manchester, NH September 10-14
October 1-5

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO September 17-20
November 12-15

National Resource Center for OSHA Training
Silver Spring, MD November 5-8

National Safety Education Center
Hillside, IL September 24-28

Niagara County Community College
Lockport, NY November 26-29

Red Rocks Community College-Trinidad
State Junior College
Lakewood, CO October 29-November 1

Texas Engineering Extension Service
Houston, TX September 17-20
November 13-16
November 26-29

University of California-San Diego
San Diego, CA September 10-13
November 12-15

521 OSHA Guide to Industrial Hygiene

Eastern Michigan University-United Auto Workers
Livonia, MI October 15-18
Online Course November 1

Great Lakes OSHA Training Consortium
Cincinnati, OH November 5-8

Metropolitan Community Colleges-Business
and Technology Center
Kansas City, MO November 12-15

National Safety Education Center
Naperville, IL October 29-November 2

Texas Engineering Extension Service
Austin, TX October 15-18
Baton Rouge, LA November 13-16

University of California-San Diego
San Diego, CA November 5-8

600 Collateral Duty Course for Other Federal Agencies

Texas Engineering Extension Service
Mesquite, TX September 10-14



The Texas Extension Service provides OSHA training through the Texas A&M University System in Mesquite.

Photo by Bernita North

Highlights of OSHA's Bloodborne Pathogens Standard Revision

On November 6, 2000, the Congress passed the *Needlestick Safety and Prevention Act* directing OSHA to revise its bloodborne pathogens standard to describe in greater detail its requirement for employers to identify and make use of effective and safer medical devices. That revision was published on January 18, 2001 and became effective on April 18, 2001.

The revision specifies the types of engineering controls—such as safer medical devices—in the health-care setting. It also adds two requirements for employers; but, it does not add any new requirements to protect workers from sharps injuries. The following is a summary of the revisions:

- Two new definitions and one amended term:
 - **NEW** Sharps with Engineered Sharps Injury Protections include non-needle sharps or needle devices used for withdrawing fluids or administering medications or other fluids that contain built-in safety features or mechanisms that effectively reduce the risk of an exposure incident.
 - **NEW** Needleless Systems are devices that do not use needles for the collection or withdrawal of body fluids, or for the administration of medication or fluids.
 - **AMENDED** Engineering Controls include all control measures that isolate or re-



move a bloodborne pathogen hazard from the workplace. The revision now specifies that “self-sheathing needles” and “safer medical devices, such as sharps with engineered sharps injury protections and needleless systems” are engineering controls.

- Employers must review their exposure control plans annually to reflect changes in technology that will help eliminate or reduce exposure to bloodborne pathogens. That review must include documentation of the employer’s consideration and implementation of appropriate

commercially available and effective safer devices.

- Employers must solicit input from non-managerial health care workers regarding the identification, evaluation, and selection of effective engineering controls, including safer medical devices. Examples of employees include those in different departments of the facility—for example, geriatric, pediatric, nuclear medicine.
- Employers with 11 or more employees, who are required to keep records by current record-keeping standards, must maintain a sharps injury log. The log must be maintained in a way to ensure employee privacy and will contain, at minimum, the following information:
 - type and brand of needle device involved in the incident, if known;
 - location of the incident; and
 - description of the incident.

For more information on this and other topics, visit OSHA’s website at www.osha.gov. JSHQ

The revisions detail employers’ requirement to identify and make use of effective and safer medical devices.

Accident Report No. 38

Accident Summary

Accident type	Caught in or between
Weather	Clear, dry
Type of operation construction	Highway, street
Crew size	4
Collective bargaining?	Yes
Competent safety monitor on site?	Yes
Safety and health program in effect?	Yes
Worksite inspector regularly by employer?	Yes
Training and education provided?	No
Employee job title	Equipment operator
Age/Sex	38/Male
Experience at this type work	11 months
Time on project	1 hour

Sources of Help

- *Safety and Health Standards for the Construction Industry* (OSHA 3149) contains OSHA job safety and health rules and regulations (29 CFR 1926 and 1910) covering construction.
- OSHA-funded free onsite consultation services are available to help the small business employers identify and correct workplace hazards, develop or improve an effective safety and health management system, or both. Contact the OSHA regional office in your area for additional information, or visit OSHA's website at www.osha.gov. [JSHQ](#)

Description of Accident

An employee was operating a front-end loader up a dirt ramp onto a lowboy trailer. The tractor tread began to slide off the trailer. As the tractor began to tip, the operator, who was not wearing a seat belt, jumped from the cab. As he hit the ground, the tractor's rollover protection structure fell on top of him, crushing him.

Inspection Results

Following its inspection, OSHA cited the employer for two serious violations and one other-than-serious violation. If the front-end loader had been equipped with seat belts, and if the employee had worn them, he might not have been killed.

Accident Prevention Recommendations

1. Provide seat belts in material handling equipment with rollover protective structures [Title 29 Code of Federal Regulations (CFR) 1926.602(a)(2)(i)].
2. Instruct employees to recognize and avoid unsafe conditions associated with their work [29 CFR 1926.21(b)(2)].
3. Permit only employees qualified by training or experience to operate equipment and machinery [29 CFR 1926.20(b)(4)].



Detach Here

NOTE: The case described here is representative of fatalities caused by improper work practices. No special emphasis or priority is implied, nor is the case necessarily recent. The legal aspects of the incident have been resolved, and the case is now closed.

Solvent Exposures: An Employer Turns to OSHA for Help

Sporting Goods Manufacturer

A manufacturer employs 145 people to produce sporting goods. Eight of the workers use solvents in their part of the manufacturing process, and the employer was concerned about the effect these solvents were having on his employees. He asked OSHA for a consultation to help identify ways to protect them.



Deficiencies Found

The consultant found that the manufacturer used vinyl chloride, yet had not conducted the initial monitoring required by the OSHA vinyl chloride standard. Employees also sprayed solvents onto molds to facilitate the release of the molded product. In addition, the employer had no hazard communication program. Although employees used respirators, the employer had not set up fit-testing procedures. In addition, several respirators had not been maintained properly and were missing exhalation valves.

Consultant's Analysis

The consultant measured worker exposure to solvents and conducted the required initial monitoring for vinyl chloride. Fortunately, solvent exposures were below permissible limits, and the vinyl chloride levels were below detectable limits.

Although the consultant found no overexposures, the substances in use posed potential hazards. In addition, the lack of a hazard communication program, continuing use of a substance without conducting the required initial

monitoring, and reliance on defective respirators compounded the potential problems.

Consultant's Recommendations

The consultant recommended that the manufacturer take these steps to reduce the risk of solvent exposures:

- Establish a hazard communication program based on the OSHA standard as explained by the consultant.
- Substitute a different type of mold (Teflon) so solvent spraying is no longer necessary.
- Provide respirators to employees in accordance with the OSHA respiratory protection standard when monitoring indicates the need for respiratory protection or where there is a potential need for respiratory protection and monitoring has not been conducted.

Solutions and Results

The consultant explained the requirements of the respiratory protection standard, including proper maintenance, and gave the

employer written instructions for respirator fit testing and respirator maintenance. The employer trained employees on the hazards posed by chemicals in use throughout the plant. In addition, the manufacturer replaced the molds with new, non-stick molds, eliminating the need for solvents and, as a result, for respirators.

Additional Benefits

The consultant gave the employer a basic grounding in responsibilities for employee safety and health under the *Occupational Safety and Health Act of 1970*. This general information served as the foundation for the company's new safety and health program.

SafeWorks summarizes the results of an employer's request for workplace safety and health assistance. Small business employers can receive this assistance, without cost, under a consultation program funded largely by OSHA and administered by state agencies and universities. Contact the OSHA regional office in your area for additional information on the consultation program, or visit OSHA's website at www.osha.gov. JSHQ

Hazard Information Bulletin

No. 00-06-23

Potential Hazard Associated with the Use of Replacement Materials for Machine Guarding

Purpose

- To inform employers and employees that when replacing machine guarding observation windows, they must use either the original manufacturer's part or a material having at least the same impact resistance as the original part.
- To advise employers and employees that various materials with the same generic/chemical name (such as members of the poly-carbonate family) may have less impact resistance than the manufacturer's original materials.

Background

OSHA's Denver Regional Office brought to the attention of the Directorate of Technical Support a fatality caused by the installation of transparent replacement guarding material having a lower impact resistance than the manufacturer's original guard for the machine.

Description of Hazard

The fatality involved the use of the thermoplastic polymer of methyl acrylate, generically known as "plexiglass," as the machine guarding window for a lathe. While a lathe was turning, the bell casting on it loosened. It was propelled through two 1/2-inch-thick plexiglass material windows before it struck an employee in the head and neck as he was looking through the window. The plexiglass material windows had been installed as a

replacement for the manufacturer's original composite window on the machine's door frame.

The manufacturer's original observation window was made of a 1/4-inch-thick laminated glass plate with a 1/2-inch-thick polycarbonate window, separated by an approximately 1/4-inch air space. The original window was replaced with plexiglass material that had a lower impact resistance.

Technical Information

Polycarbonates represent a family of various polymers, each possessing different impact resistance at the same thickness and surface area. Various polycarbonates include Macrolux, Lexan, Replex, Dyna-glass, Exolite, Verolite, Cyrolon, and Makrolon.* These materials have different impact resistance for different thicknesses and surface areas. Increasing the thickness beyond a certain level does not always improve or increase the impact resistance.

Conclusions

Replacement machine guard windows must meet or exceed the manufacturer's original design specifications.

Recommendations

When replacing original equipment parts, employers should ensure that the specifications of the replacement materials meet or exceed the original design specifications.

Hazard Information Bulletins

This Hazard Information Bulletin (HIB) is not a standard or regulation and it creates no new legal obligations. It is advisory in nature, informational in content, and is intended to assist employers in providing a safe and healthful workplace.

OSHA's Directorate of Technical Support issues HIBs to provide relevant information regarding unrecognized or misunderstood health and safety hazards, as well as potential hazards associated with particular materials, devices, techniques, and engineering controls. HIBs are initiated based on information provided by the field staff, studies, reports, and concerns expressed by safety and health professionals, employers, employees and their representatives, and the public.

The *Occupational Safety and Health Act* requires employers to comply with hazard-specific safety and health standards. In addition, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm under Section 5(a)(1), the General Duty Clause of the Act. Employers may be cited for violating the General Duty Clause if there is a recognized hazard and they do not take steps to prevent or abate it. However, failure to implement HIB recommendations is not, in itself, a violation of the General Duty Clause.

More information about this bulletin may be obtained by contacting OSHA's Directorate of Technical Support at (202) 693-2300. [JSHQ](#)

*Note: The mention of trademark or brand names does not constitute a product endorsement by OSHA.