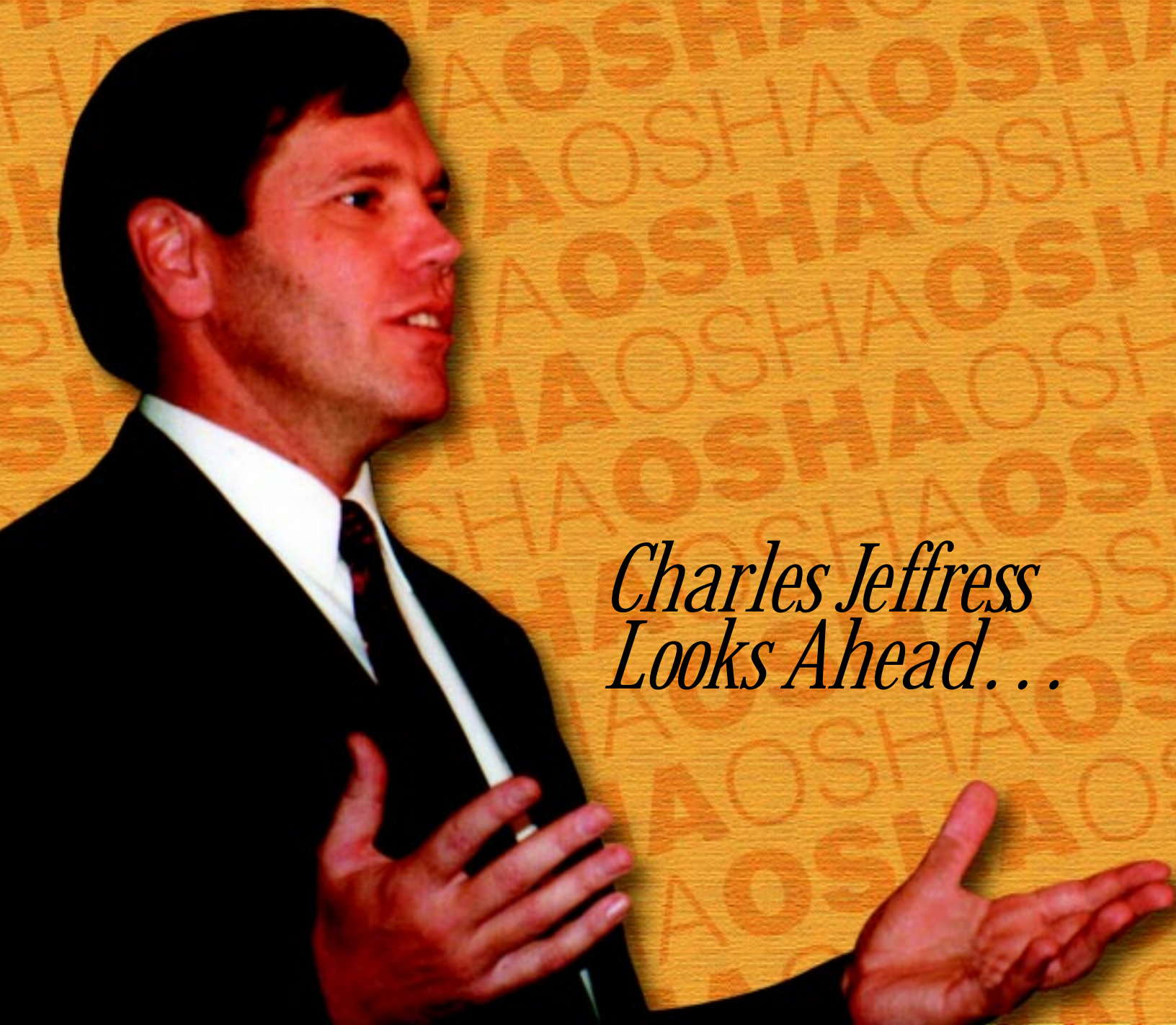


JSHQ

JOB SAFETY & HEALTH QUARTERLY

Volume 9 Numbers 1&2
Fall/Winter 1998



*Charles Jeffress
Looks Ahead...*

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



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

Job Safety & Health Quarterly is the official magazine of the Occupational Safety and Health Administration, U.S. Department of Labor. It is available by subscription from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, for \$9.50 per year, or \$11.90 if mailed to a foreign address. Single copies are \$3.00 (U.S.) or \$3.75 (foreign). See inserted order card.

The Secretary of Labor has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget.

Expressions of opinion in articles from sources outside the U.S. Department of Labor do not necessarily represent the views of the Department. Mention or depiction of companies or trade name products in no way constitutes endorsement by the Department of Labor.

Material contained in this publication is public domain and may be reproduced fully or partially without permission of the Federal Government. Source credit is requested but not required. Permission is required only to reproduce copyrighted photos and other copyrighted material contained herein.

Editorial communications should be addressed to the Editor, *Job Safety & Health Quarterly*, Occupational Safety and Health Administration, 200 Constitution Avenue, N.W., Washington, DC 20210.

STAFF

Anne Crown-Cyr, *Editor*

Kerri L. Lawrence, *Associate Editor*

Susan Hall Fleming, *Writer*

Pat Foreman, *Writer*

Frank Kane, *Writer*

Photography: Cover & pages 4 & 18, Billy Rose; page 22, Douglas Prince, OSHA Area Office, Parsippany, NJ; pages 23 & 26, Michael Gall, Executive Director, Pacific Coast Education Center; page 24, Denise Woods, Niagara County Community College Education Center; page 30, © Rod Berry Photography, Columbus, OH; page 32, courtesy of Portland, Oregon, Visitors Association; page 34, courtesy of Atlanta Chamber of Commerce; page 35, courtesy of Philadelphia Convention and Visitors Bureau; pages 40-46, Steve Xanos, OTI, Des Plaines, IL; and page 51, Dan Dunkle, GE, Bangor, ME.
Cover Design: Gene Hansen Creative Services, Inc.

From the Editor...

I think I speak for everyone in welcoming Charles N. Jeffress as our new Assistant Secretary for Occupational Safety and Health. We were fortunate to have an in-depth interview with Jeffress recently to discuss his plans and goals for OSHA. Our cover story highlights this interview and Jeffress' plans for the agency.

Note our second part of the feature on OSHA cooperative efforts. We also take a look at OSHA's train-the-trainer program that is working nationwide to improve workplace safety and health. There's a brief story on OSHA's meetings with small business representatives to gain their input and concerns on the agency's intention to propose a rule on safety and health programs. Another short story emphasizes how exemplary safety and health program management can improve workplace safety and reduce employer costs.

Our regular columns—*What's Happening?*, *Mark Your Calendar*, and *Toolbox*—bring the latest information on a variety of items such as meetings, conferences, regulatory issues, and training and education. *FatalFacts* describe fall and other hazards and preventive measures. A winter advisory details the hazards of cold weather.

Hope you enjoy the issue.

Anne Crown-Cyr
Editor

P.S. Don't forget to give us your ideas by filling out the reader response card in this issue.

JSHQ

JOB SAFETY & HEALTH QUARTERLY
 Volume 9 Numbers 1&2
 Fall/Winter 1998

FEATURES



Assistant Secretary Charles Jeffress Discusses Plans for OSHA

by Susan Hall Fleming

16

Changing the Way We Do Business

The final part of the series on OSHA cooperative efforts

by Judith Weinberg

21

The Battle Against Tuberculosis—OSHA Fights Back

by Kerri L. Lawrence

28

OSHA Asks Small Businesses for Input on Safety and Health Program Proposal

by Ted Twardowski

30

A Strategy for Improving Worker Safety and Health

by Anne Crown-Cyr

36

Outreach Training Promotes Safety and Health Awareness

by Don Guerra

39

Signing of Final Longshoring Regulations

by Paul Rossi

48

Maine 200: One Company's Stepping Stone to Star

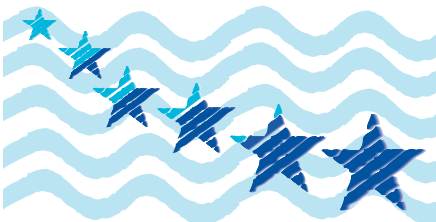
by Susan Hall Fleming

50

Winter Advisory: Preventing Cold Stress

54

DEPARTMENTS



Assistant Secretary's Message

2

OSHA Q&A

3

What's Happening?

5

Mark Your Calendar

7

OSHA Semiannual Agenda—October 1997

14

The Toolbox

55

FatalFacts

57

ASSISTANT SECRETARY'S MESSAGE

This is my first column for *Job Safety & Health Quarterly* as Assistant Secretary, and I am very proud to be here. OSHA is vital to America's working men and women, and I appreciate the confidence of President Clinton, Secretary Herman, and the many others too numerous to mention in business, labor, and government for their confidence in me. I hope the thousands of OSHA professionals will lend me the benefit of their years of experience as I tackle this job.

When I took office, I pledged to continue the North Carolina tradition of cooperation and communication among business, labor, and OSHA. We share a common mission of reducing workplace injuries and illnesses, and we need to work on that mission in a cooperative way. We are, after all, being measured by the same yardstick—a reduction in workplace injuries and illnesses—and if **you** succeed, we succeed. Let's work together on this common mission.

My philosophy is that OSHA is not simply the enforcer of rules and regulations. We are professionals in workplace safety; we must give labor and management our best advice for reducing injuries, illnesses, and fatalities among their workers. That may mean giving advice on corporate commitments, training line employees, or issuing citations for uncorrected hazards.

We shouldn't be satisfied with just observing whether or not rules



are followed. We must use our best judgment to help employers and employees strengthen their programs, increase their commitment, and find the help they need to better protect those at risk.

I salute OSHA compliance officers, consultants, and trainers in the field—you are the experts. It is your actions—not speeches in Washington—that will change behavior in the workplace, that will make a difference in whether or not working men and women go home safely at the end of the day. I am here to support you in your efforts, and I look forward to working with you.

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

...OSHA is not simply the enforcer of rules and regulations. We are professionals in workplace safety; we must give labor and management our best advice for reducing injuries, illnesses, and fatalities among their workers.

Q: OSHA recently issued a final rule on abatement verification. What is it and what am I required to do?

A: The abatement verification standard requires employers cited for violation(s) of the *Occupational Safety and Health Act of 1970* (OSH Act) to certify that they have abated the hazardous condition for which they were cited and to inform the affected employees of their abatement actions.

To comply, cited employers must (1) fix the violation, (2) certify that it has been fixed, (3) notify employees and their representatives, (4) tag movable equipment (if cited), and (5) send abatement documents to OSHA. Employers who don't comply will get a citation for failure to fix, certify, notify, tag, or send.

The abatement procedures that a specific employer follows depends on the nature of the violations identified and the actions the employer takes. If abatement occurs during or immediately after the inspection identifying the violation(s), the employer does not have to submit an abatement certification letter to OSHA. If the violation is other-than-serious or a serious violation that does not require additional documentation, the employer must certify abatement using a simple one-page form or the equivalent. Cases involving the most serious violations require additional documentation.

The final regulation simplifies and streamlines the previous abatement certification procedures. The regulation will reduce employers' paperwork, enhance employee participation in the abatement process, increase the number of cited hazards that are quickly abated, and streamline and standardize the abatement procedures.

The agency has published the "Small Entity Compliance Guide for OSHA's Abatement Verification Regulation—29 CFR 1903.19," available on OSHA's Internet Homepage (<http://www.osha.gov/>) under **Compliance Assistance**. The guide answers general and frequently asked questions as well as contains a sample abatement certification form.

Q: Has OSHA issued new standards for respirator use?

A: Yes. On January 8, 1998, OSHA published the revised final standard in the *Federal Register*. The new respirator standard protects about 5 million American workers in nearly 1.3 million establishments in all industry sectors covered by the agency, except agriculture, and strengthens protection against toxic substances.

The new respirator standard protects about 5 million American workers in nearly 1.3 million establishments. . . .

The new standard updates a 25-year-old rule to reflect current technology and methods of respirator protection and requires two-in/two-out procedures during interior structural firefighting. It clarifies responsibility for administering a respirator program, clarifies provisions and adds definitions, and provides specific guidance on respirator selection and use, hazard determination, medical evaluations, fit testing, and training. OSHA's new



Secretary Herman signs OSHA's new respiratory protection rule.

respirator standard and the two-in/two-out procedure dramatically increase firefighter protection, helping them save others lives and their own.

Watch upcoming issues of *Job Safety & Health Quarterly* for more information on this standard.

Q: Are federal worksites permitted to participate in OSHA's Voluntary Protection Programs (VPP)?

A: In October, OSHA announced that it will begin accepting applications from federal worksites with exemplary safety and health programs for the VPP. Until this action, only private sector worksites could apply for the VPP.

The VPP emphasizes the importance of effective safety and health management systems in the prevention and control of workplace injuries and illnesses. At sites that qualify for VPP participation, employers and employees work together and in partnership with OSHA to provide a level of safety

and health protection that goes well beyond the minimum OSHA standards.

The key elements of the VPP for Federal Worksites Program—basically identical with private sector requirements—include the following:

- Applicants must be from a federal worksite.
- Applicants must comply with *Title 29 Code of Federal Regulations (CFR), Part 1960—Basic Program Elements for Federal Employee Occupational Safety and Health Programs*, and all applicable standards.
- A worksite must notify its Designated Agency Safety and Health Officer (DASHO) of their intent to apply to the VPP.
- Applicants must track and submit their accident rates as their private counterparts do. To qualify for *Star*—the premier VPP program—the rates must be below the current comparable private sector Bureau of Labor Statistics (BLS) rates. Applicants with rates above the BLS averages may qualify for *Merit*.

- Just as in the private sector program, federal worksites approved to the VPP will not be targeted by OSHA for a programmed inspection.

For more information on the inclusion of federal worksites in VPP or any other questions regarding the VPPs, contact the Office of Voluntary programs at (202) 219-7266.

JSHQ

Publications

Selected Construction Regulations for the Home Building Industry assists residential construction



employers and employees in providing safe and healthful workplaces. This publication identifies the Occupational Safety and Health

Administration (OSHA) standards applicable to the hazards most commonly found at worksites in the residential construction industry and those most likely to have a significant positive impact on the safety and health practices of contractors within this industry.

OSHA's Guide to Scaffold Use in the Construction Industry (OSHA 3150) addresses training

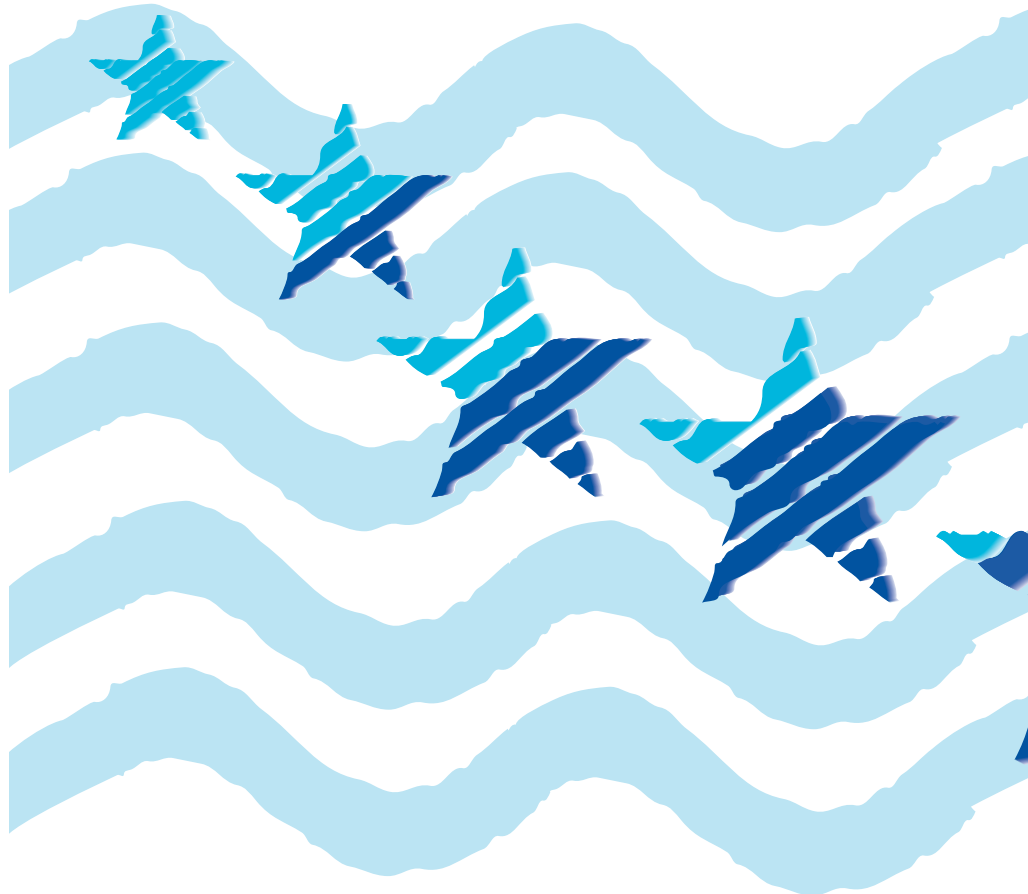


and various types of scaffolds, falling object protection, ladders, weather conditions, aerial lifts, stilts, and other matters covered

in OSHA's revised scaffold standards.

Both booklets are available under **What's New** on OSHA's Web site at <http://www.osha.gov>. A printed copy OSHA 3150 also is available from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954; (202) 512-1800 phone or (202) 512-2250 fax. Order No. 029-016-00188-3; cost \$6.50.

VPP Update



Recent additions to OSHA's VPP *Star* list are General Electric Co., ED&C, Auburn, ME; General Electric Aircraft Engines, Hooksett, NH; General Electric Corp., Research & Development, Niskayuna, NY; BE&K Construction Co., Mead S-2 Project at Mead Containerboard, Stevenson, AL; Mead Containerboard, Covington, GA; WestPoint Stevens, Inc., Chipley, FL; The Geon Co., Laporte, TX; Occidental Chemical, Houston Chemical Complex, Deer Park, TX; Baxter Healthcare Corp., Renal Division, McGaw Park, IL; International Paper, Russellville, AR; International Paper, Masonite Corp., Lisbon Falls, ME; Cosmair, Inc., Piscataway, NJ;

Ortho Diagnostic Systems, Inc., Raritan, NJ; Dow Chemical, Dalton, GA; Solutia, Inc., Decatur, AL; Union Camp Corp., Thorsby, AL; Mead Containerboard, Washington Court House, OH; United Space Alliance, Logistic Support, Houston, TX; and Black & Veatch Construction, Inc., Fort St. Vrain Repowering Project, Platteville, CO.

Recent additions to OSHA's VPP *Demonstration* Program are Austin Industrial Maintenance, Inc., Huntsman Petrochemical Corp., Austin, TX; Mundy Contract Maintenance, Inc., at Hoescht Celanese Technical Center, Corpus Christi, TX; Mundy Contract Maintenance, Inc., at Monsanto Chocolate

Bayou, Houston, TX; and Brown & Root Industrial Services, Weyerhaeuser Co., Valliant, OK.

Recent additions to OSHA's VPP *Merit* list are Mobil Chemical Co., Olefins/Aromatics Plant, Beaumont, TX; Minolta Advance Technology, Inc., Goshen, NY; Mead Corporation's School & Office Products, Atlanta, GA; General Electric's Decatur Plant, Decatur, GA; The Glidden Co., Plant #007, Oakwood, GA; WestPoint Stevens, Inc., Dunson Mill, LaGrange, GA; Champion International Corporation, Camden, TX; Champion International Corp., Corrigan, TX; Houston Industrial Power Generation Operations, Hewett, TX; Akzo Nobel Chemical Co., Deer Park, TX; Vickers, Inc., Searcy, AR; Rohm & Haas, Inc., Deer Park, TX;

and Wheelabrator South Broward, Inc., Lauderdale, FL.

E.I. DuPont de Nemours and Co., Ingleside, TX, has now been in the *Star Program* for 13 years. BASF, Holyoke, MA, and Tenneco Packaging, Specialty Products Group, Temple, TX, have now been in the *Star Program* for 12 years. Huntsman Aromatics and Olefins Plant, Port Arthur, TX, has been in the *Star Program* for 9 years. Huntsman Petrochemical Corporation, Austin, TX, and Dow North America, Louisiana Division, Plaquemine, LA, have now been in the *Star Program* for 7 years. Occidental Chemical Corp., Dallas Silicates Plant, Dallas, TX; Lyondell Technology Center, Alvin, TX; and Occidental Chemical Corp., Hahnville, LA, have now

been in the *Star Program* for 3 years.

Chevron Chemical Co., Cedar Bayou Plant, Baytown, TX; and RR Donnelley & Sons Co., Senatobia, MS, advanced from *Merit* to *Star*.

This brings the total participants to 341 sites in the Federal VPP: 277 in *Star*, 52 in *Merit* and 12 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 <http://www.osha.gov/>. **JSHQ**



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 and the public at <http://rex.nci.nih.gov>

MARK YOUR CALENDAR

OSHA Training Institute Schedule

100 Initial Compliance Course

Introduces compliance personnel to the provisions of the *Occupational Safety and Health Act of 1970 (OSH Act)*. Includes an orientation to OSHA regulations, the *Field Inspection Reference Manual*, the *Technical Manual*, hazard recognition and control, and fundamental safety and health program elements.

Tuition: Federal and state personnel only

Dates: 3/3/98 - 3/13/98



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: 3/17/98 - 3/20/98

121a Introduction to Industrial Hygiene for Safety Personnel

A shortened version of Course 121 that focuses on the general concepts of industrial hygiene, including the recognition of common health hazards such as air contaminants and noise, hazard evaluation through screening and sampling, and control methods for health hazards including ventilation and personal protective equipment.

Tuition: \$540

Dates: 4/20/98 - 4/24/98

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: 3/24/98 - 4/3/98

143 Introduction to OSHA for Non-Technical Personnel

Provides an overview of OSHA's history, terminology, structure, and operations. Includes the *OSH Act*, the inspection process, and various programs within OSHA.

Tuition: Federal and state personnel only

Dates: 3/31/98 - 4/3/98

200 Construction Standards

Gives an overview of OSHA's construction standards and of the requirements of the most frequently referenced standards. Also covers rights and responsibilities under the OSH Act, contesting situations, and OSHA inspection procedures.

Tuition: Federal and state personnel only

Dates: 4/14/98 - 4/24/98

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: \$1,039

Dates: 3/3/98 - 3/13/98



201a Hazardous Materials

A shortened version of course 201 covering 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: \$540

Dates: 3/16/98 - 3/20/98

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: \$790

Dates: 3/26/98 - 4/3/98

204a Machinery and Machine Guarding Standards

A shortened version of course 204 that focuses on the various types of common machinery and the related safety standards. Also includes hands-on-training in the laboratories.

Tuition: \$540

Dates: 2/23/98 - 2/27/98

205 Cranes and Rigging Safety for Construction

Describes various types of mobile and tower cranes used in construction operations and provides information on crane operations, inspection, and maintenance.

Tuition: \$415

Dates: 3/31/98 - 4/3/98

207a Fire Protection and Life Safety

A shortened version of Course 207 that 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: \$540

Dates: 4/6/98 - 4/10/98

208 Cranes and Materials Handling for General Industry

Discusses overhead cranes, hoists, and powered industrial trucks used in general industry as well as overhead and crane inspection and maintenance procedures.

Tuition: \$415

Dates: 4/21/98 - 4/24/98

221 Principles of Industrial Ventilation

Describes the principle of industrial ventilation as a means of controlling hazardous air contaminants. Includes the classification of ventilation systems, fundamentals of airflow, makeup air, fans, air cleaners, ventilation system surveys, and OSHA policies and standards.

Tuition: \$790

Dates: 4/28/98 - 5/6/98

225 Principles of Ergonomics

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

Tuition: \$415

Dates: 4/14/98 - 4/17/98

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: \$415

Dates: 3/24/98 - 3/27/98



234 Biohazards

Assists health and safety professionals in evaluating biological hazards during occupational exposure. Emphasizes work practices, personal protective equipment, infectious waste handling, control techniques, sampling instruments and measurements, and current applicable OSHA standards.

Tuition: \$415

Dates: 3/10/98 - 3/13/98

236 Heating, Ventilation and Air Conditioning (HVAC) Systems

Provides information on types of HVAC systems and components, related standards and codes, ventilation measurements, maintenance considerations, system evaluation and trouble-shooting, reading plans and specifications, and OSHA compliance issues.

Tuition: \$415

Dates: 4/7/98 - 4/10/98

303 Concrete, Forms, and Shoring

Teaches the principles of forms and shoring and the quality of concrete, hot and cold weather placing practices, and inspection procedures, including reinforced concrete, lift-slab construction, and reading concrete blueprints and shoring plans.

Tuition: \$374

Dates: 3/10/98 - 3/12/98

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: \$415

Dates: 3/24/98 - 3/27/98

309 Electrical Standards

Provides an indepth study of OSHA's electrical standards and hazards associated with electrical installations and equipment. Includes single- and three-phase systems, cord- and plug-connected and fixed equipment, grounding, ground-fault circuit interrupters, hazardous locations, and safety-related work practices.

Tuition: \$1,039

Dates: 4/21/98 - 5/1/98

311 Fall Arrest Systems

Provides an overview of state-of-the-art technology for fall protection, including the principles of fall protection, the components of fall

arrest systems, the limitations of fall arrest equipment, and OSHA policies regarding fall protection.

Tuition: \$415

Dates: 3/3/98 - 3/6/98

312 Hazardous Waste Site Inspection and Emergency Response for the Construction Industry

Increases knowledge of hazardous waste site operations, emergency response procedures, safety and health hazards, and enforcement issues for the construction industry.

Tuition: \$415

Dates: 4/8/98 - 4/11/98

322 Applied Welding Principles

Increases knowledge of the processes and hazards associated with welding operations such as oxy-acetylene and open arc, proper use of each process, personal protective equipment, safety and health hazard recognition and control, and OSHA requirements.

Tuition: \$415

Dates: 3/17/98 - 3/20/98

326 Health Hazards in the Construction Industry for Safety Personnel

Focuses on the recognition and evaluation of health hazards in the construction industry. Topics include abrasive blasting, asbestos, confined spaces, demolition, painting, roofing, silica, lead, and welding.

Tuition: \$415

Dates: 4/7/98 - 4/10/98

330 Safety and Health in the Chemical Processing Industries

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: Federal and state personnel only

Dates: 4/14/98 - 4/24/98

333 OSHA Overview for Occupational Health Nurses

Provides an overview of OSHA and its regulations and guidelines for occupational health nurses. Includes an introduction to the inspection process, tools, and terminology of industrial hygiene, recordkeeping and access to employer exposure medical records, and the role of the occupational health nurse in promoting occupational safety and health.

Tuition: \$374

Dates: 2/24/98 - 2/26/98

600 Collateral Duty Course for Other Federal Agencies

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

Tuition: \$478

Dates: 2/23/98 - 2/27/98

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 **OSHA Training and Registration** under **Programs and Services** on OSHA's Web site at <http://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 Community College, 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 and see also OSHA's Web site at <http://www.osha.gov/>.

201a Hazardous Materials

Location: Eastern Michigan University-United Auto Workers

Dates: 3/9/98 - 3/13/98*

Location: Great Lakes OSHA Training Consortium

Dates: 3/24/98 - 3/27/98

Location: Maple Woods Community College

Dates: 3/9/98 - 3/12/98

Location: University of California, San Diego

Dates: 3/30/98 - 4/2/98

204a Machinery and Machine Guarding Standards

Location: Georgia Technological Research Institute

Dates: 2/23/98 - 2/27/98

Location: Keene State College

Dates: 2/9/98 - 2/13/98

Location: Maple Woods Community College

Dates: 2/16/98 - 2/19/98

Location: National Resource Center for OSHA Training

Dates: 3/9/98 - 3/12/98

Location: Niagara County Community College

Dates: 3/30/98 - 4/2/98

Location: The National Safety Education Center

Dates: 2/23/98 - 2/27/98

Location: University of California, San Diego

Dates: 3/23/98 - 3/26/98

Location: University of Washington

Dates: 3/23/98 - 3/27/98

225 Principles of Ergonomics

Location: Niagara County Community College

Dates: 3/23/98 - 3/26/98

Location: Red Rocks Community College

Dates: 2/18/98 - 2/20/98

Location: Texas Engineering Extension Service

Dates: 3/2/98 - 3/5/98 (D)

Location: University of Washington

Dates: 3/9/98 - 3/11/98



226 Permit-Required Confined Space Entry

Location: Eastern Michigan University-United Auto Workers
Dates: 3/23/98 - 3/26/98*
Location: Keene State College
Dates: 3/9/98 - 3/12/98
Location: Niagara County Community College
Dates: 3/3/98 - 3/6/98
Location: Red Rocks Community College
Dates: 3/4/98 - 3/6/98
Location: Texas Engineering Extension Service
Dates: 3/30/98 - 4/1/98 (H)
Location: University of California, San Diego
Dates: 3/9/98 - 3/11/98

309a Electrical Standards

Location: Maple Woods Community College
Dates: 2/23/98 - 2/26/98
Location: Niagara County Community College
Dates: 2/23/98 - 2/26/98
Location: Red Rocks Community College
Dates: 3/24/98 - 3/27/98
Location: Texas Engineering Extension Service
Dates: 2/23/98 - 2/27/98 (D)
Location: University of California, San Diego
Dates: 3/30/98 - 4/2/98
Location: University of Washington
Dates: 2/17/98 - 2/20/98**

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

Location: Eastern Michigan University-United Auto Workers
Dates: 2/15/98 - 2/19/98*
3/9/98 - 3/13/98

Location: Keene State College
Dates: 3/16/98 - 3/20/98
Location: National Resource Center for OSHA Training
Dates: 2/23/98 - 2/26/98 (M)
3/9/98 - 3/12/98
Location: Niagara County Community College
Dates: 3/2/98 - 3/5/98
Location: Red Rocks Community College
Dates: 3/9/98 - 3/12/98
Location: Texas Engineering Extension Service
Dates: 2/16/98 - 2/20/98 (H)
3/30/98 - 4/3/98***
Location: The National Safety Education Center
Dates: 3/16/98 - 3/20/98
Location: University of California, San Diego
Dates: 3/2/98 - 3/5/98
Location: University of Washington
Dates: 3/2/98 - 3/5/98***

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

Location: Eastern Michigan University-United Auto Workers
Dates: 3/16/98 - 3/20/98
Location: Georgia Technological Research Institute
Date: 3/2/98 - 3/6/98
Location: Keene State College
Dates: 2/16/98 - 2/20/98
3/23/98 - 3/27/98
Location: Maple Woods Community College
Dates: 3/2/98 - 3/5/98
Location: National Resource Center for OSHA Training
Dates: 2/23/98 - 2/26/98
Location: Niagara County Community College
Dates: 3/9/98 - 3/12/98

Location: Red Rocks Community College
Dates: 2/16/98 - 2/19/98
3/16/98 - 3/19/98
Location: Texas Engineering Extension Service
Dates: 2/9/98 - 2/12/98***
3/23/98 - 3/27/98 (H)
Location: The National Safety Education Center
Dates: 3/9/98 - 3/13/98
3/23/98 - 3/27/98****
Location: University of California, San Diego
Dates: 2/23/98 - 2/26/98
Location: University of Washington
Dates: 3/23/98 - 3/27/98**

502 Update for Construction Industry Outreach Trainers

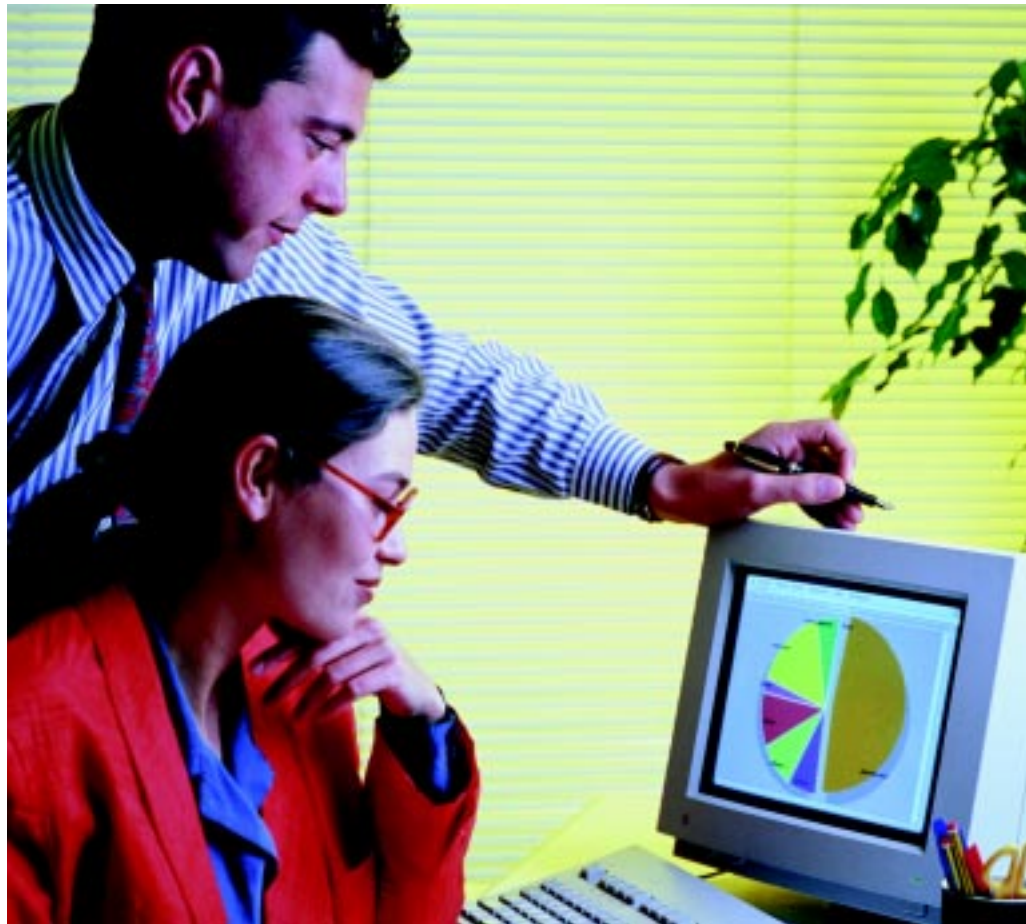
Location: Eastern Michigan University-United Auto Workers
Dates: 2/16/98 - 2/18/98
3/17/98 - 3/19/98
Location: Great Lakes OSHA Training Consortium
Dates: 3/18/98 - 3/20/98*****
Location: Maple Woods Community College
Dates: 2/16/98 - 2/18/98
Location: National Resource Center for OSHA Training
Dates: 3/30/98 - 4/1/98
Location: Red Rocks Community College
Dates: 3/18/98 - 3/20/98
Location: Texas Engineering Extension Service
Dates: 2/16/98 - 2/18/98 (H)
Location: The National Safety Education Center
Dates: 3/10/98 - 3/12/98

503 Update for General Industry Outreach Trainers

Location: Eastern Michigan University-United Auto Workers
Dates: 3/9/98 - 3/11/98
Location: Georgia Technological Research Institute
Dates: 3/24/98 - 3/26/98
Location: Great Lakes OSHA Training Consortium
Dates: 3/2/98 - 3/4/98
3/18/98 - 3/20/98****
Location: Keene State College
Dates: 3/30/98 - 4/1/98
Location: Maple Woods Community College
Dates: 3/16/98 - 3/18/98
Location: Niagara County Community College
Dates: 2/18/98 - 2/20/98
Location: Red Rocks Community College
Dates: 3/4/98 - 3/6/98
Location: Texas Engineering Extension Service
Dates: 3/23/98 - 3/25/98 (H)
Location: The National Safety Education Center
Dates: 2/23/98 - 2/25/98

510 Occupational Safety and Health Standards for the Construction Industry

Location: Keene State College
Dates: 2/23/98 - 2/27/98
Location: Maple Woods Community Center
Dates: 3/9/98 - 3/12/98
Location: Niagara County Community College
Dates: 3/16/98 - 3/19/98
Location: Red Rocks Community College
Dates: 2/23/98 - 2/26/98
Location: University of California, San Diego
Dates: 2/23/98 - 2/26/98



521 OSHA Guide to Industrial Hygiene

Location: Eastern Michigan University-United Auto Workers
Dates: 2/23/98 - 2/27/98
Location: National Resource Center for OSHA Training
Dates: 3/16/98 - 3/19/98 (W)
Location: University of California, San Diego
Dates: 3/23/98 - 3/26/98

600 Collateral Duty Course for Other Federal Agencies

Location: Eastern Michigan University-United Auto Workers
Dates: 3/2/98 - 3/6/98
Location: Georgia Technological Research Institute
Dates: 3/16/98 - 3/29/98

Location: Keene State College
Dates: 3/2/98 - 3/5/98
Location: National Resource Center for OSHA Training
Dates: 3/23/98 - 3/26/98
Location: University of California, San Diego
Dates: 3/9/98 - 3/12/98 **JSHQ**

*Course scheduled at University of Findlay, Findlay, OH

**Course scheduled in Portland, OR

***Contact education center for course location.

****Course scheduled in Appleton, WI

*****Course scheduled at University of Cincinnati, Cincinnati, OH

(D) Course scheduled in Dallas Area

(H) Course scheduled in Houston

(M) Course scheduled at Marshall University, Huntington, WV

(W) Course scheduled at West Virginia University, Morgantown, WV

Agenda

*Published in April and October each year, the agenda includes all regulations expected to be under development or review by the agency during that period. The following list is from the agenda as published in the **Federal Register** 62 (209) 57746-57759, October 29, 1997.*

Prerule

Title and Regulation Identifier Number (RIN)*

Standards Advisory Committee on Metalworking Fluids
1218-AB58

Control of Hazardous Energy Sources (Lockout/Tagout)
1218-AB59

Occupational Exposure to Ethylene Oxide
1218-AB60

Fire Brigades
1218-AB64

Grain Handling Facilities
1218-AB73

Cotton Dust
1218-AB74

Proposed Rules

Steel Erection (Part 1926) (Safety Protection for Ironworkers)
1218-AA65

Prevention of Work-Related Musculoskeletal Disorders
1218-AB36

Safety and Health Programs (for General Industry)
1218-AB41

Occupational Exposure to Tuberculosis
1218-AB46

Confined Spaces in Construction (Part 1926) (Construction: Preventing Suffocation/Explosions in Confined Spaces)
1218-AB47

General Working Conditions in Shipyards (Part 1915, Subpart F) (Phase II) (Shipyards: General Working Conditions)
1218-AB50

Fire Protection in Shipyard Employment (Part 1915, Subpart P) (Phase II) (Shipyards: Fire Safety)
1218-AB51

Permissible Exposure Limits (PELs) for Air Contaminants
1218-AB54

Plain English Revision of Existing Standards
1218-AB55

Nationally Recognized Testing Labs Programs: Fees
1218-AB57

Flammable and Combustible Liquids
1218-AB61

Fall Protection in the Construction Industry
1218-AB62

Process Safety Management of Highly Hazardous Chemicals
1218-AB63

Revocation of Certification Records for Tests, Inspections, and Training
1218-AB65

Plain English Revision of Existing Standards (Phase II)
1218-AB66

Electric Power Transmission and Distribution; Electrical Protective Equipment
1218-AB67

Safety Standards for Scaffolds Used in the Construction Industry - Part II
1218-AB68

register

Safety and Health Programs
for Construction
1218-AB69

Control of Hazardous Energy
(Lockout) in Construction (Part
1926) (Preventing Construction
Injuries/Fatalities; Lockout)
1218-AB71

Final Rule

Respiratory Protection (Proper
Use of Modern Respirators)
1218-AA05

Longshoring and Marine Termi-
nals (Parts 1917 and 1918)—
Reopening of the Record
1218-AA56

Access and Egress in Shipyards
(Part 1915, Subpart E) (Phase I)
(Shipyards: Emergency Exits
and Aisles)
1218-AA70

Recording and Reporting
Occupational Injuries and
Illnesses (Simplified Injury/
Illness Recordkeeping
Requirements)
1218-AB24

Powered Industrial Truck
Operator Training (Industrial
Truck Safety Training)
1218-AB33

Permit Required Confined Spaces
(General Industry; Preventing
Suffocation/Explosions in
Confined Spaces)
1218-AB52

Standards Improvement Project
1218-AB53

Long Term

Scaffolds in Shipyards (Part
1915-Subpart N) (Phase I)
(Shipyards: Safer Scaffolds)
1218-AA68

Glycol Ethers: 2-Methoxyethanol,
2-Ethoxyethanol, and Their
Acetates: Protecting
Reproductive Health
1218-AA84

Walking Working Surfaces
and Personal Fall Protection
Systems (Part 1910) (Slips, Trips,
and Fall Prevention)
1218-AB04

Accreditation of Training
Programs for Hazardous Waste
Operations (Part 1910)
1218-AB27

Indoor Air Quality in the
Workplace
1218-AB37

Occupational Exposure
to Hexavalent Chromium
(Preventing Occupational Illness:
Chromium)
1218-AB45

Occupational Exposure
to Crystalline Silica
1218-AB70

Completed Actions

Abatement Verification (Hazard
Correction)
1218-AB40 [JSHQ](#)

*Office of Management and Budget (OMB)
Regulation Identification Number. For copies
of OSHA final rules published in the *Federal
Register*, contact the Superintendent of
Documents, Government Printing Office,
Washington, DC 20402, for \$8.00 a copy
prepaid. Subscriptions are available at \$651
per year. GPO products also can be ordered
online at <http://www.gpo.gov/>.

Assistant Secretary Charles Jeffress Discusses Plans for OSHA

by Susan Hall Fleming

In November, JSHQ staff was fortunate to have the opportunity to sit down with our newly appointed assistant secretary and ask about his hopes and plans for OSHA. Here's a look at what will be some of OSHA's driving issues.

Q Why did you agree to come to Washington to serve as head of OSHA?

A During the past 5 years in North Carolina, we brought the workplace injury and illness rate down substantially. I wanted the opportunity to try on a national level some of the things we were so successful with in North Carolina.

I believe we were successful because we empowered our staff in North Carolina by decentralizing our operations and giving more authority to supervisors at the local level. At the same time, while we can assist employers and employees, it's really what they do in the workplace that makes the difference. What really made that difference in North Carolina is the sense of cooperation we were able to foster among business, labor, and government—an agreement to work together to reduce injuries and illnesses in the workplace.

Q What is your number one standard-setting priority?

A Clearly, ergonomics is the standard that we must work on. We've got to push forward to get a proposed rule ready. I will be spending a lot of time and attention on ergonomics, working with the team that David Cochran heads to make sure that the process goes forward. I'm also well aware of how long it takes to get a final rule out. We're prohibited by our appropriations bill from issuing a proposed rule in this fiscal year. Nevertheless, we have a long way to go in developing the proposal, and I am going to work to keep things moving forward so that we are ready to issue that proposal next year.

A critical priority is safety and health programs. When we focused

on 248 companies in North Carolina that had high workers' compensation case rates, we didn't find a great many more hazards or more serious hazards than at other companies. What we found was that the companies had no effective safety and health programs. The real difference between workplaces with low accident rates and those with high rates appeared to be having an effective safety and health program. That's what drives my interest in getting a federal standard out on safety and health programs.

Another concern I have is the length of time it takes to issue standards. I don't yet know how we can speed it up. But I intend to spend time trying to find ways to move standards more quickly through the process. Every standard needs to be in plain language as well. Some are now obtuse—a lot of those we inherited from national consensus bodies. But I believe we can make it much easier for employers and employees to comply with our standards if we can simplify them and make them understandable, even if that means sacrificing some technical or legal precision. If a standard is understandable to 95 percent of the people, it will be a lot more effective than something that may be a little more precise but only understandable to 15 percent.

Q Do you see OSHA doing more inspections or fewer in the next year?

A I don't know that there's any right number of inspections. I do think to have a credible enforcement program, we need to do more than walk around the workplace; we must provide technical assistance and guidance to employers. We have to do enough inspections to serve as a credible deterrent, and we have to do top-quality

inspections, particularly in those places where a lot of people are being hurt.

In the past, we have conducted inspections and observed hazards. We've shown employers the rules and penalized those who didn't follow them. Now, we're asking our compliance officers to go beyond the rules and determine whether management has made a commitment to safety and health in this workplace. If not, our inspectors will need to sit down with the employer and say, "Look, you're not showing any leadership here. Your employees must see you invested in this program. They have to see your commitment to it, your dollars and your time and your energy focused on this." Further, if the employees aren't involved in the safety and health program, the compliance officer will need to talk to employee representatives and perhaps management to be sure

The real difference between workplaces with low accident rates and those with high rates appeared to be having an effective safety and health program.

they understand that the program will only work if employees buy it, if they're invested in it. Then the compliance officer will need to give them some ideas on how to get employees invested.

We must go beyond enforcing the rules. And our compliance officers will need to know how to identify an effective safety and health program and how to communicate that to the people they visit.



Assistant Secretary Charles Jeffress explains plans for OSHA.

Q Do you see a need for reform of the OSH Act?

A A number of provisions in current reform bills concern me. One would have OSHA citing employees for misconduct. That is something we cannot do as an agency. Employers are responsible for their employees' conduct. We have to hold employers accountable for disciplining their employees.

Another proposal that troubles me is the idea of permitting employers to use private consultants and thereby immunize themselves from any penalties from OSHA inspections. My fear is that should something like that pass, the large employers will always buy consultants and never have an OSHA penalty, and smaller employers who

can't afford the consultant will become the only ones we penalize. Then OSHA will become an agency that only punishes small employers. And that's not acceptable policy for the country.

I do believe it's important to find ways to use private industry and private consultants to expand our services. Clearly, government's not going to grow much in the next few years, yet there's a lot more work to be done in safety and health. Perhaps we can find a way to use consultants to teach safety and health,

to involve them in our technical assistance programs, to incorporate them in the consulting program run by states. We need to expand our impact, and private consultants have a role to play. But I don't think incorporating them into our enforcement effort is the right way to go.

At the same time, I'm grateful to Senator Enzi and others for coming up with some new ideas and a renewed focus on safety and health. His efforts have encouraged employers, employees, and safety and health professionals to take another look at ways we might work together and multiply OSHA's impact through private resources.

Q Is there a third-party audit program that could be tied to enforcement that you could accept?

A Yes. Employers who seek out help in improving safety and health by hiring a private consultant are demonstrating good faith, particularly if they can show that they have acted to implement the consultant's recommendations. Should we inspect that employer there should also be fewer hazards, fewer violations, and therefore fewer citations and penalties. But simply hiring a consultant by itself should not immunize someone from the possibility of inspection.

As we base more of our inspections upon high injury and illness rates, if employers make good use of consultants, their rates should

We need to measure ourselves by the same yardstick that employers and employees measure their safety and health efforts: reducing injuries and illnesses.

come down and they will not wind up on our primary inspection lists. Those who have hired consultants and faithfully followed their recommendations should receive credit for good faith [lowering any OSHA penalties] even if their rates remain somewhat higher than average.

Q Do you want to make any changes in OSHA's strategic plan?

A I think it's a good document, and as a state OSHA director, I participated in the process of developing it, so I share some ownership. The strategic plan will be our blueprint. We will work by this document to fulfill our commitment to reduce injuries and illnesses in the workplace. Of course, it's the employers and employees in the workplace that actually have to do that. But if we're not successful in motivating them to focus on safety and health and improve their programs, then injuries and illnesses will not go down.

We need to measure ourselves by the same yardstick that employers and employees measure their safety and health efforts: reducing injuries and illnesses. If we're measuring ourselves by this yardstick, maybe we can get beyond adversarial relationships to achieve our common goals.

As we move forward and have more experience, we may find different ways to measure ourselves. We may find different things we want to measure. And we may discover some things are easier to do than we thought and others are harder. We have the flexibility to revisit the plan periodically and make changes as necessary. I think it's a very good start.

Q The third goal in the strategic plan addresses creating a world class organization, one of the concepts of reinvention. What steps do you think OSHA needs to take to move from where it is to become a world-class organization?

A As a new person in this job, I don't have a prescription right now or formula for things that we need to change. I will be listening to folks to hear their thoughts about what we need to do to improve.

CHARLES N. JEFFRESS

Charles N. Jeffress, confirmed by the U.S. Senate to be the Assistant Secretary of Labor for Occupational Safety and Health, is an experienced planner, successful manager, and innovative thinker who has spent the past 20 years working on labor and workplace issues. Prior to his nomination by President Clinton, Jeffress was Deputy Commissioner and Director of OSHA at the North Carolina Department of Labor. In that capacity, he developed and communicated occupational safety and health policy for the state. He directed OSHA enforcement, consultation, and education and training activities, and managed an organization of 225 people with an annual budget of \$13 million.

Jeffress served as Assistant Commissioner of the North Carolina Department of Labor from 1977 to 1992, focusing on program management, government affairs, and policy development. Direct responsibilities included preparing budgets, developing personnel policy, overseeing the development of new programs,

I do want to break down barriers between top management and national office staff and field office staff. I think it's important that we all have the same objectives and are working to help each other achieve those objectives.

Another issue is continuing education and training. In North Carolina, we tried to make sure every employee—field inspectors, technical folks, office support staff—had an opportunity for continuing education every year, preferably 40 hours each year. It's important to me that all of us stay current in our

and acting as the chief legislative lobbyist for the agency with the state legislature. Jeffress also directed agency research and advised the Commissioner on issues relating to occupational safety and health, employment standards and job training, and personnel.

In 1976, Jeffress was manager of the John Brooks for Labor Commissioner campaign, based in Raleigh, NC. In that capacity he developed campaign strategy and directed staff as well as supervised the publication of campaign materials and fundraising operations.

Jeffress holds a Bachelor of Arts degree from the University of North Carolina at Chapel Hill, where he graduated with Phi Beta Kappa honors in 1971. He is a 1980 graduate of The Government Executives Institute at the UNC-Chapel Hill School of Business Administration and a 1990 graduate of the Program for Senior Executives in Government at the John F. Kennedy School of Government at Harvard University.

If we want the states to help us explain and promote our policies, we need to include them in our planning and decisionmaking. . . .

particular field. I want to make sure that we have the best-trained workforce possible to carry out our mission to reduce injuries and illnesses.

Q As a former state director, would you explain your view of partnership with the states?

A OSHA-approved state plans¹ are very much our partners in carrying out safety and health policies, and they should be our partners in developing safety and health policies. Often, employers and the media don't distinguish between the 29 states with federal OSHA jurisdiction and the 21 states where a state authority has jurisdiction. If we want the states to help us explain and promote our policies, we need to include them in our planning and decisionmaking, much like we did during the development of the OSHA strategic plan.

More inspections are done by state programs than by federal OSHA inspectors. All the consultations are done by state employees using federal dollars, to a large extent. State programs generally have a much greater investment in education and training activities and other outreach to employers than we do at the federal level. So it's important for us to recognize that this program's very much a partnership between the state and federal governments, and we need to work together to achieve our ends.

¹ Section 18(b) of the *Occupational Safety and Health Act of 1970*, P.L. 91-596, gives states the authority to establish their own safety and health plans. These plans must be "at least as effective as" federal standards. OSHA evaluates, approves, and monitors the standards and performance of the state plans and provides up to 50 percent of the cost of operating the state plans.

Q Would you support expanding the consultation program? At the expense of inspections?

A In North Carolina, the first thing we did was to get our enforcement staff up to a level that we thought appropriate for the state. That generated increased interest on the part of employers in training and consultation. So after establishing that credible enforcement program, we then greatly expanded the training and consultation efforts.

So, do I support an expansion of consultation? Yes, I do. When employers come asking for help, we need to be able to respond. And many states at this point are unable to respond to the demand that they have.

Would I support expansion of education training? Yes, indeed, but not at the cost of reducing enforcement. It's important to have a credible enforcement program. And right now at the federal level, we have relatively fewer inspectors, a smaller investment than the states do in enforcement. So I would not want to see our enforcement program reduced to expand other initiatives.

Right now we are making about 34,000 federal inspections and another 56,000 state inspections. Add to that about 20,000 consultations, which gives us a five to one enforcement versus consultation ratio. Is that an appropriate mix? It's probably reasonable. Is that enough for the country as a whole? Probably not. We probably need to do more of both. [JSHQ](#)

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

Changing the Way We Do Business

The final part of the series
on OSHA cooperative efforts

by Judith Weinberg

The commitment to promote worker safety and health through cooperative partnerships whenever possible has led the Occupational Safety and Health Administration (OSHA) to forge alliances in both likely and unlikely places. The first part of this series looked at two well-established agency programs, OSHA Consultation and the Voluntary Protection Programs (VPP), and how their success has demonstrated the value of working cooperatively with employers and workers to establish effective workplace safety and health programs. This second and final part of the series shows other areas where voluntary partnerships are changing the face of OSHA and the landscape of worker safety and health.

Partnership Works in Enforcement

At redesigned OSHA area offices, safety and health compliance officers are undertaking strategic

initiatives that feature both a partnership element and an enforcement component. They are taking a hard look at local problems and coming up with new ways to combat serious workplace hazards such as falls, body strains (ergonomics), trench cave-ins, and lead poisonings.

For example, a five-pronged initiative aspires to make New Jersey highways the safest worksites in the country for road construction workers.¹ This effort grew from the Parsippany Area Office's need to deal with the tragic aftermath of an accident in which a passenger truck crossed over a barrier into a work zone and killed three highway construction workers. OSHA, the New Jersey Department of Transportation (NJDOT), the New Jersey State Police, the Laborers International Union, and Laborers Locals 472 and 172 came together to

implement a strategy that includes the following:

- construction safety hazard awareness training for a new state police traffic-safety unit,
- a choice for contractors between cooperative partnership or traditional OSHA enforcement,
- data collection from state police reports to track hazard correction trends among highway contractors and to educate the various partners,
- intervention by state troopers and enforcement by OSHA against offending contractors, and
- inclusion of permanent contract language requiring contractors to establish general and site-specific safety practices in order to bid for state-funded highway work.

...voluntary partnerships are changing the face of OSHA and the landscape of worker safety and health.

¹ See Edwin Bowers, "Parsippany Looks at New Way of Protecting Workers," *Job Safety & Health Quarterly* 7(2):23-24, Spring 1996; and Susan Fleming " 'New OSHA' Works in Atlanta-East and Parsippany," *Job Safety & Health Quarterly* 6(4):14-15, Summer 1995.



Proper taper setup for closing first lane and shoulder.

This effort is getting results. State troopers have reported that their safety and health interventions are up 850 percent. From June 1995 to July 1997, the 2,319 hazards that have been identified and fixed include unsafe lane closure, inadequate crew protection, and unsafe site-vehicle operation. This has affected the worksites of more than 135 different contractors. Workers are now at reduced risk, and so is the driving public.

Based on its initial success, New Jersey not only added 20 officers to the 25 originally assigned to the project, but also decided to expand the collaborative effort to county and local police. A combined total of 545 state, county, and local police officers are to be trained and ready to intervene if needed in hazardous situations at highway construction sites. A number of other states and localities have asked the New Jersey State Police for help in creating similar programs.

Prior to partnership with the NJDOT to improve the safety of highway construction zones in New Jersey, the Parsippany area office initiated a partnership with the New

Jersey Department of Transportation and the New Jersey Department of Health (NJDOH) to reduce the excessively high lead exposures suffered by workers contracted to repaint highway bridges.

All three partners collaborated to establish permanent contract language addressing the safety and health precautions necessary to safely remove existing lead-based paint prior to repainting. This initiative began because of the frequent cases of lead poisoning among workers removing lead-based paint caused by high airborne lead levels from the abrasive blasting removal. The comprehensive and specific contract language, adopted in spring 1993, included requirements such as the following:

- Employers must take monthly blood lead levels for all employees exposed above $50 \mu\text{g}/\text{m}^3$.
 - All contractors must implement a comprehensive Lead Health and Safety Plan (LHSP).
 - A full-time health and safety officer must be onsite at all times to enforce the LHSP.
 - A health professional (e.g., Certified Industrial Hygienist) must independently review the worksite and evaluate the contractor's compliance with the LHSP and the OSHA lead standard (29 CFR 1926.62), create a written summary of the findings, and send the report to NJDOT, NJDOH, and OSHA.
 - The bridge painting contractor must use only New Jersey-based approved labs for blood lead analysis. This requirement enables the tracking of the employee's blood lead levels by the NJDOH who are sent, according to existing New Jersey law, all level in excess of $25 \mu\text{g}/\text{dl}$ (deciliters) of whole blood.
 - All employees whose blood lead levels exceed $40 \mu\text{g}/\text{dl}$ must be re-trained on the effective use of respiratory protection.
- To date, the results have been impressive. Blood lead levels amongst the bridge workers have gone down steadily—from an average of $42 \mu\text{g}/\text{dl}$ in 1991 to $33 \mu\text{g}/\text{dl}$ in 1996. Similarly, the percentage of blood lead levels between $25 \mu\text{g}/\text{dl}$ and $39 \mu\text{g}/\text{dl}$ increased from 44 percent in 1991 to

...a five-pronged initiative aspires to make New Jersey highways the safest worksites in the country for road construction workers.

82 percent in 1996. In other words, 82 percent of all blood leads reported were below OSHA's action level of 40 µg/dl level.²

Most rewarding of all was the drop in the highest blood leads. In 1991, 11 percent of all blood leads reported were above the removal criterium of 60 µg/dl. In 1995, only 1 percent were in excess of 60 µg/dl, and in 1996, less than 1 percent exceeded 60 µg/dl. These results were achieved with a minimal increase in the cost of the bridge repainting and with the complete satisfaction of the contractors who appreciate how the specific contract requirements leveled the competitive playing field.

In another collaboration, OSHA staff in the St. Louis Area Office—aware that many roofers were being seriously injured in falls at residential projects—organized a partnership with the local unions, roofing associations, and suppliers of roofing materials and fall protection equipment. OSHA safety specialists helped local building contractors develop practical fall protection plans and conducted hazard-assessment training for the contractors' labor unions and safety and health committees. The effort paid off. The two contractor associations reported—and their unions confirmed—that within 6 months, roofing injuries declined 70 percent, from 61 in 1995 to 17 in 1996. And only 9 of those 17 injuries resulted in lost work time.

Another example of integrating partnership into OSHA enforcement is the first-of-its-kind voluntary compliance agreement by

²This is the level at which employers are required to take certain actions to keep worker exposures in check. See OSHA's lead standard for more specific information, *Title 29 of the Code of Federal Regulations*, Part 1926.62. See **Standards** at OSHA's Web site <http://www.osha.gov/>.



OTI's Pacific Coast Education Center staff give students hands-on experience in crane inspections during course on mobile crane and rigging safety.

Exide Corporation, the United Steelworkers of America, the United Auto Workers, the International Union of Electronic Workers, and OSHA. Exide and the unions representing workers at its facilities voluntarily approached OSHA with a plan to reduce worker exposure to lead, cadmium, and inorganic arsenic—highly toxic chemicals used in Exide's battery manufacturing process—to the lowest feasible level. Exide agreed to hire a consultant, approved by

all parties, to conduct onsite evaluations at five company facilities in federal enforcement states and five in states with OSHA-approved plans. At its discretion, OSHA also can participate in these evaluations. The expert will identify all feasible engineering and work practice controls and produce a report recommending controls for each facility. The report will go to Exide, local unions, local OSHA area offices, and OSHA's Office of Health Compliance Assistance in Washington,



Education Center students at Niagara County Community College prepare to go through the personal decontamination chamber before entering the work area to remove asbestos.

OSHA's Partnership with the States

The benefits, complexities, and occasional conflicts of shared responsibility for ensuring safe and healthful working conditions are nowhere better illustrated than in the regulatory partnership of Federal OSHA and the 25 states and territories that have chosen to operate their own workplace safety and health programs.³

In developing the *Occupational Safety and Health Act of 1970*, the Congress recognized the need to create a strong federal presence that would set and enforce mandatory standards. At the same time, the Congress acknowledged that many states already were acting to protect the safety and health of their workers and should be encouraged to continue to "assume the fullest responsibility for the administration and enforcement of their occupational safety and health laws."⁴ Consequently, although the Congress gave OSHA authority to adopt and enforce workplace safety and health standards throughout the nation, it allowed states to continue to implement their own state OSHA programs, subject to obtaining federal approval and meeting specific minimum requirements. It became OSHA's responsibility to evaluate, approve, and regularly monitor the standards and performance of these state plans, which must be "at least as effective as" the federal program, and to provide annual federal grants of up to 50 percent of the costs associated with operating state programs.

The 25 states that operate OSHA-approved state plans cover more than 40 percent of the nation's

DC, for review and concurrence. Exide then will have 18 months to implement the control recommendations at these 10 facilities.

These and other partnerships illustrate how labor, business, and the government can work together effectively to improve worker safety and health. Implicit in these cooperative ventures, and essential if they are to succeed, is the genuine commitment of participants in terms of time, money, and effort to protect workers' safety and health.

³ Section 18(b) of the OSH Act gives states the authority to establish their own safety and health plans.

⁴ Section 2(b)(11) of the *Occupational Safety and Health Act of 1970*.

To date, 20,819 students have completed safety and health course work at OSHA Training Institute Education Centers.

Partnerships illustrate how labor, business, and the government can work together effectively to improve worker safety and health.

workplaces. They also cover state and local government employees who are not otherwise subject to OSHA protection. Although Federal OSHA and the states with OSHA-approved plans sometimes may have differing views on policies and approaches, they both share a commitment to partnership that is leading to greater state involvement in OSHA's planning and policy-setting processes and other operations.

OSHA's Office of State Programs in the Directorate of Federal-State Operations, among other things, coordinates and facilitates the agency's partnership with the 25 OSHA-approved state plan states. The office works closely with the Occupational Safety and Health State Plan Association (OSHSPA)⁵ to maintain effective channels of communication, to keep the states abreast of federal initiatives, and to ensure that state interests are considered within the framework of the national OSHA program.

OSHA Training and Education

OSHA's many partnership initiatives have shown that training and education are critical to an effective safety and health program. The OSHA Training Institute, located in Des Plaines, IL, offers basic and

advanced courses in safety and health for federal and state compliance officers, state consultants, personnel from other federal agencies, and private sector employers, employees, and their representatives.

To meet increased demand for Institute courses from the private sector and from other federal agencies, and to make it easier for a geographically diverse student population, OSHA also has 12 Training Institute Education Centers throughout the country. The centers are nonprofit colleges, universities, and other organizations, selected competitively, that offer a variety of OSHA courses of particular interest to the private sector and other federal agencies.

The agency provides course curriculum outlines, suggested student handouts, orientation sessions for the education center instructors, and assistance in explaining OSHA policy, but does not provide any funding. Each education center supplies its own instructors and collects tuition⁶ to pay for salaries, course materials, and other operating costs. This has been a successful partnership effort, and to date, 20,819 students have completed safety and health course work at OSHA Training Institute Education Centers.

In addition, OSHA's train-the-trainer program⁷ authorizes trainers to teach occupational safety and

*Grassroots Worker Protection - The Contribution of State Programs to the Safety and Health of America's Workforce,*⁸ is a good starting point for exploring the role and contributions of state programs. Published annually by the Occupational Safety and Health State Plan Association, this report describes a wide range of state occupational safety and health activities—some of them offshoots of federal programs and others pioneering initiatives that have paved the way for subsequent federal adaptation. Federal OSHA recently incorporated "Grassroots" into the compliance officer training given by the OSHA Training Institute to encourage a better understanding and appreciation of the vital state role within the federal-state partnership.

⁵ See Veronica Thomas and Carol Sanford, "All About OSHSPA: The Occupational Safety and Health State Plan Association," *Job Safety & Health Quarterly* 1(3):11-13 Spring 1990.

⁶ In Fiscal Year 1997, the tuition for a 4-day course ranged from \$495 to \$695.

⁷ See story on page 39 of this issue.

⁸ Copies of the report are available through state plan offices. OSHA publishes a list of state plan addresses on its Internet page. Go to <http://www.osha.gov/oshdir/states.html>.



Pacific Coast Education Center instructor Dave DuBose shows students how to do a soil analysis as part of a field exercise on types of soils and trenching devices.

health standards and related topics. This outreach effort to promote workplace safety and health awareness conducted, on average, more than 100 classes per week in 1996. OSHA also uses grants to help meet the educational needs of employers and employees.

Susan Harwood Training Grants

Through training grants, OSHA provides funds to nonprofit organizations interested in developing and conducting training and education programs in subject areas

where OSHA believes such training is lacking.

In recent years, OSHA has awarded grants to safety and health organizations, employer associations, labor unions, and educational institutions on topics such as bloodborne diseases in the health care industry, hazard communication for small businesses, lead in construction, safe electrical work practices, and safe logging work practices.

One such program focuses on reducing ergonomic-related injuries through training and education.

Two grantees, the University of California at Los Angeles and the Service Employees International Union, are partners with Grancare Corporation in a project to reduce back injuries among nursing home employees.

The program started as a pilot project at a Grancare nursing home in California with the formation of a back injury prevention committee. The committee, composed of both management and workers, conducted an assessment of job risk factors at the nursing home and used the results to identify appropriate lifting equipment for purchase. All employees then received general training on lifting and back injuries, began using a checklist to identify specific problems on their own jobs, and used followup training to learn how to match lifting equipment and work practice controls to each individual's specific tasks.

Establishing an effective safety and health program is an investment strategy that pays big dividends—and not just the financial kind, either.

The back injury prevention committee provides assistance and reinforcement for the training on an ongoing basis. If the program is successful in reducing back injuries, Grancare will replicate it in its nursing homes in other locations across the country.

For 3 years, OSHA also has targeted some grants to assist small businesses (those with fewer than 250 employees) in setting up safety and health programs. There are six grants at present, each with its own approach for training small businesses. Grantees offer training and, in some of the programs, onsite assistance as well.

One of the recipients, the National Safety Council, conducted a follow-up survey of participants in its 2-day training course. The survey showed that 83 percent of the trainees introduced or improved employee participation in their workplace safety and health programs. Another grantee, the Alice Hamilton Occupational Health Center, provides training to small business managers and offers to go to a trainee's worksite to help identify hazards and develop a written safety and health plan. Businesses—such as a construction company doing renovation work, a biomedical research laboratory, an auto repair shop, a printing shop, and a home health care agency—have taken advantage of the center's program.

All of these efforts point to how partnership can be an efficient way of delivering services and improving worker safety and health with fewer resources.

OSHA Can Help

Establishing an effective safety and health program is an investment strategy that pays big dividends—and not just the financial

Susan Harwood Training Grant Program

Formerly known as the Targeted Training Grant Program, OSHA renamed the program in April 1997 in honor of Dr. Susan Harwood, who served 17 years with OSHA before her death in 1996.

Harwood held a Ph.D. in microbiology and immunology, and as Director of the Office of Risk Assessment in the OSHA Direc-

torate of Health Standards Programs, she helped develop OSHA standards on bloodborne pathogens, cotton dust, benzene, formaldehyde, asbestos, and lead in construction.

The Susan Harwood Training Grant Program commemorates her exceptional service to occupational safety and health.

kind, either. These programs save both lives and dollars. In addition, companies often experience declines in absenteeism, both quality and quantity improvements in production, and real but tough-to-measure increases in employee morale. Safety and health programs are key for financially successful companies and for those that want to be.

OSHA can help with extensive expertise, support, and cooperation. Small employers with hazardous operations can take advantage of the free assistance available through OSHA's Consultation Program.

Employers and workers willing to take on the challenge of OSHA's Voluntary Protection Programs can expect to reap the many benefits VPP participants experience, including often dramatically reduced injury and illness rates and related financial costs. The VPPPA⁹ Mentoring Program can help make cooperative excellence a reality even for employers with little experience in safety and health protection.

The courses offered at the OSHA Training Institute and Education Centers, together with OSHA's many publications, computer-assisted tools, and myriad resources available at its Internet site, offer a variety of paths to greater safety and health awareness, expertise, and voluntary compliance.

As many in the safety and health community have already discovered, whether by participating in OSHA's voluntary programs or its various cooperative enforcement initiatives, partnership can be a powerful tool for change—and OSHA can be a valuable partner.

For more information on these and other OSHA programs, contact your nearest OSHA regional or area office, or visit the agency's Web site at <http://www.osha.gov/>. **JSHQ**

Weinberg is a program analyst in OSHA's Division of Voluntary Programs, Washington, DC. Contributions to this article by Helen Beall, OSHA Office of Training and Education.

⁹ Voluntary Protection Program Participants Association

In a continuing effort to protect workers from exposures to hazardous substances on the job, the Occupational Safety and Health Administration (OSHA) recently proposed a standard to protect employees exposed to tuberculosis, or TB as it is commonly called.

areas, is growing. Of even greater worry now is the emergence of a new and deadly form of the disease that is resistant to current treatment. Infection with these multi-drug resistant strains can lead to severe lung damage and is often fatal. One of my top priorities is to ensure a safe and healthful workplace. We must do all in our power to protect workers against this deadly disease.”

What is TB?

Tuberculosis is caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but several other organs of the body—including the brain, kidneys, and bones—can be affected. Left untreated, the infection multiplies and destroys affected tissues, leading to serious illness or death.

The disease is spread through the air from one person to another when someone with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in bacteria and become infected. Left untreated, one person with an active case of tuberculosis will infect from 10 to 15 people per year.

Anyone can get TB. Those at greatest risk, however, include persons with HIV infection, poor and medically neglected people, homeless individuals, nursing home residents, elderly persons, and health care workers and others who come into contact with high-risk populations or persons with infectious TB.

What is OSHA doing to combat TB?

Through the years, OSHA has been actively tracking the number of TB cases throughout the U.S. In fact, the proposed standard comes on the heels of nationwide enforcement procedures issued by

The Battle Against Tuberculosis—OSHA Fights Back

by Kerri L. Lawrence

Once the leading cause of death in the United States, TB slowly began to disappear after scientists in the 1940s discovered the first of several drugs to treat the disease. But by the mid-1980s, a resurgence of TB cases demonstrated that the war had yet to be won.

From 1985 to 1992, the number of active TB cases increased 20 percent, reversing a previous 30-year downward trend. Statistics from the Centers for Disease Control (CDC) show that the number of TB cases reported in the U.S. began increasing after 1984—with more than 25,000 cases reported in 1993.¹ By 1992, however, the number of TB cases again began a decline.

“The battle against TB is far from over,” says Secretary of Labor Alexis M. Herman. “The risk for the workers who care for clients and patients infected with TB continues to be high and, in some

From 1985 to 1992, the number of active TB cases increased 20 percent, reversing a previous 30-year downward trend.

¹ For more information, see *Questions and Answers About TB*. U.S. Department of Health and Human Services. Public Health Service, Centers for Disease Control and Prevention, National Center for Prevention Services, Division of Tuberculosis Elimination. 1994. See also <http://www.cdc.gov/>.

the agency in February 1996 that reflect revised guidelines by the CDC to prevent the transmission of TB, including drug-resistant strains of the disease.

OSHA's proposal incorporates basic elements of the revised CDC recommendations for health care facilities, such as written exposure control plans, procedures for early identification of individuals with suspected or confirmed cases, and employee education and training.

A final OSHA rule would require and enforce these types of provisions. This enforcement alternative is important because compliance with various portions of OSHA's proposed TB standard is sporadic. For example, OSHA estimates that 95 percent of hospitals have TB testing programs, whereas only 15 percent provide TB training and only 50 percent use respirators. Outside of the health care sector, compliance with TB prevention and control measures falls sharply. OSHA estimates that, on the whole, hospitals have a 50-percent compliance rate with OSHA's proposed prevention and control measures, with other sectors averaging only 21-percent compliance.

The agency's new proposed standard would protect an estimated 5.3 million workers in work settings with a high risk of TB infection. Specifically, the standard would cover employees in more than 100,000 facilities, including hospitals, homeless shelters, hospice centers, long-term care facilities for the elderly, detention and correctional facilities, and certain laboratories performing high-hazard procedures, handling TB specimens, or processing and maintaining resulting cultures. Also, the proposed standard would cover occupational exposure to workers involved in social work, social welfare services, teaching, law en-

forcement, or legal services, if provided in any of the previously mentioned settings. Finally, the standard would apply to workers providing emergency medical services, home health care, or home-based hospice care.

OSHA's research supports the finding that the proposed standard would prevent 21,000-26,000 cases of work-related TB infections annually and would save from \$89 million to \$116 million in medical costs for treatment of TB and lost production caused by worker absenteeism and associated disabilities with active cases of TB.

What does OSHA's proposed TB standard entail?

The proposal incorporates basic infection control provisions designed to reduce occupational risks for exposed workers. It requires employers to develop a written exposure control plan and identify and isolate individuals with suspected or confirmed infectious TB or transfer them to facilities with isolation capabilities. The proposed standard also requires engineering controls in some facilities, such as establishing negative-pressure in TB isolation rooms or areas.

Other provisions in the standard include tuberculin skin testing, hazard communication and training, and recordkeeping. Respiratory protection also would be required under specific conditions.

The standard gives employers clearly defined steps to protect their workers and, at the same time, assures workers that steps will be taken to help protect them against this deadly disease.

Although the proposed rule represents OSHA's best ideas for preventing workplace transmission of TB, the agency is seeking broad public participation through a se-

The agency's new proposed standard would protect an estimated 5.3 million workers in work settings with a high risk of TB infection.

ries of hearings to ensure that the final rule is refined and tailored to address the many different types of workplaces it would cover. Hearings are set to begin in Washington, DC, this spring and will be held in the auditorium of the Department of Labor (Francis Perkins Building), 200 Constitution Avenue, N.W., Washington, DC.

Subsequent public hearings will be held in other U.S. locations. A *Federal Register* notice will be issued upon determination of the locations and dates of those hearings.

How can I find out more?

The full text of OSHA's proposed rule, which appeared in the October 17, 1997, edition of the *Federal Register*, can provide detailed information on this important agency action. For a copy of the proposal, contact OSHA's Publications Office at (202) 219-4667 or send a self-addressed mailing label to OSHA Publications, P.O. Box 37535, Washington, DC 20013-7535. See also, **Federal Register Notices** on the agency's Homepage at <http://www.osha.gov/>. **JSHQ**

Lawrence is associate editor of Job Safety & Health Quarterly and a staff writer-editor in OSHA's Office of Public Affairs, Washington, DC.



OSHA Asks Small Businesses for Input on Safety and Health Program Proposal

by Ted Twardowski

Representatives of small businesses had an opportunity this summer to discuss various safety and health issues with OSHA and the Small Business Administration (SBA). The two government agencies sponsored four meetings with the small business community in Atlanta, GA; Philadelphia, PA; Columbus, OH; and Portland, OR. The small business meetings, held in cooperation with the SBA Office of Advocacy and the Office of Management and Budget, focused specifically on small business issues.

OSHA and the SBA Office of Advocacy selected 20 small business attendees for each meeting, which provided diverse points of view and representation from a wide range of industry groups. "This type of collaboration was a first and contributed greatly the success of the meetings," notes Art DeCoursey, OSHA's small business liaison. "We had a good mix of small businesses ranging from the self-employed individual to a small manufacturing plant of 150 to larger associations representing many small business," he adds.

These meetings gave OSHA a face-to-face dialogue with about 80

small business representatives who made recommendations on the agency's draft safety and health program proposal. In addition, representatives from many different kinds of small businesses discussed their own individual experiences and concerns about safety and health programs, giving OSHA some new perspectives in this area.

Safety and health programs is not a new concept. In 1989, OSHA published non-mandatory guidelines for safety and health programs in the *Federal Register*.¹ These guidelines reflect the best safety and health management practices observed. Basically a "find and fix" approach, the standard would require employers to set up a safety and health program; the complexity of this program would depend on the needs of the workplace. Evidence shows that, in addition to increasing employee safety and health, these types of programs have positive effects on decreasing employee turnover and worker compensation costs while increasing employee morale and productivity.

¹ *Safety and Health Program Management Guidelines (Federal Register 54 (16): 3904-3916, January 26, 1989.*

Many, including OSHA, have long recognized the value of worksite safety and health programs in preventing job-related injuries, illnesses, and fatalities. These include states, members of the safety and health community, insurance companies, professional organizations, companies participating in the agency's Voluntary Protection Programs, as well as companies participating in other safety and health programs stemming from OSHA consultation services and compliance.

Because of the recognized effectiveness of these types of programs, one of OSHA's top regulatory priorities is to publish a proposed standard on safety and health programs that addresses serious safety and health hazards in the workplace. This standard would require that all employers have a system in place to identify and control hazards in

An estimated 50,000 chronic illness-related fatalities, 6,000 safety-related fatalities, and 12,000 amputations occur each year in the workplace. A disproportionately high number of work-related fatalities occur in establishments with fewer than 10 employees. These workplaces represent only 17 percent of the total workforce employment and 75 percent of all establishments. They account for approximately 33 percent of all workplace fatalities and for about 1 million employer-reported injuries each year.²

² U.S. Department of Labor, OSHA Office of Regulatory Analysis, Directorate of Policy, Washington, DC, July 1997.



Portland city skyline with Mount Hood in background.

These meetings gave OSHA a face-to-face dialogue with about 80 small business representatives who made recommendations on the agency's draft safety and health program proposal.

their workplaces and would include five major elements: management leadership and employee participation, hazard assessment, hazard prevention and control, information and training, and program evaluation.

Also known as a “building block standard” because it is the foundation of a safe and healthful workplace, the standard would help employers, especially small businesses, comply more systematically with other OSHA obligations. Consequently, the standard will require review under the *Small Business Regulatory Enforcement Fairness Act* (SBREFA). Signed into

law in 1996, the purpose of this legislation, in part, is to facilitate the effective participation of small businesses in the regulatory process and includes a review of most regulatory actions by a Small Business Advocacy Review Panel to see that the concerns of small businesses are identified and, where appropriate, addressed.

Several weeks prior to each meeting, participants received OSHA's draft regulatory text and an estimate of the time and cost burden that the agency believed would be incurred by promulgating the standard. Participants reviewed the materials and came prepared to discuss issues of concern.



Overview of SBREF A

Enacted by the Congress on March 29, 1996 the *Small Business Regulatory Enforcement Fairness Act* (SBREFA), contains six main components to help small businesses:

(1) **Simplified Regulatory Compliance:** Federal agencies must develop comprehensive guidelines in plain English and a well-defined process to respond to small business inquiries about how they must comply with federal agency regulations.

(2) **Equal-Access-to-Justice Amendments:** Small businesses have expanded authority to go to court for attorney's fees and costs

when a federal agency has been found to be excessive in enforcing federal regulations.

(3) **Congressional Review:** The Congress can review each major rule promulgated before it can take affect.

(4) **Regulatory Enforcement Reform of Penalties:** Within 1 year, each agency has to have a policy for the reducing and, in some circumstances, waiving civil penalties for violations of a regulation.

(5) **Small Business Advocacy Review Panels:** Before proposed rules are published, the Environmental Protection Agency and OSHA must establish government

panels to receive input from affected small businesses and to make public the panel's report.

(6) **Oversight of Regulatory Enforcement:** SBA must appoint a Small Business and Agriculture Regulatory Enforcement Ombudsman and 10 Small Business Regulatory Fairness Boards to allow small businesses an opportunity to comment on enforcement activities of federal regulatory agencies. The National Ombudsman and the Fairness Boards will receive comments about federal compliance and enforcement activities and report these findings annually to the Congress.

At each meeting, OSHA representatives explained in detail why an effective safety and health program is necessary, why small businesses should be included in this standard, and why this standard would benefit all involved. OSHA staff also provided a list of suggested topics for discussion on items such as scope and coverage, core elements, employee participation and management leadership, hazard identification and assessment, hazard prevention and control, information and training, program evaluation, phased-in compliance dates, burden to comply, enforcement, program experience, multiemployer worksites, documentation, and outreach.

“We want our stakeholders to know that for small businesses who want our help in ensuring a safer workplace, we’re only a phone call away.”

Art DeCoursey, small business liaison for OSHA

Stakeholders were asked at each meeting to vote on the six topics they believed most important. Although the six topics selected for

priority discussion were different at each meeting, these and other topics stakeholders wished to raise were addressed. For example, participants raised questions on such diverse and broad-ranging issues as—Would a performance-oriented standard give too much flexibility to both the employer and the compliance officer which could result in excessive litigation? Would the regulation exclude low-hazard industries and/or small businesses? Doesn’t the standard overlap with other OSHA standards? Will the standard cover hazards not specifically addressed by regulations (e.g., ergonomics, violence in the workplace)? Will promulgation of this standard result in double citations,



Atlanta skyline with Capitol in background.

one for the hazard, and one for not having an effective safety and health program? Will OSHA supply checklists or model programs?

The comments received during these meetings are likely to be considered in helping clarify the language or requirements of the draft proposal to indicate that (1) there is no requirement for a **written** safety and health program, (2) OSHA will not cite employers twice for the same violation, and (3) employee participation can be in the form of a safety and health committee but OSHA does not mandate such committees. These and other valuable insights and information provided will help the agency in considering the concerns of small business, as appropriate, when further developing the requirements of a future proposed standard.

Participants believed the four regional meetings were highly successful. "This was definitely a great opportunity for all of us. We want our stakeholders to know that for small businesses who want our help in ensuring a safer workplace, we're only a phone call away," DeCoursey concludes. [JSHQ](#)

Twardowski is a safety and health specialist in the Office of Fire Protection, Directorate of Safety Standards, Washington, DC.



Philadelphia City Hall.

A Strategy for Improving Worker Safety and Health

by Anne Crown-Cyr

OSHA's Strategic Plan for Fiscal Years (FY) 1998-2002, as required by the *Government Performance and Results Act (GPRA)*, defines the agency's goals and objectives and performance benchmarks. GPRA, signed into law in July 1993 (Public Law 103-62), requires all federal agencies to develop strategic plans, prepare annual plans identifying agency goals, and report annually on actual performance compared to goals. The purpose is to improve public confidence in the Federal Government by holding agencies accountable for achieving program results. The new law forces federal agencies to show taxpayers the kinds of results they are achieving with the resources they are getting.

In compliance with the law, OSHA developed and submitted to the Office of Management and Budget a strategic plan outlining goals to help achieve the agency's mission of making America's workplaces the safest in the world. OSHA's vision is to be a world class leader in occupational safety and health, with a clear focus on protecting the safety and health of America's workers. But, the plan also redirects the focus of OSHA's mission from one of measuring activities to zeroing in on results. To do this, the agency has set three interdependent and complementary

strategic goals to guide the development of OSHA programs and activities.

The three basic goals center on improving workplace safety and health, increasing employer and employee awareness and commitment to health and safety, and earning public confidence in OSHA. Each goal has specific, quantifiable objectives to help assess OSHA's performance.

Nationwide efforts to reduce injuries and illness will include focusing on a specific hazard, a particular industry, or a specific workplace that has a history of high injury and illness rates. In construction, for example, the agency will decrease fatalities by 15 percent over 5 years by focusing on the four leading causes of fatalities—falls, struck-by, crushed-by, electrocutions, and electrical injuries. The agency also may evaluate and, if necessary, revise the 11(c) "whistleblower program," and by FY 2000, resolve 75 percent of all whistleblower cases within 90 days.

To help change workplace culture to increase awareness and commitment to safety and health, the agency will offer a partnership approach and provide compliance assistance services to employers who agree to implement a comprehensive safety and health program.

By FY 2002, OSHA will make sure that 50 percent of employers in general industry who are targeted for or who request an OSHA intervention will have either implemented an effective safety and health program or will have significantly improved their existing program. The agency also will implement a targeted outreach plan for all new initiatives such as standards, guidelines, and emphasis programs.

To help secure public confidence through the delivery of programs and services, OSHA will implement an active and ongoing strategy to regularly consult with stakeholders to help the agency set and assess priorities. For example, the agency will continue

OSHA's vision is to be a world class leader in occupational safety and health, with a clear focus on protecting the safety and health of America's workers.

its use of consensus-based approaches to rulemaking such as negotiated rulemaking, and advisory committees.

To measure its success, by FY 2002, OSHA wants to make sure that 95 percent of its stakeholders and partners rate as “positive” their involvement in the agency’s stakeholder/partnership process. Employers and employees who interact with OSHA will be able to rate OSHA staff professionalism, competence, and knowledge. OSHA’s goal is that 80 percent of these be “satisfactory” by FY 2000.

Deputy Assistant Secretary, Greg Watchman points out, “We developed this plan with very broad input from managers within the agency to a variety of stakeholders and partners in the safety and health community. The strategic plan is really changing the way that we think about our mission and changing the way we think about our responsibilities. It is forcing us to integrate all of the different programs and activities that we have at the agency.”

Everyone will be able to see that we’ve set goals to save lives and reduce injuries and will see a manifestation of that effort,” says Frank Strasheim, Regional Administrator for Region IX. “Employers will know what to expect from OSHA. They’ll be able to see that our plan is not only common sense, but they’ll see ways they can support it as well.”

The development and formulation of the strategic plan began this past March with a strategic planning task force involving managers within OSHA, stakeholders, OMB, and the Congress. The ultimate success of this plan will, according to Paula White, Director of Federal-State Operations, reflect that broad-based input. “We’ve

The three basic goals center on improving workplace safety and health, increasing employer and employee awareness and commitment to health and safety, and earning public confidence in OSHA.

been able to develop our strategy as a cross-agency team,” White emphasizes. “We designed this plan to address the realistic operations of a real-world agency,” she continues. “It’s an agency that will become much more focused and clear

about what it’s doing and what it intends to do. We can’t measure impact now, but we have begun the very significant process of identifying the steps that will take us to the end result we want to achieve.”

It’s going to move us from an agency that’s been focused on **activities** in the past, to one focused on **impacts**,” says Richard Terrill, Acting Regional Administrator for Region X.

“We’ve focused a lot in the past on how many inspections we did—how many citations we issued,” notes Larry Liberatore, Director of Maritime Safety Standards in the National Office. “If we’re going to count something, we need to count how many lives we’re going to save; how many injuries we’re going to prevent. This plan represents the unified strategy to do just that.”

OSHA’s Strategic Goals

Goal 1 - Improve workplace safety and health for all workers, as evidenced by fewer hazards, reduced exposures, and fewer injuries, illnesses, and fatalities. By September 30, 2000, OSHA will:

- Reduce injury/illness rates 20 percent in at least 50,000 of the most hazardous workplaces.
- Ensure that worker complaints requiring an onsite inspection are resolved within a median of 20 working days after notifying the employer of the results of the complaint.

Goal 2 - Change workplace culture to increase employer and worker awareness of, commitment to, and involvement in safety and health.

- Make often complicated regulations easier to understand, OSHA will increase the number of standards written in plain English—whether new or revised—from 1 per year in 1998 to 5 per year in FY 2000.
- Make all standards, regulations, and reference materials available on the OSHA Home Page on the Internet (<http://www.osha.gov>).

Goal 3 - Secure public confidence through excellence in the development and delivery of OSHA’s programs and services.

- Redesign all field enforcement offices by September 30, 1999, to improve the agency’s ability to reduce worker injury, illness, and death in the most hazardous workplaces.

Building on Reinvention

OSHA's strategic plan really builds on its reinvention efforts.¹ For example, OSHA's early reinvention principles—taking a “common sense” approach to enforcement and developing OSHA partnerships with stakeholders—set the stage for implementing the agency's new strategic plan. Under GRIP (Getting Results and Improving Performance), OSHA has redesigned 27 field offices. By the end of FY 1999, the agency expects to complete redesign of the remaining 40 federal enforcement area offices as part of its drive for excellence in delivering programs and services to the public.

Through reinvention, OSHA continues to seek to become a performance-oriented, data-driven organization with a high premium on safety- and health-related results rather than activities and processes. This effort dovetails with OSHA's strategic plan goal to secure public confidence in the agency by becoming a world leader in occupational safety and health.

“OSHA's strategic plan builds on the successes experienced through its reinvention process,” said Bob Kulick, who heads the agency's reinvention office. “Reinvention is results-oriented, and the strategic plan focuses on results.” He noted that several initiatives in the plan are drawn directly from reinvention programs, such as Maine 200² and

¹ See also, Susan Hall Fleming, “Reinventing OSHA: A Progress Report,” *Job Safety & Health Quarterly* 7(1):10-14, Fall/Winter 1995; and Frank Kane, “Maine 200-Type Programs Spread Throughout the U.S.,” *Job Safety & Health Quarterly* 7(3) 9-15, Summer 1996.

² Identifies the top 200 employers in that state with highest number of injuries from workers' compensation claims and offers them a chance to work with OSHA in reducing injuries and illnesses.

GPRASummary

The Government Performance and Results Act (GPRAS) requires the Federal Government to improve its performance and increase its results. It was signed into law in July 1993 (Public Law 103-62) and will be implemented in all federal departments and agencies. The purpose of GPRAS is to:

- Improve public confidence in the federal government by systematically holding federal agencies accountable for achieving program results.
- Improve program effectiveness and public accountability by promoting a new focus on results, service quality, and customer satisfaction.
- Help managers improve service delivery and improve internal management of the Federal Government.
- Improve congressional decisionmaking by providing more objective information.

GPRASRequirements

GPRAS requires all federal agencies to:

- Develop strategic plans (prior to FY 1998).
- Prepare annual performance plans that set out the agency's

performance goals (beginning in FY 1999).

- Report annually on actual performance compared to goals (first report due in March 2000).

StrategicPlan Requirements

By September 30, 1997, each federal agency must submit a strategic plan for its program activities to the Office of Management and Budget. The plan must cover at least 5 fiscal years and be updated at least every 3 years. The strategic plans must include:

- A comprehensive mission statement.
- General goals and objectives for the agency's major functions.
- A summary of the resources, systems, and processes that are critical to goal achievement.
- A description of how the general goals and objectives will be achieved.
- A description of key external factors that could affect achievement of these general goals.
- A description of how program evaluations are used in establishing goals, along with a schedule of future evaluations.

customer service goals, which flow from OSHA's improved complaint process.

Reinvention now becomes a means to an end—achievement of our goals—rather than an end itself,” Kulick adds. “We will need to build upon all of the tools and

programs developed through reinvention to meet the ambitious goals in the strategic plan.” [JSHQ](#)

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

Outreach Training Promotes Safety and Health Awareness

by Don Guerra

What do educational organizations, unions, OSHA state consultation projects,¹ insurance companies, safety and health organizations, other government agencies, utility companies, consultant firms, contractor organizations, and large and small businesses have in common? They all participate in OSHA's Outreach Training Program, a public-private partnership that promotes workplace safety and health awareness.

Through this voluntary effort, also known as the train-the-trainer program, OSHA trains private-sector individuals in construction and general industry occupational safety and health standards and authorizes them to teach other workers the subject matter.

The Office of Training and Education and its OSHA Training Institute (OTI) in Des Plaines, IL, have administered this outreach effort since the 1970s. The program has been a highly effective way for OSHA to leverage its training resources and reach a large number of workers. Because of its success, the program has grown rapidly in the last 7 years. For example, the

number of workers trained by authorized trainers went from 12,000 in 1990 to more than 105,000 in 1997—almost an 800 percent increase!

In addition, more than 2,100 authorized trainers conducted an average of about 115 outreach classes per week last year. The scope of the outreach training, as illustrated by the types of participants, is large and diverse. The program is key for small businesses, but also is used by a significant number of large companies. As more employers, workers, and organizations learn about the program, more decide to use it at their workplaces.

Used to doing more with less, OSHA employs this outreach effort and several other training strategies to disseminate information on worker and employer rights and responsibilities under the *OSH Act*.²

Used to doing more with less, OSHA employs this outreach effort and several other training strategies to disseminate information on worker and employer rights and responsibilities under the *OSH Act*.

¹ See Judith Weinberg, "OSHA Cooperative Efforts: A Good Deal for Workers and Employers," *Job Safety & Health Quarterly* 8(4):11-15, Summer 1997; and William V. Warren, "OSHA Safety & Health Consultation Services for Employers," *Job Safety & Health Quarterly* 2(2):26-29, Winter 1991.

² *The Occupational Safety and Health Act of 1970*, P.L. 91-596, December 29, 1970; as amended by P.L. 101-552, §3101, November 5, 1990.



Outreach team takes a break from discussions on upcoming events. From left to right: Don Guerra, General Industry Outreach Program Coordinator; Diana Ward, Secretary, Division of Training and Educational Programs; Cindy Bencheck, Construction Outreach Program Coordinator; and Teresa Angelilli; Secretary, OSHA Training Institute.

The goal, of course, is to improve workplace safety and health. The premise of outreach training is to train participants from interested employer and employee groups to teach selected safety and health topics and skills to others. The outreach trainers, who are qualified to teach OSHA outreach courses, are an occupationally diverse group. Most of the construction trainers are representatives of union and contractor organizations. General Industry trainers are usually from businesses, educational organizations, and safety and health organizations. Also, a large number of safety and health consultants offer

general industry training to small and large businesses.

Construction and General Industry Programs

The students who participate in the Outreach Training Program, by taking classes taught by authorized outreach trainers, represent a broad spectrum of workers across the country. The program training in construction and general industry standards³ is held in all 50 states, Puerto Rico, Guam, and several other international locations.

Since 1994, the number of students trained in the construction industry program has almost doubled (from 40,600 to 74,600), while the general industry program has tripled (from 10,300 to 30,900).

³ The construction training deals with *Title 29 of the Code of Federal Regulations (CFR) Part 1926* and general industry focuses on *29 CFR Part 1910*.

...the number of workers trained by authorized trainers went from 12,000 in 1990 to more than 105,000 in 1997—almost an 800 percent increase!

In recent years, the program has grown rapidly and significantly. Several factors account for this growth, including the following:

- Businesses may save on workers' compensation insurance by training their employees.
- Many employers, especially in construction, are requiring workers to complete the 10-hour training class before working on-site.
- Beginning in 1992, OSHA approved 12 OSHA Training Institute Education Centers to teach the outreach trainer courses. OSHA is increasing the use of the education centers to conduct private-sector training. Prior to this, the OSHA Training Institute was the sole source for outreach training. In the past year, the education centers taught more than 200 outreach trainer courses, which represents more than 90 percent of the total number of trainer courses.
- This program has been increasingly accepted as a viable source of training on a standardized group of OSHA topics.

In the past year, the education centers taught more than 200 outreach trainer courses, which represents more than 90 percent of the total number of trainer courses.

Program Basics

To become a trainer, one must complete Course 500, *Trainer Course in Occupational Safety and Health Standards for the Construction Industry* or Course 501, *Trainer Course in Occupational Safety and Health Standards for General Industry*. These courses run for 1 week and are available through OTI and the OTI Education Centers, at least one of which is located in each of OSHA's 10 regions. Upon completion of either the 500 or 501 course, each participant receives a certificate of course completion and an OSHA outreach program trainer card. Outreach trainers are authorized to conduct

Typical 10-Hour Programs

Construction

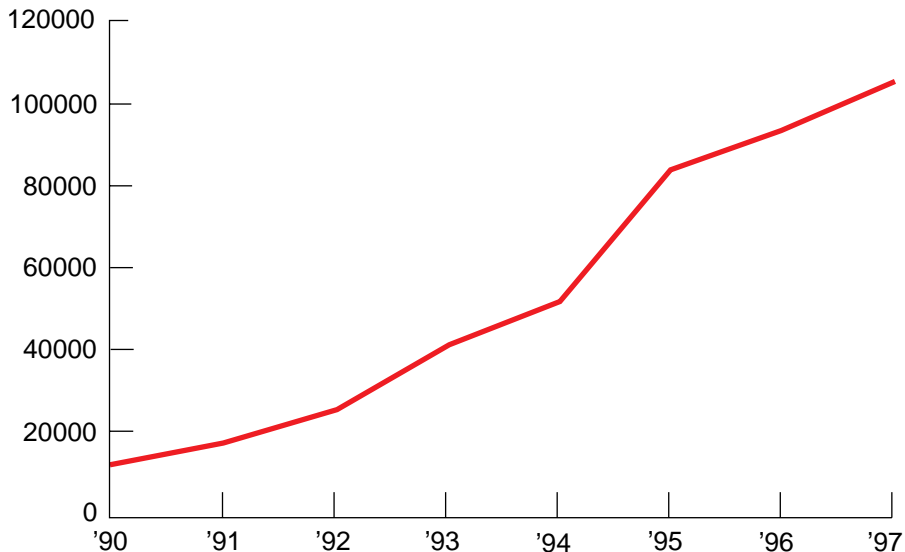
Introduction to OSHA
 Electrical
 Fall Protection
 Scaffolding
 Excavations
 Cranes, Derricks, and Hoists
 Stairways and Ladders
 Personal Protective Equipment
 Tools - Hand and Power
 Materials Handling

General Industry

Introduction to OSHA
 Walking and Working Surfaces
 Electrical
 Means of Egress and Fire Protection
 Machine Guarding
 Hazard Communication
 Bloodborne Pathogens
 Lockout / Tagout
 Permit Required Confined Spaces
 Recordkeeping

Outreach Program

Students Trained



10- and 30-hour construction or general industry courses and are eligible to receive OSHA course completion cards to issue to their students. Last year, the 10-hour courses accounted for 90 percent of the classes held and students trained.

Both the construction and general industry programs have a curriculum of required and elective topics that trainers must follow to earn student course completion cards for the classes they conduct. Required topics account for 50 to 75 percent of the class time. The remaining time is used to meet the needs of the audience, as long as all topics are based on OSHA standards or policy.

Outreach trainers have some other guidelines to follow when conducting classes:

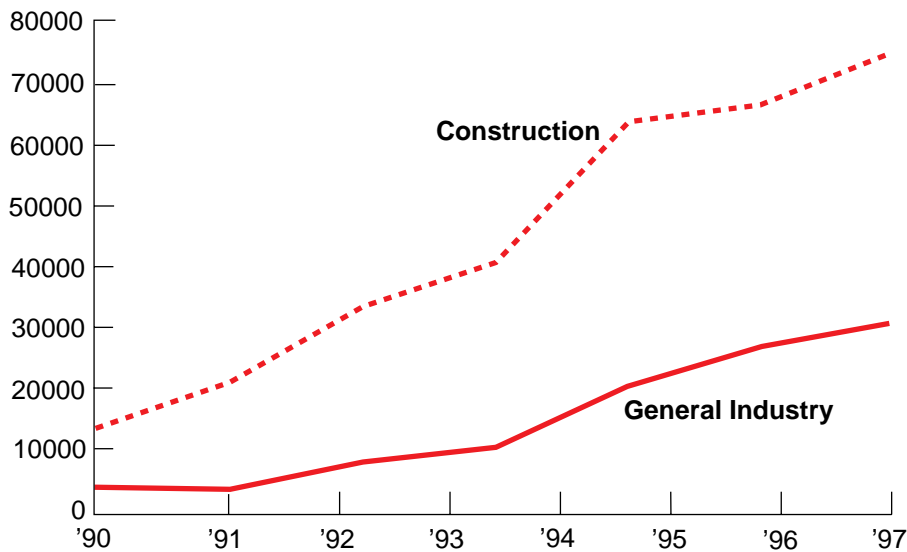
- Each course topic is taught for no less than 1 hour.
- Breaks and lunch periods are not counted towards class time.
- Classes must be completed within a period of 6 months, and documentation must be submitted within 6 months of the last class date.
- Other qualified persons may assist in conducting the training, as long as the outreach trainer remains in attendance for oversight.
- Training must be delivered in-person and onsite. Videotape, computer, and other types of training are not permissible.

To obtain student course completion cards for the 10- or 30-hour classes conducted, the outreach trainer must submit to the OSHA Office of Training and Education an attendance report with information on the course conducted, trainer data, and the names

Since 1994, the number of students trained in the construction program has almost doubled...while the general industry program has tripled....

Outreach Growth Comparison

Students Trained



and addresses of the students who completed the course, the list of course topics and time spent on each topic, and a short student evaluation summary. The construction or general industry coordinator reviews the documentation, and if all is satisfactory, processes the documentation and sends student course completion cards to the trainer, who then enters the name of the student, signs and dates the card, and mails the card to the student. These cards signify the participants' completion of a standardized OSHA outreach training class on the basics of OSHA standards.

The student cards do not expire, although many employers schedule retraining for their employees. Trainers, on the other hand, must stay current on OSHA standards with special update courses.

Update Training Requirement

To help outreach trainers do this, OSHA offers two 3-day courses—

Through this voluntary effort...OSHA trains private-sector individuals in construction and general industry safety and health standards and authorizes them to teach other workers the subject matter.

Course 502, *Update for Construction Industry Outreach Trainers* and Course 503, *Update for General Industry Outreach Trainers*. As of October 1, 1997, trainers must take a 3-day outreach update class every 4 years to maintain their status as authorized Outreach Program Trainers. Trainers also have the option of retaking Course 500 or 501 to maintain their trainer status. All persons taking an update course, however, must have previously taken the applicable trainer Course 500 or 501. As of October 1, the OTI Education Centers also are conducting the update courses to help meet the increased demand



Linda Vosburgh, Librarian, organizes Resource Center training materials.

for these courses and to make it easier for outreach trainers to travel to a nearby location for training.

All trainers authorized since 1990 remain in good standing. The new update plan requires people who received their last training between 1990 and 1992 to take an update course during 1998; those who received training between 1993 and 1995 to complete such training during 1999; and those who received training in 1996 to complete such training during 2000. Everyone who attended an

outreach class in 1997 or later will be required to take update training 4 years from their last training date. Those who attended their last outreach training class prior to 1990 are no longer authorized trainers. Trainer authorization can be reinstated by attending another outreach training class.

Impact of the Outreach Program

The impact and significance of the program and its effect in the workplace are both broad and diverse. For example, there has been training for firefighters, day laborers, contractors, construction workers, maintenance workers, vice presidents, general managers in industries such as plastics manufacturing, paper milling, chemical processing, and construction, to name a few.

Many companies, particularly larger ones, use the outreach training materials for such activities as

Many companies...use the outreach training materials for such activities as toolbox meetings and in-house safety training sessions....

toolbox meetings and in-house safety training sessions, but do not request student completion cards. These types of training practices are an outgrowth and an added benefit of the OSHA Outreach Program.

This program will continue to grow as more employers and business associations require OSHA Outreach Training for their workers. The OSHA Office of Training and Education will continue to monitor the program and make appropriate changes to ensure that the best service is provided to program participants. The OSHA Home Page (<http://www.osha.gov/>) on the Internet will be used to maintain a communication link to the outreach community.

For further information on the program and OSHA's training opportunities, contact the following:

OSHA Office of Training and Education, 1555 Times Drive, Des Plaines, IL 60018, (847) 297-4810;

■ Cindy Bencheck, Construction Outreach Program Coordinator, extension 126;

■ Don Guerra, General Industry Outreach Program Coordinator, extension 135; and

■ Linda Vosburgh, Librarian (Resource Center), OSHA Office of Training and Education, extension 136.

National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161; (703) 605-6000, Web site <http://www.ntis.gov/>.

The OSHA Office of Training and Education

The OSHA Office of Training and Education has two primary divisions that work on the outreach program. The OSHA Training Institute, directed by Zigmas Sadauskas, conducts the outreach training, inputs training information, distributes the student cards, and makes program decisions.

The Division of Training and Educational Programs, headed by Ronald Mouw, provides outreach planning, policy, and trainer guidance; monitors the program; and

reviews the documentation sent in by outreach trainers. An automated system, which is currently being revised, is used to process outreach classes and maintain trainer files.

In addition, the Division of Training and Educational Development develops the outreach course curriculum and two supplemental outreach trainer guides which are available through the National Technical Information Service (NTIS).

The Division of Administration and Training Information, through its Resource Center, operates a loan program which allows outreach trainers and other OSHA groups to borrow materials for classes they are conducting. The outreach trainers are the principal users of the Resource Center. As a result, the use of the Resource Center is increasing rapidly. For example, in Fiscal Year 1997, the center loaned about 2,600 audio-visual materials, which almost doubled the amount of materials loaned in the prior fiscal year.



John Grzywacz, OSHA Training Institute Instructor, reviews course materials.

■ *OSHA Construction Outreach Program Guide*, Order number: AVA19275BB00. Cost is \$115 plus shipping

■ *OSHA Voluntary Compliance (General Industry) Outreach Program Guide*, Order number: AVA19915BB00. Cost is \$110 plus shipping [JSHQ](#)

Don Guerra is a program analyst at OSHA's Office of Training and Education, Division of Training and Educational Programs, Des Plaines, IL.

The author thanks the organizations who contributed their outreach experiences for this article.

Locations for Outreach Trainer Courses

| | | |
|--|----------------------------------|--------------|
| OSHA Training Institute, US Department of Labor | Des Plaines, IL | 847-297-4913 |
| Education Centers | | |
| Eastern Michigan University / United Auto Workers | Ypsilanti, MI | 800-932-8689 |
| Georgia Tech Research Institute | Atlanta, GA | 800-653-3629 |
| Great Lakes OSHA Training Consortium (University of Minnesota, the Minnesota Safety Council, and the University of Cincinnati) | St. Paul, MN Cincinnati, OH | 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 (Building and Construction Trades Dept. AFL-CIO, West Virginia University and the Occupational Health Foundation) | Washington, DC Morgantown, WV | 800-367-6724 |
| The National Safety Education Center (Northern Illinois University, the Construction Safety Council, and the National Safety Council) | Chicago, IL area | 800-656-5317 |
| Niagara County Community College | Lockport, NY | 800-280-6742 |
| Red Rocks Community College / Trinidad State Junior College | Lakewood, CO | 800-933-8394 |
| Texas Engineering Extension Service / Texas Safety Council | Mesquite, TX | 800-723-3811 |
| University of California - San Diego | San Diego, CA | 800-358-9206 |
| University of Washington | Seattle, WA | 800-326-7568 |

Examples of the Impact and Use of the OSHA Outreach Program

- In Ohio, the outreach training is given for state firefighters in conjunction with their required annual training.
- At Honda, general industry outreach training began in 1992, with one OSHA-authorized outreach trainer training employees with day-to-day health and safety responsibilities within the production departments. Since then, OSHA has authorized four more trainers, making it possible to provide the 10-hour program in all four Honda facilities. The targeted audience has also expanded to middle and upper management. To date, 300 associates have completed the 10-hour training. Also, in 1995, Honda held a 2-day safety symposium that primarily focused on the 10-hour program. Nearly 100 automotive parts supplier representatives completed the training.
- Action Labor, in Florida, is a day laborer employer that provides the 10-hour construction and general industry classes for each employee as a way to lower injury and workers' compensation rates. For some of the employees, who were homeless or unemployed for a long period, this has been a life-changing experience, providing them with more permanent job opportunities.
- In North Carolina, the Phoenix Fund provides the outreach class free to clients for whom they provide workers' compensation insurance.
- The Pennsylvania National Guard has sent 186 first-line supervisors through the OSHA 30-hour general industry training over the past 5 years. Among the improvements cited as a result of the training, their most hazardous worksite has gone over 3 years without a lost-workday accident.
- The St. Paul Fire and Marine Insurance Company's construction division conducts safety training for their clients to assist them in meeting their safety goals and improving profit margins.
- At Alcoa Davenport Works, Davenport, IA, three changes in the way contractor safety is administered were made in March 1995: (1) A "Contractor Safety Practices Manual" was issued to all contractor firms, (2) contractor employees were required to attend a 1-hour interactive safety orientation video session, and (3) construction contractors were required to prove that their workers completed the 10-hour OSHA construction outreach course. As a result of these changes, the recordable injuries decreased by 57 percent from 1994 to 1996. Since March 1995, more than 2,000 contractor employees have completed the training.
- In northeast Indiana, Coachmen Industries hosted seven 10-hour general industry outreach classes which were conducted by the State of Indiana to train workers from the maintenance staff to vice presidents and general managers. An in-house trainer gave 12 sessions of similar training—also affecting many different occupations—at Crystal River III, a nuclear generating facility.
- At Honeywell Industrial Automation and Control, in Old Ocean, TX, all new employees must complete a 10-hour outreach training course before they begin working.
- At Shawnee State University in Portsmouth, OH, the 10-hour OSHA General Industry course is presented as a component of an Occupational Safety and Health Management course several times a year. Many of the students are employed in plastics manufacturing, paper milling, chemical processing, petroleum refining, and coke industries. The completion of the 10-hour program has been instrumental in several students receiving job offers and employment opportunities.

Signing of Final Longshoring Regulations

by Paul Rossi



Secretary Herman (seated) signs longshoring rule. From left to right (standing): Deputy Assistant Secretary Greg Watchman; John Faulk, Safety Director, S.S.A. Stevedoring; Lindsay McLaughlin, International Longshore and Warehouse Union; John Bowers, Jr., International Longshoremen's Association; and Tom Simmers, Vice President, ITB Corp.

Many of you may remember the movie “On the Waterfront” in which Marlon Brando plays a New York longshoreman. That movie was released in 1954, and until this past July, OSHA’s safety and health regulations for longshoring were almost as old.

Developed and promulgated in the late 1950s under the authority of the *Longshore and Harborworkers Compensation Act*, these regulations remained largely unchanged, even after being adopted in the early 1970s by OSHA under section 6(a) of the *Occupational Safety and Health Act of 1970*.¹ Work practices and hiring practices too have dramatically changed since the fifties.

¹Public Law 91-596, December 29, 1970, as amended by P.L. 101-552, §3101, November 5, 1990.

On July 18, 1997, Secretary of Labor Alexis Herman and Deputy Assistant Secretary Greg Watchman had a signing ceremony for the new Longshore and Marine Terminals standard. With representatives from labor and management looking on, the Secretary signed the final *Longshore and Marine Terminals* regulation. She praised the new rules saying that they will help

Longshoring is the marine cargo handling activity that takes place on a vessel, which can involve using the vessel’s cargo gear, climbing in and out of the hold of a vessel, and using gangways.

prevent fatalities and injuries in the marine cargo handling industry. This was the first regulation that

Secretary Herman had signed since her confirmation.

This effort was a large undertaking because it involved reviewing all 10 subparts of the longshore regulations and related sections of OSHA’s 1983 marine terminals requirements. Any revisions in marine terminals had to be consistent with analogous longshore regulations.

Longshoring is the marine cargo handling activity that takes place on a vessel, which can involve using the vessel’s cargo gear, climbing in and out of the hold of a vessel, and using gangways. Marine terminals is the cargo handling activity that takes place on the land next to the vessel,

and it can involve warehouse operations, loading and unloading containers, and equipment repair.

For example, many technological changes have taken place in the cargo handling industry that have also introduced different hazards into the workplace. The change that probably has had the greatest impact on the maritime industry has been the development of the intermodal container. The intermodal container looks similar to the box-like trailer one might see on the highway, but it is designed to international specifications with special fixtures on each corner that allows it to be lifted from the top or bottom. This allows the same container to be carried by train, truck, or ship. When carried by ship, the containers are often stacked up to seven high on the deck. Devices that secure the containers for the ocean voyage must be put in between each container that is carried onto the deck of the vessel. This requires longshore workers to climb on the containers to place and remove those devices. This operation can expose them to

falls of 50 feet or more to a steel deck below.

The new regulations require, after July 26, 1999, that engineering controls—known in the regulation as positive-container securing devices, or PCSDs—be used to eliminate the need for workers to go on top of containers to do this type of work. Although PCSDs cannot be used for all types of work, they greatly reduce exposures to fall hazards in these instances. In the arena of international trade where millions of containers are handled every year, the United States leads the world in preventing falls from the tops of containers in this way.

To help inform employers about the new longshoring requirements, OSHA has developed an extensive outreach program in conjunction with the publication of the final rule. Beginning this past September, two teams of OSHA personnel have been going to maritime ports around the country to discuss the major elements of the standard. The

teams include Tom Pope, Area Director, Norfolk, VA; Tom Savage, Compliance Officer, Raleigh, NC; Paul Rossi, Project Officer for the Longshore Final Regulation, Washington, DC; Carl Halgren, Area Director, Portland, OR; Barry Buuck, Compliance Officer, Baton Rouge, LA; and Jim Estep, National Office, Office of the Solicitor, Longshore Regulation Project Attorney, Washington, DC.

The team members conduct a 6-hour overview of the highlights of the new regulations. The outreach is hosted by a local maritime entity, usually a port authority or port maritime association. The audience generally consists of OSHA personnel from the regional and area offices, members of the unions that do cargo handling in the port, representatives of the local stevedoring companies, port authority personnel, OSHA state plan representatives, and representatives from other government agencies such as the U.S. Coast Guard.

These outreach sessions have been well received, and it is hoped that this approach can be a model for future outreach programs. To date, there have been sessions in Seattle, WA; Portland, OR; Oakland and Long Beach, CA; Boston, MA; Newark, NJ; Philadelphia, PA; Baltimore, MD; Charleston, SC; Memphis, TN; Savannah, GA; Miami, FL; Norfolk, VA; Mobile, AL; Chicago, IL (Burns Harbor); Tampa, FL; San Juan, PR; and Anchorage, AL.

For further information on these sessions, please call the Office of Maritime Safety Standards at (202) 219-7234. [JSHQ](#)

Rossi is an occupational safety and health specialist in OSHA's Office of Maritime Safety Standards, Washington, DC.



OSHA longshoring team members smile for the camera after the signing ceremony. From left to right: Larry Liberatore, Director, Maritime Standards; Deputy Assistant Secretary Greg Watchman; Paul Rossi, Office of Maritime Standards; Jim Estep, Office of the Solicitor; and Paul Bolon, Office of Regulatory Analysis.

Maine 200: One Company's Stepping Stone to Star

by Susan Hall Fleming

G.E.'s Model Strategy for Success

Jim Crawford, environmental health and safety manager for General Electric's Power Generation Division in Bangor, ME, was not exactly thrilled with his invitation to join Maine 200.¹ Being named to the Maine list of companies with the highest aggregate number of worker compensation claims was hardly an honor. That didn't stop him from taking advantage of the opportunity to draw attention to workplace safety and reap a big benefit.

In a competitive market, G.E.'s facility producing steam turbine components depends on 10-percent productivity gains each year to survive. Some of those gains have come from improvements in workplace safety resulting from participating in Maine 200 and moving up to the excellence demanded of

“The criteria for Maine 200 melded with what I wanted to do....Maine 200 became a tool for me to influence the actions of others in the plant. I was able to say, ‘We have to do it—OSHA says so.’”

Jim Crawford, GE Environmental Health and Safety Manager

participants in OSHA's *Star* Voluntary Protection Program.²

G.E. is not merely surviving. It's thriving. That's because the nearly 500 employees who work there relish a challenge. OSHA gave them one. And they responded by stepping from fair to good to stellar.

Getting There

Although surprised to be included in Maine 200—until he

looked more closely at plant injury numbers—Crawford found it just the vehicle he was looking for to jump-start a structured, organized safety and health program. “The criteria for Maine 200 melded with what I wanted to do....Maine 200 became a tool for me to influence the actions of others in the plant. I was able to say, ‘We have to do it—OSHA says so.’”

Crawford soon found that being invited to join an OSHA partnership was not all bad news. Going through the Maine 200 process changed both his own perspective on OSHA and his company's relationship with the agency. Today, he characterizes that relationship as excellent.

¹Identifies the top 200 employers in that state with highest number of injuries from workers' compensation claims and offers them a chance to work with OSHA in reducing injuries and illnesses. See also Frank Kane, “OSHA's Maine 200 Program Receives Prestigious National Award,” *Job Safety & Health Quarterly* 7(1):15-16, Fall/Winter 1995.

²To qualify for the *Star* program, participants must have excellent workplace safety and health programs with below-average injury rates for their industry. See also cover story in this issue; and Gerry Catanzaro and Judith Weinberg, “Answers to Some Frequently Asked Questions on VPP,” *Job Safety & Health Quarterly* 5(4):22-25, Summer 1994; Kerri L. Lawrence, “Voluntary Protection Programs Praised for Accomplishments,” *Job Safety & Health Quarterly* 7(1):18-19, Fall/Winter 1995.



GE Bangor Plant Core Safety Team raises VPP flag at their Star site. From left to right: Jerry King, Jean Malo, Bill Pearsall, Skip Pierce, Tom Sawyers, Al Crowley, Jim Crawford, Steve Graebert, and Sue Hart.

Typical safety issues at G.E.'s Power Generation Division include machine guarding, electrical hazards, forklift truck operation, and crane and sling handling. Health hazards include metal fumes, oil mist, noise, dust, and organic solvents. G.E. Power Generation also needed to deal with lifting hazards and repetitive stress injuries.

Crawford found the plant not only ready to meet the challenge posed by OSHA, but also eager to do better than OSHA expected. A year before the plant "graduated" from Maine 200, the facility committed itself to attaining recognition as a *Star* site under OSHA's Voluntary Protection Programs (VPP).

"We were making good progress in accomplishing our Maine 200 goals, but we weren't good enough. We needed a continuing process to keep us from backsliding. The VPP criteria were similar to Maine 200—you just had to be a lot bet-

ter at achieving them," Crawford says.

"By the time we graduated from Maine 200, we had our application for VPP ready. We got our graduation letter from Maine and the next day sent our VPP application letter to OSHA's Region I Office in Boston," he adds.

The Power Generation Division became a *Star* site in April 1997, a year after its graduation from Maine 200. Its injury incidence rates are 45 percent below the industry average for machine shops and its lost-workday injury rate is 74 percent below industry average. It is the 10th General Electric site to join the program.

Although the Power Generation Division may be the first to take this step, others are following close behind. "We actually have a number of Maine 200 graduates in the pipeline seeking recognition under VPP," notes Bill Freeman, Area

"Companies have found that they don't want to stop improving when they reach the minimum level of acceptability. They want to keep moving forward to reach excellence."

Bill Freeman, OSHA Area Director, Bangor, ME

Director of OSHA's Bangor, ME, office. "Companies have found that they don't want to stop improving when they reach the minimum level of acceptability. They want to keep moving forward to reach excellence."

"Reaching for VPP recognition is a logical next step for a company committed to employee safety and health," says Cathy Oliver, director of the program. "They've done the hard work of setting up a good safety and health program. Now they're ready to capitalize on their efforts."

Employees Make the Difference

The difference between a pretty good safety and health program and a really outstanding one is often the commitment of employees. Getting employee buy-in and ongoing involvement is essential.

"From the beginning, I felt strongly that employee involvement in safety was critical. I tried as environmental health and safety manager to write procedures and impose them on the plant. It just doesn't work. Employees have no personal stake in it. People must want safety for themselves and must do it themselves. Every employee in the plant needs to be trained in certain safe work practices," Crawford believes.

Maine 200 is a partnership program to help companies with the highest number of worker injury compensation claims reduce workplace hazards and related injuries. The program began in 1992 in Maine with OSHA identifying the top 200 companies in the state with largest number of worker injury compensation claims. OSHA offered each employer the choice of working with the agency to identify and correct worksite hazards and implement comprehensive safety and health programs to carry out the effort, or face traditional enforcement inspection. Nearly all firms chose to enter into partnership with OSHA.

The State of Maine became the first pilot because, in 1990, its worker injury and illness incidence rate was 63-percent higher than the national average, and injuries from lost-work time were 71 percent higher than the rest of the nation. In Maine, prior to the targeting program, the traditional OSHA inspection method had identified approximately 37,000 hazards at 1,316 workplaces. In the first 18 months under the Maine 200 program, the numbers nearly tripled. Of 95,800 workplace hazards identified, 55,200 were abated.

G.E. involves their employees at three different levels. On an individual level, each employee serves on a rotating stint as weekly safety auditor for his or her area of the plant about every 5 or 6 weeks. Every Monday the auditors of the week meet with the area safety team to watch a video that offers a brief refresher on the auditor's role and the 64-item list they will use in their audits. All three shifts audit the worksite.

With four business areas, the Power Generation Division also runs four area safety teams—again on all three shifts. Composed of volunteers, each of these teams has received in-depth training on OSHA standards and plant processes. Every member has his or her own copy of the OSHA general industry standards and knows how to find information in the book. The safety teams conduct higher level audits, investigate injuries or near misses, and implement corrective action. Area safety teams have set up complaint procedures with forms that employees can submit, anonymously if they wish, to the team, to management, or to the health and safety director.

G.E. also has a core safety team that functions facilitywide. This team includes several members from each of the area teams. Meeting once a week, the core team develops overall plant procedures. Members share "best practices"

The difference between a pretty good safety and health program and a really outstanding one is often the commitment of employees. Getting employee buy-in and ongoing involvement is essential.

from their areas, which then may be adopted plantwide. The plant safety and health team, which has received the highest level of training, conducts even more detailed audits.

Tackling Ergonomics

For its Maine 200 effort on ergonomics, G.E. initially chose a slightly different tack. Again focusing on employee involvement, the facility brought in a consultant to train a team of 19 employees to assess work stations. The consultant helped the team to identify stressors and possible solutions.

Once trained, ergo team members go to work stations, videotape workers, get their comments, and then study the information to look for risk factors they'd been trained to recognize. After pinpointing the risk factors, they develop corrective actions. Recently, the area safety teams decided to merge ergonomics into the safety program so 62 safety team members went through 2 days of ergonomics training conducted by the initial ergonomics team and then began conducting their own work station assessments.

Sometimes success has come simply by approaching a task with a different mindset. For many years, operators at one of the older machines in the plant had to secure each workpiece to the machine with a heavy slide hammer. "Workers had to bang the slide hammer onto the machine and then bang it off again," Crawford says. The minute workers at that station were eligible for a transfer to another machine within the plant, they took it. Until the ergonomics team reviewed the situation, no one had ever paid attention to the turnover. The ergonomics team replaced the slide hammer with a hydraulic system reducing wear and tear on the

A successful safety program is not accidental. It takes effort and planning. The prod of an OSHA partnership program can help employers take the first step toward excellence.

operator and noise as well. Now transfers are no longer sought or are necessary.

In another case, ergonomics team members responded to a complaint of elbow pain from a worker who was holding a small part in one hand and filing a metal burr off the part with the other hand. The team saw to it that a soft abrasive wheel was installed to replace the hand filing process for all the workers doing this task. Workers now report they're not so tired at the end of the day. Plus, the new system has boosted productivity as well.

A successful safety program is not accidental. It takes effort and planning. The prod of an OSHA partnership program can help employers take the first step toward excellence. G.E. took the unwelcome opportunity to participate in the Maine 200 partnership and turned it to its own advantage, improving productivity and worker satisfaction at the same time. Today G.E. is a willing and welcome partner with OSHA—by its own choice—as part of the VPP. **JSHQ**

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

OSHA's Voluntary Protection Programs are cooperative efforts among labor, management, and government. Acceptance into the VPP requires worksites to have safety and health programs exceeding OSHA's standards. Sites participating in the VPP have lost-workday rates 40 to 80 percent below their industry averages.


The three programs comprising VPP—*Star*, *Merit*, and *Demonstration*—recognize outstanding achievements by companies that successfully integrate a comprehensive safety and health program into their total management system. *Star*, the highest program level, recognizes worksites with outstanding safety and health protection for employees. *Merit* is a stepping stone to *Star* for worksites committed to providing the best worker protection and willing to meet established safety and health program management goals. *Demonstration* allows worksites to pilot cutting-edge worker protection strategies not addressed in *Star*.

About 360 U.S. worksites currently are VPP Federal and State participants.

For more information on VPP, see **Programs and Services** on OSHA's Web site at <http://www.osha.gov/> or write to the U.S. Department of Labor, Occupational Safety and Health Administration, Office of Federal-State Operations, 200 Constitution Avenue, N.W., Room N-3700, Washington, DC 20210.



Winter Advisory: Preventing Cold Stress



When your body temperature drops even a few degrees below normal (which is about 98.6°F) you can begin to shiver uncontrollably, become weak, drowsy, disoriented, unconscious, even fatally ill. This loss of body heat is known as “cold stress” or hypothermia. People who work outdoors or who enjoy outdoor activities should learn about how to protect against loss of body heat. The following guidelines can help you keep your body warm and avoid the dangerous consequences of hypothermia.

Dress in Layers

Outdoors, indoors, in mild weather or in cold, it pays to dress in layers. Layering your clothes allows you to adjust what you’re wearing to suit the temperature conditions. In cold weather, wear cotton, polypropylene, or lightweight wool next to the skin, and wool layers over your undergarments. For outdoor activities, choose outer garments made of waterproof, wind-resistant fabrics such as nylon. Because a great deal of body heat is lost through the head, always wear a hat for added protection.



Keep Dry

Water chills your body far more rapidly than air or wind. Even in the heat of summer, falling into a lake with a water temperature of 40°F can be fatal in a matter of minutes. Always take along a dry set of clothing whenever you are working (or playing) outdoors. Wear waterproof boots in damp or snowy weather, and always pack rain gear even if the forecast calls for sunny skies.

Take a Companion

The effects of hypothermia can be gradual and often go unnoticed until it’s too late. If you know you’ll be outdoors for an extended period of time, take along a companion, or let someone know where you’ll be and at what time you expect to return.

Symptoms and Stages

As body temperature drops, symptoms go through stages. In the first stage, dexterity may be diminished, so that individuals may find it difficult to do things like light a match, tie a knot, or button clothing. Next, speech becomes slurred. Victims may stumble, seem confused, or deny that they are cold or

need medical attention. They may seem weak or tired. At this point, shivering may stop. Breathing may be shallow and the pulse hard to find. As the body gets colder, muscles become stiff and the heartbeat becomes uneven. Unconsciousness sets in. Death can result if breathing or the heart stops.

First-Aid Fast

Even if you only suspect hypothermia, call an ambulance or doctor right away. It may be a life-or-death call. Then, use first aid, which can save the victim’s life. Take the victim to a warm place. If that’s impossible, shelter from any wind, rain, or snow and keep the head covered. Remove all wet clothing and bundle with dry blankets or dress in dry clothing. Do not rub or massage the victim or place the victim in hot water. If the person is conscious give warm beverages, but no alcohol or caffeine. If the victim is unconscious, use artificial respiration or CPR if you are trained in this life-saving technique until professional help arrives. [JSHQ](#)

Information derived from U.S. Department of Labor *Safety and Health Bulletin* No. 97-2.

THE TOOLBOX

Guarding of Protruding Steel Rebars 1926.701(b)

Rank in Frequency Cited: #14*

Rule

Reinforcing steel. All protruding reinforcing steel—onto and into which employees could fall— shall be guarded to eliminate the hazard of impalement.

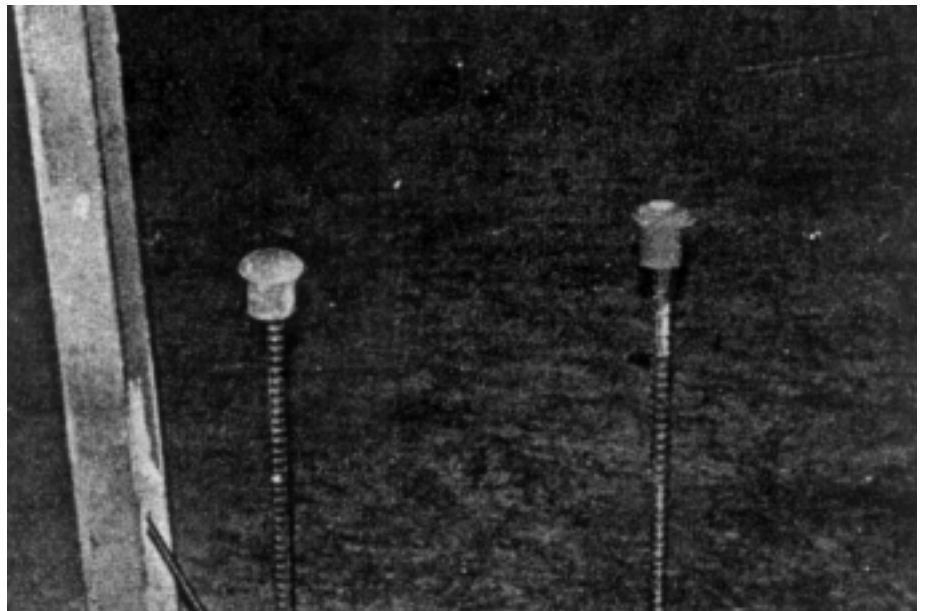
Intent

Conversations with construction personnel frequently include accounts of situations where an employee has fallen and impaled himself on a piece of steel rebar. These accounts are some of the most gruesome stories related to accidents in the construction industry.

This rule requires guarding for the ends of the rebar where the potential for impalement exists. The two most common guarding techniques are (1) specially manufactured rebar caps that fit on top of the rebar; or (2) lumber is secured on top of the rebar. The theory is to dissipate the force of the fall by distributing it over a larger area than the diameter of the rebar—i.e., less force reduces the chance of impalement.

Hazards

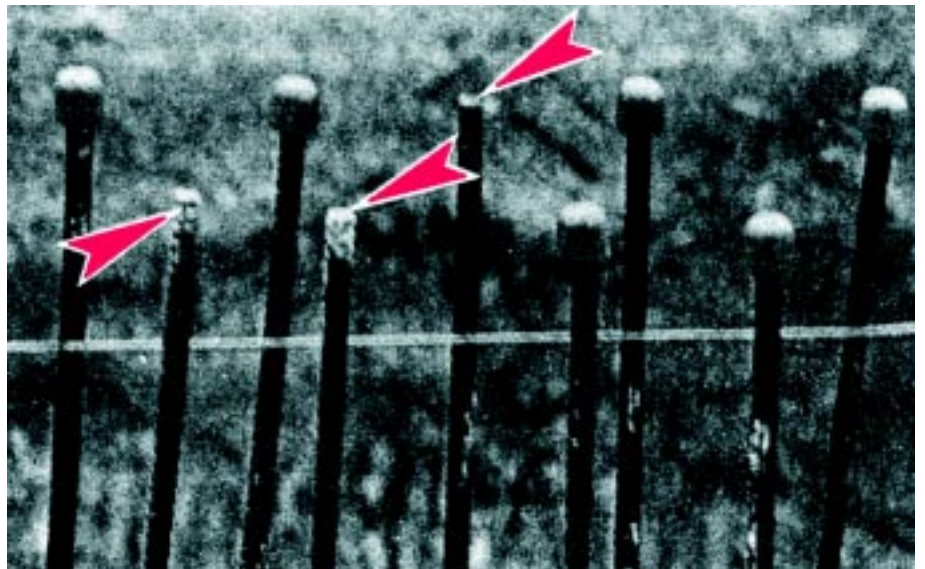
Impalement/puncture. Resulting injuries can range from serious internal injuries to death.



VIOLATION

IN COMPLIANCE

Rebar caps which are acceptable as meeting OSHA requirements.



VIOLA TION

IN COMPLIANCE

The arrows show 3 rebars without protective caps which create a hazard.

Detach Here

* Derived from OSHA's publication, *The 100 Most Frequently Cited OSHA Construction Standards in 1991: A Guide for the Abatement of the Top 25 Associated Physical Hazards*, Washington, DC, February 1993. This publication is available from the U.S. Government Printing Office, Washington, DC 20402. Order Number 029-016-00145-0; Cost \$5.50; (202) 512-1800 phone or (202) 512-2250 fax.

(Among Other) Suggested Abatements

Prior to installing rebar at the site, ensure that enough rebar caps or materials to construct caps will be available.

Selected Case Histories

An employee pulling a concrete hose along a form fell two stories and hit his head on steel bars, puncturing his brain.

A laborer fell approximately 8 feet through a roof opening to a patio foundation that had about 20

half-inch rebars protruding straight up. The laborer was impaled by one of the bars and died.

Comments

(1) This is another example of a specification standard which is easy to identify and substantiate; it's either in place or it's not. Even though exposed vertical rebar would not be present at many OSHA construction inspections, this situation is being cited very frequently as evident by its #14 ranking on the Most Cited Physical

Hazards List. This may be an indicator of the lack of industrywide compliance.

(2) This standard was cited in 12 fatality investigations.

Additional Documents to Aid in Compliance

Title 29 Code of Federal Regulations, Part 1926, Subpart Q; Concrete and Masonry Construction final rule; American National Standards Institute (ANSI) A10.9-1983 Concrete and Masonry Work Safety Requirements. JSHQ



Eating Healthier Is Easier Than You Think.
It Starts With a Phone Call.

The National Cancer Institute has free booklets in English and Spanish with tips and recipes for losing weight, eating healthier, and preventing cancer. For answers to your questions about cancer and to order publications on these and other topics, call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237). Persons with TTY equipment, dial 1-800-332-8615.

NATIONAL
CANCER
INSTITUTE

Detach Here

Accident Report

From the U.S. Department of Labor
Occupational Safety and Health Administration *FatalFacts* No. 62

Accident Summary

| | |
|---|--------------------------------|
| Accident Type | Fall |
| Weather | Clear, Windy |
| Type of Operation | Structural Steel Erector |
| Crew Size | 23 |
| Competent Safety Monitor 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 | 37/Male |
| Experience at this Type Work | 10 Years |
| Time on Project | 4 Days |

Detach Here

Brief Description of Accident

Two connectors were erecting lightweight steel "I" beams on the third floor of a 12-story building, 54 feet above the ground. One employee removed a choker sling from a beam and then attempted to place the sling onto a lower empty hook on a series of stringers. While the crawler tower crane was booming away from the steel, the wind moved the load line and stringer into the beam the employee was standing on. The beam moved while the employee was trying to disengage the hook and fell to his death.

Inspection Results

Following the inspection, OSHA cited the company for three serious violations of OSHA standards. Had the company followed applicable OSHA construction requirements, this fatality might have been prevented.

Accident Prevention Recommendations

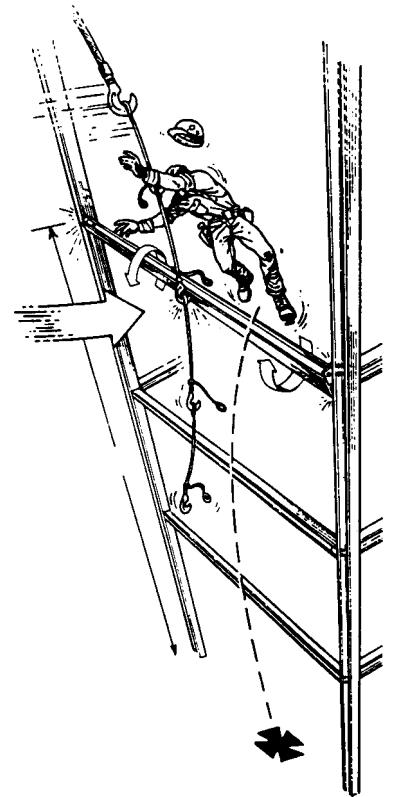
(1) On tiered buildings or structures that cannot accommodate temporary flooring and where scaffolds are not used, install and maintain safety nets if employees are working more than two stories or 25 feet above the ground [Title 29 Code of Federal Regulations Part 1926.750(b)(1)(ii)].

(2) Use tag lines to control crane loads hoisted during structural steel assembly [29 CFR 1926.751(d)].

(3) During the faint placing of solid web structural members, secure all members with at least two bolts or the equivalent at each connection. The bolts must be drawn up wrench tight before the load is released from the hoisting line [29 CFR 1926.751(a)].

Sources of Help

- For information on OSHA-funded free consultation services, call the nearest OSHA area office listed in telephone directories under U.S. Labor Department or under the state government section in states administering their own OSHA programs. See also OSHA's Web site at <http://www.osha.gov/>.
- *OSHA Safety and Health Training Guidelines for Construction* Available from the National



Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; Phone (703) 605-6000 or (800) 553-6847; Order No. PB-239-312/AS, \$27, to help construction employees establish a training program.

- Courses in construction safety are offered by the OSHA Training Institute, 1555 Times Drive, Des Plaines, IL 60018; phone (847) 297-4913. [JSHQ](#)

Note: The case described here is representative of fatalities caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved and the case is now closed. Your company or workplace is eligible to receive one free copy of this leaflet, which you may duplicate and share with your coworkers. To be placed on the distribution list, send a self-addressed label (using four or fewer lines) with your title and address to *FatalFacts*, OSHA, Room N-3647, 200 Constitution Avenue, N.W., Washington, DC 20210. This information will be made available to sensory impaired individuals upon request. Voice phone: (202) 219-8151. TDD message referral phone: (800) 326-2577.

Accident Report

From the U.S. Department of Labor
Occupational Safety and Health
FatalFacts No. 64

Administration

Accident Summary

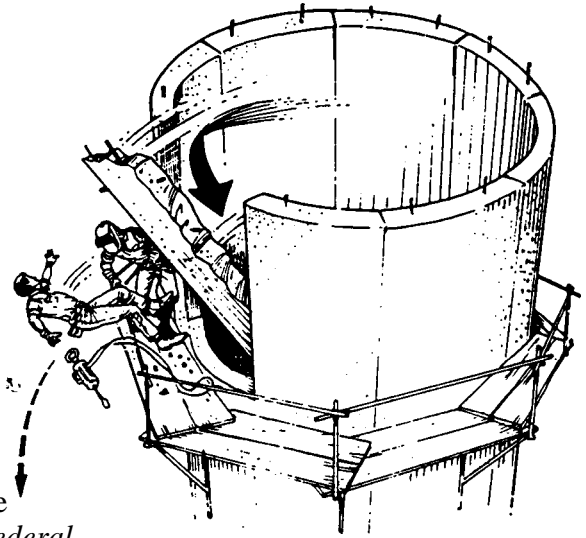
| | |
|---|------------|
| Accident Type | Fall |
| Weather | Good |
| Type of Operation | Demolition |
| Crew Size | 5 |
| Competent Safety Monitor Onsite? | No |
| Safety and Health Program in Effect? | Yes |
| Was the Worksite Inspected Regularly by the Employer? | No |
| Training and Education Provided? | Inadequate |
| Employee Job Title | Laborer |
| Age/Sex | 30/Male |
| Experience at this This Type Work | 9 Days |
| Time on Project | 3 Days |

Accident Prevention Recommendations

(1) The employer must install standard guardrails (toprail, midrail, and toeboards) on all open sides and ends of the bracket scaffold around the top of the smoke stack [Title 29 Code of Federal Regulations Part 1926.451(a)(4)].

(2) The employer must provide training to inform employees of potential hazards while working on the scaffold [29 CFR 1926.21(b)(2)].

(3) The employer must provide a positive procedure to ensure that concrete sections fall inside, instead of outside, the smoke stack. [Section 5(a)(1) of the *Occupational Safety & Health Act of 1970* (P.L. 91-596)].



Brief Description of Accident

An employee was working on a scaffold near the top of a 250-foot smoke stack when a section of concrete being removed fell onto the scaffold, knocking the employee off. The employee was not tied off with a safety belt and lanyard and fell to the ground below.

Inspection Results

As a result of its investigation of the accident, OSHA issued citations alleging two willful and several serious violations. OSHA's construction standards include requirements which, if they had been followed here, might have prevented this fatality.

Sources of Help

- *Title 29 Code of Federal Regulations* (CFR) Part 1926—OSHA construction standards. Revised 7/1/97. Order No. 869-032-00106-5 (\$38.50). Available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402-9325; phone (202) 512-1800. You may use a GPO deposit account, Visa, MasterCard, or a check made payable to Superintendent of Documents.
- For information on OSHA-funded free consultation services, call the nearest OSHA area office listed in telephone directories under U.S. Labor Department or under the state government section in states administering their own OSHA programs. See also OSHA's Web site at <http://www.osha.gov/>.

ment or under the state government section in states administering their own OSHA programs. See also OSHA's Web site at <http://www.osha.gov/>.

- *OSHA Safety and Health Training Guidelines for Construction* to help construction employers establish a training program. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; phone (703) 605-6000 or (800) 553-6847; Order No. PB-239-312/AS, \$27.

JSHQ

Note: The case described here is representative of fatalities caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved and the case is now closed. Your company or workplace is eligible to receive one free copy of this leaflet, which you may duplicate and share with your coworkers. To be placed on the distribution list, send a self-addressed label (using four or fewer lines) with your title and address to *FatalFacts*, OSHA, Room N-3647, 200 Constitution Avenue, N.W., Washington, DC 20210. This information will be made available to sensory impaired individuals upon request. Voice phone: (202) 219-8151. TDD message referral phone: (800) 326-2577.

Detach Here

Accident Report

From the U.S. Department of Labor
Occupational Safety and Health Administration *FatalFacts* No. 69

Accident Summary

| | |
|---|--------------------------------|
| Accident Type | Death due to burns |
| Weather | Unknown |
| Type of Operation | Excavating for building a road |
| Crew Size | 2 |
| Competent Person on Site? | 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 | Bulldozer Operator |
| Age/Sex | 44/Male |
| Experience at This Type Work | 15 Years |
| Time on Project | 2 days |

Detach Here

Brief Description of Accident

A bulldozer operator was preparing a road bed by using the machine to lift trees out of the way. A hydraulic line to the right front hydraulic cylinder ruptured, spraying hydraulic fluid onto the engine manifold and into the operator's compartment. Upon contact with the hot manifold, the hydraulic fluid ignited, engulfing the operator in flames. The operator died from the burns he received.

Inspection Results

Following an inspection, OSHA issued citations for two serious violations of OSHA standards:

(1) Frequent and regular inspections of equipment were not made by competent persons designated

by the employer in accordance with 29 *Code of Federal Regulations* (CFR) 1926.20(b)(2). It was determined that the hydraulic hose had been installed backward so that a bend in the fitting connection made contact with the body of the bulldozer, resulting in wear and abrasion of the hose at the connection. This was not discovered during inspection of the machine.

(2) The employees doing inspections were not instructed to examine the hoses for signs of wear and abrasion as required by 29 CFR 1926.21(b)(2).

Accident Prevention Recommendations

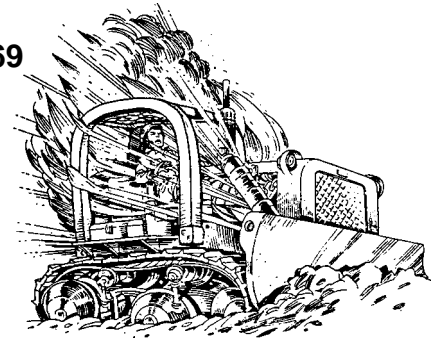
(1) Train maintenance and operating personnel to recognize potential problems with the operation of the machinery.

(2) Have competent persons perform periodic inspections of all operating equipment.

(3) Ensure that the employer initiates and maintains a safety and health program, in accordance with 29 CFR 1926.20(b)(1).

Sources of Help

- OSHA *Construction Standards* [29 CFR Part 1926], which include 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. S/N 869-032-00107-3; \$40.
- OSHA-funded free consultation services listed in telephone directories under U.S. Labor Department 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) 605-6000 or (800) 553-6847; Order No. PB-239-312/AS, \$27) 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, (847) 297-4913.
- 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) 512-2250, Order No. S/N 729-13-00000-5; cost \$38 annually; \$15 quarterly. The information also is on the Internet World Wide Web at <http://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 or workplace is eligible to receive one free copy of this leaflet which you may duplicate and share with your co-workers. To be placed on the distribution list, send a self-addressed label (using four or fewer lines) with your title and address to *FatalFacts*, OSHA, Room N-3647, 200 Constitution Avenue, N.W., Washington, DC 20210.

Accident Report

From the U.S. Department of Labor
Occupational Safety and Health

Administration FatalFacts No. 71

Accident Summary

| | |
|---|--------------|
| Accident Type | Crushing |
| Weather | Fair/cold |
| Type of Operation | Demolition |
| Crew Size | 3 |
| Competent Person on Site? | Unknown |
| Safety and Health Program in Effect? | Inadequate |
| Was the Worksite Inspected Regularly by the Employer? | No |
| Training and Education Provided? | Inadequate |
| Employee Job Title | Laborer |
| Age/Sex | 50/Male |
| Experience at This Type Work | 2 1/2 months |
| Time on Project | 7 hours |

Brief Description of Accident

Three employees were dismantling an old refinery. As two of the workers used torches to cut away at the side of an old steel box, the third worker picked up scrap on the other side of the box. Suddenly, that side of the box toppled over because the removal of material caused a reduction in stability. When the two cutters realized that their co-worker was missing, they looked under the toppled section and found him trapped below. He died of massive chest injuries.

Inspection Results

As a result of its investigation, OSHA issued citations for four serious, one repeat, and four other-than-serious violations of OSHA standards. Had the workers been adequately trained and the opera-

tion adequately planned, this fatality might have been prevented.

Accident Prevention Recommendations

The employer must:

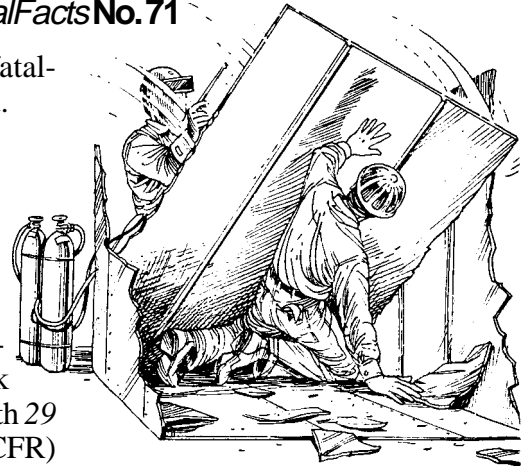
(1) Train employees in recognition and avoidance of unsafe conditions and the regulations applicable to their work environment, in accordance with 29 Code of Federal Regulations (CFR) 1926.21(b)(2).

(2) Ensure that a competent person is designated to frequently and regularly inspect job sites, materials, and equipment, in accordance with 29 CFR 1926.20(b)(2).

(3) Ensure that employees are protected from struck-by hazards; using barriers, in accordance with 29 CFR 1926.95(a) or, at a minimum, signs to prevent entry, in accordance with 29 CFR 1926.200.

Sources of Help

- OSHA *Construction Standards* [29 CFR Part 1926], which include 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. S/N 869-032-00107-3; \$40.
- OSHA-funded free consultation services listed in telephone directories under U.S. Labor Department 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) 605-6000 or (800) 553-6847; Order No. PB-239-312/AS, \$27) 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, (847) 297-4913.
- 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) 512-2250, Order No. S/N 729-13-00000-5; cost \$38 annually; \$15 quarterly. The information also is on the Internet World Wide Web at <http://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 or workplace is eligible to receive one free copy of this leaflet which you may duplicate and share with your co-workers. To be placed on the distribution list, send a self-addressed label (using four or fewer lines) with your title and address to *FatalFacts*, OSHA, Room N-3647, 200 Constitution Avenue, N.W., Washington, DC 20210.

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!

