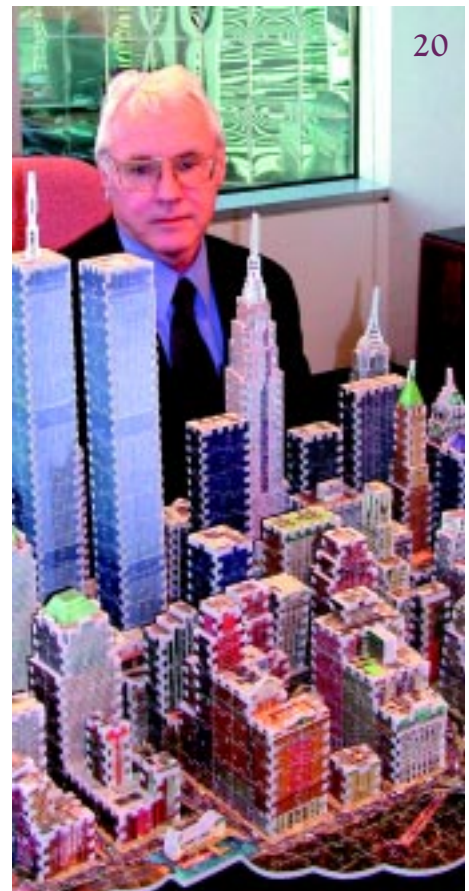


JSHQ

Volume 13 Number 2
Winter 2002

FEATURES

- Anthrax Alert** 12
OSHA offers tips to protect workers against anthrax.
- For the Record** 14
OSHA's new recordkeeping rules took effect January 1.
- Customers Give OSHA High Marks** 16
A recent Gallup survey gives the agency the "thumbs up."
- Workplace Safety on the Rise** 17
A Bureau of Labor Statistics report shows a drop in injury and illness rates.
- OSHA's World Trade Center Response** 18
The agency launches new partnerships while continuing 24-7 operations.
- Caring for Caregivers** 25
A health-care foundation is teaching workers how to protect themselves on the job.
- Health-Care Workers at Risk** 30
OSHA is working to protect workers in health-care facilities from violence.
- Angling in Alaska** 32
OSHA's Anchorage Area Office is reaching out to workers in this high-hazard industry.
- PPE Saves Lives** 34
Personal protective equipment is more convenient, comfortable, and effective than ever.
- Turning the Kaleidoscope at ConAgra** 38
ConAgra Refrigerated Foods has created a new view of workplace safety and health.
- Going the Distance for Training** 46
OSHA uses distance learning to deliver safety and health training to more students.



20

DEPARTMENTS

- 2 Assistant Secretary's Message
3 Q&A
5 What's Happening?
45 Federal Register
49 OSHA Training
51 Toolbox

Assistant Secretary's Message



The past several months have been a time of great challenge for OSHA. But we have met every test. I have been deeply gratified by the dedication of our staff and their willingness to work so hard on so many fronts to serve our nation's employers and employees.

We received good news in December when the Bureau of Labor Statistics announced that workplace injury and illness rates declined again for the eighth straight year. That's a trend we want to sustain.

OSHA has also taken on a leadership role in responding to terrorism in America. More than 800 OSHA staff, state employees, and VPP representatives have been part of our round-the-clock assistance to those involved in recovery and cleanup at the World Trade Center disaster site. Others in the agency have spent countless hours addressing bioterrorism threats, particularly anthrax, working with the U.S. Postal Service and the Senate and developing the anthrax matrix on our website to guide employers throughout the country. We now will be involved in preparing the nation for possible future attacks and playing a very active role in homeland security. Workplaces and

worker safety are in our jurisdiction. We will step up to the plate and help this nation prepare for these workplace threats.

Although terrorism in our workplaces must be addressed, we cannot lose sight of our mission—our purpose in life. We have a responsibility to ensure, so far as possible, every working man and woman a safe working environment.

That means we can't let up on our enforcement where enforcement is the most effective way to have a safe environment. Strong, fair, and effective enforcement must remain a fundamental activity for OSHA. Toward that end, the agency plans to conduct more inspections in Fiscal Year 2002 than in 2001 or 2000.

We also must be innovative in our training, education, and outreach programs so our stakeholders can comply with requirements that ensure safe environments. Our extensive campaign on OSHA's new record-keeping rule was very successful. More than 10,000 viewed our satellite training broadcast or have accessed the on-demand version of the training on the website.

We've distributed brochures, fact sheets, copies of the record-keeping forms, FAQs, PowerPoint training programs, and more. We're continuing to provide personal assistance to employers who have specific questions through our local offices and regional recordkeeping coordinators. And we must continue to be creative in our partnerships and voluntary programs to establish "win-win" relationships with those responsible for establishing a safe workplace.

Looking ahead, we've also taken a realistic look at standard setting—what we can honestly accomplish in the next 12 months—and set our regulatory agenda accordingly. To be honest

with ourselves and our stakeholders we must "say what we do and do what we say." This is the first part of meeting that expectation.

The wisdom, strength, and reputation of the agency rests on the entire OSHA family. Recognizing that, we will be taking a coordinated, collegial approach to our mission of assuring safe and healthful workplaces. As we move forward together, I'll be chairing the OSHA Executive Board of our senior executives in Washington and at the regional level as well as state program representatives. Together, about once a month, we'll sort through the major policy, operational, and procedural issues facing the agency.

In addition to our overall strategies, we need to pay special attention to those groups that clearly need more help. We know that more than 10 million Americans speak little or no English. Many are in the workforce. We've gathered a group to focus on outreach to Hispanic workers. We'll be looking for ways to work with a variety of groups to improve safety among immigrant workers. We also will put more enforcement focus on industries where non-English speaking workers are at greatest risk, such as construction.

As head of OSHA, I'm excited about the future and finding ways to increase OSHA's impact. We met some tough challenges last year. We've demonstrated our capability and our commitment. I'm looking forward to working with everyone in the agency on the opportunities that lie ahead.

A handwritten signature in black ink, appearing to read "John L. Henshaw".

John L. Henshaw
Assistant Secretary of Labor
for Occupational Safety and Health

Q What are the general guidelines on how to wear respirators properly?

A The correct use of this equipment is critical to any respiratory protection program. Although there are many different kinds of respirators, all of them must be worn properly to protect the wearer from contaminated air leaking around the seal. Generally, correct wearing of respirators involves how well they fit. A “one-size-fits-all” approach does not work.

To protect the wearer, respirators must be appropriately snug and reasonably comfortable. Physical characteristics such as bone structure, facial hair, and false teeth all affect the fit and efficiency of respirators—as does the wearing of prescription eyeglasses. With this in mind, employers need to provide a variety of sizes and models so employees can select a respirator that has a tight seal and comfortable fit. In addition to explaining the limitations of respirators, employers must instruct workers on how to wear, adjust, and use them as well as how to determine proper fit.

Before using a respirator with a positive- or negative-pressure tight-fitting facepiece, employees must pass an appropriate qualitative or quantitative fit test with the same make, model, style, and size respirator they plan to use. Wearers must also perform a user seal check each time they wear such equipment to ensure a good seal.

Qualitative fit testing involves the introduction of a gas, vapor, or aerosol test agent into an area around the head of the respirator user to determine whether the wearer can detect the test agent through odor, taste, or nasal irritation. If the agent is detected, the

fit is inadequate. Quantitative fit testing assesses fit by numerically measuring leakage. This can be determined using special equipment to measure the difference in concentration of aerosols in the test atmosphere with those inside the respirator, or by using controlled negative pressure to measure the volumetric leakage rate.

Q I work on an assembly line in a manufacturing plant and occasionally report safety hazards to my supervisor. Some of my coworkers tell me that I could get fired or bumped to the graveyard shift for doing this. Are they right?

A You and many other employees like you play an important role in keeping America’s workplaces safe. Although your efforts might not be popular with some supervisors, others will welcome your initiative and encourage you to help them protect their workers. Regardless of which kind of supervisor you have,

the law is on your side. You have a legal right to call attention to environmental problems and unsafe conditions without fear of losing your job, being denied a promotion, or suffering some other form of discrimination. Proving discrimination can be difficult, but if you have faced retaliation for calling attention to unsafe or unhealthy working conditions, OSHA may be able to help. If you believe you have been demoted, moved to a less desirable job or shift, or fired because you acted to protect yourself or others from hazards, contact OSHA within 30 days—even if you are pursuing other options such as a union grievance. OSHA will investigate your complaint. If the investigation shows discrimination, in some cases OSHA can take your employer to court at no expense to you to restore your job, pay, and benefits.

Q With temperatures in my area dipping to 10°F and 20°F, I’m concerned about protecting my construction crews while they work outside. What precautions can I take?

A Prolonged exposure to freezing temperatures can result in health problems as serious as trench foot, frostbite, and hypothermia. In addition to low temperatures, other environmental conditions that cause cold-related stress are high or cool winds, dampness, and cold water. Age, physical condition, activity level, and other factors play a role as well.

Encouraging your workers to wear proper personal protective clothing is perhaps the most important protection you can offer. Ideally, they should wear at least three layers of clothing: an outer layer to break the wind and allow some

You have a legal right to call attention to environmental problems and unsafe conditions without fear of losing your job, being denied a promotion, or suffering some other form of discrimination.

ventilation, a middle layer of wool or synthetic fabric to absorb sweat and retain insulation in a damp environment, and an inner layer of synthetic weave to allow ventilation. Special attention should go to protecting feet, hands, face, and head.

You can use engineering controls to reduce the risk of cold-related injuries. Use an onsite heat source such as air jets or radiant heaters. Shield work areas from drafty or windy conditions or provide a heated shelter for workers to warm up in. When temperatures drop below 30°F, use thermal insulating material on equipment handles.

In addition, consider changes in your work schedules and practices to help combat the effects of exceedingly cold weather. Reduce, as much as possible, the number of activities performed outside and schedule those activities for the warmest hours of the day. Establish a buddy system for working outdoors and permit employees to take extra breaks as needed to cope with the cold. Most importantly, educate your workers about the symptoms of cold-related stresses: heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, or euphoria. OSHA offers a pocket *Cold Stress Card* in both English (OSHA 3156) and Spanish (OSHA 3158) versions. You can order these for your workers at no charge on the agency website at www.osha.gov, by calling (202) 693-1888, or by writing: U.S. Department of Labor/OSHA, OSHA Publications, PO Box 37535, Washington, DC 20013-7535.

Q I have seen several recent news reports about outbreaks of Legionnaires' disease in the workplace. What is causing this, and what is being done to protect workers?

A Legionnaires' disease, also known as *Legionellosis* or *Legionella*, is a bacterial disease commonly associated with water-based aerosols. The source of the disease is *Legionella* organisms that grow in stagnant water and poorly maintained air-conditioning cooling towers, evaporative condensers, fluid coolers, humidifiers, whirlpools, and potable water systems. Legionnaires' disease spreads through inhalation of contaminated water mist, not through person-to-person contact. Symptoms resemble the flu and include high fever, dry cough, shortness of breath, chills, and chest pain. The disease can be fatal. The best way to reduce workers' risk of contracting the disease is to routinely test potential sources for the bacteria's presence and maintain and clean cooling towers and evaporative condensers regularly to prevent *Legionella* from growing. For more information, refer to the **Technical Links** page on OSHA's website at www.osha.gov. **JSHQ**

Legionnaires' disease spreads through the inhalation of contaminated water mist, not through person-to-person contact.

What's Happening?

OSHA News



Gary Visscher recently joined OSHA as a Deputy Assistant Secretary.

Visscher Named DAS

OSHA Administrator John Henshaw recently announced the appointment of Gary Visscher, former Vice President of Employee Relations for the American Iron and Steel Institute, as a Deputy

Assistant Secretary of the Occupational Safety and Health Administration.

As Deputy Assistant Secretary, Visscher oversees the Directorates of Federal State Operations, Technical Support, Information Technology, Policy, and Standards, and the Offices of Communications and Reinvention.

R. Davis Layne continues as Deputy Assistant Secretary overseeing OSHA's regional operations as well as the Directorates of Compliance, Construction, Administrative Programs, and the Office of Equal Employment Opportunity Programs.

Visscher has long experience with dealing in Labor and OSHA issues. From July 1999 through November 2000, he served as a Commissioner on the Occupational Safety and Health Review Commission. He was one of three members of the independent commission who reviewed OSHA citations and penalties contested by companies. Visscher served in congressional staff positions from 1983 to 1999, including a stint as Workforce Policy Counsel for the U.S. House of Representatives Committee on Education and the Workforce from 1989 to 1999.

Initiatives and Outreach

OSHA Issues Bloodborne Pathogens Directive

OSHA recently issued a new compliance directive for enforcing the bloodborne pathogens standard that was revised in January 2001. The standard became effective on April 18, 2001.

The compliance directive guides OSHA's safety and health inspection officers in enforcing the standard covering occupational exposure to blood and other potentially infectious materials, and ensures consistent inspection procedures are followed. It updates an earlier directive issued in 1999 and incorporates changes mandated by the *Needlestick Safety and Prevention Act* passed in November 2000. The directive is online at www.osha.gov.



OSHA issued a new compliance directive for its revised bloodborne pathogens standard.

Correction

The search and rescue worker who appears in the photograph on pages 1 and 18 of the Fall 2001 issue of *JSHQ* is wearing his respirator incorrectly. The World Trade Center Emergency Project Environmental, Safety, and Health Plan requires all workers at the site to wear a negative-pressure respirator with a tri-combo cartridge (acid gas, organic vapor, and P-100) at all times in the debris area, as well as outside the debris area when cutting steel or loading trucks with dry debris. OSHA personnel at the site are working diligently to ensure that all workers comply with this requirement. We regret the inclusion of this photograph in the magazine. For more information about the proper wear of respirators, see Q&A on page 3.

OSHA Launches Amputation Program

OSHA recently announced a special national emphasis program aimed at reducing amputations in general industry workplaces. The National Emphasis Program on Hazardous Machinery Associated with Amputations expands the existing national emphasis program on mechanical power presses. This new initiative targets all types of power presses, including press brakes, saws, shears, slicers, and slitters.

The program applies to general industry workplaces where these machines are present. Companies with fewer than 10 employees are also included, except those industries exempted from programmed inspections.

Regional and area offices will conduct outreach programs to identify, reduce, and eliminate workplace hazards associated with these machines. Programs may involve employers, professional associations, and local unions, or other activities designed to involve employee and management

stakeholders in the identification and elimination of hazards associated with such equipment.

A new method is now used to calculate amputation rates. Rates for each industry are now figured using the number of employees in each Standard Industrial Classification, or SIC, code. In the past, industries were targeted by the number of amputations, not taking into consideration the actual size of the industry. This new information will allow greater flexibility for regions and area offices to target and inspect the most hazardous workplaces. More information about the national emphasis program is available on the OSHA website at www.osha.gov under **Regulations and Compliance**.

OSHA Increases Enforcement

OSHA is increasing its enforcement efforts in Fiscal Year 2002, with more inspections targeting workplaces where injury and illness rates are the highest. Agency Administrator John L. Henshaw says OSHA plans to conduct 36,400 inspections during Fiscal Year 2002, up from slightly fewer than 35,800 inspections the previous year and 36,000 inspections in Fiscal Year 2000.

In addition to targeting workplaces with the highest injury and illness rates and where there are known hazards, OSHA will put more enforcement focus on industries where non-English-speaking workers are at the greatest risk, such as construction.

Henshaw says OSHA is committed to increasing its number of trained, certified inspectors to make its enforcement efforts more effective. "Consistent, focused enforcement is one of the keys to ensuring workers' safety and

health," says Henshaw. "OSHA needs to keep helping the majority of employers who want to do the right thing, but we also must aggressively pursue the 'bad actors.'"

OSHA Encourages Defibrillator Use

OSHA is encouraging employers to consider making Automated External Defibrillators, or AEDs, available in their workplaces to help save the lives of workers who experience cardiac arrest while on the job. To support this effort, the agency issued a pocket card and technical information bulletin on the use of AEDs.

"AEDs are easy to use and can make the critical difference in reviving individuals who suffer a cardiac crisis," says OSHA Administrator John L. Henshaw. "Administered within 3 minutes, the electric shock or defibrillation restores the normal rhythm to the victim's heart and can increase survival rates from less than 5 percent to nearly 75 percent." Immediate defibrillation, he says, can revive more than 90 percent of victims. For more information, visit www.osha.gov.

Mine Safety Initiative Under Way

In the wake of a deadly mine explosion last September, Assistant Secretary of Labor for Mine Safety and Health David D. Lauriski urges mine workers to stay vigilant in promoting mine safety. Lauriski encourages mine managers and foreman to take a brief time out at the beginning of each work shift to discuss mine safety issues. In addition, the Mine Safety and Health Administration distributed packets of safety information and posted it on the agency's website at www.msha.gov.

Safeguarding Equipment and Protecting Workers from Amputations
Small Business Safety and Health Management Series
U.S. Department of Labor
Occupational Safety and Health Administration
OSHA 3170
2001



OSHA's new publication on amputations supports the special national emphasis program.

Thirteen miners died in the September 23, 2001 explosion in Brookwood, AL. In addition, four coal miners died during a 10-day period last August, and two fatalities and a serious injury occurred in metal and nonmetal mining in early October.

The events followed what had been a downturn in mining incidents. Before the Brookwood explosion, 19 coal miners had died on the job in 2001, down from 29 for the same period in 2000. In metal and nonmetal mining, 22 miners had died during the first 9 months of 2001, compared with 38 for the same period in 2000.

Forest Service Implements Action Plan

The U.S. Forest Service recently instituted a plan to prevent future incidents like the one in July 2001 that killed four firefighters fighting the “ThirtyMile Fire” in the Okanogan-Wenatchee National Forest. An OSHA investigation identified serious and willful job safety violations at the time of the fire. The findings are consistent with those identified by Forest Service.

The new accident prevention plan calls for emphasizing

situational awareness, transitioning from initial to extended attack, addressing chronic fatigue issues, and strengthening fire leadership and accountability.

The plan is based on the ThirtyMile Fire Accident Investigation Team’s report and the Management Evaluation Report developed by the ThirtyMile Fire Board of Review. The plan is available on the Forest Service website at www.fs.fed.us/fire.

Publications and Products

OSHA Issues Metalworking Manual

OSHA recently released a new safety and health guide to help employers provide a safer workplace for workers exposed to metalworking fluids. Metalworking fluids include a complex mixture of oils, detergents, lubricants, and other potentially toxic ingredients and are used mainly for their cooling, lubricating, and corrosion-resisting properties during machining operations.

The new guide, *Metalworking Fluids: Safety and Health Best Practices Manual*, is the culmination of 4 years of work by the Metalworking Standards Advisory Committee. It recommends a systems management approach to control exposure and minimize contact with the fluid. That strategy includes engineering and work practice controls and the use of personal protective equipment.

“Millions of workers in the manufacturing industry work with these types of fluids daily,” says OSHA Administrator John L. Henshaw. “There is extensive scientific evidence that continued occupational exposure to metal-

working fluids can have serious health risks. We believe this guide is an important first step in arming employers with viable preventative measures to help reduce those risks.” For more information, visit OSHA’s website at www.osha.gov.

NSC Introduces Emergency Planning Resources

A new National Safety Council website and hotline provides wide-ranging information on emergency planning and disaster preparedness, including checklists for businesses and resources for emergency planners.

The site, www.nsc.org/issues/prepare.htm, features two downloadable documents: a primer on developing safety and security programs and procedures and a checklist to determine if adequate emergency facilities and procedures are in place and operating properly. In addition, NSC now has a toll-free emergency planning hotline for callers with questions on preparing for emergencies. The number is (800) 672-4692.

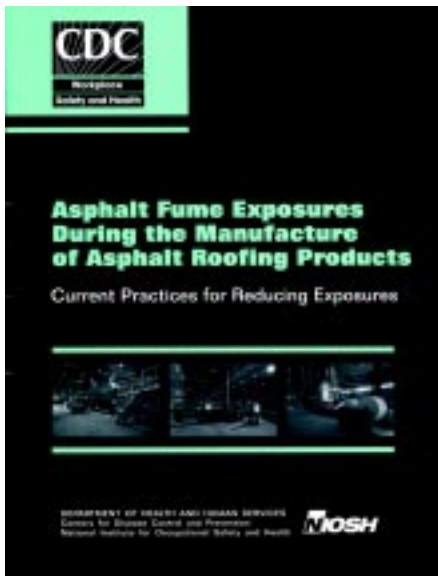
“Readiness must be an urgent priority for everyone charged with the responsibility for protecting and safety and health of workers and building occupants,” says NSC President Alan McMillan. “Emergency planning can no longer be regarded as only theoretical. The threat of a disaster is real, and we must do everything we can to be prepared.”

Asphalt Fume Protection

A new National Institute for Occupational Safety and Health (NIOSH) report describes ways to reduce workers’ exposures to asphalt fumes during the manufacture of roofing products. The publication, *Asphalt Fume Exposures During the Manufacture*



The Forest Service released an accident prevention plan.



A NIOSH report describes ways to reduce exposures to asphalt fumes.

of Asphalt Roofing Products: Current Practices for Reducing Exposures, identifies steps in the manufacturing process that can lead to employee exposure of asphalt fumes. It also discusses engineering control methods and work practices to reduce exposures.

NIOSH, labor, and industry collaborated on the report,

designed to increase awareness among plant managers, safety and health professionals, and engineers about the potential for asphalt and asphalt fume exposures. It also aims to promote current exposure-reduction practices in the industry. For a copy of the report, call (800) 35-NIOSH or visit the organization's website at www.cdc.gov/niosh.

Committee News

NACOSH Meets in DC

The National Advisory Committee on Occupational Safety and Health recently met in Washington, DC, to discuss OSHA and NIOSH activities. Agenda items included a presentation on OSHA and NIOSH's responses to the September 11 terrorist attacks, ergonomics issues, recordkeeping, and outreach initiatives.

NACOSH began under the *Occupational Safety and Health Act* to advise the Secretaries of Labor

and Health and Human Services on occupational safety and health.

ACCSH Committee Meets

The Advisory Committee on Construction Safety and Health met in Washington, DC, in early December to discuss safety and health issues, standards, and policies that affect the construction industry. Committee work groups met for 2 days, then held an open meeting.

The committee received an overview of ongoing activities at the World Trade Center disaster site. Also discussed were initiatives to help control hazards associated with communications tower erection.

Partnership News

OSHA, NATE Form Partnership

OSHA recently entered into a 3-year regional partnership agreement with the National Association of Tower Erectors (NATE) to reduce workplace injuries in the industry. To qualify as a partner, member employers must have a competent person on site during all working hours. In addition, participating companies must have an OSHA-approved safety and health program and provide 10 hours of training to all field employees and 30 hours of training to all field supervisors.

Tower erectors would be subject to only focused inspections, which would address fall protection, how workers get up the tower, and whether they use certified lift equipment. OSHA will work with NATE to develop a list of best practices for the industry.

"We are very optimistic about this partnership," says Mike



Assistant Secretary John L. Henshaw, center, meets with NACOSH.

Photo by Donna Miles

Connors, OSHA Regional Administrator in Chicago. "In developing the program, we worked with NATE to begin addressing the major hazards in the industry. There is no question they are committed to working with OSHA to make this a safer industry."

OSHA Joins Stadium Partnership

OSHA recently signed a site-safety partnership agreement with the contractor building the new stadium for the New England Patriots and the New England Revolution soccer team.

The partnership between OSHA and Beacon-Barton Malow, a joint venture between Beacon Skanska, Inc. of Boston and Barton Malow Company of Southfield, MI, will be in effect during construction of the CMGI Field in Foxboro, Mass. The project began in April 2000.

The partnership agreement outlines a cooperative effort to ensure a safe work environment during construction of the state-of-the-art football and soccer stadium.

Elements include a comprehensive safety plan for the site, site-specific training for all employees on hazards and regulations applicable to their work, and constant site monitoring by the contractor's safety team. The agreement also establishes a labor-management safety committee composed of each craft steward on site and representatives from management for each contractor. The committee will coordinate with the site safety team to resolve any safety and health problems or complaints and will hold biweekly safety meetings with the team.

"Cooperation among labor, management, and OSHA is vitally necessary to ensure the safety and

health of workers on any large and complex construction project," says OSHA Administrator John Henshaw. "This partnership agreement to protect the workers building the New England Patriots' CMGI Field is precisely the type of framework which fosters that essential cooperation."

OSHA Joins Small Business Partnership

OSHA has entered into a partnership with the Association of Small Business Development Centers and the Department of Labor's Office of Small Business Programs to help small businesses improve their safety and health performance. The partnership establishes a comprehensive effort to improve the safety and health performance of small businesses that receive outreach and training services. The agreement also aims to increase small business participation in OSHA technical assistance and cooperative programs.

The partners will identify interested small businesses that wish to learn more about safety and health, need assistance with program development, or want to be recognized through OSHA's Voluntary Protection Programs or the Safety and Health Achievement Recognition Program for small businesses that undergo free comprehensive safety and health consultation.

The initial phase of the partnership will focus on providing information and training regarding OSHA's new recordkeeping standard. A pilot training program to be developed for recordkeeping will be offered at Small Business Development Centers in selected key states.

OSHA Announces USVI Partnership

OSHA recently entered into a partnership to ensure the safety and health of workers during a major construction project in the U.S. Virgin Islands. The Delayed Coker



OSHA Administrator John L. Henshaw, center, joins Department of Labor Office of Small Business Programs Director June Robinson, left, and Association of Small Business Development Centers President Donald Wilson in signing a partnership agreement. Photo by Shawn Moore

Plant Project in St. Croix, USVI, includes the construction of a petroleum coke storage facility and dock, as well as modifications to existing units at the Hovensa LLC Refinery. The project is expected to employ about 2,000 workers.

Joining OSHA in the partnership is Bechtel International, Inc.; Hovensa LLC Refinery, and the United Steel Workers of America, Local 8526. The objective of the partnership agreement is to reduce the rate of injuries and illnesses at the site by 20 percent and prevent serious accidents during the construction project by eliminating hazards associated with falls, electricity, and struck-by and caught-by or in-between dangers.

VPP Update

USPS Earns Star Status

OSHA has welcomed the first U.S. Postal Service facility into its prestigious Star Voluntary Protection Program. The Pittsburgh Air Mail Center in Coraopolis, PA, is the first of 38,000 postal facilities nationwide to achieve this honor. In an early October ceremony, Deputy Assistant Secretary R. Davis Layne saluted managers, workers, and their union leaders for a proactive commitment to worker protection that has borne impressive results: a 3-year total injury/illness rate that is 63 percent below the industry average, and a 3-year rate for days away from work and restricted activity that is 58 percent below industry average.

New and Recently Reapproved VPP Members

Federal Program

New Star

- Curtis Lumber Company, Granville, NY
- Curtis Lumber Company, Schroon Lake, NY
- United States Postal Service Albany Vehicle Maintenance, Albany, NY
- AK Steel, Butler, PA
- Dick Corporation, Clay Center Construction Project, Charleston, WV
- International Paper, Hazelton Converting and Distribution, Hazelton, PA
- J.A. Jones E and C, LLC, Mount Storm Flue Gas Desulfurization Project, Mount Storm, WV
- International Paper, McBean Woodyard, Waynesboro, GA

- Olin Corporation, McIntosh, AL
- Standridge Social Circle Plant, Social Circle, GA
- Austin Industrial Company at Equistar Chemicals, LP, LaPorte, TX
- CP Kelco, Okmulgee, OK
- Equistar Chemicals, LP, LaPorte, TX
- Huntsman, Odessa, TX
- Lockheed Martin Space Operations; Science, Engineering, Analysis, and Test Operation; Houston, TX
- Lockheed Martin Space Operations at NASA - Johnson Space Center, Houston, TX
- Crompton Corporation, Uniroyal Chemical, Geismar, LA
- CF Industries, Aurora, NE
- Colonial Springs Healthcare, Buffalo, MO
- Kiewit Construction, Tower at First National Center Project, Omaha, NE

16-Year Star Site

- PACTIV Corporation, Temple Logistics Operations, Temple, TX
- PACTIV Corporation, Polyethylene Plant, Temple, TX
- PACTIV Corporation, Polystyrene Plant, Temple, TX

14-Year Star

- GE Plastics, Selkirk, NY
- Huntsman Corp., Jefferson County Operations, Aromatics and Olefins Plant, Port Arthur, TX

12-Year Star

- Lucent Technologies, Oklahoma City, OK

11-Year Star

- Dow Chemicals, Louisiana Division, Plaquemine, LA

10-Year Star

- Occidental Chemical, Taft Plant, Hahnville, LA

9-Year Star

- WestPoint Stevens in Abbeville, AL

8-Year Star

- Timminco Corporation, Magnesium Fabrication Products, Aurora, CO

6-Year Star

- Georgia Pacific, Gloster Plywood Plant, Gloster, MS
- Milliken Alma Plant, Nicholls, GA
- Equistar Chemicals, Chocolate Bayou Plant, Alvin, TX
- Halliburton Energy Services, Inc., Carrollton, TX
- Occidental Chemical Company, Dallas Silicates Plant, Dallas, TX

3-Year Star

- General Electric Industrial Systems, Auburn, ME
- Wenner Bread Products, Bayport, NY
- Degussa Metals, Catalyst Cerdec Corporation, Cerdec Division, Washington, PA
- Montenay Energy Resources of Montgomery County, Inc., Conshohocken, PA
- International Paper, Decatur, AL
- International Paper, Treated Wood Products Plant, Wiggins, MS
- R.R. Donnelley and Sons, Senatobia, MS
- International Paper, Thorsby, AL

- Marathon Oil Company, Yates Field, Iraan, TX
- Texaco Natural Gas Inc., Maysville Gas Plant, Maysville, OK
- International Paper, San Antonio, TX
- Solutia West Port Facility, Maryland Heights, MO
- Potlatch Consumer Products Division, Lewiston, ID
- United Space Alliance, Logistics Support Facility, Houston, TX

Merit to Star

- General Electric, Waterford, NY
- Stepan Company, Fieldsboro, NJ
- Thrall Car Manufacturing, Cartersville, GA
- Akzo Nobel Chemicals, Deer Park, TX
- Armour Swift-Eckrich Food-service Company, Jonesboro, AR
- Boone Retirement Center, Columbia, MO

New Merit

- Brown and Williamson, Macon Branch, Macon, GA
- Eaton Aeroquip, Van Wert, OH
- Zachry at Phillips Refinery and NGL Center, Borger, TX

Continued Merit

- Rifenburg Construction, Inc., Farmington, NY
- CIBA Vision-Amwiler Plant, Atlanta, GA
- Phillips Petroleum Company, Borger Refinery and NGL Center, Borger, TX

New Demonstration

- HDR Engineering, Inc., Omaha, NE

State-Plan State Programs

New Star

- International Paper, Stockton, CA
- West Michigan Air Care, Kalamazoo, MI
- Milliken and Company, Enterprise Plant, Marietta, SC
- R.R. Donnelley and Sons Company, Roanoke Manufacturing Division, Salem, VA
- R.J. Reynolds Tobacco Company, RJR Utilities Division, Winston-Salem, NC
- GE Medical Systems, Florence, SC
- Frito-Lay, Inc., Arizona Service Center, Phoenix, AZ
- Westvaco Forest Resources Division, Southern Region, Summerville, SC
- Georgia-Pacific Corp., Whiteville Plywood Plant, Whiteville, NC
- Glen Raven Filament Fabrics, LLC, Burnsville, NC
- Mount Olive Pickle Company, Inc., Mt. Olive, NC
- Southern Industrial Contractors, Inc., Fayetteville, NC
- Avdel Cherry Textro, Stanfield, NC

Merit to Star

- Solvay Interlox, Inc., Longview, WA
- NW Alloys, Inc. (ALCOA), Addy, WA

As of December 1, 588 sites were participating in the Federal VPP: 531 in *Star*, 54 in *Merit*, and 3 in *Demonstration*. In addition, 203 sites were participating in state-plan VPPs: 196 in *Star* and 7 in *Merit*.

Anthrax Alert

Matrix Helps Assess Risk

Labor Secretary Elaine L. Chao has announced a new model to assist employers and employees in dealing with possible workplace exposures to anthrax in mail handling operations. The Anthrax Matrix guides employers in assessing risk to their workers, providing appropriate protective equipment, and specifying safe work practices for low-, medium-, and high-risk levels in the workplace.

The Anthrax Matrix, shaped like a pyramid, includes three sections: green for low, yellow for medium, and red for high risk of exposure. Each section links to useful information and practical guidance to help determine an appropriate response. The matrix is posted on the OSHA website at www.osha.gov.

The site also includes general information on anthrax and mail handling procedures and links to other sources of information on biological and chemical hazards and emergency preparedness.

OSHA developed the Anthrax Matrix in consultation with the Centers for Disease Control, U.S. Postal Service, National Institute for Occupational Safety and Health, Environmental Protection Agency, and Federal Bureau of Investigation. OSHA expects to update information on anthrax and other terrorism threats as new guidance becomes available.

“Most employers and employees face little or no risk of exposure to anthrax and need only minimal precautions,” Chao says. “But some may have to deal with potential or known exposures, and we want to make sure they have all possible information available to protect Americans at their workplaces.”

Chao pointed out that there have been only 4 deaths and 17 confirmed cases of anthrax infection but indicated that the department wants to be proactive in assisting employers and workers concerned about anthrax and other potential terrorist threats. “The OSHA information is easy to access and understand,” Chao says.

“We are providing needed guidance, not creating new requirements. The world has changed since September 11. Threats to our national security now can clearly involve the workplace.”

Tips for Mail Handling

Chao has issued recommendations from OSHA that will reduce the risk of anthrax exposure when handling mail. The guidelines are part of an effort to ensure that the American people know that workplaces will remain safe.

“The risk of exposure to anthrax in most offices is minute; however, a few common-sense steps should always be taken,” Chao says. “These will help companies and their employees reduce the risk of exposure. Now, more than ever, we must work together to protect the health of our employees.”

Chao advised workers to exercise good judgment and caution when handling mail and take the following precautionary measures as outlined by OSHA:

- Be on the lookout for suspicious letters and packages, including packages or envelopes of unusual weight or size, with a handwritten address or no

return address, and with excessive postage.

- Open packages and envelopes with a minimum amount of movement and always use a letter opener or method that is least likely to disturb the contents.
- Do not blow into envelopes.
- Do not shake or pour out the contents.
- Keep hands away from the nose and mouth when opening mail.
- Always wash hands after handling mail.

Chao added that if employers or employees choose to use protective equipment such as gloves, it is important that they take necessary steps to make sure they handle and use these items properly. For more information, visit the OSHA website at www.osha.gov. JSHQ



What is Anthrax?

Anthrax is an acute infectious disease caused by a spore-forming bacterium called *Bacillus anthracis*. It is generally acquired following contact with anthrax-infected animals or anthrax-contaminated animal products. Anthrax is receiving heightened attention recently because of its use as a biological warfare agent. In humans, three types of anthrax infections can occur, based on the route of exposure: cutaneous (skin exposure), inhalational (inhalation exposure), and gastrointestinal (ingestion exposure). Symptoms are dependent on the route of exposure. Those most often associated with skin infections are itching, boils, and formation of a black scab. Symptoms most often associated with inhalation infections are fever, chest pain, and difficulty breathing. Symptoms most often associated with ingestion infections are nausea, vomiting, and diarrhea. More general information about anthrax can be found in the following resource: www.bt.cdc.gov.

¿Qué es el Ántrax?

Ántrax es una enfermedad infecciosa aguda causada por una bacteria esporulante llamada *Bacillus anthracis*. En general, se contrae mediante el contacto con animales infectados con ántrax o con productos de animales infectados con ántrax. Se ha prestado mayor atención al ántrax en estas fechas debido a su uso como agente de guerra biológica. En los humanos, existen tres tipos de infección de ántrax que se basan en el tipo de exposición: cutáneo (exposición por la piel), inhalación (exposición por aspiración) y gastrointestinal (exposición por ingestión). Los síntomas dependen del tipo de exposición. Los que más frecuentemente se asocian con las infecciones por la piel son el picor, los furúnculos y la formación de una llaga negra. Los síntomas que más frecuentemente se asocian con las infecciones por aspiración son la fiebre, el dolor de pecho y la dificultad en respirar. Los síntomas que más frecuentemente se asocian con las infecciones por ingestión son la náusea, el vómito, y la diarrea. Existe mayor información general sobre el ántrax mediante el siguiente recurso: www.bt.cdc.gov.



For the Record

OSHA's new recordkeeping rules took effect January 1.

by Susan Hall Fleming

As of January 1, 2002, OSHA's new injury and illness recordkeeping rules cover 1.4 million employers in the United States—about 20 percent of the worksites under OSHA's jurisdiction. The revised rules are simpler and clearer and promote more accurate, consistent records.

"Our twin goals with the new system are to make it easier for employers to track injuries and illnesses and to improve the quality of the data," says OSHA Administrator John L. Henshaw. "We made the forms smaller to fit on legal size paper, and we clarified and simplified the instructions to make them easier to understand. We also wanted a system that would better protect employee privacy in sensitive cases."

Previous OSHA recordkeeping rules date back to 1971. In 1982, OSHA exempted employers in low-hazard industries from maintaining injury and illness logs. Employers with 10 or fewer workers also are exempt. All employers,

however, must orally report any workplace incident resulting in a fatality or the hospitalization of three or more employees.

The updated rule, most of which is written in a friendly question-and-answer format, includes three new recordkeeping forms and eliminates different criteria for recording work-related injuries and illnesses. It provides clearer definitions for first aid, medical treatment, and restricted work. It also eliminates the term "Lost Workday Injury and Illness (LWDII)," replacing it with "Days Away, Restricted, or Transferred (DART)." In addition, the rule calls for employers to count calendar days instead of workdays.

New requirements instruct employers to omit workers' names on the recordkeeping forms for privacy cases such as sexual assaults or mental illnesses. Employers also must set up a way for employees to report injuries and illnesses and tell their workers how to report them. The annual summary of injuries

and illnesses must be certified by a company executive and posted for 3 months instead of just 1 month.

Three issues in the rule remain unresolved: the criteria for recording work-related hearing loss, the definition of musculoskeletal disorder, and the requirement to check the "MSD," or "musculoskeletal disorder" column on the OSHA log. These provisions will be delayed until January 1, 2003 while the agency reconsiders them.

States that operate their own job safety and health programs are adopting comparable recordkeeping rules, also effective on January 1, 2002. It is important in compiling national statistics for all employers to use the same recording criteria for injuries and illnesses. Other state recordkeeping provisions that do not affect which injuries or illnesses are recorded and how they are entered, such as industry or size exemptions or requirements for reporting of injuries and fatalities, may be different.

“Critical to making the new recordkeeping rule work is the extensive outreach program OSHA has developed to assist employers in making the transition,” Henshaw says. “We are doing everything possible to help employers—including delaying enforcement of the new rule for 120 days to ensure that employers understand it completely before we hold them accountable.”

OSHA resources to assist employers in understanding and following the new injury and illness recordkeeping system are available on a special recordkeeping page on OSHA’s website at www.osha.gov. Resources include copies of the recordkeeping forms and the rule; a brochure to help employers determine if they are covered by the rule; frequently asked questions; fact sheets covering highlights of the standard, major changes, and a side-by-side comparison of some of the major changes between the old and new rule; a webcast training presentation; three PowerPoint training programs; and a list of regional recordkeeping coordinators who can respond to detailed questions. *JSHQ*

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

Recordkeeping Qs & As

How can I get copies of the recordkeeping forms?

OSHA recordkeeping forms can be downloaded from the new recordkeeping page on the agency’s website at www.osha.gov. You also can get paper copies of the forms from your local federal or state OSHA office or from the OSHA Publications Office by calling (202) 693-1888.

What if I have specific questions?

Check the **Frequently Asked Questions** section on the recordkeeping page on the OSHA website. If your question isn’t answered there, you can call your local federal or state OSHA office or one of the agency’s regional recordkeeping coordinators, also listed on the website.

Where can I get training on recordkeeping?

Many local organizations are partnering with OSHA and states operating their own state OSHA programs to offer recordkeeping training. If you’d like to help sponsor such training in your area, call your local OSHA office.

In addition, OSHA offers three downloadable PowerPoint slide training programs on its website. Or you can view an archived webcast of the satellite training that OSHA offered nationwide on December 12, 2001. You can also find a listing of regional education centers that are offering classes. Choose the **Recordkeeping** page from www.osha.gov.

When will OSHA begin enforcing the new recordkeeping requirements?

To give employers sufficient time to make the transition to the new rule, OSHA compliance officers will focus on compliance assistance rather than enforcement for the first 120 days after January 1, 2002. No citations will be issued provided employers are attempting in good faith to meet their recordkeeping obligations and agree to make corrections necessary to bring their records into compliance.



Customers Give OSHA High Marks

A recent Gallup survey of nearly 2,500 workers, employers, and OSHA stakeholders who had direct contact with OSHA during the past year found customers very satisfied or satisfied with their dealings with the agency.

Of those surveyed, more than 92 percent rated compliance assistance useful, and more than 86 percent of workers at sites with OSHA interventions were satisfied with their involvement in the intervention. More than 87 percent of workers and employers rated OSHA staff professionalism, competence, and knowledge as satisfactory; and almost 88 percent of OSHA stakeholders and partners rated their involvement in the stakeholder/partnership process as positive.

In addition, 94 percent of workers and 84 percent of employers involved in inspections were either very satisfied or satisfied with OSHA staff professionalism. More than 95 percent of businesses that received free consultations were satisfied with the help they received. Also, 98 percent of employers in OSHA partnerships found agency staff knowledgeable about OSHA rules and regulations.

“This survey clearly shows OSHA continues to strive to satisfy its customers by providing them with useful information and opportunities for involvement in inspections or in partnerships,” says OSHA Administrator John L. Henshaw. “Our compliance officers and staff are useful

resources on safety and health issues. The survey findings provide information that will help our customer focus and help us deliver on customer expectations.”

Based on customer responses, OSHA has identified several areas to work on. The survey found that workers were less likely to be satisfied with phone/fax investigations, where OSHA contacts employers by phone to report complaints and receives a faxed response. If the response is satisfactory, the agency takes no further action. Instead, workers would prefer more onsite inspections, more followup visits and a swifter response. Both employers and workers wanted inspectors to be more familiar with their specific industries. Small businesses wanted a speedier response to their request for consultations and would prefer annual consultations. Other requests from those surveyed included calls for greater involvement of stakeholders, more partnership and more information, education and training.

“Although this survey finds OSHA is doing many things right, we have many more challenges and opportunities ahead of us to improve our overall customer satisfaction,” Henshaw says. The survey is available on OSHA’s website at www.osha.gov. Click on **About OSHA.** [JSHQ](#)



OSHA customers gave the agency the “thumbs up” in a recent Gallup survey.

Workplace Safety on the Rise

The overall on-the-job injury and illness rate dropped 3 percent in 2000, continuing a downward trend that has lowered the incidence rate from 8.1 per 100 equivalent full-time workers in 1995 to 6.1 in 2000. That was the finding of the Bureau of Labor Statistics' latest *Survey of Occupational Injuries and Illnesses*, announced in December.

The 2000 rate is a record low since BLS started reporting annual

figures in the 1970s. About the same number of cases, 5.7 million, were reported in 2000 as in 1999, when the injury and illness rate was 6.3 cases per 100 full-time workers. Meanwhile, employees worked 2 percent more hours in 2000 than the previous year.

Elaine L. Chao, Secretary of Labor, called the announcement "good news" for both workers and those who employ them. "These data show that our nation's

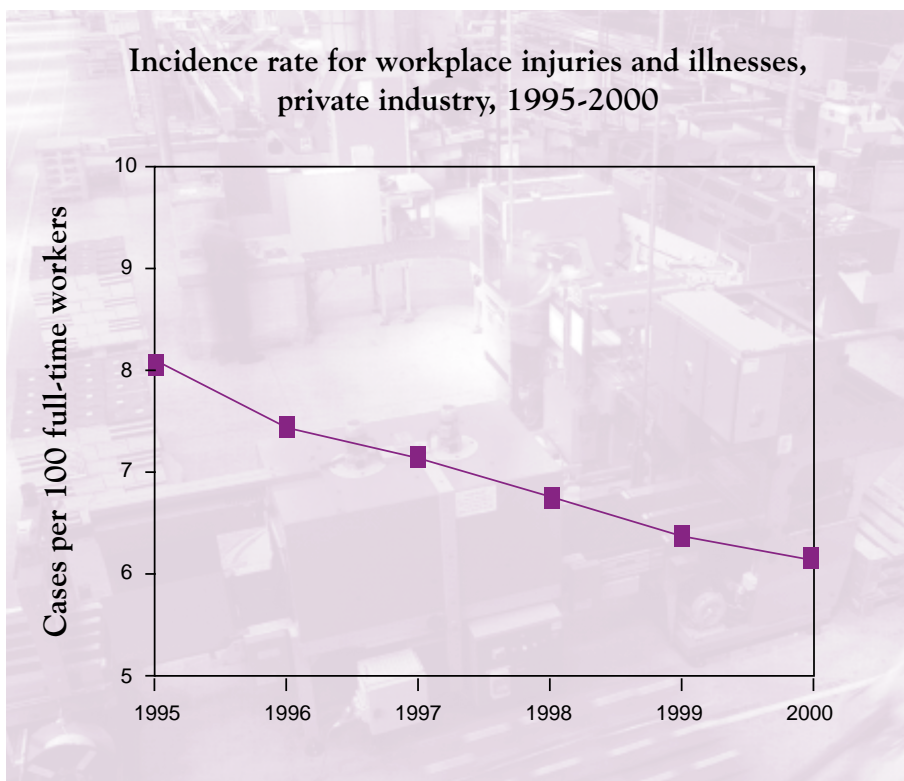
workplaces continue to become safer and more healthful each year," she says. "We must keep improving upon this positive trend in workplace injury and illness rates through proper enforcement of health and safety standards, as well as OSHA's model compliance assistance program."

Injuries and illnesses that resulted in lost workdays accounted for 2.8 million cases, compared with 2.7 million in 1999. The lost-workday rate in 2000 was 3 cases per 100 workers, the same rate as in 1999.

The rate for workers on restricted work activity while they recuperate stabilized at 1.2 per 100 workers in 2000, the same rate as in 1998 and 1999.

Manufacturing workers experienced the highest injury and illness rate, at 9 cases per 100 workers in 2000. Other rates for large industrial sectors were 7.1 per 100 for agriculture, forestry, and fishing; 4.7 per 100 for mining; 8.3 per 100 for construction; 6.9 per 100 for transportation; 13.9 per 100 for nursing and personal-care facilities; and 5.9 per 100 for wholesale and retail trade.

More details about the BLS injury and illness survey are available at www.bls.gov. JSHQ



OSHA's World Trade Center Response

Partnering for Safety

OSHA has entered into two new partnerships to protect the safety and health of thousands of workers at the World Trade Center disaster site and Staten Island recovery operation.

The WTC Emergency Project Partnership Agreement formalizes a commitment to safety and health among contractors, employees, employee representatives, and governmental agencies participating in the emergency response efforts in lower Manhattan. In addition to OSHA, participants include the New York City Department of Design and Construction and the Fire Department of New York (Co-Incident Commanders); Building and Construction Trades Council of Greater New York; Building Trades Employers' Association; Contractors Association of Greater New York; General Contractors Association; and the four prime contractors at the WTC site: AMEC Construction Management, Inc.; Bovis Lend Lease LMB, Inc.; Tully Construction Co., Inc.; and Turner/Plaza Construction Joint Venture.

The partnership agreement outlines a cooperative effort to ensure a safe work environment. New safety and health initiatives



*A new partnership is helping protect workers at the World Trade Center site.
Photo by Shawn Moore*



Secretary of Labor Elaine L. Chao, center, joins Edward J. Malloy, left, president of the Building and Construction Trades Council of Greater New York; and Louis J. Coletti, chairman and chief operating officer of the Building Trades Employers Association, in signing the World Trade Center partnership agreement. Photo by Shawn Moore

include a site-orientation training program and establishment of a safety committee of representatives from labor and management organizations as well as OSHA and other participating agencies. The orientation program familiarizes workers with potential hazards and personal protective equipment requirements.

“This is a remarkable partnership to ensure the safety of these heroes as much as possible,” says Secretary of Labor Elaine L. Chao, “because we can’t let the terrorists claim another American life.”

In a related effort, OSHA launched a new partnership to protect workers involved in the World Trade Center Staten Island recovery operation. Joining OSHA in the partnership are the U.S. Army Corps of Engineers; Environmental Protection Agency; New York Police Department; New York State Department of Environmental Conservation; New York City Department of Health;

New York City Department of Sanitation; Hugo Neu Schnitzer East; Phillips and Jordan; Evans Environmental and Geosciences; Yanuzzi and Sons, Inc.; Mazzochi

Wrecking; Taylor Recycling Facility LLC; International Union of Operating Engineers, Locals 14-14B and 15; and Garner Environmental Services, Inc.

The Staten Island partnership calls on participants to work together in their respective roles to create the highest level of worker safety and health in extremely difficult work environments. The agreement provides for safety meetings, joint safety monitoring tours, respirator fit testing, air sampling, and employee training.

John Henshaw, OSHA Administrator, praised the two partnerships for their commitment to worker safety and health. “Our challenge is to ensure the September 11 tragedy claims no more victims in terms of fatalities or serious injuries or illnesses,” he says. “That challenge demands a cooperative, highly coordinated effort. These partnerships provide the framework for that effort. JSHQ



Twisted steel and other debris at the site posed many potential safety hazards.

Photo by Shawn Moore

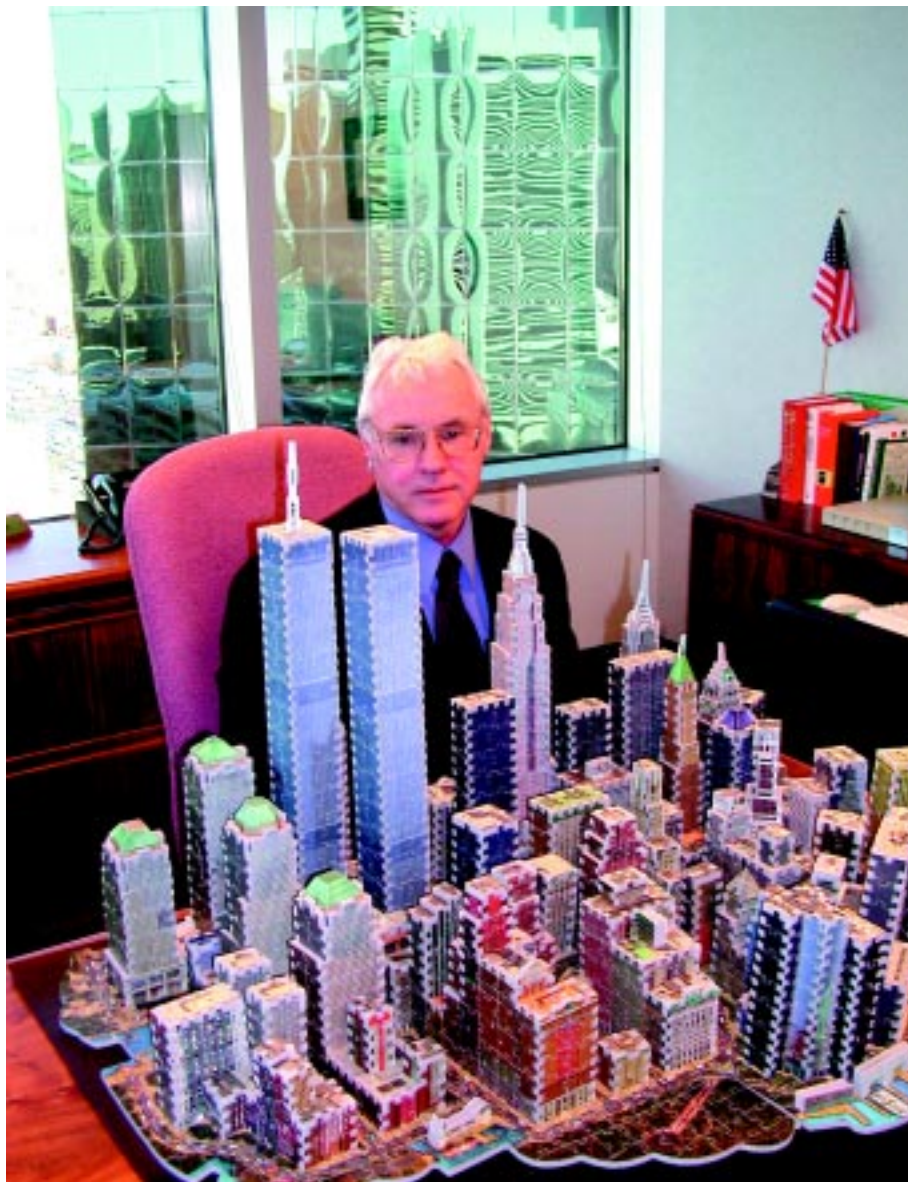
OSHA Workers Pitch In

OSHA employees are giving their all to protect workers at the World Trade Center site—and getting much in return.

by Donna Miles

They came from near and far. More than 800 safety and health professionals from federal and state OSHA offices throughout the United States heeded the call to take part in OSHA's World Trade Center response. Joining them were about 12 Voluntary Protection Programs' special government employees.

Working side by side with their colleagues from OSHA's New York region, they faced a massive challenge: to provide 24-hour-a-day, 7-day-a-week support at the World Trade Center site to help



Greg Baxter, OSHA Deputy Regional Administration in Denver, with his puzzle of the New York skyline, left, and at work on Tower 2 almost 30 years ago. Left photo by Richard Kulczewski





Deborah Gabry from OSHA's Technical Support Directorate distributed respirators and performed fit tests for workers at the site.

protect the thousands of rescue and recovery workers involved in recovery, demolition, and site-clearing operations. Their main focus was on providing site safety and health support by performing risk assessment, monitoring air and physical agents, and distributing and fit-checking respirators.

For Greg Baxter, OSHA's Deputy Regional Administrator in Denver, returning to his native New York City to help had special significance. Baxter's father retired from the New York Police Department and his late father-in-law served 31 years with the Fire Department of New York. Baxter has personal ties to the World Trade Center as well. At age 22, he spent several months working as an ornamental ironworker on Tower 2, bolting on the curtain wall 104 stories above ground. There, working on a jury-rigged scaffold high above the city, Baxter's encounter with a site safety inspector led to his lifetime interest in occupational safety and health. Three years later, Baxter and his wife worked in the Trade

Center as employees of the New York State Department of Labor's Construction Division.

Today in Baxter's Denver office, a huge, three-dimensional jigsaw puzzle of the Manhattan skyline, painstakingly assembled from 3,100 pieces, stands as a testament to his New York roots. Someone

suggested after the September 11 terrorist attacks that he remove the cardboard twin towers of the World Trade Center, but he says, "I don't have the heart to take them down."

After September 11, Baxter says he "felt compelled to do something, to somehow be a part of this tragedy," because, to him, "staying 1,900 miles away from New York was just not an option." He spent 5 weeks at the site, working weekdays at the command center, where he helped secure equipment and resources for the OSHA response team and served as OSHA's liaison with other government agencies involved in the effort. During the weekends, Baxter served on OSHA's safety monitoring teams. He walked the disaster site, observed the work under way, identified hazards, and persuaded workers to take necessary precautions.

Although few OSHA workers had ties to the World Trade Center that ran as deeply as Baxter's, many shared his sense of loss. Anthony Lemire, Assistant Area Director for



Bob Garvey, Risk Assessment Coordinator, center, discusses air sampling procedures at the site with an OSHA team of staffers from throughout the United States. Photo by Shawn Moore



Keith Tsubata from Hawaii's Division of Occupational Safety and Health says he found gratification in knowing he was helping prevent more tragedies at the site.

the Bangor, Maine, Area Office, felt so “devastated and angered” over the destruction that he says “I felt I owed it to the agency and to myself to help in whatever way necessary.” Lemire spent a week in late October and early November working the 11 p.m.-to-7 a.m. shift as a safety monitor for the tower area. Walking alongside the mountains of twisted metal and debris, he warned the hundreds of workers at the site about hazards ranging from respiratory concerns to fall protection to the dangers of the constant flow of dump trucks, all-terrain vehicles, and emergency vehicles at the site.

David Doucet, Assistant Area Director in the Baton Rouge, LA, Area Office, also worked as a safety monitor at the site. He says he offered to work at the World Trade Center “plain and simple, for the preservation of human life.” He says, “I figured the workers at the World Trade Center had enough things on their mind from the

tragic event that their personal safety might be overlooked, and I could be the one to help them realize that they, too, have a family waiting for them at home.”

Mark Behrens, a safety consultant for Hawaii's Division of Occupational Safety and Health, saw OSHA's request for workers as a welcomed opportunity. “The whole country was wondering what they could do to help, and here this invitation to help was dropped in my lap one morning when I came to work,” he says. Working at the site for a week in early November, he distributed respirators and provided training and fit-checks to workers involved in the recovery operation. While helping to protect them from hazards at the site, Behrens says “I tried my best to provide encouragement and to spread ‘aloha’ to workers at the site. I dealt with 100 different people on a typical day and did a lot more listening than talking.”



Patricia Gaydos, the state plan monitor for OSHA's Denver Regional Office, agrees that working at Ground Zero gave her an unexpected opportunity to help. “I never dreamed, as I watched the towers go down from my hotel room [TV] in Montana, that I would have



Joe Czabik, an industrial hygienist from OSHA's Avenel, NJ, Area Office, prepares air samples for processing at OSHA's Salt Lake Technical Center. Photo by Shawn Moore

the opportunity to do something," she says. "But that opportunity came and I couldn't refuse." She spent a week at the disaster site sampling air for asbestos, silica, lead and other heavy metals, carbon monoxide, and organic and inorganic compounds.



Nancy Diaz from OSHA's Hasbrouck Heights, NJ, Area Office instructs a New York City police officer in the use of respiratory protection at the site. Photo by Donna Miles

Peggy Peterson, a senior industrial hygienist for the Iowa Division of Labor, was among representatives of 22 OSHA-approved state plan states and OSHA onsite consultation programs who pitched in to support the effort. Working at the site from late November to early December, she taught workers and rescue personnel how to wear their respiratory protection properly and warned them about the dangers of elements such as silica and lead that they could be exposed to if they didn't.

Deborah Gabry, a health scientist in the OSHA National Office's Technical Support Directorate in Washington, DC, spent a week at the site in late December distributing and fit-testing respirators and doing her best to educate workers about the importance of wearing them consistently. A native New Yorker, Gabry says she "wanted to make a difference" to help workers at the site and to "give back to the New

York community that has given so much to me."

Working at the site, the workers agree, was difficult and painful—but rewarding. Peterson recalls sights and sounds she will never forget: "heavy metal steel scraping and being pulled in directions against the natural movement, an I-beam being removed from the pile, still on fire, the size of the rubble pile shrinking by the hour, the movement of vehicles." Of her experience, she says, "I've seen the destruction. I heard the sounds of the recovery. I watched the bodies solemnly taken from the pile. I smelled the ash, dust, and smoke. I was there. I feel that I was able, in a very small way, to help the people of New York and the rescue workers."

Keith Tsubata, an occupational safety and health advisor for Hawaii's Division of Occupational Safety and Health, says that as he worked the 11 p.m.-to-7 a.m. shift distributing personal protective equipment at the site, "I stood and

stared at the site every night and shook my head in disbelief.” The gratification, he says, was knowing that he was doing his part to help prevent additional tragedies at the site. “I felt like I made a difference,” he says.

Doucet, too, says he felt he played a tangible role in protecting the recovery workers. Recognizing that a cleanup crew was throwing debris out of a building heavily damaged during the twin towers’ collapse, he helped get the street below barricaded to prevent recovery workers there from getting struck. He says he got special pleasure in “selling safety” to employers and employees at the site. “It’s my job, it’s what I love, and it’s what I get paid to do,” he says.

Gabry says she gained “a tremendous appreciation for the workers and what they’re doing at the site,” and felt that the workers, in turn, “were genuinely appreciative that someone was taking the time to look out for their safety and well-being.” She left New York feeling that “I really made a difference” and that because of her efforts, workers who might otherwise not have worn their respirators now do. “It’s such a good feeling to make a positive impact on somebody,” she says. “After my experience in New York, I don’t feel like I’ll ever be the same.”

Behrens says his World Trade Center experience gave him a deep appreciation of the workers at the site. “The World Trade Center exemplifies teamwork,” he says. “What struck me the most and what still inspires me to this day is the amazing attitude of all the people I met and was fortunate enough to work with at Ground Zero. I’ve often heard that ‘attitude

is everything,’ and the workers at Ground Zero are a living testament.”

Like his OSHA colleagues, Baxter says he was startled when he first saw the enormity of the 16-acre disaster site and the of the damage. “The sights, sounds, and smell of the site will forever be etched on my mind,” he says. “I thought of Dante’s Inferno because all I could see was this massive, cube-like block of debris, lit up by ‘stadium’ lights, grapples reaching into the debris like dinosaurs, and a constant plume of smoke. It was almost impossible to comprehend.”

Standing at Ground Zero looking at the twisted steel that had collapsed from above, he says he couldn’t help but wonder if he was looking at the same columns that he had seen while working on Tower 2 almost 30 years ago. He

admits that he returned to his Denver office in late October with mixed feelings. “I left with sadness that I was abandoning the job, that there was more to be done, that maybe I should still be there,” he says.” Being a part of the OSHA World Trade Center effort will, I am sure, be a highlight of my career. It will be a story I’ll be telling my grandchildren and anyone else willing to listen.”

Pat Clark, OSHA’s Regional Administrator in New York, expressed “respect and gratitude” for members of the “OSHA ‘family’ outside Region II who immediately stepped up to the plate to help us during this remarkable time.” She says that at some times, “We had more volunteers than slots—a testament to the dedication of OSHA employees, both federal and state, to do their jobs.” JSHQ

OSHA Facts

Federal and state OSHA personnel involved in the emergency project... More than 800

OSHA-approved state plans and OSHA onsite consultation programs providing volunteers...22

OSHA personnel currently working at the site every day...60

OSHA 8-hour shifts worked at the site...About 6,000

Air and bulk samples taken by OSHA at the site...3,600 (includes metals, asbestos, silica, and other volatile organic compounds)

Respirators issued by OSHA since September 13...More than 113,500

Respirators issued per day by OSHA during first weeks after the attack...4,000

Quantitative fit tests performed by OSHA since December 1...More than 2,000 (Includes 1,200 Fire Department of New York personnel)

Hardhats distributed by OSHA since September 13...More than 11,200

Safety glasses and goggles distributed by OSHA since September 13...More than 11,500

Protective gloves distributed by OSHA since September 11...More than 21,000

Caring for Caregivers

A Missouri health-care foundation is teaching its workers to look out for their own health and safety as well as their residents'.

by Matt Gaines



A comprehensive safety and health program is helping protect workers against workplace injuries. Photo courtesy of Manor Care

During the early 1990s, employees at Citizens Memorial Healthcare Foundation long-term care facilities were experiencing the same high injury rates that plague workers at many other nursing homes. The Bolivar, MO, foundation tackled the problem head on, introducing a comprehensive safety and health program credited for a dramatic reduction in on-the-job injuries at its five facilities.

At Citizens Memorial Healthcare Facility, for example, the total recordable incident rate is now 55 percent below the national average for the industry. The facility's days away from work or restricted work case incident rate is 41 percent below the national average. Another facility, Butterfield Residential Care, has had no recordable injuries or illnesses within the last 3 years.

The safety and health program that led to this turnaround earned the Citizens Memorial Healthcare Facility distinction as the first long-term care facility in the United States to earn recognition in OSHA's Voluntary Protection Programs. The site received OSHA approval in March 1999 as a VPP Merit site and an upgrade to top-ranked Star status in December 2000. The Butterfield Residential Care Facility also earned VPP Star recognition in December 2000. That same month, the foundation's Parkview Healthcare Facility became a Merit VPP site. It is continuing to work toward Star recognition.

Corporate VPP Coordinator Sherry Welch says the foundation is making wide strides in achieving executive director Donald Babb's goal to get all its facilities into the VPP program. OSHA conducted a pre-approval VPP visit at a fourth foundation site, the



The Parkview Healthcare Facility became a Merit VPP site in December 2000.

Photo courtesy of Citizens Memorial Healthcare Foundation

Colonial Springs Healthcare Facility in Buffalo, MO, in August. Welch says the foundation's fifth site will apply for the VPP program after construction of its new physical plant is completed later this year.

Welch attributes the success of the foundation's safety and health program to three factors: a companywide emphasis on safety, employee support for and participation in the program, and an active safety training program.

"Safety is our number one concern, for both residents and employees," she says. "That's something fairly novel among caregivers. People in this profession are trained to take care of others and often forget to take care of themselves. We're working to change that culture so our employees recognize that they have a right and responsibility to safeguard their own health and safety, and it's a priority."

For example, many health-care workers who handle residents experience back and other musculoskeletal injuries. At Citizens

Memorial Healthcare Foundation facilities, a strong ergonomics program is reducing the injury rates significantly. When the foundation's facilities began focusing on their safety and health program in 1995, nearly 65 percent of all



Safe work practices can prevent ergonomic injuries as workers provide resident care. Photo courtesy of Manor Care

recordable injuries were strains and sprains related to resident handling procedures. Since then, injuries have declined by more than 50 percent, and ergonomic-type injuries now account for less than 30 percent of all injuries. The degree of severity has been significantly improved, too, with lost workdays down from 275 in 1994 to 15 in 2000.

Staff members assess each resident's need for lifting and transfer assistance on admission and enter that information on the medical record. The staff reassesses the resident's needs on an ongoing basis until discharge and shares that information with all coworkers who handle the resident. This ensures that staff members recognize the resident's needs, assess the risk for both the resident and themselves, and then determine and take appropriate protective measures. In addition, training, emphasis on safe work practices, and state-of-the-art engineering controls such as electronic lifts are helping reduce ergonomic injuries.

Welch says employee involvement has been key to the program's success. "Our employees have ownership in the safety and health program," she says. "They were involved from the beginning in setting up the program's policies and procedures and continue to play an active role in making it work."

Employees and a VPP representative from each facility serve on an All Facilities Safety Committee. Committee members receive training in hazard recognition, job hazard analysis, incident investigation, and root-cause analysis. The committee meets at least quarterly to conduct facility safety and health inspections, and reviews all accident and injury reports. It recommends further investigation, policy and procedure changes, and

process improvements. As a testament to employees' commitment, a committee meeting has never been cancelled and committee members rarely miss a meeting.

In addition, the foundation encourages employees to submit suggestions that may lead to safety or health improvements. Under the VOICE\$, or Very Outstanding Ideas Can Earn \$, program, a committee of employees and management evaluates suggestions and presents cash awards to contributors.

The foundation offers several other avenues for employees to raise concerns regarding safety and health. Workers can submit two forms: a "Tell it to the Chief" form that goes to the executive director, and a "Tell it to the Administrator" form that goes to the facility administrator. Both require an immediate response. In addition, the last two pages of the foundation's monthly newsletter, *The Grapevine*, deal with safety and health issues. Employees can take the safety quiz inside and turn it in for cash prizes. Welch says this incentive encourages them to participate in health and safety awareness.

Ongoing training is the centerpiece of the Citizens Memorial safety and health programs. All 1,400 employees must participate in safety education programs that go far beyond regulatory requirements. Welch says the staff meets at least monthly to train on a specific safety or health topic. Whenever an incident or "close call" occurs, employees meet to discuss what happened and how a similar situation could be avoided in the future.

Thanks to a grant to Riverside Management and Rehabilitation from OSHA's Susan Harwood Training Grant Program, the

Citizens Memorial Healthcare Foundation has taken its expertise on the road to share with other nursing care facilities. The "Caring for the Caregiver" series consists of three 1-day workshops on worker safety issues. Foundation trainers present the workshops at the requesting facility and help the staff develop a written safety and health program to encourage employee involvement and decrease work-related injuries. So far, the staff has presented the grant training program to more than 1,600 healthcare workers from other facilities.

"We're big on sharing what we know about safety and health," says Welch. "We know that our program is making a difference and we want to give other facilities an opportunity to learn how to protect their workers, too."

The foundation recently agreed to serve as a resource on safety and health issues to the facilities involved in a new partnership with OSHA's St. Louis Area Office under the OSHA Strategic Partnership Program. The Health Systems, Inc., nursing home association and

six nursing homes in the St. Louis area hope to reduce injury and illness rates for the participating facilities by 10 percent within 3 years.

"I'm delighted that Citizens Memorial is showing such a strong commitment to share its experience," says Paula White, who heads OSHA's Directorate of Federal State Operations, which administers the VPP and Partnership programs. "This is an excellent example of a VPP participant helping OSHA and its industry by participating in the St. Louis partnership."

Despite the progress the foundation has made in promoting health and safety in its own and other companies' nursing homes, Welch says much remains to be done. "The success of any program depends on continuous improvement," she says. "We have lots of room for improvement, and we're dedicated to building on our successes to make our programs even better." JSHQ

Gaines is the VPP manager for the OSHA Regional Office in Kansas City, MO.



The Butterfield Residential Care Facility has had no recordable injuries or illnesses within the last 3 years. Photo courtesy of Citizens Memorial Healthcare Foundation



Improving Nursing Home Safety

Five years after it launched a seven-state initiative to protect workers in 5,000 nursing home and personal-care facilities, OSHA is seeing progress in reducing injuries while expanding its outreach efforts.

As part of the 1996 initiative, facilities in the participating states—Florida, Illinois, Massachusetts, Missouri, New York, Ohio, and Pennsylvania—received free, comprehensive safety and health seminars designed to help employers reduce worker injuries and illnesses. The seminars, presented by OSHA in cooperation with the AFL-CIO Service Employees International Union and the American Association of Homes and Services for the Aging, addressed potential nursing home hazards. These included back injuries from incorrect or strenuous lifting of residents, slips and falls, workplace violence, and risks from infectious diseases.

Keith Motley, deputy director of OSHA's Salt Lake Technical Center and coordinator of the program, says its main emphasis was on getting nursing homes to develop a safety and health program to address their injury rates. "We stressed to them that safety pays in helping reduce workers' compensation costs," he says.

OSHA incorporated the nursing home initiative into its strategic plan in 1999. The agency identified nursing homes as one of five high-hazard industries and set a goal of reducing injuries and illnesses by 15 percent within 5 years.

When OSHA announced the nursing home initiative in 1996, injury and illness cases within the industry had reached 221,000, according to 1994 data from the

Bureau of Labor Statistics. By 1999, BLS statistics showed that injuries had dropped to 192,200.

Rich Fairfax, chief of OSHA's Directorate of Compliance Programs, acknowledges that progress in reducing injuries at nursing and personal care facilities is slower than hoped. The biggest challenge, he says, is to continue emphasizing worker awareness of health and safety issues—particularly those involving back injuries and slips and falls that continue to cause the most injuries at nursing and personal care facilities. Other most frequently cited violations, he says, involve bloodborne pathogens, uncontrolled electrical hazards, hazard communication, lockout/tagout, machine guarding, and personal protective equipment.

Fairfax says he is encouraged by OSHA's comprehensive strategy to address injuries and illnesses in nursing homes through training, enforcement, partnership agreements, grants, and efforts to bring nursing homes into the Voluntary Protection Programs. In addition to efforts by the Citizens Memorial Healthcare Foundation in Missouri (see related article), these initiatives include the following:

- A 3-year partnership with Pinon Management, Inc., and RTW Colorado, Inc., that involves seven nursing homes. This Strategic Partnership includes OSHA's Englewood and Denver Area Offices and the OSHA Onsite Consultation Program. The goal of the partnership is to reduce lost-workday injury and illness rates for participating facilities by 10 percent per year, develop and implement a comprehensive safety and health program for nursing homes, and

A variety of initiatives is showing progress in heightening caregivers' awareness of health and safety issues. Photos courtesy of Erickson Retirement Communities

cut workers' compensation costs by reducing the number and severity of injuries and illnesses.

- Partnerships between OSHA's Regional Office in Atlanta and nine nursing homes in Chatham County, GA. The goal of the partnerships, announced in May, is to reduce injuries and illnesses by 10 percent by January 2003. Participating homes agreed to maintain effective, comprehensive safety and health programs and to train employees in hazard recognition specific to their industry. In addition, they will conduct monthly safety and health inspections and promote employee involvement in day-to-day operations. Two remaining nursing care facilities in Chatham County declined to join the partnership but agreed to attend a day-long training session.



OSHA's nursing home eCAT identifies hazards and controls.

- Extension of a partnership agreement between OSHA and the Joint Commission on Accreditation of Healthcare Organizations. The agreement, formed in 1996 and extended in 2000, promotes workplace safety in health-care institutions, including nursing homes. The partnership emphasizes health and safety training and encourages healthcare facilities to participate in OSHA's Volunteer Protection Programs.

- Grants through the Susan Harwood Program to support a wide range of safety and health training programs in nursing homes. More than \$480,000 in new grants was awarded in 2000 to the Aging Research Institute in Topeka, KS; Bishop State Community College in Mobile, AL; the Western Massachusetts Coalition for Occupational Safety and Health, Inc., in Springfield, MA; and the Western New York Council on Occupational Safety and Health, Inc., in Buffalo, NY.
- An electronic Compliance Assistance Tool (eCATS) that offers a graphic menu to identify hazards and controls in the nursing home industry. It is available on the OSHA website at www.osha.gov under **Technical Links**. [JSHQ](#)



Fewer nursing home workers are being injured on the job, and OSHA continues to expand its outreach in this high-hazard industry. Photo courtesy of Erickson Retirement Communities

Health-Care Workers at Risk

*OSHA is working to help protect workers
in health-care facilities from violence.*

by Sheila Brown Arbury

Last spring, a Florida nurse with 20 years' experience in psychiatry died of head and face trauma at the hands of a patient, a former wrestler, who had arrived at 1:45 a.m. for involuntary admission to a private mental health-care facility. On duty in the Intensive Treatment Service unit were two women: the nurse who died and a mental-health technician who was on break when the incident occurred. Other staff members realized there was a problem when the patient appeared outside the unit with the nurse's keys. They found the nurse on the floor bleeding from her injuries, initiated CPR, and transported her to a hospital, where she died.

The preliminary investigation revealed that the facility did not have a specific policy on workplace violence, although the administrators stated that they were in the process of writing one. There also were no written policies on staff breaks and no communication devices except the unit telephone and overhead paging system to

summon help in an emergency. In response to this tragic event, the facility made plans to purchase two-way communication systems and personal alarm systems, hire a security guard, and add a "floating" staff member to relieve personnel going on break so no staff member works alone on the unit.

Homicide in health-care settings is part of the larger picture of workplace violence in health care. According to the Bureau of Justice National Crime Victimization Survey, 69,500 nurses were assaulted at work from 1992 to 1996. The National Institute for Occupational Safety and Health reports that 9,000 health-care providers are attacked on the job every day. Bureau of Labor Statistics figures for 1999 show that 43 percent of all non-fatal assaults and violent acts resulting in lost workdays across all industries occurred within health-care services. The incidence rate for non-fatal assaults and violent acts in health services in 1999 was 9 per 100 full-time equivalent workers, compared with the national

average of 1.8. Of almost 5,000 nurses who responded to the American Nurses Association Health and Safety Survey last September, 17 percent had been physically assaulted and 56.9 percent had experienced threats or verbal abuse on the job during the previous year. As high as these percentages may be, there is strong speculation that workplace violence is underreported because of the victims' fears of blame or loss of their jobs. There also exists an unfortunate and persistent perception that within the health-care industry, assaults are part of the job.

OSHA's publication, *Guidelines for Preventing Workplace Violence for Health Care and Social Service Workers* (OSHA 3148), addresses the problem and can help employers establish effective violence prevention programs adapted to the needs and resources of their workplace.

In response to the Florida nurse's death, OSHA's Atlanta Regional Office staff recently presented a conference on "Reducing

Workplace Violence in Psychiatric Facilities: Cost-Effective Strategies That Succeed.” The conference attracted 137 participants: administrators, nurses, security personnel, risk managers, and OSHA staff, all interested in strategies for decreasing workplace violence in psychiatric facilities by decreasing worker risks and lowering costs, both human and financial.

Speakers at the conference came from OSHA area, regional, and national offices, the American Psychiatric Nurses Association, the American Nurses Association, the Bureau of Labor Statistics, the Joint Commission on Accreditation of Healthcare Organizations, the Center for Violence Prevention and Control at the University of Minnesota, the University of Maryland School of Nursing, the Cape Cod Community Mental Health Center, and the New York State Office of Mental Health.

The speakers described the problem of violence in health-care

facilities, presented relevant statistics, and offered strategies to decrease workplace violence in psychiatric facilities. Kevin Murrett, an architect in Buffalo, NY, who serves as a consultant to the New York State Office of Mental Health, discussed building design elements that discourage workplace violence. Nurses Ellen Farley and Anne Schuler described the successes of Massachusetts’ Assaulted Staff Action Program. This volunteer peer help and crisis intervention program has resulted in decreased symptoms of acute trauma and post-traumatic stress disorder among assaulted health-care workers.

“OSHA’s off to a good start,” commented a participant in the Florida conference. “I hope this is just the beginning of great things to come.” The agency plans to explore other activities on workplace violence based on regional partnerships among OSHA offices and state branches

of national organizations such as the American Nurses Association.

OSHA believes that cooperative efforts with its stakeholders will help to reduce workplace violence and its harmful effects. For more information about workplace violence, visit the OSHA website at www.osha.gov. The American Nurses Association Health and Safety Survey is online at www.nursingworld.org/surveys/.

Arbury is a health scientist in OSHA’s Office of Occupational Health Nursing, Washington, DC.

Risk Factors for Workplace Violence in Health-Care Facilities

- Prevalence of handguns and other weapons among patients, their families, and friends.
- Increasing numbers of acute and chronically mentally ill patients released from hospitals without followup care.
- Situational factors such as unrestricted movement of the public in health-care settings, the increasing presence of drug and alcohol abusers, and long waits for services, resulting in patient and family frustration.
- Low staffing levels at night and during times of increased activity such as meals, visiting hours, and transport of patients.
- Isolated work with patients during examinations or treatment.
- Lack of staff training in recognizing and managing hostile and assaultive behavior.
- Lack of specific safety and health program to address workplace violence. [JSHQ](#)



NIOSH reports that 9,000 health-care providers are attacked on the job every day.



Angling

by Julia Navarro

Commercial fishing has ranked consistently as the most deadly occupation since 1992, when the Bureau of Labor Statistics started publishing fatality rates by occupation. At no time of the year is this industry more dangerous than in the harsh winter months, when, in addition to the risk of drowning and other shipboard hazards, workers must deal with ice and bitter cold.

These are the conditions Alaskan fishers brave during their major crab-harvest season, when temperatures plummet to sub-zero in the double digits. During the crab season, workers perform a

wide range of operations—harvesting, processing, cooking, packaging, freezing, storing, and shipping crabs—while at sea, with production continuing 24 hours a day. This means 10-to-18-hour shifts until all the catch is processed.

OSHA's Anchorage Area Office recently launched a new program to improve its working relationship with fish processing companies within its jurisdiction and, ultimately, to reduce injury and death rates among workers in the industry. According to Area Director Randy White, the program focuses on promoting awareness of safety and health issues and offers





in Alaska

technical training in areas such as machine guarding, electrical systems, and ammonia refrigeration systems. The Area Office staff also conducts compliance assistance visits to identify hazards before they lead to injuries.

In addition, OSHA is included in a limited partnership with 14 seafood companies to reduce the risk of injuries and accidents associated with exposure to or catastrophic releases of ammonia.

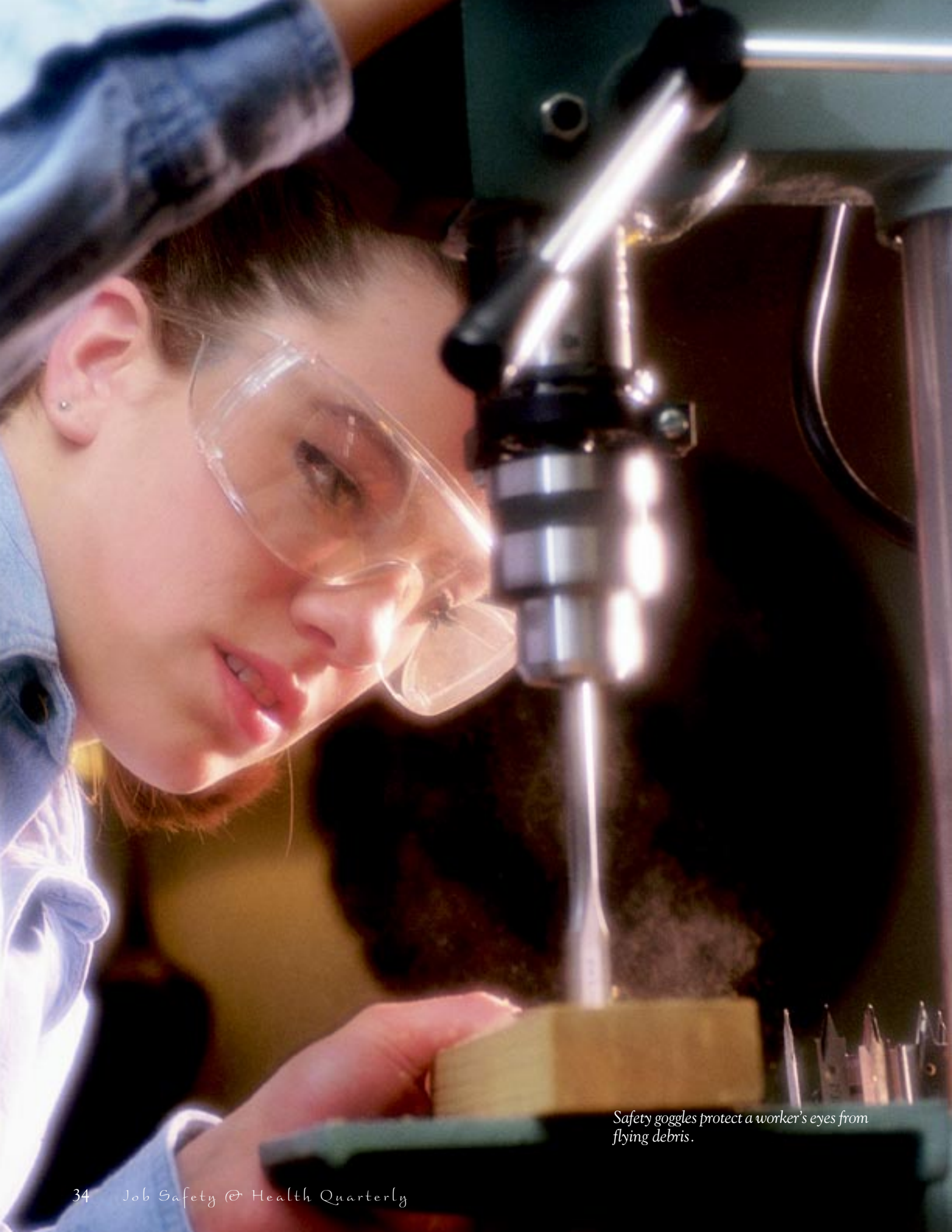
Jim Hutsinpiller, administrative manager for NorQuest Seafoods, praises OSHA's initiative. "I think this is an excellent example of government working with business to

solve today's problems rather than focusing on being an enforcement/punitive agent," he writes in a letter to the Anchorage Area Office. "I am very impressed." [JSHQ](#)

Narraro, a former safety specialist in OSHA's Anchorage Area Office, now works in the Denver Area Office.

Photos, clockwise from upper left: gaffing a salmon, sorting a catch for freezing, processing shellfish at sea, preparing fish fillets for shipment, traveling to fishing grounds, offloading a halibut catch, preparing to gaff a halibut in open water, and sorting crabs by size. Photos courtesy of Alaska Seafood Marketing Institute





Safety goggles protect a worker's eyes from flying debris.

PPE Saves Lives

Personal protective equipment is more convenient, comfortable, and effective than ever before. Properly used, it could save hundreds of lives every year.

by Fred Walters

Without warning, a falling limb struck the boom of a 26-year-old Arkansas tree-trimmer's bucket, catapulting him skyward. Within seconds, his body slammed into the boom attached to the bucket, with gravity pulling him hard to the ground. He died the next day. Although the

worker was wearing a safety harness, it was not fastened to the bucket and could not protect him from falling.

Ira Wainless, a senior industrial hygienist in OSHA's Technical Support Directorate, says any number of employer precautions might have prevented this accident: a

comprehensive written safety program with a sound fall protection policy, a program of regular job site surveys followed by employee training concerning identified hazards, and use of personal protective equipment—PPE.

PPE is special gear worn by employees to protect them from



A logger wears a hardhat with logger face screen, hearing protectors, and chainsaw chaps. Photo by Eric Johnson



A welder's helmet protects the face and eyes from sparks and bright light.

contact with chemical, physical, thermal, biological, and radiological hazards. It includes a variety of devices and garments such as hardhats, goggles, safety glasses, face shields, earplugs, respirators, vests, coveralls, safety shoes, and gloves that protect workers' heads, eyes, faces, ears, bodies, arms, legs, feet and hands. "It creates a physical barrier that travels with the worker," says Susan Monroe, an OSHA industrial hygienist with the Regional Office in Dallas.

Although specific numbers are not available, Bill Klingbeil, OSHA Voluntary Protection Programs Manager in the Dallas Regional Office, says "the proper use of PPE by workers could prevent hundreds of deaths and thousands of injuries every year."

Today's PPE is more convenient, comfortable, and effective than ever before. "In the past decade or so, PPE manufacturers have customized their products to make them more comfortable and more

stylish, abandoning the traditional one-size-fits-all approach," says Wainless. Because it looks better, fits better, and is more comfortable, he says more workers have better protection today than they did just a few years ago because more and more employees wear PPE.

Also, more disposable clothing such as aprons and jackets is now available. Wainless says that these forms of PPE are particularly popular with employers because they cut down on the costs of maintenance, decontamination, and storage.

Despite the protections it offers, Monroe points out that PPE has one major drawback: "Its effectiveness depends on people using it." Gloves cannot do much good for a worker's hands if they are hanging out of a back pocket. Safety glasses cannot ward off eye injuries if they are dangling from a worker's neck. And earplugs will not protect your hearing if they stay in your pocket.

In addition, PPE that is not maintained properly or inspected routinely for wear and tear offers little or no protection. A cracked hardhat with sagging suspension, for example, is not the best buffer when a hammer comes flying out of nowhere.

Newspapers frequently run articles about worker fatalities that PPE might have prevented, such as these examples:

- Argon gas asphyxiated a man while he cleaned a furnace at a metallurgical plant in California. A coworker tried to save him, but both men died during the rescue attempt. Wearing a self-contained breathing apparatus (SCBA) might have prevented this tragedy.
- Failed hydraulics caused an aerial lift to throw a man almost 20 feet from a work platform during an equipment test in Texas,

killing him. He was not wearing a fall restraint/ arrest system.

- Tainted blood splashed into a Pennsylvania hospital worker's eyes, infecting him with the hepatitis C virus. Sick for more than 5 years, the man died before he could get a liver transplant. Safety goggles might have prevented the infection.

Despite widespread efforts to educate workers about the importance of wearing PPE, safety and health professionals agree that the best way to protect workers is to rely on PPE only when other protections are not practical or available. Klingbeil stresses that PPE is a worker's second line of defense against workplace hazards. Ideally, he says, employers should manage these hazards through engineering, administrative, and work practice controls.

Engineering controls, he explained, involve physically changing a machine or work environment to prevent employee exposure to a hazard. They have the added benefit of not relying on employee behavior to be effective. Administrative controls, on the other hand, involve changing how or when employees do their jobs.

"PPE would be obsolete in an ideal world, because it wouldn't be needed," says Klingbeil. "For instance, hazardous noise would be engineered out of the workplace or isolated from the worker, eliminating the need for earplugs." Monroe agrees that "PPE is the last resort if you can't get hazards out of the workplace."

Technology could eventually displace PPE. Some workers using acid metal plating solutions, for example, have already benefitted from technological changes. The fully manual manufacturing process they once used has been

replaced by a semiautomated or fully automated manufacturing process that reduces or eliminates the risk of skin coming into contact with acid.

Klingbeil says this is just one example of innovations that may some day make PPE obsolete because workers will no longer need it to protect themselves from workplace hazards. But until that day comes, he says PPE is the best way to reduce on-the-job accidents and injuries.

"We need to continue to get the word out about PPE and drive it home," agrees Wainless. "Just having PPE is not enough. You have to wear it, the right way, for as long as you're exposed to a hazard—not only for yourself, but also for those who care about you."

For more information about PPE, visit the agency website at www.osha.gov. Go to the index and click on **P**, then **Personal Protective Equipment**. *JSHQ*

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



Head-to-toe protection is necessary for workers involved with hazardous materials.



Earmuffs protect workers from noisy equipment and machinery.

Turning the Kaleidoscope at ConAgra

ConAgra Refrigerated Foods has created a new view of workplace safety and health.

by Susan Hall Fleming



Workers on the turkey deboning line use steel mesh gloves to protect against knife cuts—one of many safety measures in place at ConAgra. Photo courtesy of ConAgra Refrigerated Foods, Inc.

As corporations evolve, remaking and retooling themselves to meet the challenges of an ever-changing marketplace, their cultures change, too. Culture is that body of closely held, often unwritten beliefs and behaviors that characterizes a company, distinguishing it from others in its industry. Think of some old stereotypes—starched white shirts at IBM versus jeans and T-shirts at Apple—and you begin to tap into company culture. Of course, culture is more than a dress code. It is a pervasive atmosphere, sometimes defined by the VIPs as “what your people do when you’re not around.”

This is a story about a deliberate decision by ConAgra Refrigerated Foods, Inc., its union, and OSHA to change the company culture regarding workplace injuries and illnesses. It is about how changing the way people look at workplace safety and health can change the very heart of a business. It is about the challenge of looking at a company in a new light, stepping outside the box, and turning the kaleidoscope. When you shift just a few pretty fragments of colored glass, the entire picture changes and a new vision emerges.

The Problem

For ConAgra Refrigerated Foods, an amalgam of diverse companies and sites in the meat and poultry processing business, the impetus for change was a series of OSHA inspections. ConAgra came to recognize that the problems identified in several inspections over the course of a year were much like those found in previous inspections. Problems got fixed, only to resurface and be tagged once again during another inspection. The company was tired of the endless and fruitless merry-go-round of inspections, penalties,



ConAgra included its employees, like these in the Butterball Turkey Company plant in Carthage, MO, in its effort to improve workplace safety and health.

Photo courtesy of ConAgra Refrigerated Foods, Inc.

corrections, and reinspections—and tired of the adversarial relationship it had developed with OSHA. ConAgra was determined to try another strategy.

The Possibilities

What if ConAgra formed a management-union partnership with OSHA that would lead to excellence in safety and health at a group of their sites? What if those

sites could then inspire the other ConAgra plants to follow suit?

Judy Fryman, a ConAgra vice president, saw such a partnership as a way to improve the company’s safety and health performance, its labor/management relations, and its relationship with OSHA. But Fryman says the company wasn’t satisfied with creating a good safety and health program; it wanted an outstanding one. There seemed to be no better way to achieve that goal than to strive to get some of ConAgra’s sites into OSHA’s prestigious Voluntary Protection Programs (VPP). “ConAgra had a mountain to climb and saw VPP as a vehicle to make it to the top,” says Fryman.

ConAgra’s goal was lofty: to bring 9 of its 30 sites—plants with good safety records as well as those with a long way to go—into VPP. It hoped to work toward that goal through a 5-year partnership committed to establishing effective safety and health systems at each site by drawing on the technical resources and expertise of OSHA and the union.

ConAgra Refrigerated Foods set out to achieve an ambitious goal: to bring 9 of its 30 sites into VPP.

“ConAgra saw the partnership as a way to improve health and safety programs in the [Refrigerated Foods] division,” says Corporate Health, Safety, and Security Vice President Dennis Waugh. “We felt we weren’t making that much progress, and this might be easier in partnership with OSHA. We could get help in the process and build on that for VPP.”

The VPP Partnership Initiative started in January 1997. ConAgra Refrigerated Foods Companies, the United Food and Commercial Workers International Union, AFL-CIO (UFCW), and OSHA pledged to work together cooperatively to improve safety and health at nine ConAgra sites. ConAgra pledged to put into practice the pillars of VPP: management leadership, employee involvement, worksite analysis, hazard prevention and control, and safety and health training.

OSHA also saw the venture as an opportunity to make a significant impact in the food processing

ConAgra saw value in partnering with OSHA to improve its health and safety programs.

industry, a high-hazard industry targeted for special emphasis by the agency in its strategic plan. “We welcomed the partnership because we wanted to conserve our resources, to avoid going out to sites over and over again and finding the same hazards,” says Jennifer Kim, OSHA’s project leader for the partnership. She says she welcomed the opportunity to work proactively with a company to address safety

and health issues “instead of coming in after the fact to find the problems.”

Cathy Oliver, OSHA’s Chief of VPP, says the agency also saw the partnership as a way to demonstrate the economic value of good safety and health programs. “We wanted the industry to sit up and take notice that they could achieve significant reductions in workers’ compensation costs,” she says. “In a competitive industry, this is very important.”

The UFCW was less certain about the potential for success due to the large number of hazards and high turnover rates in the food processing industry. Still, Jackie Nowell, UFCW Health and Safety Director, thought that in the long run, “Workers are better off with than without the VPP.”

Partnership in Practice

Both the union and OSHA contributed time and expertise to the partnership. The UFCW held training sessions, including 4 hours of ergonomics training for workers at the Brown N’ Serve plant in St. Charles, IL. OSHA has invested the equivalent of about three-quarters of a full-time employee’s time each year of the partnership.

The agency helped ConAgra develop corporate and site-specific safety and health system implementation plans. OSHA staff conducted onsite mock VPP reviews at five ConAgra plants so far, providing a baseline measure for strengthening the sites’ safety and health management systems. In addition, OSHA trained corporate evaluation teams and created a special reporting system (DRUM: Data, Results, Updates, and Milestones) that enables ConAgra sites to make quarterly progress reports to the agency. Representatives



A ConAgra worker performs an audit to verify use of proper machinery safeguards. Photo courtesy of ConAgra Refrigerated Foods, Inc.

Partnership Participants

ASE Consumer Products Co., Brown N' Serve, St. Charles, IL
ASE Foodservice Co. Dry Sausage, St. Charles, IL
Butterball Turkey Co., Huntsville, AR
Butterball Turkey Co., Carthage, MO
ASE Foodservice Co., Omaha, NE
ASE Consumer Products Co., Kansas City, KS
ASE Consumer Products Co., Mason City, IA
ConAgra Beef Co., Greeley, CO
ASE Foodservice Co., Longmont, CO

from OSHA, UFCW, ConAgra's corporate office, and each participating facility also discuss progress during quarterly conference calls.

Changing Culture

The critical element OSHA provided, however, was a series of 15 "culture change" workshops conducted at participating plants by Dr. Jerry Ryan, former VPP coordinator for OSHA's Regional Office in Denver. Ryan saw the workshops as a way to give the sites "a new paradigm emphasizing a bigger, broader, and more positive picture of safety as opposed to a narrow compliance focus that is self-limiting and produces mediocre results in the long run."

In effect, turning the kaleidoscope not only moves a few stones, but also alters the entire picture.

Ryan gathered the company president, executive staff, plant manager, and union leadership for a full day to examine where the company was and where it wanted to go. "My challenge to workshop participants was this: How big a game do you want to play?" he says. "VPP is actually a small game. These changes can produce business excellence if you allow it."

Ryan says rebuilding the relationship between labor and management is key to culture change.

"With an adversarial culture, there is low trust, fear, and poor communication. This gets in the way of everything an organization wants to do—not just to improve safety and health," he says. "My goal was to build relationships, trust, and communication so the whole culture of the organization would shift."

Participants in the culture change workshops discussed loss-control principles: the physical as well as human aspects of accidents. Ryan explained that pressure to produce can lead to shortcuts and risk taking because doing something safely may take a little longer.

**Changing
ConAgra's
culture regarding
workplace safety
and health was
critical to the
partnership's
success.**

Next, participants examined what a safety and health management system looks like, reviewing events at the mythical "Plant Death." They applied what they learned by analyzing real accidents from their own plant's files to determine root causes. Finally, labor and management groups separated to develop models for management commitment and employee involvement for their specific plant. They joined together at the end of the day to create a unified vision. Both groups reached the same conclusion: We must change the way we do business, and the problems must be solved by us, not them.

Workshop participants identified the steps to take to work toward their unified vision and selected a team to carry the plan forward. Team members received training to help them work together and identify process improvements. According to Mark Pohl, ConAgra Corporate Safety and Health Manager, the process went a long way toward building trust between management, the unions, and OSHA.

Pitfalls Along the Path

Maintaining effective safety and health programs in the midst of management and workforce turnovers can be difficult and represents an ongoing challenge for ConAgra plants and others in food processing. "This is a very dangerous industry with a lot of problems and turnover," said the UFCW's Nowell. "It's not the best candidate for VPP. The three partners committed to work together, but when plant management changes or the safety and health director changes, we take a step backwards."

"Changing culture is a challenge," says Pohl. "Plant managers must be willing to listen to a new



ConAgra workers now have lower injury and illness incidence rates and the company pays less in workers' compensation costs. Photo courtesy of ConAgra Refrigerated Foods, Inc.

way [of doing things]. The plants doing team-based production have the easiest time. For more traditional plants, it's harder. Culture can change, but it takes a while. We're going to get there eventually with all of them."

The Progress

"The progress is good," says UFCW's Nowell. "It's involved workers, increased hazard identification, and led to more worker training."

Eight of the nine original sites remain in the partnership. One site closed, but another facility replaced it in the partnership. One, the Brown N' Serve site in St. Charles, joined VPP as a Merit site in August 1999. (See sidebar, page 43.) Two others sites are readying their applications. Most sites have improved their health and safety programs significantly.

Seven of the original nine facilities reduced their total injury and illness incidence rates by 6 to 30 percent, with an average reduction of 20 percent. Their lost-time and restricted-work injuries—the most serious injuries—dropped by 8 to 61 percent at these sites. Rates increased at two of the sites, but

anecdotal evidence suggests that the increases may reflect better injury reporting and greater employee willingness to report injuries without fear of reprisal.

As injuries and illnesses have declined, the plants have seen a dramatic decline in workers' compensation costs—from 42 to 93 percent, with an average reduction of 62 percent. There's more to the story than just numbers, of course. "Sites are now identifying and correcting hazards on their own," Kim says. "Most of

The impact of the ConAgra partnership is extending far beyond the eight plants in the program.

them had virtually no industrial hygiene program before this partnership. Every site in the partnership has planned, and most have completed, a baseline industrial hygiene survey."

Thanks to the partnership, the relationship between ConAgra and OSHA has turned from adversarial to cooperative. ConAgra and OSHA staffers alike simply pick up the phone and resolve issues quickly and positively with a simple conversation. "Sites in the partnership submit a status report every quarter, so we have an ongoing effort with sites continuously making improvements," says Kim.

Ryan stresses that the impact goes beyond the sites in the partnership. "ConAgra is the second-largest food producer in the U.S.," he says. "There is a trickle-down effect, so we don't know how much impact we've had."

Oliver says the partnership also has given OSHA a better appreciation of how corporations operate, including how they budget and distribute safety and health resources. "It gave us insight into how to change corporate culture to change safety and health. Working hand in hand, we got a better understanding of their issues that better equipped us to provide them with strategies to make changes," she says. "Compliance officers identify violations. We wanted to look at systemic problems and find systemic solutions."

Ripples from the Partnership

Pohl notes that the ConAgra partnership's impact is spreading beyond the eight plants in the program. One facility not included in the partnership, for example, has become a Merit VPP member. "We'll bring the rest of the facilities along," Pohl says.



Teamwork on the production floor and throughout the ConAgra organization is critical to the success of its safety and health initiatives. Photo courtesy of ConAgra Refrigerated Foods, Inc.

In a sense, the kaleidoscopes for each plant mesh like gears with those of other sites. As one turns and changes, others are also affected. Slowly, sometimes in fits and starts, all the pictures improve.

“What we wanted were systemic changes to impact all the workers in the company and, beyond that, the industry,” Oliver says. “We’ve

built good model worksites in food processing. When other sites say, ‘We can’t do it,’ we can say, ‘Yes, you can—and here’s how!’”

“VPP is a winner,” says Waugh. “This is the third major company that I’ve been with that’s been involved in VPP. It will be part of any safety program I lead from now on.”

What’s next? OSHA recently launched a similar partnership with two sites of another food processor, Tysons Foods. “Tysons also wanted to do something to improve its safety and health programs,” says Oliver. “We’re using the ConAgra partnership as a model for the Tysons one.”

What about the future at ConAgra? Waugh sees the new paradigm as “the way we’re going to operate—not just today, but every day from now on. Safety must be ingrained in the culture.” OSHA, the union, and the company are working to address the partnership issues and, if satisfied with their progress, may consider extending the partnership. [JSHQ](#)

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

Savoring Success at Brown N’ Serve

The Armour Swift Eckrich Brown N’ Serve plant in St. Charles, IL, was the first ConAgra site to earn acceptance into VPP. A Merit site for 2 years, the facility hopes to move up to Star status in early 2002, according to Manufacturing Manager David Amacher.

Brown N’ Serve’s efforts in the partnership have paid off handsomely. “Our workers’ comp costs have been reduced by 93 percent from 1997 to 1999,” Amacher says. “This saved the plant more than \$200,000 in the past 3 years.”

According to the plant’s health and safety director, Chris Martin, a key change has been early reporting and intervention. “Employees report discomfort and we take care of it immediately,” he says. “We’ve learned to emphasize training rather than discipline—with much better results.”

Beyond the numbers lie many additional benefits, Amacher pointed out. “For example, for the past

3 years, the basic safety training has been conducted by production employees. This demonstrates ongoing employee involvement. We have employees telling us about potential safety hazards and dangerous acts without fear of reprisals.”

“Supervisors are more focused on ‘near misses’ and potentials rather than accidents and numbers,” Amacher says. “The challenge is to maintain employee involvement through turnover—getting new people up to speed and as committed [to safety] as the rest of them are.”

Amacher says Brown N’ Serve has adopted five core VPP values: enforcement of a safe work environment, creation of an atmosphere that encourages employee involvement, emphasis on coaching and training rather than reacting and disciplining, open communication without fear of reprisal, and use of root-cause analysis of injuries and illnesses rather than reaction to symptoms.

Federal

Developed biannually, the agenda includes all regulations the agency expects to develop or review. The current agency agenda, published in the *Federal Register*/Vol. 66, No. 232/Monday, December 3, 2001, is as follows.

Prerules

Title and Regulation Identifier Number (RIN)

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

1218-AB47

Occupational Exposure to Ethylene Oxide (Section 610 Review)

1218-AB60

Electric Power Transmission and Distribution; Electrical Protective Equipment in the Construction Industry

1218-AB67

Grain Handling Facilities (Section 610 Review)

1218-AB73

Occupational Exposure to Beryllium

1218-AB76

Hearing Loss Prevention in Construction Workers

1218-AB89

Cranes, Derricks, Hoists, Elevators, and Conveyors

1218-AC01

Excavations (Section 610 Review)

1218-AC02

Presence Sensing Device Initiation of Mechanical Power Presses (Section 610 Review)

1218-AC03

Proposed Rules

Assigned Protection Factors: Amendments to the Final Rule on Respiratory Protection (Reg Plan Seq No. 93)

1218-AA05

Occupational Exposure to Tuberculosis

1218-AB46

General Working Conditions for Shipyard Employment

1218-AB50

Fire Protection in Shipyard Employment (Part 1915, Subpart P) (Shipyards: Fire Safety) (Reg Plan Seq No. 94)

1218-AB51

Standards Improvement (Misc. Changes) for General Industry, Marine Terminals, and Construction Standards (Phase II) (Reg Plan Seq No. 95)

1218-AB81

Changes to State Plans

1218-AB91

Final Rules

Update and Revision of the Exit Routes Standard (Reg Plan Seq No. 96)

1218-AB82

Signs, Signals, and Barricades (Reg Plan Seq No. 97)

1218-AB88

Procedures for Handling of Discrimination Complaints Under the Aviation and Reform Act

1218-AB99

Long-Term Actions

Longshoring and Marine Terminals (Parts 1917 and 1918)—Reopening of the Record (Vertical Tandem Lifts)

1218-AA56

Scaffolds in Shipyards (Part 1915, Subpart N)

1218-AA68

Access and Egress in Shipyards (Part 1915, Subpart E) (Shipyards: Emergency Exits and Aisles)

1218-AA70

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

1218-AA84

Register

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

Indoor Air Quality in the Workplace
1218-AB37

Injury and Illness Prevention
1218-AB41

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

Fall Protection in the Construction Industry
1218-AB62

Occupational Exposure to Crystalline Silica
1218-AB70

Employer Payment for Personal Protective Equipment
1218-AB77

Walking Working Surfaces and Personal Fall Protection (Part 1910) (Slips, Trips, and Fall Prevention)
1218-AB80

Revision and Update of Subpart S—Electrical Standards
1218-AB95

Commercial Diving Operations: Revision
1218-AB97

Completed Actions

Permissible Exposure Limits for Air Contaminants
1218-AB54

Metalworking Fluids: Protecting Respiratory Health
1218-AB58

Update and Revision of the Flammable and Combustible Liquids Standard
1218-AB61

Process Safety Management of Highly Hazardous Chemicals
1218-AB63

Revision and Update of the Mechanical Power-Transmission Apparatus Standard
1218-AB66

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

Safety and Health Programs for Construction
1218-AB69

Control of Hazardous Energy (Lockout) in Construction (Part 1926)
1218-AB71

Consolidation of Records Maintenance Requirements in OSHA Standards
1218-AB78

Oil and Gas Well Drilling and Servicing
1218-AB83

Update and Revision of the Spray Applications Standard
1218-AB84

Occupational Exposure to Perchloroethylene
1218-AB86

Sanitation in the Construction Industry
1218-AB87

Ergonomics Programs in Construction (Part 1926)
1218-AB94

Occupational Health Risks in the Manufacture and Assembly of Semiconductors
1218-AB96

Occupational Injury and Illness Recording and Reporting Requirements
1218-AC00 JSHQ

Going the Distance for Training

OSHA's Office of Training and Education uses distance learning to deliver safety and health training to more students nationwide.

by Susan Salem



OSHA instructor Terry Krug rehearses for a satellite presentation at the Kirtland Air Force Base studio in New Mexico. Teaching partner Linda Spurling prepares in the background.

How did two OSHA instructors train more than 1,600 students in confined space hazards in just 1 week? No, it wasn't by crowding everyone into one huge auditorium—but by using a satellite training session developed and presented by staff from the OSHA Office of Training and Education (OTE).

This is just one of the new distance learning methods that OTE, based in Des Plaines, IL, is using to train OSHA federal and state field staff, federal agencies, and the private sector.

Distance learning also is known as technology-based training or “e-learning.” The goal is to deliver effective and timely training in an economical and efficient way to audiences spread across a wide geographic area. OSHA plans to use both satellite sessions and web-based training in its distance learning program.

Satellite training involves transmitting from a studio or site with appropriate facilities (the uplink site) to remote locations (downlink sites). The training generally involves two-way audio and one-way video transmissions.

Web-based training, in contrast, is offered anywhere, anytime over the Internet or a corporate Intranet through browser software. Web-based instruction can be synchronous, conducted in real time with an instructor, or asynchronous, self directed and self paced. Instruction can be delivered by a combination of static methods such as learning portals, hyperlinked pages, screencam tutorials, streaming audio/video, and live web broadcasts. It also can be delivered using interactive methods such as threaded discussions, chats, and desktop videoconferencing.

Dr. Hank Payne started planning for distance learning at



Terry Krug, left, an OSHA instructor, joins Air Force instructors in a panel discussion during a satellite training event.

OSHA 2 years ago when he became the OTE director. As a member of the Board of Directors and Chairman of the Advisory Board of the U.S. Distance Learning Association and a former president of the Federal Government Distance Learning Association, he had experience in developing and presenting distance learning sessions. Before joining OTE, he managed the Federal Aviation Administration's Distance Learning Program. "I knew the value of this type of training, particularly in organizations with physically dispersed field staffs and limited budgets," he says.

Payne trained the staff on the principles of distance learning and new technologies available. Next, the staff set out to identify which courses to convert from onsite delivery to satellite and web-based training, and the role each office would play. The staff selected three OSHA courses to deliver through satellite events and nine to convert to web-based training.

Satellite Training

To make satellite-based courses successful, OTE established the following four essential concepts:

- Broadcasts are 3 hours or less to maintain student interest.
- Content is presented succinctly in as few training days as possible.
- Students and instructors have access to phone and fax communication during broadcasts so students can have their questions answered.

- Team instruction is used to provide flexibility during the broadcast.

OTE held its first satellite training course, on confined space entry, during 4 consecutive days in March, for 3 hours each day. OSHA instructors Linda Spurling and Terry Krug presented the training at a studio run by the Department of Energy at Kirtland Air Force Base in Albuquerque, NM. Employees from the Air Force and the Department of Veterans Affairs at locations across the country attended the training. After each day's broadcast, individual groups had the opportunity to address specific training needs through onsite sessions or another satellite broadcast.

The participating agencies were extremely positive about the training. "The satellite broadcasts brought excellent training to a worldwide Air Force population in minimal time and at a fraction of the cost of resident training," says Karen Kinkle, Safety and Occupational Health Manager at Kirtland's Air Force Safety Center. "Satellite training is essential for us to meet our future training requirements."

OTE broadcast the second satellite course, the Collateral Duty Course for Other Federal Agencies,

OSHA and other agencies participating in its satellite training are excited about the prospects. Says one user, "Satellite training is essential for us to meet our future training requirements."

for the Department of Veterans Affairs in late September. Some 1,500 to 2,000 students attended the training, which was broadcast from the VA studio in St. Louis, MO, at some 200 downlink sites.

On December 12, OSHA offered its first satellite course to the public—a 2-1/2-hour session on the agency’s new recordkeeping standard. OSHA area offices identified 293 local community colleges and other venues with satellite facilities to carry the training and encouraged local employers and trade groups to participate. The U.S. Postal Service set up an additional 900 sites, and the broadcast was available at 2,000 more sites through a health-care and long-term-care network and at 72 locations through the State of Wisconsin’s Consultation Project. The training program also was simulcast on the Internet to more than 1,000 viewers. To date, more than 10,000 people have viewed the program. Feedback has been 95 percent positive.

Web-Based Training

OTE’s web-based training entails two stages: one web-based and one onsite. The “textbook” portion of the existing training, in which students learn the basic facts about the topic, is designed for the web with short lessons that students can complete in about 20 minutes or less. Students take a test at the end of each lesson and module. The program directs any student who gets a wrong answer back to the section of the lesson with the correct information. After completing the web-based section of the training, students attend a shortened, onsite course that focuses on workshops and the “hands-on” aspects of the training.

“Distance learning gives us the ability to deliver top-quality instruction to more students and at a lower cost, and ultimately, to make a bigger impact on workplace safety.”

For example, in the Principles of Ventilation course, one of OSHA’s pilot web-based training courses now under development, computer modules will cover mathematical equations and technical information. After successfully completing the web-based modules, students will travel to the OSHA Training Institute for ventilation labs and workshops.

All other web courses will have a similar format. Courses to be redesigned for web-based training this year are as follows:

- Principles of Industrial Ventilation;
- Excavation, Trenching, and Soil Mechanics;
- Fire Protection and Life Safety;
- Permit-Required Confined Space Entry;
- Safety and Health for Grain Handling Operations;
- Fall Arrest Systems;
- Principles of Scaffolding;
- Biohazards; and
- Applied Spray Finishing and Coating.

The OTE staff will evaluate each course to ensure that the training is effective and meets the learners’ needs. OTE plans eventually to offer a web-based portion for each appropriate onsite OSHA course.

“Distance learning represents a huge step forward for OTE,” says OSHA Training Institute Director Zigmas Sadauskas. “It gives us the ability to deliver top-quality instruction to more students and at a lower cost and, ultimately, to make a bigger impact on workplace safety.” [JSHQ](#)

Salem is an occupational safety and health specialist at OTE.

OSHA Training (April - June 2002)

OSHA Training Institute, Des Plaines, IL

101 Safety Hazard Recognition for Industrial Hygienists

Introductory course features hazard recognition related to common industrial processes and the criteria for citation or referral to safety compliance officers.

Tuition: \$1,400
Dates: April 2-12

201 Hazardous Materials

Covers OSHA general industry standards and integrates materials from other consensus and proprietary standards that relate to hazardous materials.

Tuition: \$1,064
Dates: May 2-10

203 Basic Electrical Principles

Introduces students to the basic principles of electricity, electrical hazard recognition, OSHA electrical standards, appropriate inspection procedures, and electrical test equipment.

Tuition: \$560
Dates: April 9-12

204 Machinery and Machine Guarding Standards

Familiarizes students with various types of common machinery and the related safety standards.

Tuition: \$1,064
Dates: June 6-14

205 Cranes and Rigging Safety for Construction

Introduces students to crane operations, crane inspection and maintenance, rigging inspection, reading load charts, and corresponding OSHA and consensus standards.

Tuition: \$560
Dates: April 23-26

207 Fire Protection and Life Safety

Introduces students to the recognition of potential fire hazards and emergency procedures. Course will be held at the Volpentest HAMMER Training Facility, Richland, Washington.

Tuition: \$1,064
Dates: April 11-19

208 Cranes and Materials Handling for General Industry

Introduces various types of overhead cranes, hoists, and powered industrial trucks used in general safety and appropriate safety standards and requirements.

Tuition: \$560
Dates: June 11-14

220 Industrial Noise

Addresses occupational noise, including its nature, hazards, evaluation, and control.

Tuition: \$1,064
Dates: April 25-May 3

222 Respiratory Protection

Covers requirements for the establishment, maintenance, and monitoring of a respirator program.

Tuition: \$1,064
Dates: June 13-21

224 Laboratory Safety and Health

Introduces students to the hazards associated with laboratories and control of these hazards.

Tuition: \$560
Dates: April 16-19

226 Permit-Required Confined Space Entry

Teaches students to recognize, evaluate, control, and abate safety and health hazards associated with permit-required confined space entry. Course will be held at the Volpentest HAMMER Training Facility, Richland, Washington.

Tuition: \$560
Dates: April 16-19

304 Power Press Guarding

Covers specific requirements of Title 29 Code of Federal Regulations 1910.217, Mechanical Power Presses.

Tuition: \$560
Dates: April 16-19

306 Safety and Health for Grain Handling Operations

Covers the safety and health aspects of the grain handling industry, including terminology, processes, equipment, and mechanical/electrical safeguards.

Tuition: \$560
Dates: May 21-24

308 Principles of Scaffolding

Focuses on the safety aspects of scaffolding and current OSHA requirements.

Tuition: \$560
Dates: April 2-5

311 Fall Arrest Systems

Provides an overview of technology for fall protection and current OSHA requirements. Course will be held at the Volpentest HAMMER Training Facility, Richland, Washington.

Tuition: \$560
Dates: May 14-17

313 Safety and Health in the Chemical Processing Industries for Construction

Focuses on the recognition, evaluation, and control of safety and health hazards in the chemical industry for construction-related operations.

Tuition: \$504
Dates: June 11-14

322 Applied Welding Principles

Focuses on the processes and hazards associated with welding operations and OSHA requirements for general industry and construction.

Tuition: \$560
Dates: May 7-10

326 Health Hazards in the Construction Industry for Safety Personnel

Covers the recognition and evaluation of health hazards in the construction industry.

Tuition: \$560
Dates: April 30-May 3

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

Provides guidelines for private-sector personnel to teach the 10- and 30-hour construction safety and health courses to their employees and interested groups. Graduates receive cards verifying their authorization to teach the construction course.

Tuition: \$728
Dates: June 3-7

502 Update for Construction Industry Outreach Trainers

Updates graduates of Course #500 who are active trainers in the outreach program on OSHA construction standards, policies, and regulations.

Tuition: \$504
Dates: March 12-14

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

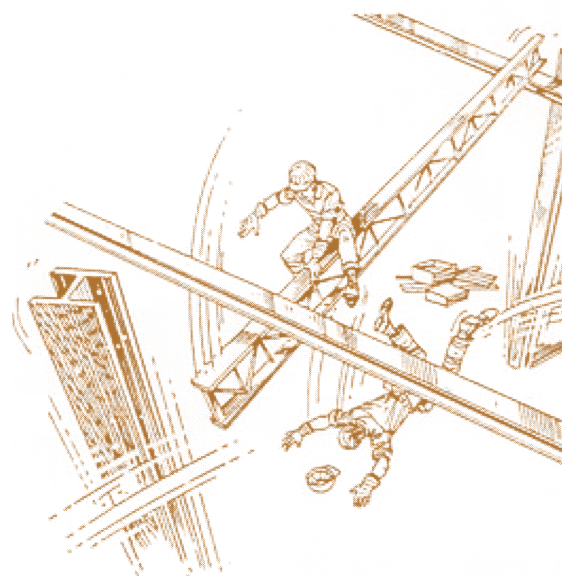
OSHA Training Institute Education Centers

The OSHA Training Institute has a program for other institutions to conduct OSHA courses for the private sector and federal agencies. These include Eastern Michigan University/United Auto Workers, Ypsilanti, MI, (800) 932-8689; Georgia Technological Research Institute, Atlanta, GA, (800) 653-3629; Great Lakes OSHA Training Consortium, Minneapolis, MN, (800) 493-2060; Keene State College, Manchester, NH, (800) 449-6742; Metropolitan Community Colleges–Business and Technology Center, Kansas City, MO, (800) 841-7158; National Resource Center for OSHA Training, Washington, DC, (800) 367-6724; National Safety Education Center, DeKalb, IL, (800) 656-5317; Niagara County Community College, Lockport, NY, (800) 280-6742; Red Rocks Community College and Trinidad State Junior College, Lakewood, CO, (800) 933-8394; Texas Engineering Extension Service, Mesquite, TX, (800) 723-3811; University of California, San Diego, (800) 358-9206; and University of Washington, Seattle, (800) 326-7568.

Fatal Facts - Accident Report No. 70

Accident Summary

Accident Type	Fall
Weather	Clear/cold
Type of operation	New building construction
Crew size	5
Competent person on site?	Yes
Safety and health program in effect?	Partially
Worksite inspected regularly by employer?	Occasionally
Training and education provided?	Yes
Employee job title	Iron workers
Age/sex	45/male
Experience at this type of work	20 years
Time on project	1 week



Detach Here

Brief Description of Accident

Five iron workers were placing 90-foot-long open web bar joists on a building under construction. The bar joists was supported by vertical columns spaced 30 feet apart. The steel columns were not framed in at least two directions and the bar joist was not field-bolted to the vertical columns to prevent collapse.

The bar joists shifted, causing the vertical columns to lean. This caused the entire section of columns and open web bar joists to collapse. Two employees rode the iron down. One was fatally injured and one received serious injuries.

Inspection Results

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

Accident Prevention Recommendations

The employer must: Ensure that during steel framing where bar joists are being used and columns are not framed in at least two directions with structural steel members, a bar shall be field-bolted at the column to provide lateral stability during construction, in accordance with Title 29 of the *Code of Federal Regulations (CFR)* Part 1926.751 (c)(1).

The references for the revised steel erection rule, effective January 18, 2002, are the following:

- 1926.757 (a)(1) "... where steel joists are used and columns are not framed in at least two directions with solid web structural steel members, a steel joist shall be field-bolted at the column to provide lateral stability to the column during erection...."
- 1926.757 (a)(1)(i) "A vertical stabilizer plate shall be provided on each column for steel joists...."
- 1926.757 (a)(4) "Where steel joists at or near columns span more than 60 feet (18.3 m), the joists shall be set in tandem with all bridging unless an alternative method of erection, which provides equivalent stability to the steel joist, is designed by a qualified person and is included in the site-specific erection plan."
- 1926.755 (a)(4) "All columns shall be evaluated by a competent person to determine whether guying or bracing is needed; if guying or bracing is needed, it shall be installed."

Install a center row of bolted bridging to provide lateral stability during construction prior to slacking of the hoisting line where longspan joists or trusses, 40 feet or longer, are used, in accordance with 29 CFR 1926.751 (c)(2).

The references for the revised steel erection rule, effective January 18, 2002, are the following:

- 1926.757 (d)(2) “Where the span of the steel joist is over 60 feet (18.3 m) through 100 feet (30.5 m), the following shall apply: (i) All rows of bridging shall be bolted diagonal bridging; (ii) Two rows of bolted diagonal erection bridging shall be installed near the third points of the steel joist; (iii) Hoisting cables shall not be released until this bolted diagonal erection bridging is installed and anchored; and (iv) No more than two employees shall be allowed on these spans until all other bridging is installed and anchored.”

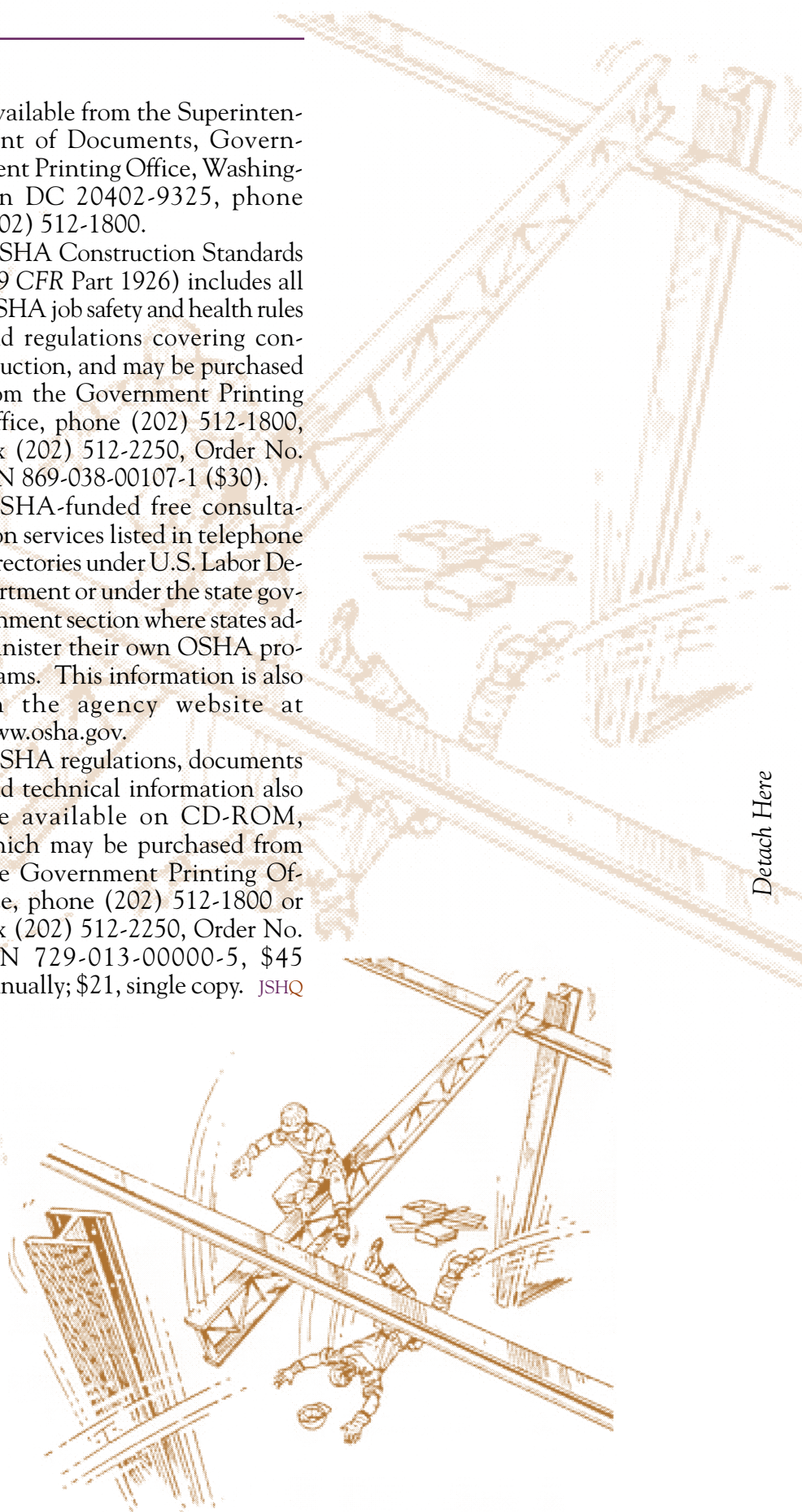
The case described here was selected as being representative of fatalities caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved, and the case is now closed.

Sources of Help

- OSHA 2202 *Construction Industry Digest* includes all OSHA construction standards and those general industry standards that apply to construction. Order No. S/N 029-016-00193-0, (\$5).

Available from the Superintendent of Documents, Government Printing Office, Washington DC 20402-9325, phone (202) 512-1800.

- OSHA Construction Standards (29 CFR Part 1926) includes all OSHA job safety and health rules and regulations covering construction, and may be purchased from the Government Printing Office, phone (202) 512-1800, fax (202) 512-2250, Order No. S/N 869-038-00107-1 (\$30).
- 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. This information is also on the agency website at www.osha.gov.
- 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 729-013-00000-5, \$45 annually; \$21, single copy. JSHQ



Detach Here