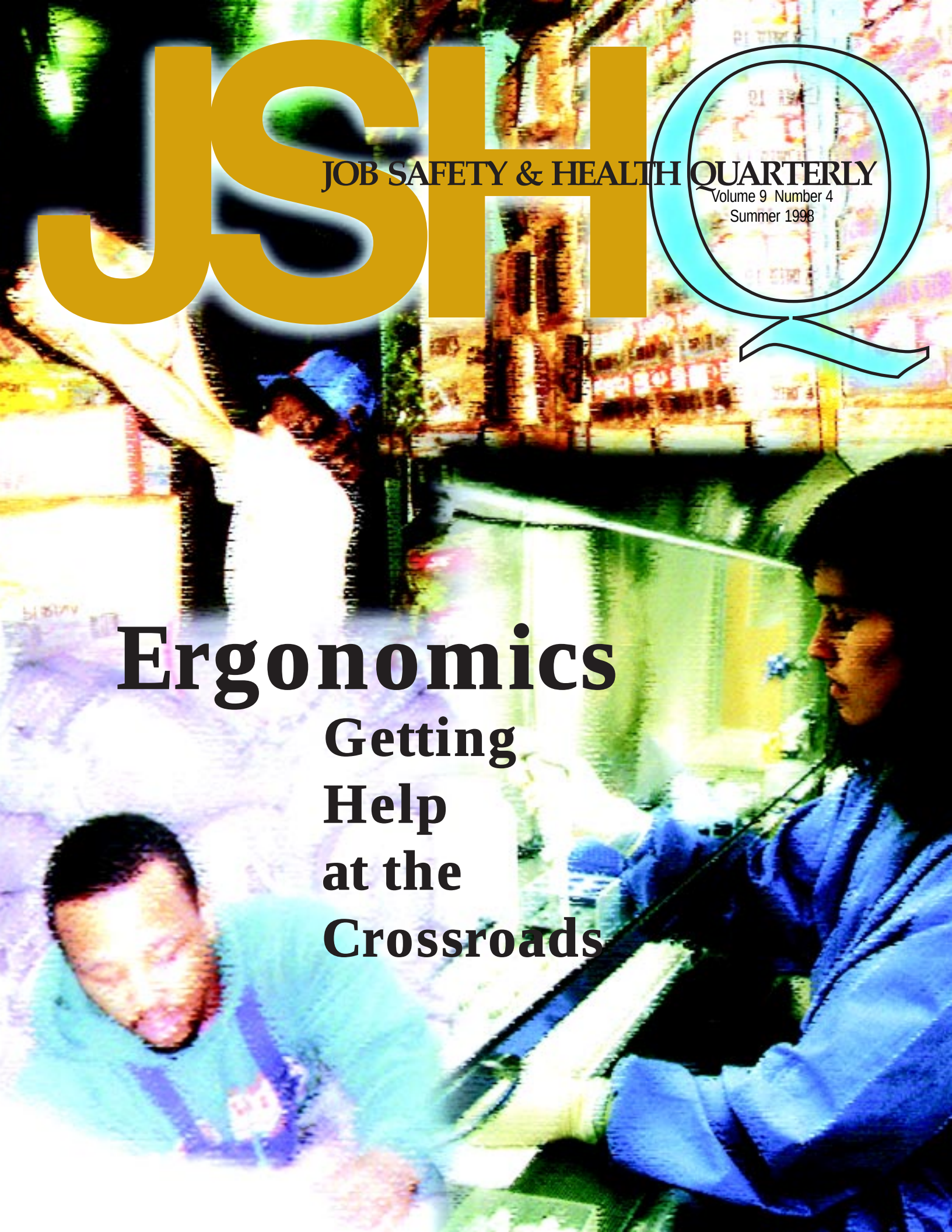

JSHQ
JOB SAFETY & HEALTH QUARTERLY
Volume 9 Number 4
Summer 1998

Ergonomics

Getting Help at the Crossroads

U.S. Department of Labor
Alexis M. Herman, Secretary

Occupational Safety and Health Administration
Charles N. Jeffress, Assistant Secretary

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From the Editor...

When the job doesn't fit the worker, injuries and illness can occur. Our cover story discusses the continuing issue of musculoskeletal disorders and OSHA's efforts to engage stakeholders in the process of developing an effective proposal to protect workers against these and other injuries. Another emerging topic—needlestick injuries—is at the center of another OSHA initiative to increase awareness and find better ways to address the problem and reduce worker injuries.

Y2K, an issue that everyone has to deal with by the end of the century, is prompting OSHA to take a closeup look at all of its operations. There's a brief update on OSHA's progress so far. Another article features OSHA partnerships in promoting workplace and health through the VPP Volunteers Program. There's also a short piece on OSHA's efforts to deal with the new electronic FOIA requirements, and one on a recent partnering with the Department of Agriculture to reduce grain accidents.

Take a look at our *Mark Your Calendar* and *What's Happening?* columns to get the latest on publications, meetings, and training. The *Toolbox* column deals with the proper use of gas cylinders at construction sites, and *FatalFacts* reviews fatalities caused by propane gas explosions and the stacking of structural steel.

Hope you enjoy the issue.

Anne Crown-Cyr
Editor

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FEATURES

DEPARTMENTS

ASSISTANT SECRETARY'S MESSAGE

When President Clinton and Vice President Gore announced "The New OSHA," they said that a guiding principle of the transformed agency would be common sense regulation. Recently, OSHA observed a pair of important milestones in carrying out that commitment. On June 18, we delivered on our pledge by canceling outdated and duplicative regulations, saving almost $10 million annually and eliminating thousands of hours of paperwork for employers. It was the latest of several such actions that together have eliminated a total of 1,081 pages of OSHA regulations from the *Federal Register*.

We now have removed even more pages of regulations than we had promised President Clinton in response to a May 1995 Presidential directive. That directive instructed federal agencies to review all standards and update or eliminate any as needed.

We took the first step in March 1996, when the agency eliminated 275 pages by making corrections, deleting redundant provisions, and reorganizing other provisions in its standards. In June 1996, the agency eliminated 645 pages by consolidating standards in its general industry volume that were repeated for the shipyard employment and construction standards. On June 25, 1997, OSHA updated the longshoring and marine terminal standards, deleting another 48 pages. In January 1998, OSHA cut 100 pages by updating the respiratory protection standard, omitting respiratory provisions in other standards that duplicated those requirements, and revising others to make them consistent.

Not only do these actions cut down on the volume of regulations, they also assist employers in better protecting workers.

We passed the second common sense regulation milestone on June 30, when we announced our first regulation rewritten into plain language. It was a regulation on safety in dipping and coating operations. Plain language regulations also make it easier for employers to do the right thing to protect their workers.

Our new plain language regulation won OSHA the first Plain Language, or "No Gobbledygook," Award from Vice President Gore for Marthe Kent, Director of the Office of Regulatory Affairs. Both the President and the Vice President are very interested in having government documents and regulations written in plain language. As the Vice President said, "Reviewing and rewriting government language is another step toward reinventing our government so that it better communicates with the American people." And OSHA has been a leader in government reinvention.

Others who worked on this plain language standard were John Martonik, Acting Director of the Directorate of Safety Standards, and members of his staff: Terry Smith, chief author of the new rule; Chap Pierce, Mike Moore, Glen Gardner and Pat Cattafesta; and Bob Biersner and George Henschel of the Solicitor's Office of the Department of Labor.

OSHA plans to do more of this common sense writing of regulations. We have at least four more on the way. Employers, workers, and the agency staff will reap the benefits of increased understanding of safety and health requirements.

Cutting down on the volume of regulations and the plain language initiative are just two aspects of our continuing commitment to reinvention.

In another important move, we now have almost 60 percent of OSHA's federal area offices across the nation redesigned in accordance with our Getting Results and Improving Performance (GRIP) project. That redesign helps OSHA carry out other principles of " The New OSHA"—to get results in reducing workplace injuries and illnesses and to establish partnerships on the local level. The remaining federal offices will be redesigned by September 30, 1999.

Redesigning area offices, writing in plain language, and streamlining our rules are all means of achieving our strategic plan goal of gaining greater public confidence in OSHA through excellence in the delivery of our services. JSHQ

Charles N. Jeffress
Assistant Secretary of Labor
for Occupational Safety and Health

OSHA Q&A

Q What is the significance of the Administration's plain language initiative and what standards is OSHA converting to plain language?

A The plain language initiative eliminates many of the confusing phrases, acronyms, and sentences that fill millions of pages of federal regulations. Plain language rewrites make the standards easier to understand and follow. The process also forces agencies to reanalyze the original intent of each regulation and its current application.

The Clinton Administration believes that American citizens have the right to a responsive, friendly government. So, making the Federal Government easier to comprehend and less intimidating are main objectives of the reinvention process. On June 1, President Clinton signed an Executive Memorandum that directs each federal agency to revise all existing letters and notices into plain language by 2002. OSHA is dedicated to meeting these requirements to better protect the safety and health of America's workers. In fact, Vice President Al Gore recently presented OSHA's reinvention team with the "No Gobbledygook Award" for rewriting the Dipping and Coating Standard, *Title 29 of the Code of Federal Regulations*, Part 1910, in plain language.

The process of translating the agency's regulations into plain language and publishing a final rule is lengthy, taking between 2 and 3 years, on average. In addition, during OSHA's start-up phase in the early 1970s, OSHA adopted verbatim many established federal standards and an existing body of voluntary national consensus standards developed by industry and engineering associations. As a result, when plain language translators need to figure out what a particular phrase means, there often is no record or person to verify its intended meaning. Also, the process of developing a final rule in plain language involves many people, including technical specialists, lawyers, industry stakeholders, and focus groups.

Another challenge is translating the standard into plain language without doing harm to its original intent. The final product has to be a rule that is identical in scope to the original and is enforceable. Most importantly, workers and employers must be able to understand it.

The following is a list of regulations currently being revised into plain language and their scheduled release dates:

Exit Routes
(Final) - February 1999

Dipping and Coating Operations
(Final) - September 1998

Spray Applications
(Proposal) - November 1998

Flammable/Combustible Liquids
(Proposal) - March 1999

Mechanical Power Transmission Apparatus
(Proposal) - Date to be determined

Hand and Portable Powered Tools
(Proposal) - Date to be determined

Q The Congress recently gave OSHA broader jurisdiction over whistleblower cases. Why? What steps are being taken to improve workers' knowledge of their rights under current whistleblower protection laws?

A On February 3, 1997, the Department of Labor issued a Secretary's Order that gave jurisdiction over whistleblower cases that violate seven federal laws that protect the air, water, environment, and nuclear facilities. OSHA received the new responsibilities because it has a staff of 55 investigators with more than 25 year's experience in investigating the often complex whistleblower case.

The agency already enforced such laws under the *OSH Act*, *Surface Transportation Assistance Act*, *Asbestos Hazard Emergency Response Act*, and *International Safe Container Act*.

After a 1-year pilot program in OSHA's Dallas Regional Office, OSHA and the Wage and Hour Division of the Employment Standards Administration (ESA) arranged a swap of responsibilities giving OSHA jurisdiction over seven of the whistleblower statutes. ESA gained responsibility for enforcement under sections 8, 9, and 10 of the *Occupational Safety and Health Act of 1970 (OSH Act)* with regard to the Field Sanitation Standard *(29 CFR*, Part 1928.110), and the Temporary Labor Camp Standard (29 *CFR* 1910.142).

The plain language initiative eliminates many of the confusing phrases, acronyms, and sentences that fill millions of pages of federal regulations.

The challenge is to identify effective approaches to prevent needlestick injuries in the many circumstances and settings within the health care industry.

With the added authority, OSHA covers actions under the *Clean Air Act*; *Safe Drinking Water Act*; *Solid Waste Disposal Act*; *Toxic Substances Control Act*; *Federal Water Pollution Control Act*; *Comprehensive Environmental Response, Compensation and Liability Act*; and *Energy Reorganization Act* (concerns nuclear energy) .

This fall, OSHA will implement a pilot outreach program in Region V, which includes Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. The program will test various training tools and methods to provide employers and employees with information concerning whistleblower rights and filing procedures. OSHA plans to include the successful elements of the pilot program in a national outreach campaign.

Q Needlesticks have become a hot topic in the health care industry. What is OSHA doing to prevent the spread of disease by needlesticks?

A Much discussion has centered around how to reduce the risk of transmitting disease in the health care industry recently. Assistant Secretary of Labor for Occupational Safety and Health Charles N. Jeffress outlined OSHA's efforts to determine the most effective methods of combatting this problem at the "Frontline Healthcare Workers Safety Conference" on August 10-11 in Washington, DC.

OSHA's bloodborne pathogens standard requires employers to establish engineering and work practice controls as the primary means of eliminating workplace exposure. If there is still an exposure risk after implementing these controls, then employers must provide and ensure the use of personal protective equipment (PPE).

Safer devices currently on the market can reduce the risk of needlesticks, but OSHA believes that simply purchasing these devices may not be effective in reducing risk. Scientific evidence suggests that there is no single instrument or action that can eliminate the risk of exposure by itself. That is why the agency is preparing a "Request for Information" to determine how best to reduce exposures to bloodborne pathogens from potentially contaminated needles and sharps.

The challenge is to identify effective approaches to prevent needlestick injuries in the many circumstances and settings within the health care industry. OSHA currently believes that the best solution is a programmatic approach, which includes management commitment, employee involvement, worksite assessment, training, hazard identification and control, and evaluation of effectiveness.

The bloodborne pathogens standard mandates that each employer whose workers may be exposed to blood develop an exposure control plan. This plan must specify the employer's method of implementing protective measures, such as engineering controls and PPE.

The agency also prepared outreach and resource materials for the health care industry. OSHA recently published a brief question-and-answer guide to needlestick prevention—*How to Prevent Needlestick Injuries: Answers to Some Important Questions*—which is free from OSHA Publications at (202) 219-4667 and also on OSHAs Web site at **www.osha.gov**. More detailed information, developed by the Office of Occupational Nurses, entitled *Safer Needle Devices: Protecting Health Care Workers* provides the most up-to-date information about exposure risk and the use of safer needle devices. It is available at all 10 OSHA Regional Offices and on the agency's Web site in the **Index** under *Needlestick Injuries*. JSHQ

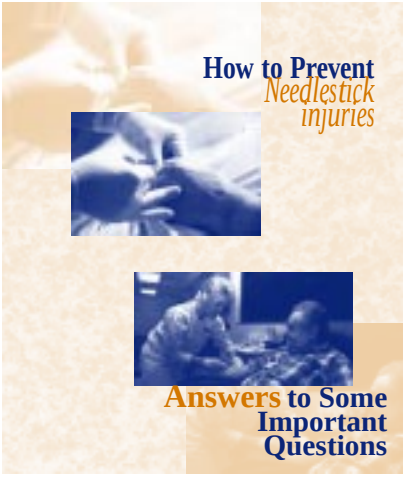
Publications

NIOSH

The National Institute for Occupational Safety and Health (NIOSH) *Alert* on "Preventing Asthma in Animal Handlers" (No. 97-116) addresses the health effects of exposure to airborne animal allergens and recommends a broad spectrum of measures for preventing animal-induced asthma and allergies in the workplace.

The National Occupational Research Agenda (NORA) traumatic injury team's report on *Traumatic Occupational Injury Research Needs and Priorities* (No. 98-134) presents a broad framework of the objectives and research needed to begin filling the gaps in knowledge and furthering progress toward a safer workplace and practices.

To order a copy of these booklets, contact the National Institute for Occupational Safety and Health (NIOSH), 4676 Columbia Parkway, Cincinnati, OH 45226-1998. To receive other information about occupational safety and health problems, call (800) 5-NIOSH, or visit the NIOSH Home Page on the World Wide Web at www.cdc.gov/niosh.



OSHA

A new brochure, *Preventing Needlestick Injuries: Answers to Some Important Questions*, helps increase awareness among health care employers about neelestick injuries. The publication discusses potential hazards, safer needlestick devices, and a safety and health prevention program. The document also provides additional sources of OSHA assistance and other available resources. A single copy of the brochure is free from the OSHA Publications Office, P.O. Box 37535, Washington, DC 20013-7535. The item also is available online from OSHA's Web site at www.osha.gov.

VPP Update

Recent additions to OSHA's VPP *Star* list are GE Electric Distribution and Control, Meter Business Division, Somersworth, NH; Union Camp Corp., Folding Carton Division, Moonachie, NJ; Lockheed-Martin Control Systems, Johnson City, NY; International Paper's Treated Wood Products, Wiggins, MS; Georgia Pacific Resins, Inc., Taylorsville, MS; Kerr-McGee Chemical Corp., Oklahoma City, OK; Motorola, Inc., Automotive and Industrial Engineering Group, Seguin, TX; Kerr-McGee Chemical Corp.'s Forest Products Division, Texarkana, TX; Occidental Chemical Co., Office Tower, Dallas, TX; Solutia, West Port Facility, Maryland Heights, MO; CF Industries, Inc., St. Louis, MO; and Black & Veatch Power Station, Hayden, CO.

Recent additions to OSHA's VPP *Merit* list are M.A. Mortenson Construction Co., Town Creek Water Treatment, Macon, GA; Insituform Technologies, Inc., Batesville, MS; The Trane Co., LaCrosse, WI; Frito-Lay, Inc., Monroe, WI; General Electric Co., Tungsten Products Plant, Euclid, OH; International Paper Nacogdoches Composite Panel Facility, Nacogdoches, TX; and Solar Communications, Perryville, MO.

Dow Chemical Co., Russellville, AR, and Halliburton Energy Services, Dallas, TX, have now been in the *Star Program* for 10 years.

Fisher Controls International Inc., Sherman, TX; Kerr-McGee Chemical Co., Hamilton Pigment Plant, Hamilton, MS; Milliken & Co., Hillside Plant, LaGrange, GA; Milliken & Co., Hillside Coating Plant, LaGrange, GA; Monsanto Chemical Co., Luling, LA; International Paper's Henderson Lumber Mill, Henderson, TX; Marathon Oil, Garyville, LA; Mobil Chemical Co., Houston, TX; International Paper's Dallas Container Plant, Carrollton, TX; Dow Chemical Co., LaPorte, TX; and International Paper's Springhill Wood Products, Springhill, LA, have now been in the *Star Program* for 3 years.

Epicor, Inc., Linden, NJ; Elf Lubricants North America, Inc., Linden, NJ; Equistar Chemical L.P., Bayport Polymers Plant, Pasadena, TX; International Paper's Pine Bluff Plant, Pine Bluff, AR; and Westlake Group Petrochemical/Styrene Corp., Sulphur, LA, advanced from *Merit* to *Star*.

This brings the total participants to 369 sites in the Federal VPP: 300 in *Star*, 56 in *Merit*, and 13 in *Demonstration*.

For more information on OSHA's VPP, write the OSHA Directorate of Federal-State Operations, 200 Constitution Avenue, N.W., Room N-3700, Washington, DC 20210; or call (202) 219-7266. See also **Programs and Services** on OSHA's Web site at www.osha.gov. JSHQ

OSHA Training Institute Schedule

100 Initial Compliance Course

Features hazard recognition related to common industrial processes and the criteria for citation or referral to safety compliance officers. Includes electrical equipment, flammable liquids, compressed gases, welding, machine guarding, walking-working surfaces, materials handling, and construction.

Tuition: Federal and state personnel only
Dates: 12/1/98 - 12/11/98

102 Basic Accident Investigation

Introduces basic accident investigation techniques related to OSHA compliance activities, including basic interviewing, photography, and mapping techniques as well as legal issues regarding investigations.

Tuition: Federal and state personnel only
Dates: 11/3/98 - 11/6/98

121 Introduction to Industrial Hygiene for Safety Personnel

Focuses on the general concepts of industrial hygiene, including the recognition of common health hazards such as air contaminants and noise, hazard reevaluation through screening and sampling, and control methods for health hazards including ventilation and personal protective equipment.

Tuition: $1,300
Dates: 12/1/98 - 12/11/98

141 Inspection Techniques and Legal Aspects

Describes investigative techniques related to OSHA compliance activities and to the formal requirements and processes of the legal system, including interviewing techniques, case file documentation, and workplace communication skills.

Tuition: Federal and state personnel only
Dates: 10/20/98 - 10/30/98

200a Construction Standards

A shortened version of course 200 that gives an overview of OSHA's construction standards and of the requirements of the most frequently referenced standards.

Tuition: $676
Dates: 12/14/98 - 12/18/98

201 Hazardous Materials

Covers OSHA general industry standards and consensus and proprietary standards relating to hazardous materials such as flammable and combustible liquids, compressed gases, LP-gases, and cryogenic liquids.

Tuition: $1,300
Dates: 12/1/98 - 12/11/98

203 Basic Electrical Principles

Covers basic principles of electricity, including Ohm's Law, series and parallel circuits, and adverse effects of electricity on the human body.

Tuition: $520
Dates: 10/20/98 - 10/23/98

204 Machinery and Machine Guarding Standards

Focuses on the various types of common machinery and the related safety standards. Also includes hands-on-training in the laboratories.

Tuition: $988
Dates: 12/10/98 - 12/20/98

207 Fire Protection and Life Safety

Helps the student recognize potential fire hazards and emergency procedures. Includes the chemistry of fire, types and effectiveness of extinguishing agents, means of egress, detection and alarm systems, fire brigades, fire prevention plans, and the *Life Safety Code* (NFPA 101).

Tuition: $1,300
Dates: 10/27/98 - 11/6/98

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

Provides an overview of ergonomic principles for the reduction of stresses and strains on the employee's body. Includes work physiology, vibration, anthropometry, cumulative trauma disorders, video display terminals, manual lifting, and temperature stress.

Tuition: $520
Dates: 11/17/98 - 11/20/98

233 Indoor Air Quality

Helps health and safety professionals determine indoor air quality, including the nature and causes of indoor air problems in office building environments as well as investigative approaches and solutions.

Tuition: $520
Dates: 10/6/98 - 10/9/98

245 Evaluation of Safety and Health Programs

Assesses safety and health programs, emphasizing techniques to evaluate the thoroughness of the programs and effectiveness of their implementation. The application of the OSHA safety and health program guidelines is supplemented by OSHA policy, related directives, and the current field manual.

Tuition: $520
Dates: 10/6/98 - 10/9/98

300 Safety and Health for Oil and Gas W ell Operations

Focuses on the safety and health aspects of on- and off-shore oil and gas well operations. Includes terminology, processes, equipment and materials, and special hazards.

Tuition: $520
Dates: 11/17/98 - 11/20/98

304 Power Press Guarding

Teaches specific requirements of *Title 29 Code of Federal Regulations (CFR) 1910.217, Mechanical Power Presses*. Discusses in detail part- and full-revolution clutch mechanisms as well as related hazards and guarding methods.

Tuition: $520
Dates: 10/20/98 - 10/23/98

308 Principles of Scaffolding

Presents detailed information on the safety aspects of scaffolding from installation to dismantling. Includes builtup scaffolds, suspension scaffolds, and interpretation of related standards. Demonstrates installation and dismantling methods.

Tuition: $520
Dates: 11/17/98 - 11/20/98

330a Safety and Health in the Chemical Processing Industries

A shortened version of Course 330 that provides the student with a survey of 29 CFR 1910.119, *Process Safety Management of Highly Hazardous Chemicals*. Topics include an overview of processes, equipment, and materials commonly found in the chemical processing industries; safety and health hazard recognition; and effective hazard control techniques. Includes an overview of the process safety management standard and OSHA compliance policies.

Tuition: $676
Dates: 12/14/98 - 12/18/98

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

Focuses on developing safety and health programs in the construction industry. Uses OSHA standards to emphasize those areas in construction that are the most hazardous.

Tuition: $676
Dates: 11/2/98 - 11/6/98

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

Teaches how the provisions of the *Occupational Safety and Health Act (OSH Act)* may be implemented in the workplace. Includes an introduction to OSHA's general industry standards and an overview of the requirements of the more frequently referenced standards.

Tuition: $676
Dates: 11/16/98 - 11/20/98

502 Update for Construction Industry Outreach Trainers

For personnel in the private sector who have completed course 500 and who are active trainers in the outreach program. Provides an update on such topics as OSHA construction standards, policies, and regulations.

Tuition: $468
Dates: 12/1/98 - 12/3/98

510 Occupational Safety and Health Standards for the Construction Industry

Covers OSHA policies, procedures, standards, and construction safety and health principles as well as the scope and application of the OSHA construction standards.

Tuition: $676
Dates: 12/7/98 - 12/11/98

600 Collateral Duty Course for Other Federal Agencies

Teaches how the provisions of the *OSH Act*, Executive Order 12196, 29 CFR 1960, and 29 CFR 1910 may be implemented in the workplace and to effectively assist agency safety and health officers in inspection and abatement efforts.

Tuition: $598
Dates: 11/16/98 - 11/20/98

To register for courses or to obtain a training catalog, write the OSHA Training Institute, 1555 Times Drive, Des Plaines, IL 60018; or call (847) 297-4913. See also **Outreach** and *Training* on OSHA's Web site at www.osha.gov.

OSHA Training Institute Education Centers

The OSHA Training Institute also has a program for other institutions to conduct OSHA courses for the private sector and other 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, St. Paul, MN, (800) 493-2060; Keene State College, Manchester, NH, (800) 449-6742; Maple Woods OSHA Training Center, Kansas City, MO, (800) 841-7158; National Resource Center for OSHA Training, Washington, DC, (800) 367-6724; Niagara County Community College, Lockport, NY, (800) 280-6742; Red Rocks Community College/Trinidad State Junior College, Lakewood, CO, (800) 933-8394; The National Safety Education Center, DeKalb, IL, (800) 656-5317; Texas Engineering Extension Service, Mesquite, TX, (800) 723-3811; University of California, San Diego, CA, (800) 358-9206; and University of Washington, Seattle, WA, (800) 326-7568.

For tuition rates and registration information, contact the institution offering the courses, or visit OSHA's Web site at www.osha.gov.

201a Hazardous Materials

Location:	Eastern Michigan University-United Auto Workers	Dates:	10/26/98 - 10/30/98
Location:	Maple Woods OSHA Training Center	Dates:	10/12/98 - 10/15/98
Location:	National Resource Center for OSHA Training	Dates:	10/19/98 - 10/22/98
Location:	Niagara County Community College	Dates:	11/30/98 - 12/3/98

204a Machinery and Machine Guarding Standards

Location:	Maple Woods OSHA Training Center	Dates:	11/16/98 - 11/19/98
Location:	Texas Engineering Extension Service	Dates:	11/16/98 - 11/19/98

225 Principles of Ergonomics

Location:	Eastern Michigan University-United Auto Workers	Dates:	11/16/98 - 11/19/98
Location:	Keene State College	Dates:	10/26/98 - 10/29/98
Location:	Maple Woods OSHA Training Center	Dates:	11/30/98 - 12/3/98
Location:	Texas Engineering Extension Service	Dates:	10/5/98 - 10/8/98
Location:	University of California San Diego	Dates:	10/19/98 - 10/22/98

226 Permit-Required Confined Space Entry

Location:	Eastern Michigan University-United Auto Workers	Dates:	11/16/98 - 11/19/98
Location:	Keene State College	Dates:	11/2/98 - 11/5/98

Location:	Maple Woods OSHA Training Center	Dates:	10/5/98 - 10/8/98
Location:	Niagara County Community College	Dates:	11/3/98 - 11/6/98
Location:	Texas Engineering Extension Service	Dates:	11/4/98 - 11/6/98
Location:	The National Safety Education Center	Dates:	11/3/98 - 11/5/98 11/17/98 - 11/19/98
Location:	University of California San Diego	Dates:	11/16/98 - 11/18/98

309a Electrical Standards

Location:	Eastern Michigan University-United Auto Workers	Dates:	10/19/98 - 10/22/98
Location:	Maple Woods OSHA Training Center	Dates:	11/9/98 - 11/12/98
Location:	Niagara County Community College	Dates:	11/9/98 - 11/12/98

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

Location:	Eastern Michigan University-United Auto Workers	Dates:	10/19/98 - 10/23/98 12/14/98 - 12/18/98
Location:	Georgia Technological Research Institute	Dates:	10/12/98 - 10/16/98
Location:	Keene State College	Dates:	10/5/98 - 10/9/98 11/30/98 - 12/4/98
Location:	Maple Woods OSHA Training Center	Dates:	10/19/98 - 10/22/98
Location:	National Resource Center for OSHA Training	Dates:	11/9/98 - 11/12/98 12/7/98 - 12/10/98
Location:	Niagara County Community College	Dates:	11/2/98 - 11/5/98
Location:	Red Rocks Community College	Dates:	10/5/98 - 10/8/98 11/2/98 - 11/5/98 12/7/98 - 12/10/98
Location:	Texas Engineering Extension Service	Dates:	10/19/98 - 10/23/98 11/9/98 - 11/13/98 11/16/98 - 11/20/98 12/14/98 - 12/18/98
Location:	The National Safety Education Center	Dates:	11/9/98 - 11/13/98 12/7/98 - 12/11/98
Location:	University of California San Diego	Dates:	12/7/98 - 12/10/98
Location:	University of Washington	Dates:	11/9/98 - 11/12/98

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

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Location:	Niagara County Community College	Dates:	10/19/98 - 10/22/98 11/16/98 - 11/19/98 12/14/98 - 12/17/98
Location:	Red Rocks Community College	Dates:	10/12/98 - 10/15/98 11/9/98 - 11/12/98 12/14/98 - 12/17/98
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Location:	The National Safety Education Center	Dates:	11/16/98 - 11/20/98
Location:	University of California San Diego	Dates:	11/2/98 - 11/5/98 12/7/98 - 12/10/98
Location:	University of Washington	Dates:	10/19/98 - 10/11/98

502 Update for Construction Industry Outreach Trainers

Location:	Eastern Michigan University-United Auto Workers	Dates:	10/6/98 - 10/8/98
Location:	Keene State College	Dates:	10/14/98 - 10/16/98
Location:	Maple Woods OSHA Training Center	Dates:	11/30/98 - 12/2/98
Location:	Niagara County Community College	Dates:	10/13/98 - 10/15/98 12/9/98 - 12/11/98
Location:	Red Rocks Community College	Dates:	11/16/98 - 11/18/98
Location:	Texas Engineering Extension Service	Dates:	11/9/98 - 11/11/98
Location:	The National Safety Education Center	Dates:	10/12/98 - 10/14/98
Location:	University of California San Diego	Dates:	12/2/98 - 12/4/98
Location:	University of Washington	Dates:	12/2/98 - 12/4/98

503 Update for General Industry Outreach Trainers

Location:	Eastern Michigan University-United Auto Workers	Dates:	11/30/98 - 12/2/98
Location:	Georgia Technological Research Institute	Dates:	12/1/98 - 12/3/98
Location:	Keene State College	Dates:	10/14/98 - 10/16/98
Location:	Maple Woods OSHA Training Center	Dates:	10/12/98 - 10/14/98 12/14/98 - 12/16/98
Location:	Niagara County Community College	Dates:	10/14/98 - 10/16/98 12/16/98 - 12/18/98
Location:	Red Rocks Community College	Dates:	11/18/98 - 11/20/98
Location:	Texas Engineering Extension Service	Dates:	11/2/98 - 11/4/98
Location:	The National Safety Education Center	Dates:	10/20/98 - 10/22/98
Location:	University of California San Diego	Dates:	10/19/98 - 10/21/98
Location:	University of Washington	Dates:	12/7/98 - 12/9/98

510 Occupational Safety and Health Standards for the Construction Industry

Location:	Eastern Michigan University-United Auto Workers	Dates:	11/9/98 - 11/13/98
Location:	Georgia Technological Research Institute	Dates:	11/2/98 - 11/6/98
Location:	Great Lakes OSHA Training Consortium	Dates:	12/1/98 - 12/4/98
Location:	Keene State College	Dates:	11/2/98 - 11/6/98
Location:	Maple Woods OSHA Training Center	Dates:	10/5/98 - 10/8/98 12/7/98 - 12/10/98
Location:	National Resource Center for OSHA Training	Dates:	10/5/98 - 10/8/98
Location:	Niagara County Community College	Dates:	10/26/98 - 10/29/98 12/7/98 - 12/10/98
Location:	Red Rocks Community College	Dates:	10/19/98 - 10/22/98
Location:	Texas Engineering Extension Service	Dates:	10/12/98 - 10/15/98 12/1/98 - 12/4/98
Location:	The National Safety Education Center	Dates:	10/19/98 - 10/23/98
Location:	University of California San Diego	Dates:	11/2/98 - 11/5/98

521 OSHA Guide to Industrial Hygiene

Location:	Keene State College	Dates:	12/7/98 - 12/11/98
Location:	Maple Woods OSHA Training Center	Dates:	11/16/98 - 11/19/98
Location:	Niagara County Community College	Dates:	11/30/98 - 12/3/98
Location:	Texas Engineering Extension Service	Dates:	10/19/98 - 10/22/98 12/14/98 - 12/17/98
Location:	The National Safety Education Center	Dates:	11/2/98 - 11/6/98
Location:	University of Washington	Dates:	11/2/98 - 11/5/98

600 Collateral Duty Course for Other Federal Agencies

Location:	Maple Woods OSHA Training Center	Dates:	12/7/98 - 12/10/98
Location:	Texas Engineering Extension Service	Dates:	11/9/98 - 11/13/98
Location:	University of California San Diego	Dates:	11/16/98 - 11/19/98

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Opening Doors to Ability

The American challenge for the 21st century is to become a nation in which all citizens have the opportunity for full employment. The ability of a diverse work force provides the framework to meet this challenge. Persons with disabilites want to be a vital component of the diverse work force.

We must not overlook the abilities of the 54 million Americans with disabilities. By "opening doors to ability," employers gain the skills and talents of persons with disabilities.

For more information, contact the President's Commitee on Employment of People with Disabilities, 1331 F Street, N.W., Washington, DC 20004-1107, or visit their Web site at www.pcepd.gov.

Ergonomics: Getting Help at the Crossroads

by Susan Hall Fleming

OSHA is committed to developing a standard to protect workers against work-related musculoskeletal disorders (MSDs) that occur when there's a mismatch between individuals and their jobs. But what's the most direct, sensible, and practical route?

Although occupational injuries and illnesses have declined somewhat over the last several years, about one-third of work-related injuries and illnesses are MSDs related to overexertion, repetitive motion, or other similar factors. In 1996, there were more than 600,000 MSDs. This includes back injuries from overexertion, hand and wrist injuries such as carpal tunnel syndrome, and shoulder problems such as rotator cuff injuries.

Although the Congress prohibited the agency from publishing an ergonomics proposal during fiscal year 1998, OSHA is free to develop one for later publication. To assist in that process, OSHA discussed broad issues with stakeholders in Washington, DC, in February. On July 21 and 23, members of OSHA's ergonomics team met again with stakeholders at sessions in Kansas City and Atlanta to discuss difficult issues the agency is wrestling with in crafting a proposal.

The ground rules were simple: Give OSHA your best thinking. No media. No attribution of comments. Just an opportunity to share your perspective, your experience, and your expertise. Four issues, four sessions, and four hours. About 35 individuals representing trade associations, unions, professional groups, academia, and individual companies participated in each session. Others attended as observers. OSHA was able to include in the meetings everyone who asked to participate. Dr. Michael T. Lesnick of the Meridian Institute served as moderator for all four meetings.

OSHA's special assistant for ergonomics, David Cochran, a professor of industrial engineering on loan from the University of Nebraska, opened each meeting. Cochran described ergonomics as a multidisciplinary field drawn from industrial engineering, psychology, industrial hygiene, occupational medicine, and physical and occupational therapy. He asserts that "A lot of ergonomics is common sense, but common sense isn't very common."

Four Issues for OSHA 's Ergonomics Proposal

- What action levels should be used to trigger further employer action?
- What should all employers covered by the scope of the standard do to protect their employees from MSDs?
- How does an employer with an effective program determine when controls are adequate for a problem job?
- Should OSHA limit the scope of a proposed ergonomics program standard?

> "OSHA cannot retreat from this issue. Overall occupational injuries and illnesses are down, but musculoskeletal disorders continue to account for about a third of the total."
>
> *Marthe Kent*
> *Director, Office of Regulatory Analysis*

Ergonomists, according to Cochran, look at jobs with a critical eye, seeking ways to improve them to benefit both workers and employers. Cochran says the ergonomist's theme is "work smarter, not harder." He also notes that pushing a machine beyond its design limits produces a poor product and wears out the machine. The same thing, he says, happens with people.

Marthe Kent, who heads OSHA's regulatory analysis staff, reviewed OSHA's 10-year history in dealing with ergonomics, noting that four consecutive Secretaries of Labor—Elizabeth Dole, Lynn Martin, Robert Reich and Alexis Herman—have addressed the issue. Over the past 10 years the agency has cited more than 400 workplaces for violations of its general duty clause and signed corporatewide settlement agreements with about 15 companies covering nearly 200 facilities.

In 1990, OSHA developed ergonomic guidelines for the meatpacking industry. In 1994-95, the agency began work on a draft ergonomics standard using a risk assessment approach. That effort ran aground. OSHA formed a new ergonomics team and settled on pursuing a program approach.

Kent points out, "OSHA cannot retreat from this issue. Overall occupational injuries and illnesses are down, but musculoskeletal disorders continue to account for about a third of the total. That percent hasn't budged." Noting that the agency is committed to a programmatic standard and has identified the basic elements ergonomic programs should include, Kent says OSHA was bringing its "sticking points," the tough issues, to the stakeholder meeting.

OSHA economist Bob Burt set forth four questions for stakeholders. "How do you find problem jobs? How do you identify problem jobs—what's your trigger? How do you know when you've fixed a problem job? Who should be covered under the first phase of the standard?"

Finding Problem Jobs

Stakeholders spoke of a variety of data and strategies to pinpoint high-risk jobs: reviewing injury/illness records, first-aid logs, medical visits, workers' compensation data, absenteeism, symptom surveys, behavior-based observations, complaints from workers, job surveys, facility walkthroughs, and turnover in particular jobs. Others suggested developing both labor and management expertise in ergonomics and using joint labor-management committees or teams

Highly repetitive motion can cause worker injuries and illnesses.

Lifting tasks need to be designed to avoid worker back and shoulder injuries.

to analyze jobs and set priorities for changes. Several stakeholders noted the importance of following through with corrections once problems are identified. Employers should re-check the job following changes to be sure they are effective in preventing injury, participants said.

Some stressed the need to increase awareness about MSDs and train workers to understand ergonomic issues to enable them to identify and help avoid problems. But be sure employees are comfortable reporting discomfort, and there are no recriminations for early reporting, another said. One participant recommended that OSHA consider developing a "menu" of tools to identify hazards rather than requiring employers to use one particular strategy. Another urged OSHA to analyze the strategies used by companies that have signed corporatewide settlement agreements following inspections in which ergonomics was an issue.

Several attendees emphasized the importance of considering ergonomics as work stations are designed or redesigned as part of workplace upgrades. Others also pointed out the importance of prevention rather than identifying problem jobs only through injuries. One identified success as an employee who says, "I'm more comfortable doing my job and not as tired when I go home." Another recommended that OSHA point out to employers the economic value and benefits of a good ergonomics program.

Some stakeholders also told OSHA what not to do. Don't require additional reports on musculoskeletal disorders. Don't justify an ergonomics standard on the basis of employer success stories. Don't specify a certain number of hours for ergonomics training. A few stakeholders wondered whether an ergonomics standard is really necessary. Should ergonomics be included as part of an overall safety and health program instead?

> OSHA believes employers covered by the standard will need to adopt a basic ergonomics program. But some will need to do more.

Taking Further Action

"When do employers need to go beyond a minimal ergonomics program and take further action?" attorney Sara Shortall asked stakeholders. Should employers conduct intensive training for employees, survey workers, analyze jobs, and provide medical surveillance? OSHA believes employers covered by the standard will need to adopt a basic ergonomics program. But some will need to do more. Who should do more and how much more? OSHA's goal, Shortall said, is to "minimize costs for those with isolated or minimal problems, yet provide appropriate protection for workers. We want to be proactive, yet realistic." Should this mean an incident-based trigger?

Stakeholders offered many options: Don't ask employers to take further action on the basis of one incident. Don't think you're done if you fix one job where an incident occurred because workers in similar jobs may be affected. Require only employers with a

statistically significant incidence rate to do more. Recordable injuries are a minimum trigger, but this is a reactive approach. Use complaints to trigger follow-up. Focus on signs and symptoms; this is more proactive. Take a preventive approach. Let companies determine appropriate triggers for their business.

Others said: Reward employers trying to do the right thing—even if their injury rates are higher because they've informed their workforce, and more employees are honestly reporting problems. Look at back injuries, workers' compensation, and capital expenditures. Make the trigger "persistent symptoms." Or base it on medical management or treatment. No one measure will capture all problems.

Some participants shared what works at their companies: Triggers are reactive, we want to be proactive, said one. We look at jobs with recordable injuries, said another. We look at decreased worker productivity. We rely on recommendations from occupational nurses at each site. We like to employ a fresh set of eyes to point out "silly" approaches to work that impose ergonomic stresses and "why-are-we-doing-it-that-way" instances. We use industrial engineers to identify high-risk jobs. In the end, said one participant, OSHA will have to determine whether a company is acting in good faith.

For others, many questions remain to be answered: How do you distinguish work-related MSDs from MSDs associated with lifestyles? How can you in good conscience wait for an incident to occur before stepping in to protect workers? How will a trigger-based approach work for businesses that don't record injuries and illnesses or are so small that even one incident might be rare although a hazard clearly exists?

Doing Enough

How do you know you're in compliance?" That's the question David Cochran posed to stakeholders. If the hazard is eliminated—no more heavy lifting, no more hand/wrist movements, no more MSDs; it's clear that what you've done is enough. But what if MSDs still occur, or the hazard is not completely eliminated? When has the employer done everything necessary to comply with a programmatic ergonomics standard? And how does OSHA write regulatory text to address this?

Participants had many ideas to offer: Don't use the injury rate—take objective measures, such as reduced force. Rely on an employee survey. Are people still getting

OSHA also is concerned about computer users. But it is difficult to find data that identify who is being injured as a result of computer use.

OSHA 's Nine Principles for Developing a Proposed Ergonomics Standard

- Based on sound scientific principles
- Focus on areas where the risk of MSDs is great and solutions are well understood
- Maximize worker protection and minimize burden
- Reflect practices shown to be effective
- Call for efforts commensurate with the size of the MSD problem at the specific establishment
- Recognize the unique needs of small businesses
- Focus on performance and permit flexibility
- Recognize employers who already have effective ergonomics programs
- Write the proposal in plain language

hurt? Try peer review committees. Use a tiered approach with industry-specific requirements. Focus on prevention, early reporting, and early intervention. Emphasize action levels—that will make it clear when a company has fulfilled its obligation.

Others suggested: Keep the requirements flexible. Make the provisions easy to understand and easy to implement. Avoid specifics in the standard. Give credit to an employer who has done something, even if the process is not complete. Require a periodic review and reevaluation of the program, perhaps every 2 years. No ergonomics program is ever finished—it's an ongoing process.

Some stakeholders encouraged OSHA to consider compliance case by case: Acknowledge good faith efforts, but demand accountability from recalcitrant employers. Recognize that different risk levels are acceptable for different industries. Compare baselines to progress made. Look at the changes an employer has made. Consider the size of the problem at that worksite and the progress that's been made. Are all the elements of a good ergonomics program in place? The yardsticks should be employee comfort, the absence of discomfort and reduction of fatigue. An employer's done when all the problem jobs are fixed. An employer is in compliance when all the elements of an ergonomics program are in place and the risk of MSDs has been reduced. Consider using third-party audits to determine compliance.

Awkward postures and improper work methods can result in injury and illness.

Program Elements of an Ergonomics Program

- Management leadership and employee participation
- Hazard awareness and identification
- Training
- Medical management
- Job hazard analysis
- Hazard prevention and control
- Program evaluation

Others cautioned the agency: You're going to spend a lot of time in court. How can OSHA know if people are trying hard enough? OSHA must require a minimum that is specific and measurable. Do not cite employers based on the presence or absence of MSDs. Recognize that some jobs will never be fixed, but employers should keep looking at them. Use a 5-year phase-in, like the process safety management standard, to give trade associations time to help employers comply. Draw on the consultation process to assist employers.

Limiting the Scope

OSHA is now engaged in the first phase of rulemaking on ergonomics, Marthe Kent told stakeholders. In this phase, the agency is considering covering production employees in manufacturing and workers involved in manual handling throughout general industry. About 65 percent of all recorded MSDs occur in these operations. This group has rates of MSDs three times the overall rates in general industry yet would include only about 25 percent of general industry employers.

OSHA also is concerned about computer users. But it is difficult to find data that identify who is being injured as a result of computer use. If the agency decides not to regulate intensive computer use at this time, what can be done to reduce computer-related injuries?

Stakeholders disagreed on this issue. Three major positions

OSHA staff characterized the July meetings as extremely helpful, expressing appreciation for stakeholders' willingness to share their experience and offer constructive comments.

emerged: Those who preferred no standard, those who wanted a narrow focus, and those who wanted a broader focus.

Specific suggestions included: Cover everyone, and let triggers bring companies in. Regulate no one—rely on the safety and health program standard instead. Include everyone, but keep paperwork minimal. Don't include intensive keyboarding. Don't consider excluding computer use. Rely on the general duty clause and education and outreach. Offer engineering solutions rather than a regulation. The standard will narrow itself; don't confuse scope with application.

Other recommendations offered: Let the standard drive the technology to get tough jobs fixed. Include agriculture. Develop guidelines rather than a standard. Include construction. Be sure to consider non-work-related activities in your evaluation of risk. OSHA should protect all workers. Scope could be limited by injury, but not by job title. Consider the size of companies when developing the scope. Multi-function positions will be difficult to manage. A phased-in approach would take too long.

Moving Forward

Marthe Kent told the groups that OSHA plans to hold a meeting in Washington, DC, in September to discuss a similar set of issues. Following that, the agency will be working on regulatory text, which it hopes to complete by the end of 1998. OSHA Assistant Secretary Charles N. Jeffress has indicated the agency wants to have a proposal ready to publish in the *Federal Register* next summer.

Kent said this represents a very ambitious goal since the agency must also conduct economic and risk analyses as well as prepare a preamble discussing the issues addressed in the regulation. Further, OSHA will need to assess the impact of a draft proposed rule on small businesses, and if appropriate, convene a small business panel under the *Small Business Regulatory Enforcement Fairness Act* (SBREFA). The Department of Labor and the Office of Management and Budget both must sign off on the proposal as well.

Notes from the meetings are being placed on OSHA's website at www.osha.gov under **Outreach**. Similar information from the September meetings will be made available on the agency's website as well.

OSHA staff characterized the July meetings as extremely helpful, expressing appreciation for stakeholders' willingness to share their experience and offer constructive comments. "Now we need to digest this information, and get down to work," said David Cochran.
JSHQ

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OSHA 's Ergonomics W ebsite

Ergonomics is the science of fitting the job to the worker. When there is a mismatch between the physical requirements of the job and the physical capacity of the worker, musculoskeletal disorders (MSDs) can result. MSDs are one of the fastest growing workplace injuries, costing employers more than $20 billion for 2.73 million workers compensation claims in 1993. Indirect costs may run as high as $100 billion.

Often MSDs can be prevented by simple and inexpensive changes in the workplace—such as adjusting the height of work surfaces, varying tasks, and encouraging short rest breaks.

For more information on ergonomics, visit OSHA's Ergonomics page. Go to www.osha.gov and select the **Index** and choose **Ergonomics**. This page can help you find general and technical information on ergonomics—including statistics, training, enforcement, and publications—as well as the latest stakeholder discussion materials. The page also provides links to other sites on ergonomics issues and lists additional sources of information.

Needlestick Injuries Prompt New Awareness

by Anne Crown-Cyr

At the fourth "Frontline Healthcare Workers Safety Conference" on August 10-11, more than 300 participants talked about ways to protect health care workers from bloodborne pathogens and other hazards. In 1991, OSHA published the Bloodborne Pathogens Standard—*Title 29 of the Code of Federal Regulations*, Part 1910.1030—to protect workers from exposures to bloodborne illnesses. Preventing exposures to bloodborne pathogens such as Hepatitis B and C and AIDS is a major concern for health care employers and workers. Because needlestick injuries are a major cause of these exposures, it is important to use the appropriate work practices and engineering controls.

According to OSHA Assistant Secretary Charles N. Jeffress, "The best estimates we have suggest that our nation's 5.6 million health care workers suffer as many as 800,000 exposure incidents—mostly needlesticks—each year. That's one out of seven workers. Every year. Even more telling is the fact that needlesticks account for up to 80 percent of the accidental exposures to blood."

As a result, earlier this year, OSHA developed a detailed manual to inform its field staff about the risk of exposure and use of safer needle devices as well as an informational flyer for the public entitled, *How to Prevent Needlestick Injuries: Answers to Some Important Questions*. These questions and answers are listed in the following paragraphs.

Why Do I Need to Worry About Needlesticks?

If you're an employer of health care workers who are potentially exposed to blood and contaminated needles, you should know that there are an estimated 800,000 needlesticks each year in the U.S., with many more unreported. About 2 percent, or 16,000, of these are likely to be contaminated with the Human Immunodeficiency Virus (HIV). Needlestick injuries account for up to 80 percent of accidental exposures to blood. Nurses in hospitals are the most frequently injured.

When Might My Employees Be Injured By a Needlestick?

Needlestick injuries may occur when employees dispose of needles, collect and dispose of materials used during patient care procedures, administer injections, draw blood, or handle trash or dirty linens.

Isn't There Just a Small Chance of Such an Injury?

Data from 63 hospitals show that the overall rate of such injuries is 27 per 100 occupied beds annually. Nurses had the most frequent exposures (49.7 percent); physicians ranked second (12.6 percent); nursing assistants accounted for 5.3 percent, and housekeepers, 5.1 percent. [1] Hollow-bore needles are the cause of injury in 68.5 percent of all cases.

What Can Happen from a Needlestick?

More than 20 pathogens have been reportedly transmitted from needlesticks.[2] The most serious are the transmission of Hepatitis C (HCV), Hepatitis B (HBV), and HIV. In fact, the risk of transmitting HBV and HCV is much higher than for HIV.

> … there are an estimated 800,000 needlesticks each year in the U.S., with many more unreported.

Why Is the Risk of Transmission More Likely to Be from Hepatitis B and C Than to HIV?

The risk of transmission has to do with the prevalence of these diseases in the patient population at large. For example, an estimated 1.25 million people in the U.S. are chronically infected with HBV and 6,000 die each year from HBV-related liver disease. HCV also is a major cause of chronic liver disease worldwide. In 1997, there were an estimated 4 million people in the U.S. infected with HCV.[3] As many as 85 percent of all HCV-infected persons develop chronic hepatitis and are at increased risk for cirrhosis and primary hepatocellular carcinoma.[4] Liver failure from Hepatitis C is the leading reason for liver transplants in the U.S.

So, Do I Still Need to Worry About HIV Exposures for Employees?

Yes. The total number of occupationally acquired HIV infections

[1] G. Ippolito; V. Puro; N. Petrosillo; G. Pugliese; B.Wispelwey; P.M. Tereskers; N. Bentley; and J. Jagger, *Prevention, Management & Chemoprophylaxis of Occupational Exposure to HIV* (Charlottesville, VA: Advances in Exposure Prevention, International Health Care Worker Safety Center, 1997).

[2] L.A. Chiarello, Deborah Nagin, and Franklin Laufer, *Pilot Study of Needlestick Prevention Devices*, Report to the Legislature, New York State Department of Health, March 1992, p.16.

[3] U.S. Department of Health and Human Services, National Institutes of Health, *Consensus Development Statement: Management of Hepatitis C.* Available online at http://odp.od.nih.gov/consensus/statements/cdc/105/105_stmt.html.1997.

[4] Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report* 88(2), 1996.

in health care workers continues to increase each year. Of the 52 such cases documented during 1996, 45 were from needlesticks or cuts.[5]

How Can I Protect Employees Against Potential Exposures?

Make sure that employees use universal precautions, personal protective equipment, and engineering and work practice controls to reduce their exposure to bloodborne pathogens, as required by OSHA's Bloodborne Pathogens Standard.[6]

Can't Needles Penetrate Most Personal Protective Equipment? Are Employees Still Safe Wearing Gloves?

You're correct. Most personal protective equipment can be easily penetrated by needles. Most needlestick injuries, however, result from unsafe needle devices rather than carelessness by health care workers. Safer needle devices have been shown to significantly reduce needlesticks and exposures to potentially fatal bloodborne illnesses.[7]

What's a Safer Needle Device?

A safer needle device has built-in safety controls to reduce needlestick injuries before, during, or after use and to make needlesticks less likely.

Will These Devices Prevent Needlestick Injuries?

Not all needlestick injuries are preventable, but the number can be reduced by using devices containing needles with built-in safety features or other devices that eliminate the use of needles altogether. Using needleless IV connectors, self re-sheathing needles, or blunted surgical needles, for example, can help reduce the risk of injury. In fact, almost 83 percent of injuries from hollow bore needles are potentially preventable.[8]

How Do These Devices Work?

In general, properly designed devices should; (1) provide a barrier between the hands and the needle after use; (2) allow or require the worker's hands to remain behind the needle at all times; (3) have safety features integral to the device itself rather than as accessories; (4) be in effect before disassembly and remain in effect after disposal to protect downstream workers; (5) be simple and easy to operate, with little or no training; and (6) not interfere with the delivery of patient care.

[5] Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, *HIV/AIDS Surveillance Report* 8(2): Atlanta, GA 1996.

[6] *Title 29 Code of Federal Regulations*, Part 1910.1030.

[7] Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, *HIV/AIDS Surveillance Report*, 9(1): Atlanta, GA, 1997.

[8] Ippolito, et al, 1997.

Are There Specific Safety Features I Need to Know About?

Yes, that would be helpful. For example, it is good to know whether the feature is active or passive or whether the engineering control is part of the device. Types of safety features include the following:

- Passive safety features remain in effect before, during, and after use; workers do not have to activate them. Passive features enhance the safety design and are more likely to have a greater impact on prevention. (See Figure 1.)
- Active devices require the worker to activate the safety mechanism. Failure to do so leaves the worker unprotected. Proper use by health care workers is the primary factor in the effectiveness of these devices. (See Figure 2.)
- An integrated safety design means that the safety feature is built in as an integral part of the device and cannot be removed. This design feature is usually preferred. (See Figure 1.)
- An accessory safety device is a safety feature that is external to the device and must be carried to, or be temporarily or permanently fixed to, the point of use. This design also is dependent on employee compliance, and according to some researchers, is less desirable.

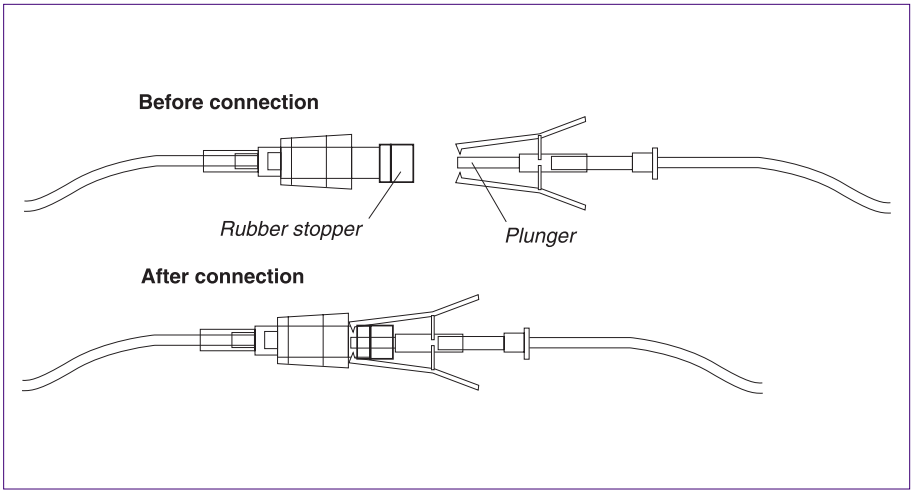


Figure 1. Needleless IV Connector

These connectors use devices other than needles to connect one IV to another. Examples of needleless connectors include 3-way stopcocks and plunger-type systems. An example of the plunger-type system is shown here. These devices are passive and integral to the system.

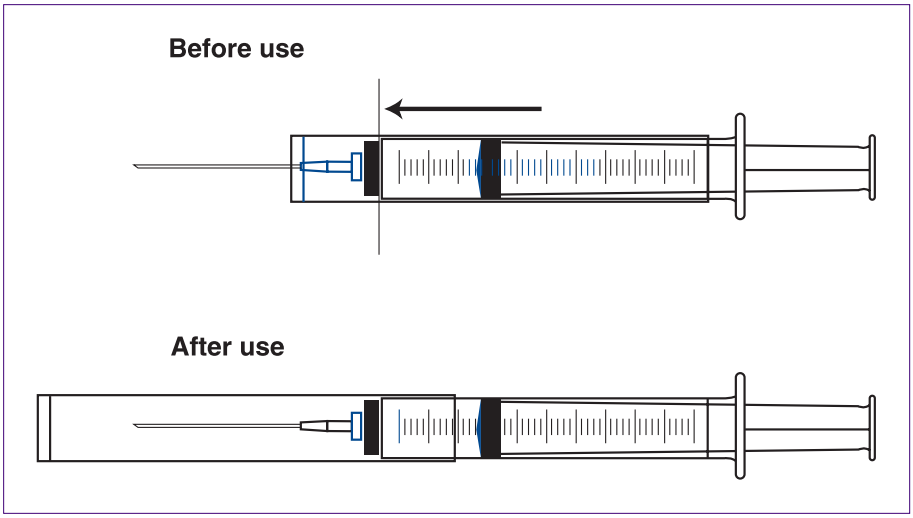


Figure 2. Self-Resheathing Needle

Initially, the sleeve is located over the barrel of the syringe with the needle exposed for use. After the device is used, the user slides the sleeve forward over the needle where it locks in place and provides a guard around the used needle.

Does OSHA Require These Devices?

No. OSHA does not require employers to institute the most sophisticated engineering controls, but it does require that he or she evaluate the effectiveness of existing controls and to review the feasibility of instituting more advanced engineering controls. Further, OSHA's Bloodborne Pathogens Standard[9] requires that employers establish a written exposure control plan as well as engineering and work practice controls to eliminate or minimize employee exposure.

[9] *29 CFR*, Part 1910.1030, (c)(1)(ii)(B) and (d)(2)(1).

A safer needle device has built-in safety controls to reduce needlestick injuries before, during, or after use and to make needlesticks less likely.

What Steps Do I Need to Take to Have a Comprehensive Prevention Program and to Implement Safer Needle Devices?

As an employer of health care workers, you have the flexibility to develop individual worksite-specific needlestick prevention programs to protect employees. Such a program would mean that you have a mechanism in place to select and evaluate safer medical devices in a systematic manner. In evaluating safer needlestick devices, ideally you should evaluate your workplace and base your choices for these types of products on the following:

- The needs of the primary users.
- The need of the patients who must continue to receive safe, efficient, and comfortable care. Workers are likely to reject products that they think will interfere with patient care in any way.

In addition, a comprehensive needlestick prevention program might include the following:

- Creating a multidisciplinary team to investigate and assess needlestick incidents.
- Defining prevention priorities on the basis of collection and analysis of an institution's injury data.
- Developing design and performance criteria for product selection according to needs for patient care and health care worker safety.
- Planning and implementing an evaluation of products in clinical settings.[10]

To evaluate and select appropriate safer needle devices, you also should review available needlestick injury data including the personnel involved, the devices used, and the circumstances and frequency of needlestick events. This information can help in determining how employees can maximally benefit from a product change to safer needle devices. Although not required by OSHA, the collection and evaluation of complete needlestick injury data are key to identifying injury patterns and then implementing an effective abatement plan. (See also, the sample tearout "Safety Feature Evaluation Form," for help in determining the most appropriate device for your employees.)

In an effort to gather information on needlestick prevention, in the fall, OSHA plans to issue a Request for Information and Comments on needlestick prevention. This will be a chance for interested parties to tell OSHA what works, which strategies make a difference in their hospitals, nursing homes, clinics, and other facilities.

For more information on bloodborne pathogens, needlesticks, and other topics, visit OSHA's Web site at www.osha.gov. JSHQ

Cyr is the editor of ***Job Safety & Health Quarterly*** *in OSHA's Office of Public Affairs, Washington, DC.*

[10] L.A. Chiarello, "Selection of Safer Needle Devices: A Conceptual Framework for Approaching Product Evaluation," *Am J Infection Control* 23(6):386-395, 1995.

Guidelines for the Use of Safety Feature Evaluation Sheets

Detach Here

Coordinators:

- Determine which products are to be evaluated and provide at least four or more test samples for each individual evaluating the product. (Each evaluator should have enough samples to disassemble and examine the design thoroughly.)
- Set up a testing station for each type of device which allows testers to evaluate products in a simulated patient procedure. Provide training dummies (injection pads, oranges, etc.) as necessary.
- Provide visual instructions and demonstrate proper use of each device.
- Review the instructions and rating system with each evaluator.
- Encourage each evaluator to comment on the sheets and prioritize the questions at the end of the evaluation. This will provide a useful decision making tool and will help alert you to specific areas of concern which may not have been covered by the questionnaire.

Evaluators:

- Re-enact all steps of intended or possible procedures performed with the device being tested.
- Attempt to misuse the device and circumvent or disable the safety feature.
- Answer each question, including the short answer section at the end. If you do not understand a question, please write comments directly on the sheets.

NOTE: Certain assumptions have been made in the development of these forms based on information about currently available products. We recognize the likelihood that the ideal product may not exist.

Safety Feature Evaluation Form

SAFETY SYRINGES

SAMPLE

Number of times used:

Please **circle** the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

During Use:	agree.....disagree
1. The safety feature can be activated using a one-handed technique.	1 2 3 4 5 N/A
2. The safety feature **does not** obstruct vision of the tip of the sharp.	1 2 3 4 5 N/A
3. Use of this product requires you to use the safety feature.	1 2 3 4 5 N/A
4. This product does not require more time to use than a non-safety device.	1 2 3 4 5 N/A
5. The safety feature works well with a wide variety of hand sizes.	1 2 3 4 5 N/A
6. The device is easy to handle while wearing gloves.	1 2 3 4 5 N/A
7. This device **does not** interfere with uses that do not require a needle.	1 2 3 4 5 N/A
8. This device offers a good view of any aspirated fluid.	1 2 3 4 5 N/A
9. This device will work with all required syringe and needle sizes.	1 2 3 4 5 N/A
10. This device provides a better alternative to traditional recapping.	1 2 3 4 5 N/A
After Use:	
11. There is a clear and unmistakeable change (audible or visible) that occurs when the safety feature is activated.	1 2 3 4 5 N/A
12. The safety feature operates reliably.	1 2 3 4 5 N/A
13. The exposed sharp is permanently blunted or covered after use and prior to disposal.	1 2 3 4 5 N/A
14. This device is no more difficult to process after use than non-safety devices.	1 2 3 4 5 N/A
Training:	
15. The user **does not** need extensive training for correct operation.	1 2 3 4 5 N/A
16. The design of the device suggests proper use.	1 2 3 4 5 N/A
17. It is **not** easy to skip a crucial step in proper use of the device.	1 2 3 4 5 N/A

Of the above questions, which three are the most important to **your** safety when using this product?

Are there other questions which you feel should be asked regarding the safety/ utility of this product?

Detach Here

Taming Twenty-First Century Trouble

by Susan Hall Fleming

Y2K, computer programmers' shorthand for the Year 2000, could spell Trouble with a Capital T to people concerned with workplace safety and health. That's because not just mainframes and PCs are affected by computer chips that can't distinguish between 1900 and 2000.

Security systems, elevators, traffic lights, robots, air-monitoring devices and many other systems that help maintain safe and healthful working conditions rely on embedded computer chips that track dates. A cheap shortcut that computer programmers adopted years ago that limited dates to two digits rather than four is now expected to cost our economy $50 billion or so. The problem occurs when centuries collide. Does 00 mean 1900 or 2000?

Like those bones Fido planted and never remembered to dig up, these date-sensitive chips are buried throughout monitoring and maintenance systems, and no one knows where they all are. Like workplace hazards, Y2K difficulties may lurk in unexpected places. And if they're not fixed, the computer may not know what to do, and the whole system could crash.

The Y2K fix seems simple: Just go back into trillions of lines of computer code and change every two-digit date to a four-digit date. Of course, you also have to make certain that everyone else you deal with has found and fixed all their problems as well.

To help federal agencies get critical systems ready for the next millennium, President Clinton appointed John Koskinen as the Y2K czar. Similarly, OSHA administrator Charles Jeffress has named Ruth McCully, acting head of Information Technology, to head OSHA's Year 2000 Millennium Teams.

The stakes for OSHA and other government agencies are high. Without a Year 2000 fix, data processing errors could affect almost every aspect of the agency's operations—enforcement, rulemaking, security, and payroll—to name a few.

A cheap shortcut that computer programmers adopted years ago that limited dates to two digits rather than four is now expected to cost our economy $50 billion or so.

The good news is that OSHA has already completed renovation and validation for its three mission-critical systems: the OSHA Computerized Information System (OCIS), the OSHA Property Inventory Management Information System (OPIMIS), and the Integrated Management Information System (IMIS). These systems track OSHA standards and regulatory information, office equipment and compliance officer protective gear, and the inspection database. OSHA also has completed implementation for OCIS and OPIMIS; IMIS will be completed and implemented by the end of September 1998.

OSHA has Five "Tiger Teams" to tackle various aspects of the Y2K issue—awareness, vendor/supplier, technical, quality assurance, and state/consultation coordination. They will work with coordinators from each OSHA office in Washington and each of the 10 regional offices.

The teams have both an internal and an external focus. All of OSHA's PCs should already have a Year 2000 sticker on them certifying they've been cleared for the next millennium. Technicians from the Tiger Teams will assist OSHA staff in checking other equipment, such as fax machines, laboratory equipment, and fire and security systems. The agency also held two information sessions for staff in Washington on June 25.

OSHA teams also will make certain all the agency's vendors will be able to supply uninterrupted services and products. Further, the agency wants to reassure its customers that OSHA products also comply. So, for example, the most recent editions of the popular OSHA CD-ROM now advertises that it meets Year 2000 standards.

In addition, OSHA has been charged with reminding employers and employees of the need to address Year 2000 issues in the context of workplace safety and health. Y2K is a serious safety issue because many safety monitoring systems rely on date-based computer chips. President Clinton has directed federal agencies to alert their clientele to these potential problems.

What happens when the fire alarms don't work or multiple false alarms sound? What happens when the automatic doors open or the valves malfunction? What happens if there's a chemical spill and the details on how to protect workers are locked in computer limbo? Everyone hopes none of those things happen, but the possibility that they could emphasizes the need to turn over every stone to find hidden code and test every process.

OSHA has developed a fact sheet on Y2K issues suggesting ways to minimize the impact of any disruptions on workplace safety and health. It will be made available to field staff to distribute to employers during information meetings or inspections and also will be on OSHA's Web site at www.osha.gov.

Will Y2K result in major disruption? No one knows for sure. OSHA's goal is to make sure that its own house is in order and that employers know they need to address Year 2000 as part of their safety and health program as well as their data systems. OSHA is committed to be ready when the clock chimes midnight on December 31, 1999. JSHQ

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

More on Y2K

These and other Web sites have information on Y2K issues and activities:

House Subcommittee on Management, Information, and Technology—www.house.gov/reform/gmit/y2k/index.htm
Federal Reserve Board—www.bog.frb.fed.us/y2k
Small Business Administration —www.sba.gov/y2k
U.S. Office of Management and Budget—www.y2k.com/omb297.htm
Government Accounting Office—www.gao.gov/y2kr.htm

OSHA'S VPP GETS A LITTLE HELP FROM ITS FRIENDS

by Leigh Sherrill and Judith Weinberg

OSHA's award-winning Voluntary Protection Programs (VPP) have demonstrated since 1982 that management, labor, and government can work together successfully to improve worker safety and health. One facet of the VPP—the OSHA VPP Volunteers—takes the program's spirit of cooperation to a new level. The volunteers, employees of private industry worksites recognized by the VPP for excellence in safety and health program management, donate their time and skills to serve as members of VPP onsite review teams.

These review teams are critical to the operation of the VPP, which recognizes and promotes excellence in worksite-based safety and health program management. To qualify for VPP participation, a worksite must undergo a rigorous onsite assessment of its safety and health program. The review team determines whether the site's program meets the VPP requirements, which go beyond OSHA standards to protect workers more effectively.

To qualify for VPP's highest level, the *Star Program*—or for the *Demonstration Program*, where alternative VPP safety and health program strategies are explored—a site must show that it has an excellent program characterized by four basic elements: management leadership and employee involvement, worksite hazard analysis, effective hazard prevention and control, and safety and health training.

To qualify for VPP's *Merit Program*, a site must have implemented the basic safety and health program elements and must be committed to working toward *Star* qualification. Even after a site qualifies, review teams periodically visit to reevaluate the safety and health program and ensure that it continues to protect employees and meet VPP requirements.

VPP Volunteers must meet rigorous requirements. After careful review, OSHA appoints qualified applicants to 3-year renewable terms as "Special Government Employees" (SGEs) and swears them in. They are authorized to work solely on VPP onsite review teams. OSHA has appointed more than 80 VPP Volunteers since the program began in 1993.

The unusual nature of OSHA's VPP Volunteers Program inevitably has given rise to questions. Why would OSHA develop such a

A volunteer must be an employee at an approved VPP site or at corporate headquarters of a company with multiple VPP sites and must be involved in a leadership capacity in safety and health activities.

What a VPP Volunteer Does

As part of a VPP onsite review team, a volunteer contributes to the typically week-long assessment of a VPP applicant's safety and health program. The team:

- reviews the applicant's injury/illness log and recalculates rates,
- reviews the written safety and health program and supporting documents,
- conducts a site walkthrough, and
- conducts formal and informal employee interviews.

This thorough review culminates in a written report and recommendation that either:

- recognizes that the site's safety and health program is excellent and worthy of a VPP *Star* recommendation,
- finds that the site's safety and health program can be improved by implementing specified goals that accompany the team's *Merit* recommendation, or
- determines that the site is not ready for approval to the Voluntary Protection Programs.

program? Do OSHA's VPP Volunteers have the necessary skills and expertise? What kind of training do they receive? Why is participation limited to employees of VPP worksites? How do VPP Volunteers differ from other OSHA employees? Why would anyone volunteer to work for OSHA? What about a conflict of interest between a volunteer's regular employer and the site to be visited? What is required to keep such a program operating successfully?

Why did OSHA turn to volunteers to help fulfill its mission?

The basic premise of the VPP is cooperation among labor, management, and government. As the VPP began to grow, the agency approached the Voluntary Protection Programs Participants' Association (VPPPA)[1] and suggested that it could help OSHA leverage resources significantly by providing members for the OSHA onsite review teams. As a result, OSHA established a committee that included the Executive Director of the VPPPA, VPP site participants, OSHA regional office VPP managers, and representatives from OSHA's Office of Personnel Programs, and the Department of Labor's Office of the Solicitor. This group worked out the policy and structure of the OSHA VPP Volunteers Program.

A basic tenet of the program is that OSHA's leadership presence on any VPP onsite review team is paramount. A regular OSHA employee is always the team leader. Volunteers will never outnumber regular OSHA team members.

Even one expert volunteer makes the review team's job a lot easier. Susan Sikes, OSHA's VPP Manager in Region IV, Atlanta, makes frequent use of volunteers. She characterizes their value succinctly: "We could not continue to run a successful program without our VPP Volunteers. We have used SGEs extensively in Region IV, enabling us to effectively manage the rapid growth of the VPP with OSHA's limited resources. The benefit of having team members with industry expertise is invaluable. I consider SGEs to be vital to the continued success of the VPP nationwide."

Three volunteers came forward to start the program: Paul Villaine from Solutia in Pensacola, FL; Paris Watson from Ciba Speciality Chemical Company in McIntosh,

[1] The VPPPA is a private non-profit organization that represents the worksites participating in OSHA's VPP and a similar program operated by the Department of Energy. The VPPPA actively promotes workplace safety, health, and environmental excellence.

OSHA Onsite Review Team discusses recent assessment. From left to right: Jeff Delaney, VPP Volunteer/SGE and safety professional, Monsanto, Luling, LA; and OSHA safety professional Mike Partin, OSHA Team Leader Daryl Cambre, and OSHA industrial hygienist Dorinal Folse, all from St. Gabriel, LA.

AL; and Lynn Longino from Dow Chemical Company in Freeport, TX. Since Villaine and Watson initiated the program by serving on review teams in March 1993, more than 50 VPP Volunteers from 40 companies have participated in more than 100 onsite reviews. The program has garnered enthusiastic support and praise from managers and employees at the sites visited, OSHA team leaders, VPP managers, and the volunteers themselves.

James Pair, Plant Safety Engineer and VPP Coordinator at Amoco Oil Company's Hazlehurst Plant in Hazlehurst, GA, had good things to say about the volunteer who helped assess the Hazlehurst Plant's safety and health program. "Leroy Counts [International Paper in Vicksburg, MS], the OSHA VPP Volunteer on our OSHA VPP review team, was very professional...[and] could communicate very well with us. He was very positive, but he also helped us improve. The people in the plant had a great deal of respect for him, as well as for the other team members. If an onsite review can be pleasurable, ours was, even with the pressure involved."

What skills and expertise must VPP Volunteers possess?

A volunteer must be an employee at an approved VPP site or at corporate headquarters of a company with multiple VPP sites and must be involved in a leadership capacity in safety and health activities. This ensures that the OSHA VPP Volunteer is knowledgeable about the requirements of the VPP and how those requirements have been implemented at his/her site. Volunteers who are safety and health professionals bring to the team expertise in safety and health management systems. Other volunteers bring hands-on experience about on-the-job hazards. VPP Volunteers are especially valuable in interviewing employees, in evaluating worksite safety and health systems, in uncovering and correcting hazards, and in reviewing safety and health program documents.

What kind of training do volunteers receive?

Each OSHA VPP Volunteer must complete a 3-day training course in how to assess a worksite's safety and health management system and how to determine if a site meets VPP requirements. This course, developed and facilitated by VPP national office staff with assistance from OSHA VPP managers and VPP site employees, is held at various locations around the country under the sponsorship of Regional VPPPA chapters, state plan states that operate their own VPPs, and OSHA regional offices. The course is open, not just to volunteers, but also to OSHA compliance safety and health officers (CSHOs), Department of Energy employees who administer that agency's VPP, state employees who administer state VPPs, and other persons involved in assessing safety and health programs. Course contents are based on OSHA's "Safety and Health Program Management Guidelines," published in the *Federal Register*, January 26, 1989. Participants work with actual safety and health program

OSHA VPP VOLUNTEER REQUIREMENTS

- Employed at a VPP site or at corporate headquarters of a company with multiple VPP sites.
- Experience in applying OSHA regulations.
- Leadership in VPP activities.
- Completion of volunteer training.
- Positive interpersonal skills.
- Physically able to do the assigned tasks.
- Sound reading and writing skills.
- Supported by management.

documents from VPP sites and with case studies that reflect the experiences of onsite review teams. Often OSHA CSHOs and potential VPP Volunteers work together in the same class, sharing experiences and forging a better understanding of one another's perspectives.

Norman Deitch, OSHA VPP Manager for Region II, New York, a long-time supporter of VPP, originally had his doubts about VPP Volunteers. Says Deitch, "I was in favor of the program but skeptical about the ability and knowledge of the volunteers. I thought they might not have a proper understanding of the concept of safety and health systems, that they might be more standards oriented. But I have worked with many volunteers and have become a very strong advocate of the program. They have all demonstrated excellent knowledge and ability in all aspects of the VPP. They work very well as active team members. They are more empathetic with the site employees and are very comfortable in the work environment. They also have a tendency to be strict."

C. Sheila Misner, VPP Manager in Region V, Chicago, adds, "OSHA VPP Volunteers are super. They are technically competent, have the right attitude, and are diplomatic with the site personnel. They have knowledge not only about what to do but also how to do it. They quickly establish credibility with representatives of the company undergoing onsite review."

Private safety and health consultants, OSHA retirees, and others have contacted the agency about becoming VPP Volunteers. Why does OSHA limit program eligibility to persons employed by VPP participating companies?

Cathy Oliver, VPP Chief in Washington, DC, explains, "The agency and the VPPPA believe that employees who have been actively involved in the VPP application and participation process at their worksites are uniquely qualified to help assess other sites. Volunteers know what their own site had to do to qualify for VPP. They also possess a VPP perspective marked, not just by technical expertise, but also by a strong, even passionate, commitment to employee involvement and to cooperation among workers, managers, and OSHA."

"Additionally,"continues Oliver, the VPP Volunteers Program is an important aspect of the partnership that OSHA and VPP worksites have entered into. The encouragement, assistance, and recognition that OSHA gives its VPP partners are helping these sites provide top-notch safety and health protection for their workers. And because the VPP expects participants' safety and health performance to improve continuously, good sites just get better and better. The program is one way these VPP sites can help OSHA in return. It's very much a two-way street," Oliver concludes.

How do VPP Volunteers differ from other OSHA employees?

One important difference is that OSHA does not pay VPP Volunteers' salaries or even reimburse them for expenses. While OSHA saves these costs, the volunteers' regular employers typically continue to pay their salaries and travel expenses. The volunteers' willingness to serve, and the generosity and support of their private sector employers, help OSHA leverage resources and operate a successful, growing, and popular cooperative program.

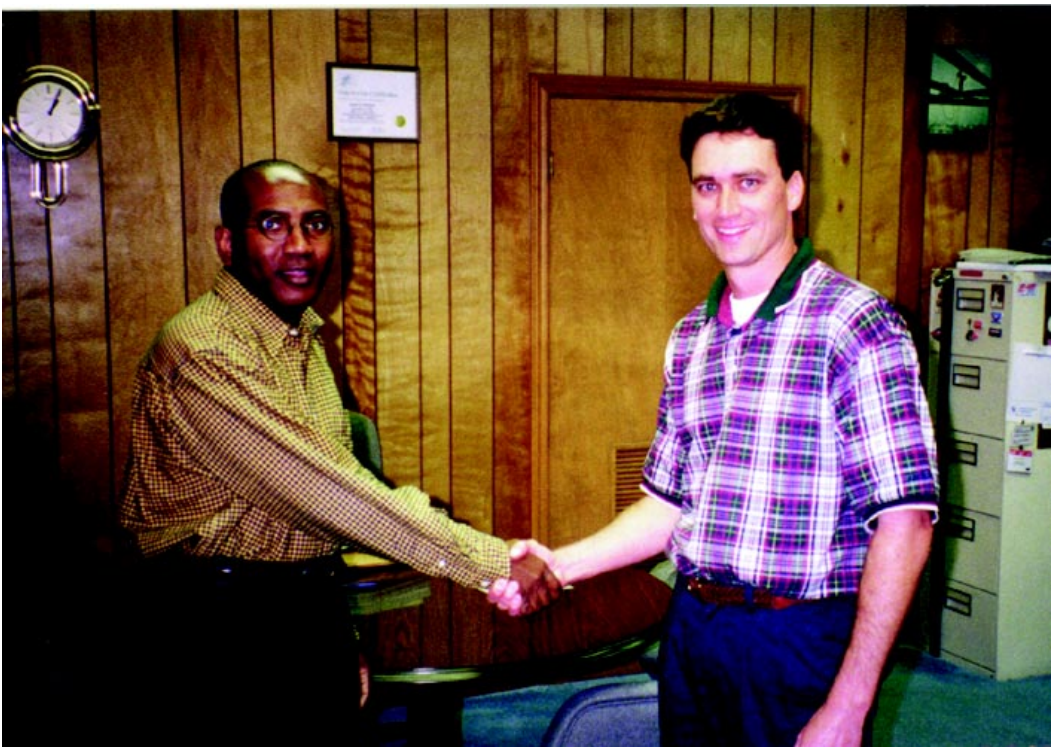
What prompts someone to donate time and skills to OSHA?

OSHA's VPP Volunteers share a characteristic typical of volunteers in general: a strong belief that the job they are doing is important and that their efforts benefit others. VPP Volunteers offer their expertise because they believe VPP helps keep workers safe and healthy by requiring participating worksites to operate strong, effective safety and health programs. The work of the onsite review team is central to this effort.

Another reason for volunteering is to gain something in return. VPP Volunteers say that when they visit another company's worksite, they learn new ways to improve their own site's safety and health programs. They also learn to view a workplace from OSHA's perspective. It's something most workers never have the opportunity to experience.

Roger Gautreau, an employee of Marathon/Ashland Oil, Garyville, LA, was recently approved as an OSHA VPP Volunteer. He immediately participated on two VPP onsite reviews. Gautreau reports, "I gained a great deal from seeing a site so different from my own. I was able to share what we do here as well as take home some new ideas. It was good to be on the

"[Volunteers]…have all demonstrated excellent knowledge and ability in all aspects of the VPP. They work very well as active team members. They are more empathetic with the site employees and are very comfortable in the work environment."
Norman Deitch, OSHA VPP Manager



OSHA Assistant Director Andre Richards (left), Baton Rouge, LA, congratulates newly sworn-in VPP Volunteer/SGE Roger Gautreau, Marathon Ashland Petroleum, Garyville, LA.

other side of the fence. We can be a better host to OSHA next time." Gautreau believes the experience was good for him personally as well as for his company. He continues, "Marathon believes in VPP. The relationship we build with OSHA is outstanding. We're part of the team now."

Another recently approved VPP Volunteer, Jeff Delaney from Monsanto in Luling, LA, echoes Gautreau's comments and adds, "I would recommend this experience for any safety professional. I am glad Monsanto gives me this opportunity. I wish we had time to do more."

Skip Brown, a VPP Volunteer regularly employed by Mobil Oil Company in Joliet, IL, observes, "My OSHA colleagues and I complemented one another. I could be straight and open with the site about what they have to do. I could share with them some of the mistakes I made in trying to implement program elements."

OSHA's VPP Volunteers share a characteristic typical of volunteers in general: a strong belief that the job they are doing is important and that their efforts benefit others.

How does OSHA prevent financial or other conflicts of interest and ensure that OSHA VPP Volunteers do not cross ethical bounds?

Before a volunteer can go to a VPP site as a member of the onsite review team, the site must agree to the volunteer's participation. Next, the team leader must contact the Directorate of Federal-State Operations at OSHA's national office and speak with VPP Chief Oliver, who is the only person authorized to review the OSHA VPP Volunteer's financial disclosure form that the volunteer filed as part of the application process. Oliver determines from the information on this form whether the volunteer has any financial conflict of interest with the site to be reviewed. If a conflict exists, the volunteer cannot be involved in that particular onsite review. Another safeguard is a self-study course, "Principles of Ethical Conduct for Government Officers and Employees," that all Volunteers must complete as part of their training. During the onsite review, the team leader is responsible for ensuring that no ethical boundaries are breached.

What does it take to operate such an unusual program?

As in any successful volunteer activity, all parties involved in the OSHA VPP Volunteers' Program must put forth effort and commitment. OSHA must administer the program and train the applicants. The volunteer must find time in addition to his/her regular work to complete the application, the training, and the onsite reviews. The volunteer's regular employer provides the resources necessary for the volunteer's participation on the OSHA team.

This expenditure of effort is helping the VPP to flourish and OSHA to conserve its limited resources. According to Mike Connors, Regional Administrator in Region V, "The OSHA Volunteers Program is a good example of an innovative partnership between the VPP sites and OSHA. This initiative takes partnership to a new level."

Veteran VPP Volunteer Paul Villaine sums it up. "Being an OSHA VPP Volunteer is most definitely a win-win situation. OSHA benefits from having a pool of skilled and willing volunteers. Volunteers become more knowledgeable about the VPP process, and we take that knowledge back to our sites. Ultimately, this program is a means to greater safety and health protection for all workers."

If you are interested in serving as an OSHA VPP Volunteer and believe you may be qualified, contact OSHA's Division of Voluntary Programs, 200 Constitution Ave., NW, Washington, DC 20210; phone (202) 219-7266. For more information on this and other OSHA programs and activities, visit OSHA's Web site at www.osha.gov. JSHQ

Sherrill and Weinberg are program analysts in OSHA's Division of Voluntary Programs, Directorate of Federal-State Operations, Washington, DC.

Electronic FOIAs—A New Response to an Old Demand

Under a law passed 32 years ago to provide public access to government records, the Occupational Safety and Health Administration responds to more than 12,000 requests each year for records and information regarding specific safety and health investigations from private citizens, trade associations, labor unions, private corporations, media organizations, and law firms, to name a few. In fact, OSHA accounts for 66 percent of all *Freedom of Information Act* (FOIA) requests received by the U.S. Department of Labor.

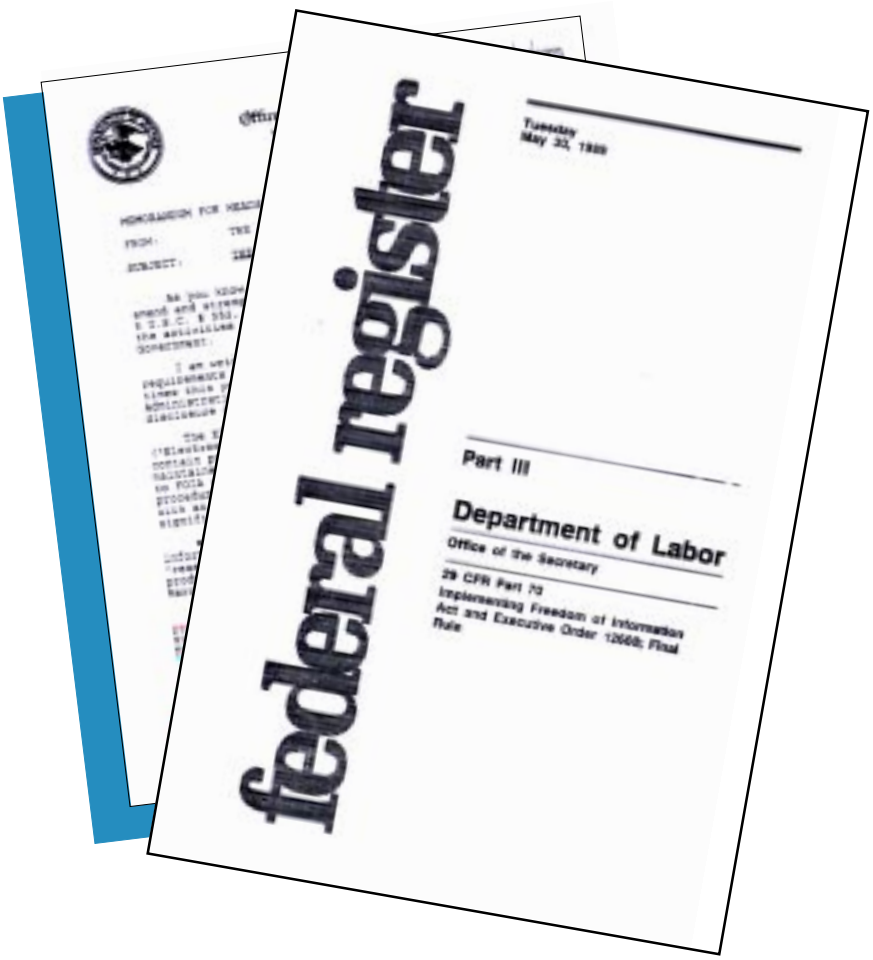
The *Freedom of Information Act* established for the first time an effective individual and statutory right of access to government information. FOIA provides for the public disclosure of records held by agencies within the executive branch of the government, unless such information is protected from release under one or more of nine specific exemptions. The exemptions are (1) classified documents, (2) internal personnel rules and practices, (3) information exempt under other laws, (4) trade secrets and proprietary data, (5) internal deliberative memorandum and opinions, (6) personal privacy, (7) law enforcement, (8) financial institutions, and (9) geological and geophysical data.

The information provided is varied, and what might seem to be a routine response, can have a significant impact. For example, last year OSHA received three separate FOIA requests from *USA Today* asking for inspection reports on 40 companies throughout the country—all in the semiconductor industry. A concerted, coordinated effort by OSHA staff nationwide resulted in getting the right information to the newspaper, which published a 3-day series on the semiconductor industry and related hazards.

FOIA has undergone some major changes since its first enactment. In 1974, the Congress narrowed FOIA's law enforcement and national security exemptions, but overall, procedural provisions, such as those relating to fees and time limits, have been broadened. In 1986, amendments to FOIA gave broader exemption protection for law enforcement information, plus special law enforcement record exclusions, and created a new fee and fee waiver structure.

But the most sweeping change to FOIA, thus far, occurred in October 1996, with the enactment of the *Electronic FOIA Amendments of 1996.* The amendments address the availability of, and access to, government information in electronic form. The legislation requires government agencies to use new electronic technologies, such as the Internet, to enhance public access to agency records. Additionally, the changes address the timing of agency responses to FOIA requests, creating and maintaining electronic reading rooms, and making frequently requested FOIA records available via the Internet. Implementation of

OSHA accounts for 66 percent of all *Freedom of Information Act* (FOIA) requests [12,000 each year] received by the U.S. Department of Labor.



these amendments will take place over several years, but the process is well underway.

As of October 2, 1997, government agencies had 20 days (rather than 10) to acknowledge a request for records, and to provide the person making the request with a determination on how the agency would proceed. Certain types of requests, however, such as some media requests, will require expedited responses. Additionally, since November 1, 1997, Reading Room records "created" on or after November 1, 1996—as well as frequently requested FOIA records (also known as "Hot FOIAs")—must be made publicly available on the Internet.

OSHA recently established a "FOIA" link on its Web site. The link provides releasable information on FOIA legislation in general, and the latest amendments, in particular. Finally, guidelines are available for potential requesters on how to submit a FOIA request to the agency.

As a result of recent openness-in-government initiatives by the Justice Department and continued emphasis by the President, the agency's FOIA log should continue to grow. For OSHA, this also means taking a more customer-oriented approach in expediting FOIA requests. To make sure that all agency FOIA coordinators are up to speed, OSHA's Office of Public Affairs, in partnership with the Department of Labor's Office of the Solicitor, will conduct a FOIA training conference in Washington, DC, October 27-29.

The conference is the first FOIA training sponsored by OSHA in Washington and will bring together FOIA coordinators from all regions, the Office of Training and Education, and individual coordinators from the national office in Washington, DC. The goal of the conference is to ensure that OSHA employees charged with FOIA responsibilities have the tools, knowledge and, ultimately, the expertise to ensure a successful FOIA program for the agency.

Training will focus on new electronic FOIA procedures and requirements as well as exemptions, reports, appeals, fee procedures, and overall disclosure requirements unique to OSHA investigations. There also will be group discussions on streamlining and improving the agency's FOIA process. Finally, guest speakers from the Department of Justice's Office of Information and Privacy are scheduled to participate and give an overview of FOIA, provide current information on process and implementation revisions, and review various case studies.

For more information on OSHA programs and activities, visit our Web site at www.osha.gov. JSHQ

ACCSH OSHA's Construction Committee

by Jim Boom

ACCSH, pronounced acosh, stands for the Advisory Committee on Construction Safety and Health. This committee advises the Assistant Secretary for Occupational Safety and Health on construction-related matters, including promulgating new standards or developing policies that affect the construction industry.

The committee is a continuing advisory body established under section 107 of the *Contract Work Hours and Safety Standards Act* (40 U.S.C. 333), commonly known as the "Construction Safety Act," which also outlines the duties and responsibilities of ACCSH. In addition, *Title 29 of the Code of Federal Regulations* (CFR), Part 1912.3 requires that OSHA consult with the committee in accordance with the guidelines found in the *Occupational Safety and Health Act of 1970*.[1]

OSHA's Assistant Secretary appoints 15 members to ACCSH: 5 to represent employers; 5 to represent employees, 2 to represent federally approved state plan occupational safety and health organizations; 2 to represent the public; and 1 member to be designated by the Secretary of Health and Human Services (usually from the National Institute for Occupational Safety and Health). Committee members bring varied construction expertise to the table, which is of great benefit to OSHA construction industry concerns and issues. The committee meets two to six times per calender year for 1 or 2 days per meeting. Meeting dates and an agenda of issues to be covered are published in the *Federal Register* to inform members of the public who might wish to attend.

Membership on the ACCSH committee is effected through nominations from construction industry stakeholders. Members are appointed to serve 1- or 2-year terms, and they can be can be reappointed to serve additional terms. Members expend considerable time and effort to provide advice and assistance to OSHA's endeavors with occupational safety and health in the construction industry. For example, in the last meeting held July 22 and 23, there were discussions on various safety issues including progress reports on current rulemaking, proposed standards, special emphasis programs, and other construction-related items. OSHA presented several topics to the committee, such as sanitation, hexavalent chromium in construction, crystalline silica, confined spaces, personal protective equipment, powered industrial trucks and others. There also was a discussion of OSHA's Strategic Plan which explained goals and objectives to be achieved by 2002.

For more information on safety committee activities, visit OSHA's web site at www.osha.gov, or call the Directorate of Construction at (202) 219-8136 Ext. 143. JSHQ

Boom is an occupational safety and health specialist in OSHA's Directorate of Construction, Washington, DC.

[1] Public Law 91-596, December 29, 1970, and as amended by P.L. 101-552, 3101, November 5, 1990. See Section 7(b) for advisory commitees.

OSHA Works with FSA to Prevent Grain Accidents

by Anna Simmont

Two grain elevators exploded in Texas and Louisiana in the late1970s killing 54 people. The accidents were among the worst tragedies in the industry, but they were not the only incidents. Excessive amounts of grain dust have resulted in fires and explosions killing hundreds of workers and injuring nearly a thousand more. The fact that grain accumulations occur in a confined space, along with heat and oxygen, can create the right conditions for igniting fires and causing explosions.

Such accidents prompted the Occupational Safety and Health Administration (OSHA), union officials, and safety advocates to employ aggressive measures to reduce the number of grain handling accidents and fatalities. OSHA's standard for grain handling,[1] first issued in 1989, aimed to protect workers from hazards in grain storage facilities.

Even with increased vigilance and tougher laws, grain elevator explosions continue to occur in the United States, and government officials keep looking for ways to prevent them.

This year, OSHA took another major step to help prevent grain elevator explosions. Prompted by the June 8 grain elevator explosion at DeBruce Grain in Haysville, KS, OSHA and the U.S. Department of Agriculture's Farm Service Agency (FSA) signed a Memorandum of Understanding that strengthens procedures for sharing inspection information. The MOU, signed June 21 by OSHA Assistant Secretary Charles Jeffress and FSA Administrator Keith Kelly, requires FSA supervisors to notify regional OSHA officials about facilities where grain dust may be a potential health hazard. During the last 19 months, FSA inspectors had warned DeBruce about excessive grain dust. But FSA cannot require abatement of workplace hazards, and the findings were never forwarded to OSHA.

Here's how the MOU will work between the two agencies. FSA personnel examine grain warehouses as part of their responsibilities and have the right to report unsafe and unhealthful working conditions within their own workplaces. During the course of an examination, an FSA warehouse examiner may observe accumulations of grain dust, which may put at risk the quality and quantity of the product stored. Since the warehouse operator may need to correct these types of conditions, FSA examiners note the accumulations of dust in a Memorandum of Adjustments for corrective actions for the warehouse operator. This becomes part of the warehouse examinations report.

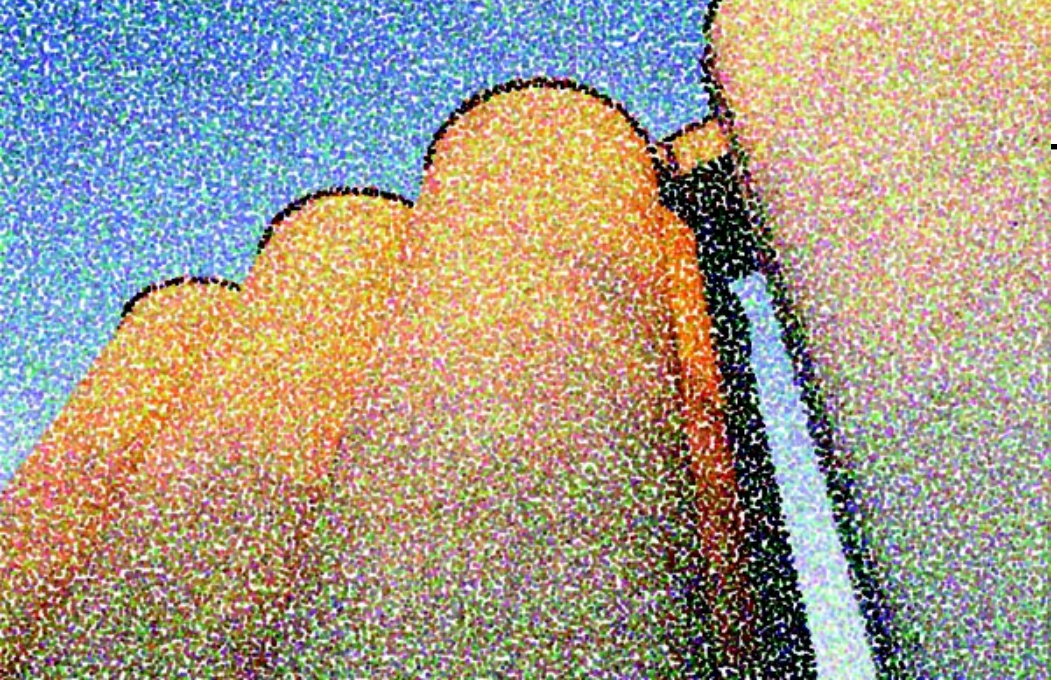
Under the MOU, FSA will forward a copy of this memorandum to the appropriate OSHA Regional Administrator for handling as a formal referral, which may result in an OSHA investigation. But both agencies are quick to point out the FSA examiners do not serve as safety inspectors, and their presence in no way relieves warehouse industry employees or employers of their responsibilities to create and maintain a safe workplace.

OSHA is the agency charged with worker safety and health. The MOU, however, will provide a way for OSHA to be informed of possible violations regarding dust accumulations and enable it to take appropriate action to further protect the lives of grain industry workers.

"OSHA still remains the agency responsible for protecting the health and safety of grain industry workers," Jeffress says. In addition, the 23 states that operate OSHA-approved safety and health programs are responsible for grain in-

The fact that grain accumulations occur in a confined space, along with heat and oxygen, can create the right conditions for igniting fires and causing explosions.

[1] *Title 29 of the Code of Federal Regulations* (CFR), Part 1910.272.



dustry workers in their states. The primary responsibility of FSA remains ensuring "the protection of depositors of grain from losses of quality and quantity," adds Kelly.

According to OSHA regulations, grain elevators are required to have a housekeeping program that keeps all dust to a minimum and only a layer of one-eighth of an inch of dust on floors around the bucket elevator leg, where the chance of an explosion is greatest. Studies have shown, however, that as little as one-hundredth of an inch of dust can explode under certain conditions. In contrast, FSA has no dust standards, which left the decision as to how much dust is too much up to the individual examiner. So in July, OSHA held training sessions in Kansas City, MO, for FSA representatives and inspectors on how to recognize and prevent potentially dangerous levels of dust accumulation.

In addition, as part of an earlier initiative, the OSHA Area Office in Nebraska contacted a number of stakeholders—including the Nebraska Grain and Feed Association, the Grain Elevator and Processing Society, and the Nebraska Department of Labor—to help determine the best approach to increase awareness about the hazards in the grain industry. The program included new education efforts , such as lectures and demonstrations, to increase prevention awareness for both large and small (fewer than 10 employees) grain handling facilities in the State of Nebraska.

These outreach efforts included a series of six voluntary safety seminars in July and August. Each seminar took place in a different geographical location across the state. At the first meeting on July 20 in Lincoln, NE, OSHA experts and representatives from the Nebraska Department of Labor and the State Fire Marshal's Office addressed emergency action plans, employee training, and safety requirements. OSHA's goals for the safety training program were to promote voluntary compliance with dust standards as well as establish clear and consistent standards for excessive dust accumulation to make grain elevators safer places to work.

To help evaluate the effect of the outreach efforts and further encourage employers to prove a safe and healthful work environment, the local initiative also allows the Nebraska OSHA Area Office to conduct unannounced inspections of grain elevators in the state beginning no sooner than September. This program—along with Nebraska's own special safety program, where the state's deputy fire marshals look for unsafe levels of dust in all of the state's grain—should help make these efforts more far-reaching.

OSHA also continues to look for new ways to save lives and prevent injuries in the grain handling industry. In late July, OSHA held a series of hearings to determine if its *Grain Handling Facilities Standard* should be modified or rescinded to meet the changing needs of the industry and to comply with requirements of the *1980 Regulatory Flexibility Act* for a review of the standard every 10 years.[2] Although the hearings were not prompted by the DeBruce Grain tragedy in Haysville, the explosion brought the dangers of grain dust to the forefront of the minds of industry officials. Consequently, the hearings provided an arena for people to voice comments, questions, and concerns about the standard to OSHA. The public comment period closed in August, and the next step is for OSHA to review the comments and determine what changes, if any, will be made.

For information on this standard and other topics and activities, visit OSHA's Web site at www.osha.gov. JSHQ

Simmont is an intern in OSHA's Office of Public Affairs, Washington, D.C. Contributions to this article by Bernard Hauber, Assistant Area Director, Omaha, NE; and Bruce Beelman, OSHA Area Director, Bismarck, ND.

[2] 5 U.S.C.601. The *Act* is designed to ensure that small businesses are not unreasonably overburdened by federal regulations. As a result, the *Act* requires all federal agencies to design and implement a plan to review all existing rules every 10 years to help accommodate the needs of small businesses.

Mammograms

Not just once, but for a lifetime

The National Cancer Institute has free booklets about breast cancer screening. For answers to your questions about cancer and to order these publications, call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237). Persons with TTY equipment, dial 1-800-332-8615.

Visit NCI's website for patients, the public, and the mass media at http://rex.nci.nih.gov or NCI's main website at http://www.nci.nih.gov

Securing of Compressed Gas Cylinders 1926.350(a)(9)

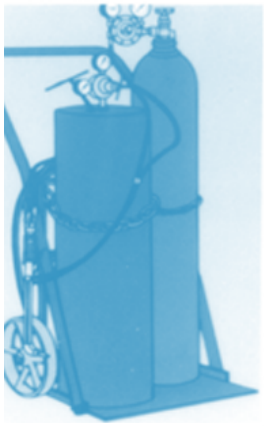
Rank in Frequency Cited: #17

Rule

Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.

Intent

This standard specifies the following: (1) gas cylinders must be secured to prevent them from falling against people, equipment, and other cylinders. If a cylinder strikes a person, it can cause an impact-type injury. If it strikes nearby equipment, the consequences will vary depending on the type of equipment. If the first cylinder strikes other unsecured cylinders, a domino effect may occur; an unsecured cylinder with its valve protection cap off could fall and strike its valve, rupturing it, causing the compressed gas cylinder to take-off like a rocket; and (2) the cylinders must be stored upright since adverse effects can result if cylinders containing some welding gases are stored/used in a horizontal position. This standard exempts hoisting or carrying cylinders that are only intended to be moved during short periods of time.



☐ VIOLATION

☑ IN COMPLIANCE

The cylinders (above & right) are secured properly in an upright position. NOTE: Cylinders are not required to be secured to a cart as shown above. This method is only a recommendation.

☑ VIOLATION

☐ IN COMPLIANCE

The cylinders are not secured (right) and are not secured in an upright position (above). NOTE: Improper storage of oxygen and fuel gas cylinders in photo on left.

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Hazards

Struck by falling or rocketing cylinders—Injuries can range from contusions to death.

(Among Other) Suggested Abatements

Supervisors should note all cylinders in their work area and identify if they are in use or storage. If they are in storage, are they upright, secured, and labeled? Is the valve protection cap in place? Are incompatible materials (oxygen and fuel gas) separated properly? If the cylinders are in use, are all appropriate safeguards in place to protect the welder and other personnel in the area?

Selected Case Histories

OSHA IMIS did not contain any fatality/catastrophe inspections citing conditions related to this standard as a direct/indirect cause(s) of an accident.

Comments

(1) Welding cylinders placed in welding carts are considered to be secure.

(2) Unsecured cylinders on construction sites are common. This is a specification standard, which is easily identified and substantiated as a violation as evident of its high ranking on the 100 Most Cited Physical List. Therefore, the contractor must continually audit the site to ensure compliance.

Additional Documents to Aid in Compliance

OSHA Instruction Std. 3-8.2; Dated: 3/11/81; Synopsis: Clarifies that the standard does not apply to welding gas supply manufacturers or distributors prior to delivery at construction sites. The intent of the standard is for it to apply to welding and cutting operations **on** construction sites. JSHQ

Detach Here

Accident Report

From the U.S. Department of Labor
Occupational Safety and Health Administration
FatalFacts **No. 72**

Detach Here

Accident Summary	
Accident Type	Explosion
Weather	Clear
Type of Operation	Construction
Crew Size	2
Competent Person Onsite?	Yes
Safety and Health Program in Effect?	Yes
Was the Worksite Inspected Regularly by the Employer?	Yes
Training and Education Provided?	Yes
Employee Job Title	Iron worker
Age/Sex	45/male
Experience at this Type of Work?	20 years
Time on Project	2 hours

Brief Description of Accident

Propane gas was being used to fuel a portable heater (blow torch). The torch flamed out, allowing gas to gather in the bilge area of a construction barge. The accumulated gas exploded with great force, killing the worker.

Inspection Results

As a result of its investigation, OSHA issued a citation for three serious violations of OSHA standards.

Accident Prevention Recommendations

The employer must:

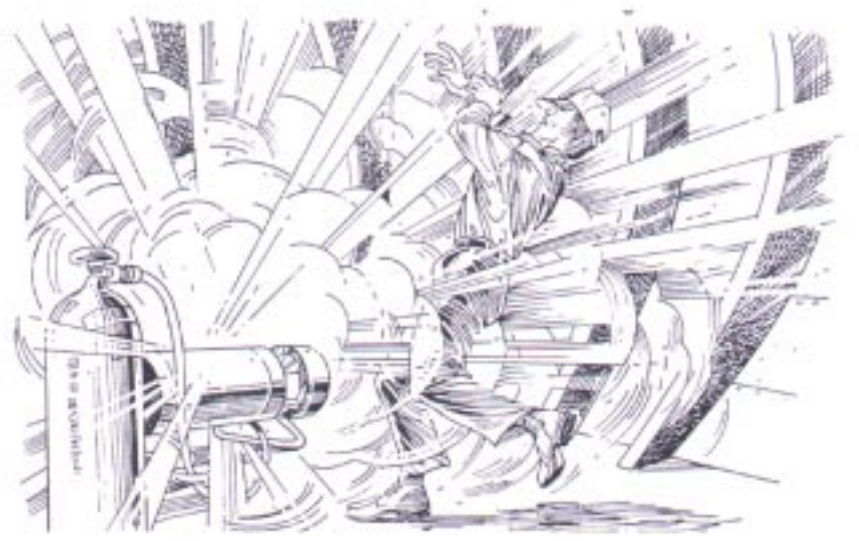
(1) Take precautions to provide sufficient ventilation to ensure proper combustion when operating portable heaters/blow torches in confined spaces, in accordance with *Title 29 Code of Federal Regulations,* Part 1926.154(a)(2).

(2) Ensure that portable heaters/blow torches are equipped with automatic shut-off devices to stop the flow of gas in the event of flame failure, in accordance with 29 CFR 1926.153(h)(8).

Sources of Help

- OSHA *Construction Standards* [29 CFR Part 1926], which includes all OSHA job safety and health rules and regulations covering construction, may be purchased from the Government Printing Office; phone (202) 512-1800, fax (202) 512-2250; Order No. 869-032-00107-3; Cost $31.
- OSHA-funded free consultation services listed in telephone directories under U.S. Department of Labor or under the state government section where states administer their own OSHA programs.
- OSHA *Safety and Health Training Guidelines for Construction, Volume III* (Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; phone (703) 487-4650; Order no. PB-239-312/AS; Cost $25.) to help construction employers establish a training program.
- Courses in construction safety are offered by the OSHA Training Institute, 1555 Times Drive, Des Plaines, IL 60018; phone (847) 297-4810.
- OSHA regulations, documents, and technical information also are available on CD-ROM, which may be purchased from the Government Printing Office, phone (202) 512-1800 or fax (202) 512-1800; Order No. S/N 729-13-00000-5. Cost: $43, annually, $17 quarterly. This and other information and assistance also are available online at www.osha.gov. JSHQ

Note: The case described was selected as being representative of fatalities caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved, and the case is now closed. Your company may duplicate this leaflet to share with your co-workers.



Accident Report

From the U.S. Department of Labor
Occupational Safety and Health Administration
FatalFacts **No. 73**

Accident Summary

Accident Type	**Struck by/ caught between**
Weather	**Clear/warm**
Type of Operation	**Stacking structural steel**
Crew Size	**6**
Competent Safety Monitor Onsite?	**No**
Safety and Health Program in Effect?	**No**
Was the Worksite Inspected Regularly by the Employer?	**No**
Training and Education Provided?	**No**
Employee Job Title	**Laborer**
Age/Sex	**28/male**
Experience at This Type of Work	**4 years**
Time on Project	**5 weeks**

Brief Description of Accident

Two laborers and a fork-lift driver were stacking 40-foot-long I-beams in preparation for structural steel erection. One laborer was placing a 2 x 4-inch wooden spacer on the last I-beam on the stack. The fork lift driver drove up to the stack with another I-beam that was not secured or blocked on the fork lift tines. The I-beam fell from the tines, pinning the laborer between the fallen I-beam and the stack of beams.

Accident Prevention Recommendations

The employer must:

(1) Instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards. In accordance with *Title 29 Code of Federal Regulations* (CFR) 1926.21(b)(2).

(2) Ensure that proper personal equipment (employee did not wear seat belt while operating fork lift) is worn in all operations where there is exposure to hazardous conditions, in accordance with 29 CFR 1926.28(a).

(3) Ensure that powered industrial trucks have loads that are stable and secure and that persons are not allowed too close to the elevated portions, in accordance with 29 CFR 1926.602(c)(1)(vi).

(4) Ensure that the employer initiates and maintains a safety and health program, in accordance with 29 CFR 1926.20(b)(1), and regular inspections on the jobsite are being done, in accordance with 29 CFR 1926.20(b)(2).

Sources of Help

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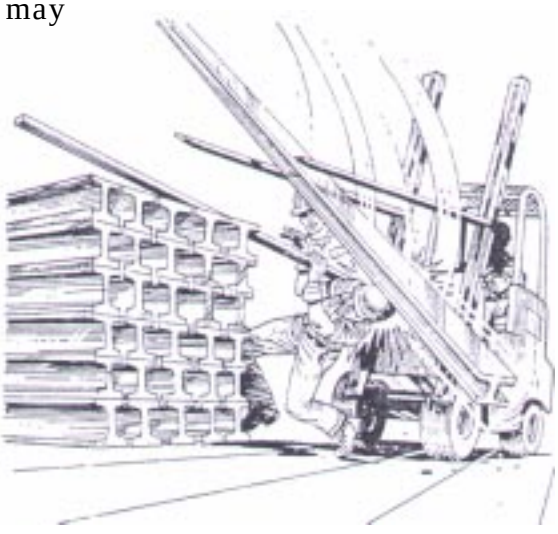

Detach Here

OSHA is on the World Wide Web at http://www.osha.gov/

Meet us in cyberspace to view Compliance Assistance, Standards, Directives, News Releases, Speeches, What's New, Frequently Asked Questions, Most Frequently Violated Standards, OSHA/Consultation Office Directory, Publications, Fact Sheets, and more!

U.S. Department of Labor
Occupational Safety and Health Administration