

# JSHQ

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# Assistant Secretary's Message



**H**enry Ford once said, “Coming together is a beginning; keeping together is progress; working together is success.” Those words have proven true time and time again.

OSHA must work cooperatively with employers, employees, and others to help create a safe and healthful workplace. One of my chief goals is to expand opportunities for aligning resources and working together to strengthen safety and health in the workplace. This collaboration and alignment will produce greater results than the sum of our individual efforts.

The process is simple and straightforward. We start with a shared commitment and a common goal among partners: preventing injuries and illnesses in the workplace. We all stand behind a simple understanding: safety and health add value—to your business, to your workplace, to your life. And each of us seeks out opportunities to work together to identify and control workplace hazards before an injury or illness occurs.

America's workers and businesses deserve our best efforts to reduce injuries and illnesses on the job. To get those positive outcomes, we need to work in partnership.

This summer we celebrate 20 years of success with OSHA's premier partnership—Voluntary Protection

Programs (VPP). We estimate our 800-plus sites cover over half a million workers and prevented more than 5,600 injuries in Fiscal Year 2000. As a result, we estimate these sites save more than \$150 million annually in direct costs. Those involved in these partnerships would also agree there was additional value derived in improved productivity, quality, and labor/management relationships that may exceed the direct cost savings. Clearly this voluntary partnership offers real gains for both industry and OSHA. We must grow this partnership significantly over the next few years.

Another avenue for cooperation is the OSHA Strategic Partnerships. These partnerships are formal agreements that focus on eliminating specific hazards, establishing comprehensive safety and health management systems, or expanding training opportunities. Today, there are 139 such partnerships involving more than 6,200 employers and covering nearly 216,000 workers. The results of these partnerships are extremely promising. For example, at Lambeau Field in Wisconsin, home of the Green Bay Packers, a partnership calling for a strong safety and health program and daily audits has resulted in 400,000 hours worked without significant injury.

Over the past several months, OSHA has begun a new cooperative venture called alliances. Alliances are particularly appropriate for joint efforts with trade associations, companies, professional societies, and unions. They may focus on training and education or outreach and communication, or help promote the national dialogue on workplace safety and health.

As we move forward on ergonomics, we'll be collaborating with many groups. We're committed to working with all stakeholders as we develop industry-specific and task-specific ergonomics guidelines. We want to start with the best sources of information—employers and workers in the industry who have put effective practices in place and have a track

record to prove that these strategies work. We'll publish draft guidelines in the *Federal Register* and request additional public comments.

OSHA will work with some industries to develop formal guidelines. Other industries and companies will be encouraged to develop their own guidelines and implementation process for addressing work-related musculoskeletal disorders, including sharing best practices.

Our comprehensive ergonomics plan also includes an outreach and assistance component. Cooperative efforts and partnering will be particularly important in executing this component. Already, we've signed an alliance with the printing and graphic communications industry to promote sharing best ergonomics practices.

OSHA's commitment to work with stakeholders in a variety of partnerships supports Labor Secretary Elaine Chao's promise to improve compliance assistance for all those who seek help understanding rules and regulations. In addition, our new small business office will be a great resource to help businesses get the answers they need on safety and health issues.

OSHA is open to additional ideas for ways to work with stakeholders. We will do anything and everything we can to help employers and employees establish safety and health as a core value for every business every day. We want to be a catalyst for changing paradigms so that a safety and health culture becomes the norm. [JSHQ](#)

A handwritten signature in black ink, appearing to read "John L. Henshaw". The signature is fluid and cursive.

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

# Anne Cyr's Fingerprints

OSHA bids farewell to a long-time employee who left a lasting impression.

by Bonnie Friedman

When legendary musician Les Brown said, "Shoot for the moon. Even if you miss it, you will land among the stars," Anne Cyr must have been listening. After 23 years with OSHA, Anne recently decided to begin a new phase in her professional life—one devoted to her passion for the arts. But she left behind a rich legacy of products and resources that will long bear her mark.

Anne is best known in the agency for this magazine, *JSHQ*, which she revived in 1989. OSHA had stopped publishing a previous periodical a decade earlier. Anne convinced then-Acting Assistant Secretary Alan McMillan that a new magazine would well serve the agency's communications needs. She rejuvenated the periodical and, with the help of an art director, produced the first issue in just a few months. Interestingly, the front cover sported a story about ergonomics. The past issue of *JSHQ* (Spring 2002), and the last one overseen by Anne, featured a cover story on ergonomics as well. In between, Anne nurtured, steered, and nudged the magazine—much like a parent raising a child. Not surprisingly, *JSHQ* was often called "Anne's baby" around OSHA.

She put her twin passions—creativity and perfection—to work on many of OSHA's other products, too. Publications, flyers, web pages, CDs, audiovisuals, posters, and more bear her distinctive fingerprints. Anyone who worked closely with Anne knew she held everyone to her own high standards—writers, editors, designers, even

supervisors knew that little escaped Anne's sharp, critical, professional eye. If you thought she was tough on others, she was even tougher on herself. The high quality of everything she touched proves it.

Anne was called upon more than once to direct the office, then known as Information and Consumer Affairs. She said her most challenging—and in some ways most satisfying—time at OSHA came during the government shutdowns of the early 1990s. With little and sometimes no help, she kept the office open for business. When members of the public called for information on the status of agency operations, the professional, reassuring voice they heard was Anne's. She served the public with the same passion for perfection that she did everything else.

Before she left, Anne set her sights on broadening the agency's span to include some of the hardest-to-reach workers. Fluent in Spanish herself, she created a new Spanish website; oversaw the translation of numerous materials, including *All About OSHA*; and directed the production of new Spanish public service announcements to be released later this year.

Anne is now focusing her considerable talents on writing, art, and music. She is an accomplished artist and once even combined her interests to establish a college program for art students on the hazards of working with art materials and how to use them safely. She has won awards for her watercolor work and already sold several pieces.



Over the years Anne also managed to run a small floral design business; earn several degrees in the arts, linguistics, and Latin American studies; publish numerous articles in English and Spanish; and raise a daughter on her own. In addition to everything else, Anne is now a proud grandmother, too.

Her fingerprints remain at OSHA, now as Editor Emeritus of this magazine, on the many quality materials she produced for the agency, and in the memories of coworkers who learned from her commitment to perfection. Anne shot for the moon. Most often she landed. But even when she missed, her stars shone bright. [JSHQ](#)

*Friedman is the Director of the OSHA Office of Public Affairs, Washington, DC.*

**Q** I work as a garage mechanic and am concerned that I am exposed to dangerous amounts of carbon monoxide. What can I do to protect myself?

**A** Carbon monoxide (CO) is a poisonous, colorless, odorless, and tasteless gas that, when breathed, displaces oxygen in the blood and deprives the heart, brain, and other vital organs of oxygen. Large amounts can overcome you in minutes without warning—causing you to lose consciousness and suffocate.

Your employer can take steps to protect you and your coworkers from CO poisoning by installing an effective ventilation system, maintaining CO-producing equipment and appliances in good working order, and installing CO monitors with audible alarms and issuing personal CO monitors, among other measures.

You and your coworkers, too, can help reduce the chances of CO poisoning in the workplace by:

- Reporting any situation to your employer that might cause CO to accumulate.
- Being alert to ventilation problems, especially in enclosed areas where gases of burning fuels may be released.
- Reporting complaints of dizziness, headaches, drowsiness, or nausea promptly.
- Avoiding overexertion if you suspect CO poisoning and leaving the contaminated area.
- Telling your doctor that you may have been exposed to CO if you get sick.
- Avoiding the use of gas-powered engines such as those in powered washers as well as heaters and forklifts while working in enclosed spaces.

If you suspect that someone in your workplace has been poisoned, quick action can save a life. Move the victim immediately to fresh air in an open area. Call 911 or another local

emergency number for medical attention or assistance. Administer 100-percent oxygen using a tight-fitting mask if the victim is breathing, and administer cardiopulmonary resuscitation if the victim has stopped breathing. But remember, you may be exposed to fatal levels of CO in a rescue attempt. Rescuers should be skilled at performing recovery operations and using recovery equipment. Your employer should make sure that rescuers are not exposed to dangerous CO levels when performing rescue operations.

For more information, see the newly revised OSHA Fact Sheet, *Carbon Monoxide Poisoning*, available on the OSHA website at [www.osha.gov](http://www.osha.gov). Click on Publications under Newsroom. The website includes more information about CO, including the full text of OSHA's standards.

**Q** My crew and I work outdoors most of the day in the hot sun. How can we help protect ourselves from exposure to excessive heat and ultraviolet light?

**A** Excessive heat exposure can cause loss of consciousness, heat exhaustion, and heat stroke. To minimize the risk, schedule heavier work during cooler periods of the day, take frequent work and water breaks, and avoid strenuous work before adequate acclimation.

Excess exposure to sunlight and ultraviolet radiation (UV) may lead to skin cancer and cause premature aging of the skin, wrinkles, cataracts, and other eye problems. Workers with fair skin or light-colored hair need to be especially careful in the sun. The following steps can help protect you against UV radiation and skin cancer:

- Cover up with protective clothing that does not transmit visible light.
- Use a sunscreen with a Skin Protection Factor, or SPF, of at least 15. Apply it liberally at least 15 minutes before going outside, and

reapply it every 2 hours or more frequently after sweating profusely or being in the water.

- Wear a hat with at least a 2- to 3-inch brim to protect the neck, ears, eyes, forehead, nose, and scalp. Avoid caps that do not protect the back of the neck or the ears, where skin cancers commonly develop.
- Wear sunglasses that block 99 to 100 percent of UV radiation.
- Limit direct sun exposure between 10 a.m. and 4 p.m., when the sun's UV rays are the most intense.

OSHA's *Heat Stress Card* (OSHA 3154) is reprinted in both English and Spanish on pages 43 and 44. To order extra copies, visit [www.osha.gov](http://www.osha.gov). Click on Publications under Newsroom.

**Q** I work for the federal government. Am I covered by OSHA?

**A** The *Occupational Safety and Health Act of 1970* directs the head of each federal agency to establish and maintain an effective and comprehensive occupational safety and health program consistent with OSHA standards. This means federal agencies must take the same steps required of private-sector employers to protect their employees.

A newly revised OSHA fact sheet, *Occupational Safety and Health for Federal Employees*, explains the responsibilities of federal agencies and federal employees, as well as federal workers' rights regarding workplace safety and health. The fact sheet is available on the OSHA website at [www.osha.gov](http://www.osha.gov). Click on Publications under Newsroom. OSHA Directive FAP 1.3, *Federal Safety and Health Programs*, also available on the website, explains the subject in greater detail. *JSHQ*



OSHA Administrator John L. Henshaw announces OSHA's new data collection plans to improve safety for immigrant workers. Photo by Shawn Moore

## OSHA Contacts Worker Families

OSHA Administrator John L. Henshaw recently began a new policy of contacting families of workers killed on the job to express the agency's sorrow over their loss. Henshaw announced the new initiative in commemoration of Worker Memorial Day in late May.

"In expressing my deepest sympathies to the families of workers killed on the job, I want to assure them—and the nation—that we are working closely with employers throughout the country to do everything possible to prevent any more workers from dying on the job," Henshaw said.

Ron Hayes, Director of Families in Grief Hold Together and a member of OSHA's National Advisory Committee on Occupational Safety and Health, says, "Elevating the fatality investigation and notification process to the highest office in OSHA ensures that these tragedies will receive the level of attention they deserve. I

praise the Administration and the head of OSHA for taking this most courageous and compassionate stand for the American worker. However, we must continue to reduce the accident and injury rate to the point where this type of initiative is not needed at all."

## OSHA to Improve Data Collection

OSHA recently began collecting data on country of origin and primary language capability for all workers involved in fatalities and other serious accidents. The agency also is for the first time collecting site-specific information on construction projects where many immigrants and other workers die every year.

The new data collection will enable OSHA to determine what role language barriers and other risk factors play in fatalities and other workplace accidents. The agency will use the information to determine how to improve safety for these workers.

## Chao Announces SBA Initiative

Secretary of Labor Elaine L. Chao announced in May that the Small Business Administration's Office of Advocacy will combine efforts with OSHA to promote worker safety and health, with a particular emphasis on ergonomics. Chao made the announcement during her keynote address to about 70 small business owners from across the nation participating in National Small Business Week activities in Washington, DC.

## OSHA Issues Beryllium Alert

A new OSHA hazard information bulletin alerts workers in dental laboratories on how to prevent exposure to beryllium, which can cause chronic beryllium disease (CBD), a debilitating and often fatal lung disease, or cancer.

The bulletin presents a case of CBD recently diagnosed in a dental lab technician and recommends the types of engineering controls, work practices, training, personal protective equipment, and housekeeping procedures that can be used to reduce exposure and the risk of CBD.

Dental laboratory technicians can develop CBD if they inhale dust containing beryllium when working on items such as dental crowns, bridges, and partial denture frameworks made from dental alloys containing beryllium.

For more information, see the hazard information bulletin on the OSHA website at [www.osha.gov](http://www.osha.gov).

## OSHA Clarifies Needle Policy

OSHA recently clarified its policy against removing contaminated needles from blood tube holders to reduce the dangers of needlesticks for health-care workers and others who handle medical sharps.

“Removing contaminated needles and reusing blood tube holders can expose workers to multiple hazards,” says OSHA Administrator John L. Henshaw. “We want to make it very clear that this practice is prohibited in order to protect workers from being exposed to contaminated needles.”

OSHA explained in a letter of interpretation that the bloodborne pathogens standard requires blood tube holders with needles attached to be discarded into a sharps container immediately after the device’s safety feature is activated. The letter of interpretation is available on OSHA’s website at [www.osha.gov](http://www.osha.gov).



*OSHA’s bloodborne pathogens standard requires blood tube holders with needles attached to be discarded into a sharps container immediately after the device’s safety feature is activated.*



*OSHA’s Mobile Area Office has an expanded role in protecting workers against fall hazards.  
Photo by Michael Carpenter*

## OSHA Focuses on Fall Protection

OSHA’s Mobile, AL, Area Office recently took on an expanded role in carrying out a special southeastern regional emphasis program on fall hazards. Across the region, OSHA compliance officers are now authorized to stop at any site where fall hazards might be present. Mobile area compliance officers will take the effort a step further, targeting scaffolding and roofing activities to ensure that a competent person is on-site and has taken the necessary

training courses to qualify. Areas targeted for inspections include Mobile, Montgomery, Dothan, and Gulf Shores in Alabama. For more information about the program, contact the Mobile Area Office at (251) 441-6131.

OSHA statistics show that falls caused 33 percent of all fatal workplace accidents in Alabama, Florida, Georgia, and Mississippi last year, and 70 percent of these fatalities occurred at construction sites. During this period, OSHA’s southeastern area offices investigated 83 fatalities involving falls, 58 of which were in the construction industry.



## OSHA Offers Info on Dentistry, Brownfields

OSHA recently introduced technical links pages on worker hazards in dentistry and recycled industrial property, also known as brownfields, on its website at [www.osha.gov](http://www.osha.gov) under Safety/Health Topics. The pages address worker safety and health issues and provide a wide range of reference material on hazards at both types of worksites.

The dentistry page includes sections on bloodborne pathogens, health-care facilities, and exposure to nitrous oxide and waste anesthetic gases. The brownfields page provides compliance information and links to tools for identifying, evaluating, and controlling employee exposures to hazardous substances at these sites.

## DOL Unveils Teen Site

A new Department of Labor website covers a wide range of youth employment issues, including information about workplace safety. The site, *Youth Rules!*, is part of an ongoing initiative to educate young people, their parents, employers, and teachers about unsafe jobs and appropriate work hours for teenagers. It is available at [www.youthrules.dol.gov](http://www.youthrules.dol.gov).

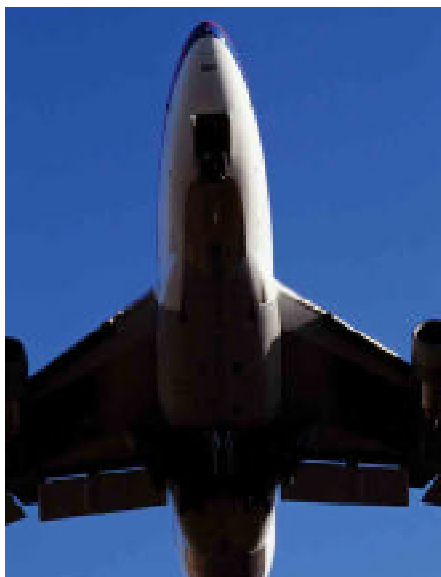
According to the Bureau of Labor Statistics, some 200,000 teens get injured at work every year.

*Teens listen to details about the new Youth Rules! website. Young people from 36 states attended or called in during a press conference announcing the site. Photo by Shawn Moore*

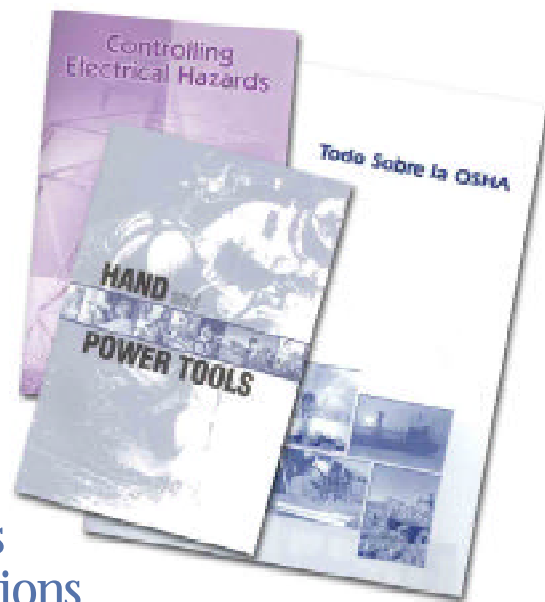
## OSHA Advises Overseas Travelers

A new technical information bulletin on the OSHA website at [www.osha.gov](http://www.osha.gov) offers advice for international business travelers. The bulletin, *Safety and Health During International Travel*, suggests that international business travelers follow recommendations for immunizations published by the Centers for Disease Control and Prevention that are available at [www.cdc.gov/travel](http://www.cdc.gov/travel). In addition, the bulletin urges business travelers to consult the U.S. Department of State consular information sheet for individual countries they plan to visit. These country guides are posted at [www.travel.state.gov](http://www.travel.state.gov).

“Many employees now travel to countries where they risk contracting infectious diseases that could be prevented through vaccinations and simple precautions while traveling,” OSHA Administrator John L. Henshaw said. “Our new technical information bulletin will help international travelers take care of their health while they take care of business.”



A new OSHA technical information bulletin offers advice for international business travelers.



## OSHA Releases Revised Publications

OSHA has released two newly revised publications to protect workers from on-the-job hazards and inform employers about how to comply with OSHA standards.

*Controlling Electrical Hazards*, OSHA 3075, provides an up-to-date overview of basic electrical safety, OSHA electrical safety standards, and information employers need to comply with those standards. The booklet addresses employees who work with electricity directly, such as engineers, electricians, electronic technicians, and power-line workers, as well as the millions of people who deal with electricity indirectly in the course of their everyday work.

*Hand and Power Tools*, OSHA 3080, provides a summary of the basic safety procedures and safeguards associated with hand and portable power tools. It offers practical information for employers and employees in general industry as well as construction by identifying various types of tools and their potential hazards and ways to prevent workplace injuries.

Both publications are available electronically on OSHA's website at [www.osha.gov](http://www.osha.gov) and through the OSHA Publications Office at (800) 321-OSHA.

OSHA has revised two popular publications and now offers *All About OSHA* in Spanish.

## OSHA Publishes New Spanish Publication

A new Spanish-language publication, *Todo Sobre la OSHA*, will help Spanish-speaking employers and their employees understand more about safety and health in the workplace. The publication is a translation of *All About OSHA*, a 61-page booklet that covers job safety, employers' duties, and workers' rights and offers extensive information on how to make workplaces safer.

The manual is part of OSHA's growing outreach to Spanish-speaking constituents. It includes a Spanish-language website, new data collection efforts for non-English-speaking employees and employers, and Spanish-language options for OSHA's toll-free number, (800) 321-OSHA.

*Todo Sobre la OSHA* is available on the agency website at [www.osha.gov](http://www.osha.gov) and also through OSHA's Publications Office at (800) 321-OSHA.



## NSC Plans Congress Expo

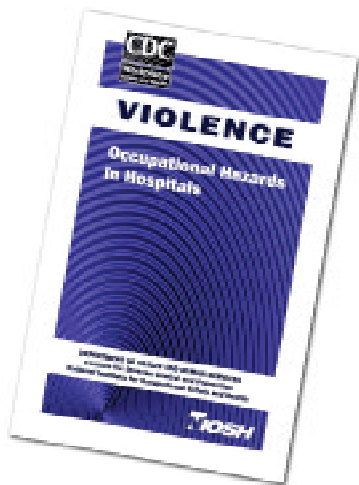
The National Safety Council's 90<sup>th</sup> Annual Congress and Expo is scheduled for October 4 to 11 in San Diego, CA. The exposition dates are October 7 to 9.

The congress will offer more than 200 educational sessions, including both technical sessions and professional development seminars and an expanded agenda of sessions in Spanish. Registration information is available at [www.nationalsafetycouncil.org](http://www.nationalsafetycouncil.org).

## NIOSH Releases Violence Report

A new National Institute for Occupational Safety and Health (NIOSH) publication addresses the problems of U.S. hospital workers exposed to violence in the workplace. The report, *Violence: Occupational Hazards in Hospitals*, NIOSH Publication 2002-101, discusses activities that put workers at risk and offers strategies for reducing risk factors.

For a copy of the publication, call (800) 35-NIOSH or visit the NIOSH website at [www.cdc.gov/niosh](http://www.cdc.gov/niosh).

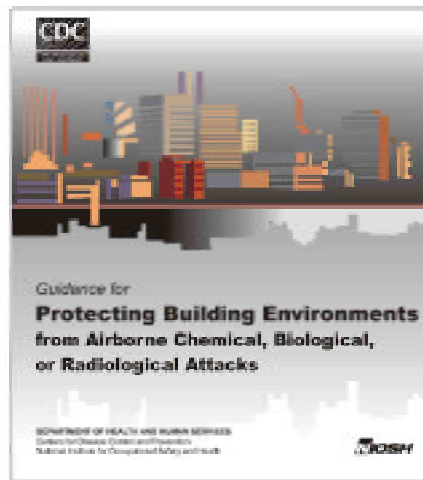


A new publication offers strategies to reduce violence against hospital workers.

## NIOSH Offers Terrorism Guidance

A new NIOSH publication identifies actions that a building owner or manager can take to help protect occupants from an airborne chemical, biological, or radiological attack. NIOSH Publication 2002-139, *Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks*, offers specific recommendations on how to increase building security. It discusses physical security, ventilation and filtration, maintenance, administration, and training.

The publication is available on the NIOSH website at [www.cdc.gov/niosh](http://www.cdc.gov/niosh) or by calling (800) 35-NIOSH.



NIOSH provides guidance for protecting workers from terrorist attacks.

## Manual Covers Electrical Safety

A new NIOSH student manual offers easy-to-understand information about recognizing, evaluating, and controlling hazards associated with electrical work. The publication, *Electrical Safety, Safety and Health for Electrical Trades*, NIOSH Publication 2002-123, is part of a safety and health curriculum for secondary and post-secondary electrical trade courses. The publication is available on the NIOSH website at [www.cdc.gov/niosh](http://www.cdc.gov/niosh) or by calling (800) 35-NIOSH.

## Clarification

The "Partnering for Shipbuilding Safety" article in the Spring issue did not clarify that shipyard injuries have dropped significantly during the past 3 years only for Shipbuilders Council of America member facilities. The average Total Recordable Incident Rates (TRIRs) for the industry as a whole (Standard Industrial Classification 3731), as reported by the Bureau of Labor Statistics, remained relatively stable between 1998, when the rate was 22.4, and 2000, when the rate was 22. TRIRs for Shipbuilders Council of America member facilities showed a drop from 12.94 in 1998 to 11.76 in 2001.

# New Partnerships and Alliances

## OSHA Enters Construction Partnership

OSHA has entered into a pilot partnership with the Iron Workers International Union and NEA, the Association of Union Constructors, to enhance OSHA compliance officer training for the steel erection standard that took effect in January.

The partnership uses Iron Workers facilities, where compliance officers get hands-on training to better understand how the standard applies to real workplace conditions. Thirty OSHA compliance officers attended the first training session this spring at the Iron Workers training facility in Springfield, NJ. The OSHA Directorate of Construction, OSHA Training Institute, Iron Workers, NEA, and Associated Builders and Contractors provided instruction. The agreement calls for additional training sessions around the country.

## OSHA and RIMS Form Alliance

OSHA and the Risk and Insurance Management Society (RIMS) are working together through a new alliance to encourage safe and healthful workplaces. The cooperative venture includes exchanging technical information and best practices, promoting OSHA outreach services, and developing a tool to demonstrate the cost benefits and business value of safety and health.

As part of the alliance, OSHA will help with workshops at RIMS annual and regional conferences. Local and state RIMS chapters will work with OSHA compliance assistance specialists and consultation project staff on a variety of projects. The alliance will last 1 year but may be renewed automatically.

“We know that safety and health add value, and RIMS is going to help us continue to make the business case for safety and health,” says OSHA Administrator John L. Henshaw. “We want to drive injuries and illnesses down, and this alliance advances our cooperation with RIMS and will advance the promotion of safety and health.”

## Agency Partners with Aurora Casino

OSHA’s North Aurora, IL, Area Office has entered into a 6-month strategic partnership with Hollywood Casino-Aurora Dockside Gaming Facility to develop a contractor/government partnership. The partnership encourages Aurora Casino construction contractors to improve their safety and health performance, eliminate serious accidents, and recognize contractors with exemplary safety and health programs.

The partnership is already having positive results. John Newquist, coordinator for the partnership, says the parties addressed compliance questions before an OSHA site visit, resulting in “great fall protection for these construction employees.” In addition, he says,

“OSHA was able to document how contractors were able to provide protection for difficult compliance issues.” Area Director Charlie Shields says, “This is an example of what to expect of project-based partnerships in the future. This partnership shows that a contractor can do a big project productively and safely.”

## OSHA and AMEC Focus on High-Rises

OSHA’s Calumet City, IL, Area Office recently entered into a comprehensive strategic partnership with AMEC Construction Management, Inc., to reduce the injury and illness rates for construction in high-rise buildings. AMEC is a multinational corporation headquartered in the United Kingdom that has more than \$500 million in construction high-rise contracts in the Chicago Loop.

The partnership’s goal is to reduce injury and illness rates to at least 30 percent below the national average for construction. All contractors working on an AMEC site will participate in the partnership.

The partnership is an extension of the Calumet City Area Office’s local emphasis program focused on high-rise projects. “Partnerships such as this demonstrate the strong commitment to safety that has been made on these major construction projects in Chicago,” says Gary Anderson, OSHA’s Calumet City Area Director. “OSHA and AMEC have the same goal—protection of the construction worker on these high-rise projects—and we will work together to see that this happens.”



## New Agreement Targets Shipbuilders

OSHA, the Bath Iron Works (BIW), and local unions have joined in a cooperative effort to identify, address, and eliminate injuries and illnesses at the shipbuilder's Maine facilities. Under the new agreement, BIW voluntarily agrees to fully implement effective, comprehensive safety and health programs at all its worksites. The company also will study the injuries and illnesses experienced by its workforce and continue to gather, analyze, and provide to OSHA relevant injury, illness, and accident data.

OSHA will meet quarterly with BIW and its unions to assist in safety training, provide technical advice, and receive updates about how safety and health programs are being implemented.

The agreement follows OSHA's recent comprehensive inspection of BIW's manufacturing and warehouse facilities in Brunswick, ME. That inspection identified a variety of safety hazards involving cranes, forklifts, electrical equipment, machine guarding, equipment maintenance, and fall protection. OSHA issued one repeat and 34 serious citations with \$114,000 in proposed penalties.

"This agreement highlights the value of business, workers, and government combining their respective skills for the common purpose of securing a safer, more healthful work environment at one of Maine's largest private employers," says John L. Henshaw, OSHA Administrator. "Working together, voluntarily, cooperatively, and continuously, they can make this goal a reality."

*A new agreement will help protect the Bath Iron Works employees in Maine. Photo courtesy of Bath Iron Works*

## New Partnership Covers Grain Elevators

Increased protection for workers at small grain-handling facilities in Illinois with 10 or fewer employees is one of the major benefits expected from a new agreement between OSHA and the Grain and Feed Association of Illinois (GFAI). The partnership will expand outreach efforts to increase knowledge among grain-handling facility operators of safety controls for hazards associated with the industry. In addition, because it includes facilities with 10 or fewer employees, the agreement promises increased protection to workers in small facilities.

OSHA Chicago Regional Administrator Michael G. Connors says that by working together through the partnership, OSHA and GFAI “will go beyond what either party can do alone.”

## OSHA and EPA Join Forces

OSHA and the U.S. Environmental Protection Agency recently agreed to work together to pursue their goals of recognizing and rewarding environmental and safety and health leadership. The agencies signed a memorandum of agreement recognizing their shared vision of building partnerships with industry and public entities to encourage top performance in these areas through OSHA’s Voluntary Protection Programs and EPA’s National Environmental Performance Track program.

OSHA and EPA agreed to coordinate their efforts to increase the efficiency and effectiveness of their programs that encourage industry to go beyond minimal compliance with standards. The agencies pledged to work together to recruit facilities



Representatives of OSHA and the Illinois Grain and Feed Association sign a partnership agreement at a grain elevator in Lincoln, IL. Front row, from left to right, are Jeff Adkisson, GFAI Executive Vice President; and Dennis Aupperle, GFAI President. Back row, left to right, are Hugh Whalen, GFAI Board of Directors; Peggy Zweber, OSHA Peoria Area Office Director; Jerry Rowe, First Vice President, GFAI Board of Directors; Diane Turek, OSHA Chicago North Area Office Director; Michael Sulzberger and Phil Seaman, GFAI Board of Directors; and Charlie Shields, OSHA Aurora Area Office Director.

Photo by John Lee

into both programs and recognize facilities that participate in both programs. They also agreed to communicate regularly to share program policies, procedures, and lessons learned.

## CCHEST Signs Training Agreement

OSHA and the Council on Certification of Health, Environmental and Safety Technologists (CCHEST) have signed a voluntary agreement to acknowledge the Safety Trained Supervisor in Construction (STS-Construction) certification issued by CCHEST.

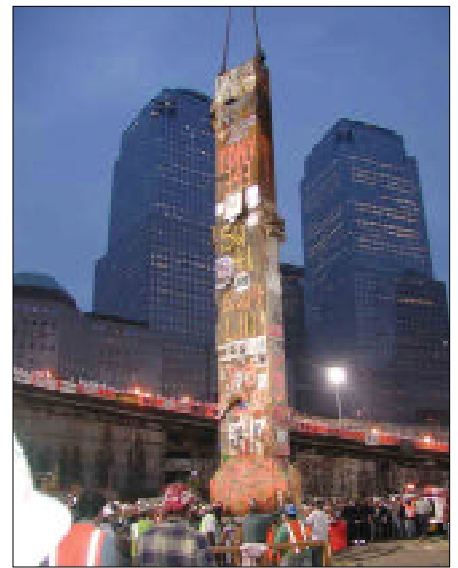
“This agreement enables OSHA to recognize a certification that

verifies the safety and health knowledge of individual supervisors on construction sites,” says OSHA Administrator John L. Henshaw. “We are delighted to encourage the promotion of safety and health at construction worksites through such programs as this certification program of CCHEST.”

The certification provides an independent assessment of safety and health knowledge covered by the STS-Construction certification process. Intended for first-line supervisors, the program ascertains safety education, training, and construction experience. It includes a written examination to verify that those construction supervisors who meet the stringent criteria for certification also possess knowledge and experience that contribute to achieving safe worksites.

# OSHA Wraps Up Work at WTC

Around-the-clock vigilance kept injury and illness rates low during demolition and site clearing.



Left, New York Regional Administrator Patricia Clark looks on as Laura Kenny, the region's labor liaison, signs the last steel column to be removed from the site. Above, the column serves as a temporary memorial. Photos by Gil Gillen

OSHA recently wrapped up its 24-hour-a-day effort supporting and advising workers performing demolition and site-clearing operations at the World Trade Center site. OSHA staff—including members of the Manhattan Area Office whose office was destroyed in the September 11 attack—responded to the disaster immediately. They worked around-the-clock conducting air and bulk sampling, distributing personal protective equipment, conducting respirator fit testing, and performing safety monitoring for workers at the site.

Throughout the operation, 1,055 OSHA staffers from all 10 regions, the national office, and 33 states served almost 15,000 8-hour tours of duty at the site. The New York Regional Office and its 12 area offices served

8,600 of those tours. In addition, 13 Special Government Employees from the Voluntary Protection Programs contributed 70 tours of duty.

New York OSHA Regional Administrator Patricia K. Clark praised the dedication of her staff and OSHA professionals from around the country who supported the effort. She credits their contribution, coupled with the two partnerships to promote worker safety and health at the sites, for the success in keeping injury rates low.

After nearly 3.7 million work hours, only 57 workers at the site suffered injuries that resulted in lost workdays. What's more, no worker fatalities occurred at the site. The World Trade Center Emergency Partnership Agreements concluded July 1.

Officials from the New York Regional Office participated in a

May 30 ceremony marking the end of the recovery and cleanup effort, and the agency officially concluded its operations at the site on June 25. Several days later, the New York Fire Department and New York City Department of Design and Construction, co-incident commanders, returned jurisdiction of the site to the Port Authority of New York and New Jersey.

The Manhattan Area Office moved into its new permanent space on July 22. Its new address is: 201 Varick Street, Room 908, New York, NY 10014. The main phone number is (212) 620-3200. [JSHQ](#)



OSHA staffers attend the ceremony honoring the workers, recovery teams, contractors, unions, and government agencies participating in the cleanup and recovery. Photo by Gil Gillen

# Ergonomics Update

OSHA and industry stakeholders are working together to develop guidelines to protect workers.

OSHA is working closely with stakeholders to develop industry- and task-specific guidelines to protect workers from ergonomic injuries and illnesses. The first sets of guidelines, expected to be available in draft form for public comment later this year, will cover nursing homes, grocery stores, and poultry processing plants.

“I look forward to coordinating with these professions and workers to develop these first sets of industry-specific guidelines to prevent ergonomics hazards,” says John L. Henshaw, OSHA Administrator. “It makes sound business sense for the stakeholders involved to be the first to tackle ergonomics problems in their industries.”

Henshaw says the agency is beginning its efforts by focusing on industries and tasks associated with ergonomic injuries for which successful strategies are known. “Real-life solutions come from real-life experience,” he says.

Industry representatives have pledged to work with OSHA to develop the draft guidelines. “The American Health Care Association (AHCA) stands for a safe work environment for all long-term care employees and welcomes the opportunity to work with OSHA on the voluntary ergonomic guidelines,” says Dr. Charles H. Roadman II, President and CEO of AHCA. “These guidelines, when implemented, will build upon the ergonomics programs already in place at many nursing facilities and draw on their expertise in caring for the infirm, frail, elderly, and persons with disabilities.”

Food Marketing Institute President and CEO Tim Hammonds says, “Over the past decade, the food retail industry has taken the lead in reducing repetitive-motion injuries. We are pleased to answer OSHA Administrator John Henshaw’s call to join in the development of guidelines and information, which our member companies may



OSHA is working with stakeholders to develop ergonomics guidelines to protect nursing home workers. Photo courtesy of Manor Care



New guidelines are expected to reduce injuries and illnesses among poultry processors. Photo courtesy of ConAgra Refrigerated Foods, Inc.



Grocery store workers will soon benefit from ergonomics guidelines being developed for the industry. Photo courtesy of Giant Foods

use voluntarily to reduce injuries even further.”

Mike Klun, Chairman of the poultry industry’s Joint Safety and Health Committee, formed by the National Chicken Council and the National Turkey Federation, says the industry looks forward to working with OSHA in developing ergonomic guidelines. “The poultry industry has extensive experience in ergonomics, and many companies already have guidelines in place,” he says. “We can contribute the lessons we have learned in how to avoid ergonomic problems and how to deal with them when they occur.”

The draft guidelines will be announced in the *Federal Register* and posted on the OSHA website at [www.osha.gov](http://www.osha.gov) for review and comment. Henshaw says they will ensure prevention, flexibility, and feasibility. This approach, he believes, will enable employers and workers to tailor recommendations and best practices to their workplaces.

“We know that one size does not fit all, and this provides the flexibility needed to reduce injuries,” he says. JSHQ

## OSHA Allies with Printing, Graphics Arts Industries

OSHA, the Printing Industries of America/Graphics Arts Technical Foundation and the Screenprinting and Graphic Imaging Association International have formally agreed to work together in an alliance to share best practices and technical knowledge on ergonomics to prevent injuries and illnesses in the printing and graphic arts industries.

Under the alliance, the partners will work together to develop and disseminate best practices information on ergonomics at conferences, including the national print show, GraphExpo, this October in Chicago. Further, the partners will make information available on their websites. Companies that are members of these associations will be encouraged to implement these best practices and dramatically reduce work-related musculoskeletal disorders. They also will be encouraged to participate in OSHA cooperative programs such as the Voluntary Protection Programs and the Safety and Health Achievement Recognition Program.

In addition, alliance members will promote the national dialogue on workplace safety and health through joint outreach efforts, sharing data that support solutions to ergonomic hazards, and convening and participating in forums and round-table discussions to identify innovative solutions to ergonomic issues in the printing and graphic arts industry. Finally, participants will develop and deliver training and education programs for industry workers.

“This alliance is the first of many we expect to sign with industries that are moving forward to address ergonomics as part of their effort to strengthen safety and health in their workplaces,” says OSHA Administrator John L. Henshaw.



OSHA is working with the Printing Industries of America/Graphics Arts Technical Foundation and the Screenprinting and Graphic Imaging Association International to protect workers in the printing and graphic arts industries from ergonomic injuries.

Photo courtesy of PIA/GATF

# Laser Technologies, Inc.: Three Cheers for Onsite Consultation

An Illinois businessperson says the program “has a lot to offer any small business.”

by Donna Miles

**K**eri Alwin admits it wasn't what some people in her shoes would have done. In 1993, she had just been hired to set up a safety program for Laser Technologies, Inc., an Illinois company that specializes in using lasers to do precision metal cutting to build automotive prototypes and repair hydroelectric generator units. The company was small, with fewer than 15 employees, but was losing 60 to 70 workdays a year due to workplace injuries.

The word “OSHA” stirred up fear among many of Laser Tech's business associates in the surrounding industrial park. OSHA compliance officers had inspected several of these companies, found violations, and issued penalties. Laser Tech President John Johnson didn't want that to happen to his company.

Instead of dreading a visit from OSHA, Alwin decided to take a preemptive strike. She called on the Illinois Department of Commerce and Community Affairs, which administers the OSHA Onsite Consultation Program in Illinois, and requested a free onsite consultation visit.

Through this program, operated in all 50 states, safety and health professionals visit small business worksites at the employers' request to help spot hazards and suggest ways of fixing them. They also help employers develop or improve their safety and health management systems. The program is completely separate from OSHA's inspection effort, with no citations issued or penalties proposed.

“This is a very proactive approach to helping small businesses identify potential hazards in their workplaces and come up with workable solutions to correct them without putting the company out of business,” says Don Williams, senior industrial hygienist for the State of Illinois.

When he first visited Laser Tech in 1993, Williams met with Johnson, Alwin, and other company managers to learn about the company, what it does, and how it does it. He walked around the company, watching employees at work, noting hazards or potential hazards. After conducting a full audit of the facility, he reported

his findings back to the company management in a consultation report.

A major problem Williams identified involved a mechanical power shear workers used to cut steel to size before beginning the laser-cutting process. The shear lacked the guarding needed to keep workers' hands and clothing from getting caught in the moving machine parts. It was noisy, too, requiring workers to wear hearing protection.

Laser Tech went a step beyond simply fixing the problem. Management decided to change its production process by buying its metal pre-cut to a workable size rather than cutting it



Laser Tech quadrupled its staff and moved into this larger facility while introducing innovative safety and health programs. Photo by Keri Alwin



in-house. This freed up more company employees to concentrate on more intricate metal-cutting procedures.

That was just the first step of Laser Tech's effort to improve workplace safety and health. Alwin wrote manuals for six programs: emergency action/fire prevention, laser processing, lockout/tagout, hazard communication, employee orientation/training, and workplace analysis/inspections. "It was a lot of paperwork," she admits, "but an important step because it formed the foundation for our entire program." Today, she says, companies have the advantage of the Internet, where they can cut and paste OSHA's templates and adapt them to their own workplaces.

In addition, Alwin began regular meetings to review the company's safety and health programs with employees. Initially, she covered all six programs in one annual, half-day meeting. "Half of the people fell asleep," she says. "They didn't readily accept the program."

Alwin worked to get the workers involved. She got them to join in regular walkthroughs of the facility to identify hazards. She conducted a job hazard analysis for each job in the company, soliciting workers' suggestions on how to do the job better, safer, and more efficiently. She established a safety committee and included representatives from each department in the weekly meetings. She posted notes from the meeting prominently so all workers could see them. As the workforce grew to 70 employees, 60 percent of them Hispanic, she started posting meeting notes in Spanish as well. And instead of holding long, annual safety meetings for the entire company, she started shorter monthly meetings that focused on just one safety and health issue at a time. "Workers really started to feel involved in what we were doing," she points out. "They felt responsible."

The rewards are more than Alwin imagined. Lost workday from injuries decreased from about 70 a year to 0 for the past 7 years. Workers' compensation



*Laser Tech conducted a job hazard analysis for all its workers' jobs to identify how to do them better, more safely, and more efficiently. Photo by Keri Alwin*

costs dropped by 20 percent per year. "Now we get dividends!" Alwin says. Staff turnover has dropped dramatically, saving the company the costs of hiring and retraining new workers. "Employees feel that the company cares about them, not just about the company, so they want to stay," Alwin explains.

And during the past 9 years as Laser Tech has focused on improving workplace safety and health, the company has continued to grow. It more than quadrupled its staff and moved to a larger facility in Batavia, IL.

"Our emphasis on safety and health definitely contributed to that growth because we analyzed every step of our process to make the workflow as smooth as possible," Alwin says. "It made us more efficient."

For the past 8 years, Laser Tech has been a participant in OSHA's prestigious Safety and Health Achievement Recognition Program (SHARP), which recognizes excellent safety and health management systems in small companies. This recognition gives Laser Tech an exemption from OSHA general schedule inspections.

"We've won a lot of state and federal awards for our program and it's gotten us a tremendous amount of positive publicity," says Alwin. "It reaffirms that what we're doing is good for our workers and good for the company."

Alwin admits that setting up a good safety and health management system takes commitment and a lot of hard work. She continually fine-tunes her programs, with the workers' help, and says she continues to call the Onsite Consultation Program for advice. She also occasionally travels to the OSHA Training Institute to give compliance officers and consultants a businessperson's view of what it takes to set up and maintain an effective safety and health management system.

"It's funny how so many people are afraid of OSHA and afraid of the big fines," she says. "But in the Consultation Program, they're not there to issue fines. They're there to help you."

"It's a wonderful, wonderful program that has a lot to offer any small business." JSHQ

*For more information about the Onsite Consultation Program, visit the OSHA website at [www.osha.gov](http://www.osha.gov).*

# Happy Birthday



This year marks the 20th anniversary of the Voluntary Protection Programs (VPP), OSHA’s premier recognition program for worksites that do an excellent job of protecting their employees. What started as a novel concept in the early 1980s—establishing a program that encourages companies to voluntarily go above and beyond their legal obligations to protect their workers’ safety and health—has evolved into a glowing success story about management-labor-government cooperation.

That’s because, as VPP has grown over the past two decades to include 610 worksites under federal jurisdiction and another 230 sites in VPPs operated by states, these sites have become safer and more healthful places to work. Injury and illness rates at these sites have dropped, and more than ever before, employees and managers are working together to promote workplace safety and health.

“What makes VPP such a success story,” according to Cathy Oliver, Chief of OSHA’s Division of Voluntary Programs, “is that it represents the positive, proactive side of workplace protection. VPP is not about enforcement. It’s about OSHA working side by side with private companies willing to make the commitment and

do what it takes to make their workplaces among the safest in the world—not because they *have* to, but because they *want* to.”

OSHA Administrator John L. Henshaw takes pride in telling others that he is the first OSHA Assistant Secretary to come from a VPP company—Monsanto, as well as the VPP company it spun off, Solutia. “I deeply appreciate the partnership of VPP,” Henshaw told the audience at the 17th annual Voluntary Protection Programs Participants’ Association conference last August. “You model excellence for everyone, no matter where they are on the ladder. You demonstrate across a broad array of industries, in businesses of every size, the value that safety and health

*Top, workers at General Electric Rail Services in Sayre, PA, celebrate earning VPP Star status in March 2001. Photo courtesy of General Electrical Rail Services. Above, sites that achieve VPP Star status fly their Star flags to proclaim their commitment to workplace safety and health. Photo courtesy of National Enzyme Co.*

## VPP's 20-Year History

July 2, 1982

OSHA announces establishment of the Voluntary Protection Programs (VPP) in *Federal Register* Notice 47 FR 29025. The VPP will seek out and recognize worksites with outstanding safety and health management systems and encourage cooperation among government, industry, and labor. The original three programs are Star, Try, and Praise.

July 9, 1982

OSHA awards the first VPP approvals to three Praise sites operated by Ortho-Clinical Diagnostics in New Jersey, Massachusetts, and New York.

October 26, 1982

OSHA awards the first VPP Star approval to ABB Air Preheater, Wellsville, NY.

September 1985

The Voluntary Protection Programs Participants' Association (VPPPA) holds its first annual conference.

October 29, 1985

In *Federal Register* Notice 50 FR 43804, OSHA issues its first revision to the VPP. VPP no longer will allow sites to qualify based solely on their safety program; sites now must provide effective protection against both health and safety hazards. The agency eliminates the Praise program in favor of using the Star program to recognize exemplary worksites in all industries, and establishes the VPP Demonstration program to replace the experimental element of the Try program.



*This Exxon-Mobil worker is among more than 7,300 employees who benefit from high workplace safety and health standards at the company's 17 Star sites. Photo courtesy of Exxon-Mobil*

## Special Government Employees

VPP members have been eager to help OSHA keep the program alive and well. One result is the innovative use of the Special Government Employee (SGE) Program, begun in 1994 to supplement the staff OSHA needs to conduct VPP onsite evaluations at increasing numbers of worksites.

Qualified employees from approved VPP sites undergo OSHA training in how to assess workplace safety and health management systems. Then OSHA swears them in as SGEs, entitled to participate as full-fledged members of OSHA's VPP evaluation teams. Along with their OSHA colleagues, SGEs visit applicant and member sites to review safety and health documents, interview employees, conduct walkthroughs, and contribute to the team's evaluation report and recommendation. Sponsoring employers pay the SGEs' salaries and expenses.

Paul Villane became the first VPP Special Government Employee when he was Safety Manager at Monsanto, Inc., a VPP Star site in Pensacola, FL. Now Executive Director of the nonprofit Voluntary Protection Programs Participants' Association, Villane calls the SGE Program "a boon to both OSHA and the VPP companies that choose to participate." He says, "OSHA and VPP site employees work side by side, sharing what they've learned about worker protection, contributing what are sometimes very different perspectives and approaches, and helping the sites we visit solve real-world problems that make a real difference in employees' lives."



*Paul Villane was OSHA's first SGE.*

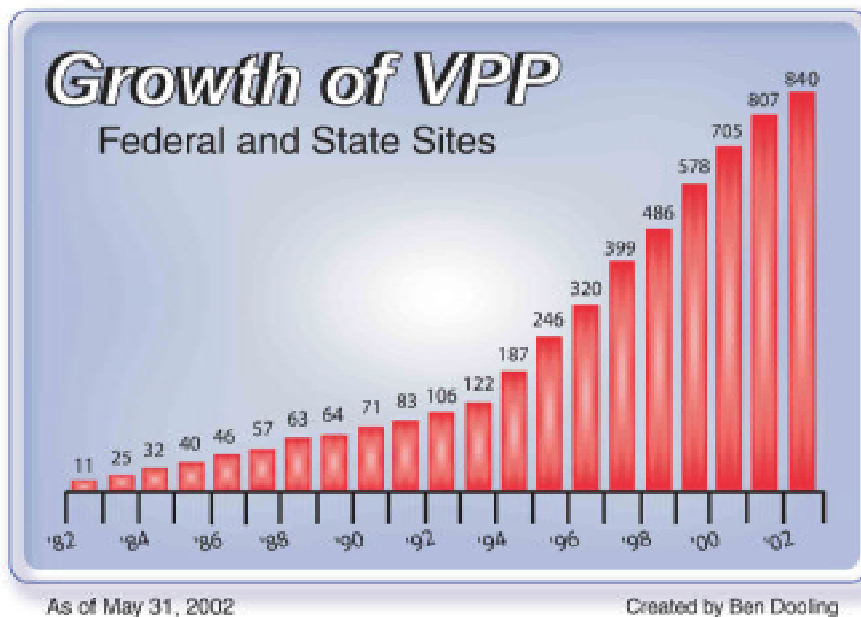
## VPP sites report fewer worker fatalities, injuries, and illnesses.

add to any operation.” When OSHA first announced VPP in 1982, however, the program had its share of skeptics. Why, some questioned, would employers want to voluntarily contribute time, personnel, money, expertise, and energy to create workplaces where compliance with OSHA standards was treated as just a minimum starting point? And who would voluntarily open themselves up to regular OSHA visits?

“Yet 20 years later, it’s become obvious that these employers want their companies to be models of workplace safety and health,” says Paula White, OSHA’s Director of Federal-State Operations, which oversees the agency’s cooperative programs. “They have discovered that protecting workers pays off in a lot of ways.”

VPP sites report fewer worker fatalities, injuries, and illnesses; lost-workday case rates generally 50 percent below industry averages; and lower workers’ compensation and other injury- and illness-related costs than before they joined the program.

Sites report other, less tangible benefits, too. Brian Bennett, Safety Manager for Star participant Akzo Nobel Polymer Chemicals LLC in Edison, NJ, says the company’s labor-management relations have improved dramatically since the company joined VPP in 1988. “The most obvious improvement,” he says, “has been in the area of safety and health, where both parties have worked together, resulting in a total recordable incident rate 87 percent below the national industry average. Bennett says the company has carried VPP principles forward to other aspects of the business, resulting in more employee participation and involvement in areas such as quality, cost control, manufacturing, and efficiency. “Participation in the VPP has not only improved our safety and health, but also has improved our overall employee morale



### VPP at a Glance

**Star**—The Star program recognizes exemplary worksites that have implemented comprehensive, successful safety and health management systems and have achieved injury/illness rates below their industry’s national average. Star sites are self-sufficient in their ability to control worksite hazards.

**Demonstration**—The Demonstration program gives worksites with Star quality worker protection the opportunity to test alternatives to current Star eligibility and performance requirements. Over the years, successful Demonstration projects have led to changes in Star requirements and shifts in thinking about what constitutes an excellent safety and health management system.

**Merit**—The Merit program is for worksites with good safety and health management systems that need some improvement to be judged excellent. Merit sites must have the potential and commitment to meet specified goals, tailored to the site, and to achieve Star quality within 3 years.

August 1, 1986

California becomes the first state with an OSHA-approved safety and health program to adopt a VPP-type program, named the Cooperative Self-Inspection Program.

July 7, 1987

Labor Secretary William E. Brock honors Mobil Chemical as the first corporation to achieve VPP Star recognition at all of its 24 worksites.

January 26, 1988

The Try program is renamed the Merit program.

January 26, 1989

OSHA publishes its Safety and Health Program Management Guidelines in *Federal Register* Notice 54 FR 3904 following congressional testimony documenting the benefits of systematic safety and health management at VPP sites. The voluntary guidelines are intended to assist employers in preventing occupational injuries and illnesses and establishing comprehensive, effective safety and health management systems.

January 15, 1993

Austin Industrial becomes the first participant in VPP's new Demonstration Program for Resident Contractors.

May 25, 1993

Milliken and Co.'s Avalon Plant, Toccoa, GA, becomes the 100<sup>th</sup> worksite to gain VPP approval when it qualifies for Star status.



Workers at Montenay York Resource Energy Systems in York, PA, a company that converts municipal solid waste to thermal energy, helped their company achieve Star status in December 2001. Photo courtesy of Montenay York Resource Energy Systems

### VPP Facts as of May 31, 2002

Sites in federal and state VPPs...840

Sites in federal program...610

Sites in state programs...230

Federal sites with fewer than 200 employees...258 (42 percent)

Federal sites with Star status...547 (90 percent)

State with most federal sites...Texas (127 sites)

State with most state program sites...North Carolina (48 sites)

Union/non-union breakdowns of federal sites...27 percent union, 73 percent non-union

Employee breakdowns of federal sites...39 percent union, 48 percent non-union, 13 percent contractor

Industry with most federal sites...Chemical (157 sites)

and made us a more competitive business," he says.

Getting into VPP isn't easy. A site that applies to VPP must submit a written application that addresses the major elements of the program: management leadership and meaningful employee involvement in safety and health at the site; analysis of worksite hazards; hazard prevention and control; and management and employee safety and health training. OSHA evaluates the site's application for completeness and acceptability, then sends a team of safety and health experts to conduct an extensive onsite evaluation. The team's task is to verify that the safety and health management systems described in the application operate effectively, are appropriate for the site's specific needs, and meet VPP requirements.

Staying in VPP is not easy, either. OSHA conducts evaluations at participating sites on a regular basis, every 12 to 18 months for Demonstration participants, every 18 to 24 months for Merit, and every 2-1/2 to 5 years for Star. The trust and cooperation that

“You demonstrate across a broad array of industries, in businesses of every size, the value that safety and health add to any operation.”

are hallmarks of the relationship between OSHA and its VPP partners are evident in the positive way sites respond to these OSHA team visits.

After undergoing a VPP evaluation last March at IBM’s Thomas J. Watson Research Center, a Star site in Yorktown Height, NY, company managers Carolyn Baresick and Kyle Pero fired off a letter thanking the VPP team for its “professionalism and positive approach.” They wrote, “The team that came here really added value with excellent, thought-provoking questions and a strong sense of best practices in the industry. Their recommendations will result in an improved Watson safety program.”

Participating sites also must cast a critical eye on their safety and health efforts by conducting a self evaluation annually and sending a copy of the report to their OSHA regional office. This evaluation is a careful appraisal of all the elements of the safety and health management system. It must include injury and illness data and trends for both regular site workers and applicable contractors’ employees. The evaluation must discuss improvements made, deficiencies identified, and efforts made to correct problems and continually improve. OSHA also asks for worksite success stories that provide useful information the agency can share with other companies.

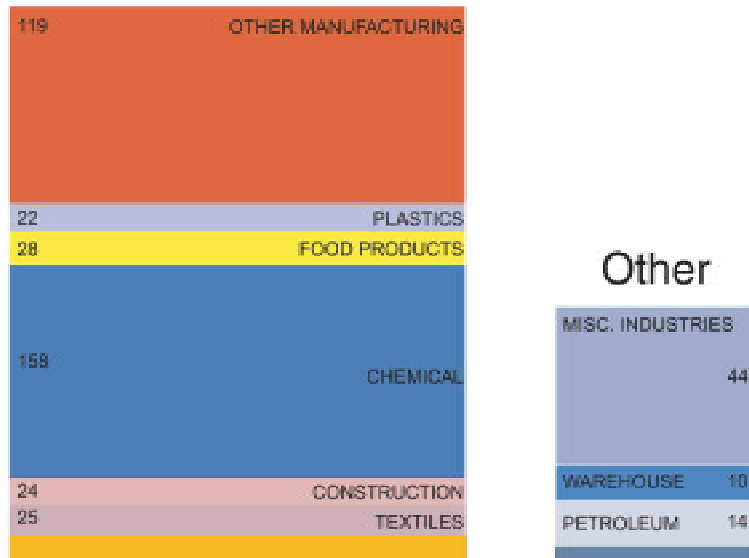
Despite VPP’s rigorous continuing demands, participating sites—once approved—rarely withdraw. Sites that have made the commitment to join say VPP’s high standards make it a source of pride among participants. At Alstom Power Inc., Air Preheater Company in Wellsville, NY, the longest continuous Star worksite in VPP, Environmental, Health, and Safety Manager Tom Barnett says this pride “strengthens our focus on safety and health and our dedication to the principles of VPP.” (See related story, page 26.)

VPP sites become full-fledged partners in OSHA’s mission to protect America’s workers. They voluntarily share their expertise and experiences, not just with OSHA, but with their communities and other businesses via outreach activities, including a mentoring program available to any worksite that requests assistance. They generously share their human resources with OSHA in the VPP Special Government Employee (SGE) Program. (See box, page 20.) They stand ready to respond when

OSHA asks for help, for example, when OSHA invited SGEs to join the teams mobilized after September 11 to oversee the safety of rescue and clean-up workers at the World Trade Center and the Pentagon. They promote safety and health management systems as a superior way to protect workers. And they demonstrate that management, labor, and a government regulator can work together productively to achieve common goals.

As VPP moves into its third decade, it is tackling challenges critical

## Industries in the Federal VPP



February 28, 1994

OSHA initiates the OSHA VPP Special Government Employee (SGE) Program and sends its first SGE to serve as the safety professional on a VPP onsite review team.

June 1994

The newly formalized VPP Mentoring Program matches its first VPP site mentor with a potential VPP applicant seeking assistance. The program later is renamed the VPPPA Mentoring Program when the association assumes full responsibility for its operation.

September 7, 1994

The Department of Energy initiates a Voluntary Protection Program (DOE-VPP) modeled closely after the OSHA VPP model.

September 26, 1995

Vice President Al Gore, at the 11<sup>th</sup> Annual National VPPPA Conference, presents his Hammer Award to the OSHA/VPPPA partnership for building a government that works better and costs less.

October 10, 1996

Potlatch Corp.'s Jaype Plywood Unit, Pierce, ID, becomes the 250<sup>th</sup> site approved into VPP. The private-sector's recognition of the value of VPP participation and the prestige associated with VPP approval are evident in the program's rapid growth. It took nearly 11 years for VPP to hit the 100-site mark, but only 3 years to grow an additional 150 percent.

October 27, 1997

OSHA extends VPP eligibility to federal agency worksites.



Garrett Aviation Services in Van Nuys, CA, became a VPP Star site in June 2002. The facility is a subsidiary of the General Electric Corporation. Photo courtesy of Garrett Aviation Services

## State VPP Programs

The federally operated VPP is available wherever OSHA has jurisdiction. For the 21 states and two U.S. territories that operate their own safety and health programs for the private sector, and the three states with programs for the public sector, VPP is optional. Nineteen states and Puerto Rico have established programs modeled after the federal VPP and approved by OSHA. Additionally, Hawaii is committed to establishing a VPP-type program, and Vermont and the U.S. Virgin Islands are considering it.

To receive OSHA approval, a state's VPP must be at least as effective as the federal VPP, but not necessarily identical. Many states have crafted VPPs with different requirements and program structures. For example, nine of the state-operated VPPs offer only the Star level. To qualify for North Carolina's Carolina Star, a worksite's injury and illness case incidence rate must be half of the state average or better. In South Carolina's Palmetto Star program, a worksite's case incidence rate and its rate for days away from work, restricted activity, or job transfer due to a workplace injury or illness must be 50 percent below the state average for the past 3 years. Minnesota and Wyoming offer participation to general industry, construction, and public-sector worksites. Other states offer more limited eligibility.

These states and their VPP partners share a recognition of VPP's value to employers, workers, and the state agency that regulates occupational safety and health.

Randy Wilson, Plant Manager for George Weston Bakeries, Inc., a Cal/OSHA Star worksite in Placentia, CA, calls VPP "the ultimate team experience, the most rewarding accomplishment in my professional career, and a symbol of pride for the employees, the company and the community."



## Why, some questioned, would employers want to voluntarily contribute time, personnel, money, expertise, and energy to create workplaces where compliance with OSHA standards was treated as just a minimum starting point?

to America's businesses, such as an increasingly diverse workforce, health and safety problems associated with an aging worker population, new hazards emerging at highly technological workplaces, and the need to help small businesses survive and succeed.

Secretary of Labor Elaine Chao, speaking at the Voluntary Protection Programs Participants' Association national conference last August, said, "Finding solutions for the 21st-century workforce will require new ways of thinking. And the Department must be guided by common sense, not just a reflexive, one-size-fits-all approach to every situation. That is why the VPP is so important. From large multinational companies to small, single-site, family-run businesses, VPP's flexible, performance-based approach can benefit all eligible employers."

For more information about VPP, contact the VPP manager at your OSHA regional office or visit the OSHA website at [www.osha.gov](http://www.osha.gov). JSHQ

*Weinberg is a Program Analyst in OSHA's Division of Voluntary Programs, Washington, DC.*

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*The Johnson Space Center in Houston, TX, one of four VPP sites in NASA, earned VPP Star status in 1999. Photo courtesy of United Space Alliance*

April 10, 1998  
OSHA approves the VPP Demonstration Program for Short-Term Construction Projects to gain experience in how companies ensure a safe work environment at multiple, short-term (12 to 18 months) construction sites.

November 13, 1998  
OSHA launches the VPP Mobile Workforce Demonstration Program to test the feasibility of companies providing excellent safety and health protection to a workforce that performs its duties at a variety of locations not controlled by their employer. Until now, only fixed worksites have been eligible to participate in VPP.

July 23-27, 1999  
Star participant United Space Alliance at the NASA Shuttle Logistic Depot (NSLD), Cape Canaveral, FL, takes safety to new heights as two VPP Star flags fly 1.8 million miles aboard the Space Shuttle Columbia and return safely to Earth. One of the flags is later presented to Alexis Herman, Secretary of Labor; the other is framed and hung in the main lobby at NSLD Building # 1.

February 28, 2000  
VPP awards its 500<sup>th</sup> approval to Science Application International Corp. (SAIC), a resident contractor at NASA's Johnson Space Center, Houston, TX. Initially joining VPP's Demonstration Program for Resident Contractors, SAIC moves into the Star program the following July when the Demonstration program's success prompts OSHA to expand VPP eligibility to resident contractors at approved VPP sites.

## Alstom Power: A 21-Year Star

by Tom Barnett

Alstom Power Inc., Air Preheater Company (APAP) in Wellsville, NY, has the distinction of being the longest continuous Star worksite in VPP. The facility was first approved for Star status in October 1982, when it was known as C-E Air Preheater. Later, the company became ABB Air Preheater before assuming its current name.

Although the name has changed, the company's commitment to safety and health has not. A heavy manufacturing facility, APAP manufactures air preheaters, pulverizers for industrial and utility markets, thermal oxidizers, and the aftermarket parts and components to support these product lines. The facility's 540 employees are involved in machining, welding, painting, assembling, and shipping.

They use large lathes, boring mills, and drills in the machining center; and shears, press brakes, plasma arc-cutting tables, bending rolls, and power presses in the prefab area. In addition, they work with materials-handling equipment ranging from fork trucks to overhead cranes with lifting capabilities of up to 100 tons.

Before becoming a Star site, APAP tried many different safety incentive programs with little payback in performance. In contrast, during the first 3 years of participation in VPP, the company saw its workers' compensation expenses plummet by hundreds of thousands of dollars. The facility continues to pay workers' compensation costs 70 to 80 percent lower than what it paid before joining VPP 21 years ago. APAP shares those savings directly with the employees through its all-employee gain-sharing program.



*The Alstom Power, Inc., Air Preheater Company is the longest continuous Star site in VPP. The company earned Star status in 1982. Photo by Tom Barnett*

This program has become a tremendous factor in helping employees understand that accident expenses come off the bottom line and that the effort to work safely pays off in the long run.

VPP participation increased the company management's active participation in safety and health. The company is committed to mentoring worksites and has discovered how rewarding it is to help other companies improve their safety and health programs and earn VPP approval. In addition, APAP is pleased to help OSHA by providing a VPP Special Government Employee at company expense, including recently sending a company employee to support OSHA's efforts at the World Trade Center recovery site. Participating on VPP evaluation teams has increased the company's appreciation of just how difficult it is to maintain a superior safety and health program and has given APAP pride in its value as an OSHA partner.

Safety was ingrained in APAP's culture long before the company became a VPP Star site. But with the OSHA recognition, and especially the honor of being the longest continuous Star site, has come a level of pride that strengthens our focus on safety and health and our dedication to the principles of VPP. When we communicate our continuing efforts and successes to our workforce and compare our injury and illness rates to the national average, our employees have a visible measuring tool for their hard work and dedication to safety.

*Barnett is Manager of Environmental, Health and Safety for ALSTOM Power Inc., Air Preheater Company. He also is an OSHA VPP Special Government Employee and worked alongside OSHA personnel at the World Trade Center recovery site.*



*Rifenburg Construction, Inc., adapted VPP for a \$28 million highway construction project in New York. Photo by Norm Stahlman*

## Rifenburg: Taking the High Road

by Donna Miles

A penny saved is a penny earned. That's what T.J. Lyons, Director of Environmental Health and Safety for Rifenburg Construction, Inc., sees as the greatest value of OSHA's Voluntary Protection Programs.

Lyons says Rifenburg, a heavy construction company based in Troy, NY, has always had a good safety record. Yet, over the course of a typical 3-year construction project, nine to 12 workers would lose workdays after being injured on the job. Those injuries cost Rifenburg and its subcontractors an average of \$23,000 per case—or more than \$200,000—in workers' compensation costs.

That was before Rifenburg Construction adapted VPP for the highway construction industry and put it into effect on a \$28 million Route 332 reconstruction and expansion project in western New York. The project involves widening a major highway from the New York Thruway to the town of Canandaigua from two to four lanes, which includes relocating utilities and rail lines,

replacing a bridge, and making significant changes in the grades of some hills.

This kind of work poses the usual construction hazards such as falls, electrocutions, materials handling, and excavations. It also exposes workers to hazards such as working near traffic and explosives.

Rifenburg Construction, Lyons says, wanted to beat the odds. The company beefed up its safety programs for the project, making worker safety a top management priority. It launched an aggressive education and training program and initiated a safety committee that focused on improving worker safety and health on the project. In addition, Rifenburg worked with OSHA to develop an efficient and effective way to deal with "near misses," track safety-related incidents, and identify areas in need of improvement.

OSHA named the company a VPP Merit site in August 2000, making Rifenburg the first highway construction firm in New York State and the second in the United States to qualify for this achievement. OSHA reappraised Rifenburg's VPP designation last summer.

"Management's attitude toward safety and health continues to be

July 24, 2000

OSHA issues significant revisions to VPP in *Federal Register* Notice 65 FR 45650 that raise the level of achievement expected of participants. Among other changes, an alternative rate calculation will help small businesses qualify for the Star program. In recognition of the seriousness of occupational illnesses, a site's illness experience will be combined with its injury experience in future calculations of required rates.

July 24, 2000

Based on a successful Demonstration program, VPP eligibility is extended to resident contractors at approved VPP sites.

August 27, 2001

OSHA and VPPPA announce three joint initiatives:

- Double the number of small businesses in the VPP over the next 3 years.
- Work together to improve safety and health at worksites that appear on OSHA's Site Specific Targeting List due to high injury and illness rates.
- Enhance workplace safety and health protections for non-English speaking workers.

September 11, 2001

VPP SGEs from around the country respond to OSHA's request for team volunteers to support the agency's response to terrorist attacks at the World Trade Center and Pentagon.

July 2, 2002

OSHA observes the 20th anniversary of the announcement of the Voluntary Protection Programs in *Federal Register* Notice 47 FR 29025.

one of total commitment to worker protection," according to the OSHA VPP Review Team that recommended Rifenburg Construction's continued participation in the program. "Management is committed to providing the safest possible work environment for employees."

The payoff? More than 3 years into the Route 332 project, Rifenburg Construction has not had a single lost-workday accident.

"To have that kind of success rate is absolutely amazing, especially in light of the scope of this project," says Lyons. "We've had 60 to 80 people at the site at a time, representing 21 different subcontractors, and putting in more than 200,000 hours over 3 years, and not a single day lost due to injuries. That's unheard of in this industry."

So unheard of, in fact, that last fall the International Risk Management Institute, Inc., honored Rifenburg Construction with its prestigious Construction Risk Management Best Practices Award. "It's hard to beat the results of no lost workdays in 3 years on a \$28 million heavy construction project," said one of the judges from a panel of industry experts that selected Rifenburg for the award. Another judge noted that "rather than settling

on the standard, Rifenburg reached for the stars."

Lyons says joining VPP gave Rifenburg more benefits than the company expected. "It's helped protect our workers while turning out to be a real plus for the company in terms of money saved—which translates directly to profits made. At the same time, it's turned out to be the best marketing in the world for Rifenburg," he says. "Being in VPP puts a spotlight on your company and gives you more positive exposure than you could get in just about any other way."

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## Lights! Camera! Action! Training!

by Tim Rakestraw

During its first few years as an aluminum wheel manufacturer, Superior Industries International, in Pittsburg, KS, had a less-than-stellar safety record. But now the company is a VPP Star.

For several years after the company started operations in late 1989, the average number of recordable injuries was 202. The management group, committed to lowering those numbers,



Workers at Superior Industries International helped bolster workplace safety and health through an innovative training program. Photo courtesy of Superior Industries International

reduced the rate over the next 5 years to an average of 38 per year. In 1996, Superior Industries started to pursue VPP while continuing to reduce the number of recordable injuries to 32 for the past 3 years. In 1998, the company became the only VPP Star site in Kansas.

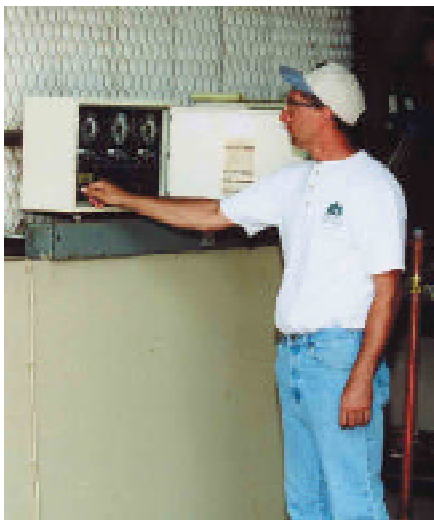
The greatest contributor to this accomplishment was the company's dedication to training. The problem during its early years was that most of its training consisted of "canned" programs that taught the basics of safety, but nothing job-specific enough to have real meaning for the workers. Superior took matters into its own hands, entering into a partnership with a local university to develop the company's first job-specific training video, centering around equipment and processes the workers use every day.

Based on the success of that training program, Superior's management "went Hollywood," purchasing video cameras and editing equipment so the staff could produce valuable and job-specific training videos on a wide range of topics: hazard communication, lockout/tagout, confined space, environmental training, eye and hand safety, and fire extinguisher training. The company currently is creating more videos on fall protection, forklift training, and hearing protection.

The company also developed visual guidebooks to accompany the videos. These books use digital photos showing step-by-step work instructions employees need to perform their jobs. The books give employees additional tools to ensure safe equipment operation and control of hazards related to a specific task.

Employee opinion surveys show that the training program is making a difference, with employees demonstrating a dramatic increase in safety awareness and appreciation—and an appreciation that the company cares about their safety.

*Rakestraw is the Safety Specialist for Superior Industries International.*



Top, International Paper's SuperTree Nursery in Bullard, TX, bought tractors with climate-controlled cabs to protect workers from dust and chemical exposure. Above, a worker adjusts the automated irrigation system. Photos by Ricky Martinez

## Size No Obstacle: Texas SuperTree Nursery

by Lisa Babington

International Paper's Texas SuperTree Nursery in Bullard, TX, has never had a lost-time incident in its 20-year history. The Texas Nursery was the smallest facility in OSHA's Voluntary Protection Programs and the first forest tree nursery when it was accepted in 1996. "We have had an excellent safety record since we opened in 1982," says Beverly Peoples, Manager of the Texas Nursery, "but our participation in VPP allowed us to be recognized for our accomplishments."

The small agricultural facility faced some unusual challenges in its quest to become VPP certified. "The VPP application process was appropriately not a one page form," Peoples says. "Although the nursery employed only five permanent employees at the time, we needed to complete the full-blown application, which took a real commitment of time and resources from our employees."

During the application review process, OSHA required industrial hygiene sampling data on each of the monitored pesticides applied to the nursery production fields. The application required five data points, and because Texas Nursery applied some chemicals only once or twice a year, gathering the required information could have been a 3-to-5-year process. Working with OSHA, the Texas Nursery used data from other International Paper nurseries to document the required number of data points. "Even though this approach was acceptable to OSHA, we have continued to sample at Texas Nursery to create a sampling history specific to our location," says John Baker, Environment Health and Safety Coordinator for the Nursery and Orchards team. "This is just another example of how we continue to go above and beyond even the basics for VPP."

Each of the Texas nursery employees has fully embraced the safety culture of excellence. Although 100 percent employee engagement seems easy at a small location, any feelings of dissent or discomfort are felt profoundly in such an intimate group. "We didn't come to the decision to apply for VPP lightly," says Rick Barham, Manager of International Paper's Nurseries and Orchards. "We realized that the total commitment of the Nursery and Orchard leadership as well as the team in Bullard would be critical to making this happen. Once we set our sights on VPP, we gave it an all-out effort."

The nursery has also embraced a safety culture in its equipment upgrades. Baker notes, "During the harvesting season, nursery specialists

spend 8 to 10 hours a day on a tractor. We made sure that the seating on the new tractors was ergonomically correct and added climate-controlled cabs to eliminate dust and chemical exposure.”

A surprising outgrowth of VPP participation has been the relationship developed with OSHA. “We feel like we have access to anybody at OSHA. We talk to someone there any time we have a question and receive regular communications from our regional OSHA office,” says Peoples. “VPP has allowed us to develop a great partnership with a government agency some businesses would rather keep away from their doorstep. We have found their input and guidance invaluable.”

When the Texas Nursery negotiates a contract for seasonal employees, the staff tells the contractor up front about the safety expectations. A nursery employee monitors the contractor employee safety training session. If a contract employee doesn’t work safely, the nursery staff notifies the contractor and corrects the situation immediately. “We have zero tolerance for unsafe behavior,” says Baker.

“I am very proud of the initiative that the Texas Nursery team took to go for VPP,” says Barham. “We were not an obvious fit for the program, being so small. I will say, however, that the effort has definitely paid off.” Since its initial acceptance, the nursery has been recognized in the OSHA Dallas Regional Office’s “Stars Among Stars” program for sites that demonstrate continuous improvement by reducing their injury and illness rates to 50 to 90 percent the national industry average.

*Babington is a Communications Manager for International Paper’s Forest Products and Operations team.*

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## Valero’s Journey to Star

by Gary Summerville

Employee involvement was the cornerstone of the Valero Texas City



*Celebrating Valero’s Star status are, from left, Jeremy Bergeron, Valero Corporate Safety Director; John Miles, OSHA Dallas Regional Office Administrator; Davis Layne, OSHA Deputy Assistant Secretary; Rich Marcogliese, Valero Senior Vice President for Refining Operations; Bob Gregory, Valero Vice President and General Manager; Les Rucker, Valero Director of Health, Safety, and Environment; Gary Summerville, Valero VPP Coordinator; Rick Kempf, Valero Manager for Refinery Safety; Ray Skinner, OSHA South Houston Area Office Director; and Gene Cotton, Valero Vice President for Regional Refining Operations.*

*Photo courtesy of Valero Texas City Refinery*

Refinery’s journey to VPP Star status. The company, which already had an excellent safety and health program in place for its 441 employees, set its sights on VPP in May 1998.

With full support of the refinery manager and senior management in the San Antonio Corporate Headquarters, Les Rucker, Director of Valero’s Health, Safety, and Environmental Department and Rick Kempf, Safety Manager for the Texas City Refinery, met with OSHA South Houston Area Director Ray Skinner to see what it would take to earn Star status. Valero sent two employees to the Voluntary Protection Programs Participants’ Association regional conference in Albuquerque, NM, to get a better understanding of what VPP was all about and how to start the application and approval process. They learned that although there is no set route to Star status, there are some tried-and-true practices that have worked for other Star companies.

Valero chose to build its quest on a cornerstone of employee involvement—and encouraged employees at all levels as well as contractors to participate. An employee VPP promotions committee educated workers about the VPP process and what it means to be a Star

site and began taking employees at all levels to VPP conferences and other Star worksites. In addition, the employees formed seven committees to address the objectives required to become a Star site. Every committee was open to any employee who wanted to be involved, and more than 140 of the company’s 441 employees and 17 contractor employees participated.

The effort paid off. In November 2001, OSHA recommended the Valero Texas City Refinery for Star status. The company recently completed one of its biggest challenges since becoming a Star facility: completing the largest turnaround in its history on schedule and without a major safety or health-related incident.

But the Valero Texas City Refinery’s journey with VPP is not yet over. The company plans to begin mentoring its contractors, other Valero sites, and other facilities to help them become VPP Star sites. It also plans to pursue the OSHA Dallas Regional Office’s “Stars Among Stars” program to show its continued commitment to worker safety and health.

*Summerville is an Instrument/Electrical Technician who was heavily involved in the Valero Texas City Refinery’s quest for VPP Star status.*

# New and Recently Reapproved VPP Members

## Federal Program

### New Star

Chief Industries Inc.  
Building Division,  
Grand Island, NE

Eaton's Aeroquip Inoac,  
Fremont, OH

Frito-Lay Corn-Handling Facility,  
Sidney, IL

Frito-Lay,  
Williamsport, PA

Frito-Lay,  
Wooster, OH

Georgia Pacific Leaf River Sawmill,  
New Augusta, MS

Georgia Pacific Mt. Hope OSB,  
Mt. Hope, WV

Georgia Pacific  
Taylorsville Particleboard,  
Taylorsville, MS

Halliburton KBR at  
Chevron Phillips,  
St. James, LA

Hercules Inc.  
Aqualon Division,  
Kenedy, TX

International Paper's  
Dry Creek Woodyard,  
Prattville, AL

International Paper Riverdale  
Wet Storage Facility,  
Selma, AL

JE Merit Constructors at  
Huntsman Chemical,  
Conroe, TX

Monsanto Agricultural Sector,  
Ashton, IL

NASA Ames Research Center,  
Moffett Field, CA

Occidental Chemical Company,  
Pottstown, PA

Olin Chlor-Alkali,  
Augusta, GA

PP&L Susquehanna, LLC,  
Susquehanna Steam  
Electric Station,  
Berwick, PA

Robert Packer Hospital,  
Sayre, PA

Texas Genco's  
P.H. Robinson Power Plant,  
Bacliff, TX

3M,  
Aberdeen, SD

United Space Alliance,  
Huntsville, AL

U.S. Postal Service, Processing  
and Distribution Center,  
Scranton, PA

### 5-Year Star

Agere,  
Breinigsville, PA

### 4-Year Star

IBM Research Center,  
Yorktown Heights, NY

### 3-Year Star

Monfort Inc.'s Platte  
River By-Products,  
Grand Island, NE

General Electric Bridgeville Glass,  
Bridgeville, PA

International Paper Texas SuperTree,  
Bullard, TX

Eaton Hydraulics,  
Searcy, AR

ExxonMobil Chemical Company,  
Baton Rouge, LA

Flexcon Spencer Plant,  
Spencer, MA

Titleist Custom Operations,  
New Bedford, MA

Kraft Foods, Inc.,  
Columbia, MO

### Merit to Star

CIBA Specialty Chemicals,  
Newport, DE

## New Merit

Noramco of Delaware,  
Wilmington, DE

Delta Airlines Technical Operations  
Center, Base Maintenance,  
Atlanta, GA

Robert Packer Hospital,  
Sayre, PA

## Continued Merit

International Paper,  
Folkston, GA

## State Plans

### Star

Honeywell Inc.  
Engines and Systems,  
Tucson, AZ

Equistar Chemicals, Camanche  
IANIBCO, Inc.,  
Goshen, IN

Dow Chemical Company  
Ludington Site,  
Ludington, MI

Georgia Pacific Corporation  
Roxboro Engineered Lumber,  
Roxboro, NC

Crowder Construction Company,  
Charlotte, NC

International Paper  
Forest Operations,  
Riegelwood, NC

International Paper  
Forest Operations,  
Roanoke Rapids, NC

Virginia Department of Corrections  
Lunenburg Correctional Center,  
Victoria, VA

### Merit

DPR Construction Lewis  
and Clark College Project,  
Portland, OR

Georgia Pacific West,  
Coos Bay, OR

# Hispanic Outreach: Delivering the Safety and Health Message

As part of a nationwide effort, OSHA is exploring new ways to reach Hispanics in the Lone Star state.

by Kathryn Delaney

OSHA's Dallas Area Office staff noticed a disturbing trend in fatal accidents for 1999. Twenty-six construction workers died that year in Northeast Texas, compared with 19 in each of the 2 previous years and 13 in 1996. A jump in the number of Hispanic and Latino construction workers killed was even more startling: increasing from 15 percent of construction fatalities in 1996 and 1997 to 60 percent by the end of 1999.

Leaders in the local construction community saw the same deadly pattern and quickly joined with OSHA's Dallas, TX, safety specialists to find better ways to make construction worksites safer. A first step was a series of stakeholder meetings in January 2000. Participating contractors and safety professionals identified many factors as impediments to construction safety, but they rated the problems of meeting the safety needs of Spanish-speaking workers as one of their toughest.

In an earlier measure to address this problem, our colleagues in Fort Worth had begun regularly scheduled 10-hour construction courses, which targeted small employers, in both English and Spanish in the Fort Worth-Dallas area. While this was a solid step forward, we knew that the Dallas staff needed to take more action to meet the community's needs and reverse the current upward trend in fatal accidents.

Everyone left the January 2000 stakeholder

meetings committed to making a difference in construction safety. Employers aggressively sought bilingual safety trainers for their employees and classes in Spanish language instruction for construction supervisors became popular. Some employers began to promote and even sponsor English classes for their Hispanic and Latino employees.

We also modified our way of doing business. Compliance officers throughout the Dallas-Fort Worth area took conversational Spanish classes. OSHA used every opportunity to increase public awareness of the need for safety on the job and to outline resources available to help meet that need. We reached out to contractor associations, took our message to every training session, and worked with the media to get the word out about making construction workplaces safe. The staff viewed every inspection as another opportunity to educate people about construction safety. And we worked with colleagues from the OSHA Fort Worth Area Office to offer additional 10-hour construction safety courses.

As our efforts continued, we garnered more support from employers. For example, two trade associations, the Associated Builders and

*The next generation of workers gathers around a memorial cross commemorating 81 local Hispanics and Latinos killed on the job during the past 5 years.*





Contractors (ABC) and Associated General Contractors of America (AGC), added Spanish to their safety resources. We noticed that employers reporting program improvements were using bilingual consultants. The Texas Engineering Extension Service, the OSHA Training Institute Southwest Education Center, launched an aggressive program to offer the OSHA 500 Trainer Course for the Construction Industry in Spanish. This helped increase the number of qualified trainers in the area.

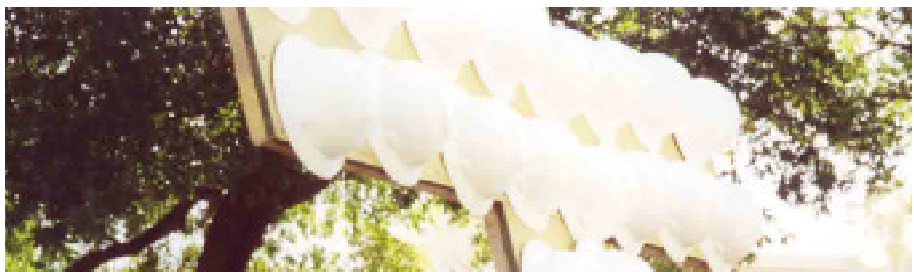
OSHA awarded a Susan Harwood Training Grant to support this program and another for the North Texas Chapter of the Associated Builders and Contractors to provide Spanish training in the four major hazards associated with construction fatalities.

Taking another avenue to improve safety, OSHA developed a solid working relationship with the General Consul of Mexico, located in Dallas, to mobilize support for increasing safety for Hispanic and Latino construction workers.

In early 2000, employers called us to ask for sources of bilingual safety training. By late 2001 they were calling to let OSHA know about the Spanish training they were willing to make available to others. And we witnessed increased interest from Hispanic and Latino safety professionals in obtaining Spanish-language publications and curriculum materials.

The critical indicator of improvement was the substantial decrease in fatal accidents. By December 2001, construction fatalities in Northeast Texas had fallen nearly 50 percent, to 13 for the year. And the percent

*Top, OSHA staffers who participated in the Cinco de Mayo event are, from left, Eugene Freeman, compliance assistance specialist, Dallas Area Office; Rosanna Nardizzi, investigator, Dallas Area Office; and Michael Rivera, compliance assistance specialist, Fort Worth Area Office. Right, Hispanic Contractors Association volunteers erect the memorial cross. Photo by Eugene Freeman*





*Dallas' Cinco de Mayo celebration offered a nontraditional forum for communicating with Hispanic and Latino workers and their families.*

involving Hispanic and Latino workers dropped from 60 percent to 40 percent.

The idea that a diverse group of people could make such a dramatic difference to their community created a lot of enthusiasm, especially because many had presumed others in the group to be adversaries. The question, "Can industry, safety professionals, and OSHA make a difference?" had become, "How much of a difference can a committed community make if they continue to work together?" Once again, we turned to stakeholders for answers.

Eugene Freeman, compliance assistance specialist for the Dallas Area Office, networked with hundreds of people to set the stage for a successful stakeholder meeting. Many of the faces at the March 1, 2002 meeting were different from those seen 2 years earlier. In addition to construction representatives, the group now included representatives from service

and immigration groups and officials from the Mexican Consulate. Joe Reina, Deputy Administrator for the Dallas Regional Office, joined a spirited and bilingual discussion of key safety issues faced by Hispanic and Latino workers.

"The greatest part of our stakeholder meeting," Freeman observed, "was the active participation by Spanish-speaking people. We all came together to make a concerted community effort to solve this problem."

The group pointed out the need for more Spanish-language training and safety services. Most of the meeting's attendees, however, believed that a critical part of the safety message was not reaching even the Hispanic and Latino workers being trained. Information on *what* safety equipment to use and *how* to follow safety procedures was readily available, but what wasn't was a culturally meaningful explanation of *why* safety was important. What significance could

safety equipment and procedures play in the lives of people struggling to provide for their families while adjusting to life outside their homelands?

To this end, Hispanic and Latino community members at the stakeholders meeting explained the importance of safety to their peers with a message that was meaningful in both language and culture.

As one result of this meeting, we told our compliance officers to provide details of accidents that happened when workers failed to take safety measures being discussed. A real attention grabber was the 35-foot-long memorial list that OSHA personnel unrolled, with the names of 81 Hispanics and Latinos killed on the job.

### **Cinco de Mayo**

The Dallas Area Office already had plans under way to take a safety message to the Hispanic and Latino community in a nontraditional setting. The Mexican Consulate



*Representatives of the Mexican Consulate attend a stakeholder meeting to discuss outreach programs to protect Hispanic and Latino workers.*

agreed to cosponsor a safety awareness booth at a local Cinco de Mayo celebration (one of Mexico's Independence Days). Michael Rivera, an OSHA compliance assistance specialist, was already working with the Hispanic Contractors Association (HCA) to sponsor a safety fair. The Mexican Consulate agreed that the fair could take place on their property during the Feria de Seguridad celebration in June. The HCA also offered to support the Cinco de Mayo celebration.

All parties worked synergistically to pour out new ideas, mold them into a common vision, and put them into action for the Cinco de Mayo festival. The groups grew to know and trust one another. Each week's planning session grew as more people joined the effort. More people with safety experience were identified as community resources and more opportunities surfaced for resolving problems.

OSHA officials showed that they could be trusted to help small

Hispanic and Latino employers without exposing them to more regulatory problems and to step in and help people resolve their safety problems at work.

By the weekend of May 4, final preparations became family affairs as committee members added sons, nieces, mothers, fathers, fiancées, and uncles to the mix.

A memorial cross, composed of hardhats representing the Hispanic and Latino victims of construction accidents, was a strong visual landmark at the fair and served as a magnet for attention. A black memorial board, draped in black silk and bearing the names of 81 area Hispanics and Latinos who died on the job, particularly drew the attention of children, many of whom traced the letters of the names with their fingers and asked many questions about safety. Spanish-speaking safety professionals staffed a booth near the memorial to explain its meaning and answer questions about safety. The

12-foot high, 8-foot wide memorial cross drew the attention of all entering the plaza, and underscored for all that the Mexican Consulate, the HCA, and OSHA were there to help keep Hispanic and Latino workers from being killed or injured on the job.

The initial plan was for at least two representatives from each organization to staff the booth at all times, answering questions and distributing pocket-sized guides on Spanish-language resources. White shirts, khaki pants, and safety vests would identify everyone in the group. This served as a visual message that a diverse community is unified in its concern about worker safety.

Consulate representatives walked through the crowds, striking up conversations about workplace safety, and sending many people to the booth.

More than 4,000 people attended the Cinco de Mayo celebration, including the Mexican ambassador to the United States, the Dallas mayor, and countless Mexican-American community leaders.

### **The Effort Continues**

The success of the Cinco de Mayo project was just the first small part of a much bigger picture. Between hammering wood and stringing banners on May 4th, the safety group discussed arrangements for the Feria de Seguridad celebration, held June 15. That event reinforced the message delivered at the Cinco de Mayo celebration: You must work safely because you owe it to your families; they depend on you to be there. It also promised to be part of a long-term initiative to improve the safety and health of Hispanic and Latino workers in the Lone Star state. [JSHQ](#)

*Delaney is the Director of OSHA's Dallas Area Office.*

# Hispanic Outreach: Making Inroads in Fort Lauderdale

OSHA's Fort Lauderdale Area Office joins in the agency's war on workplace fatalities.

by Luis Santiago



**N**ationwide, Hispanic and Latino workers make up 15 percent of construction workers, yet they experience 20 percent of construction-related fatalities. These statistics are even more alarming in the Fort Lauderdale, FL, area. During the 7 months from October 1, 2001 to May 2, 2002, 30 workers, 17 of them Hispanics or Latinos, died on the job. Five of those killed worked in the construction industry and another five worked in agricultural or landscaping operations.

OSHA's Fort Lauderdale Area Office is waging war against the growing number of Hispanic and Latino

workplace fatalities on several fronts. It is a daunting task, trying to protect a largely unskilled workforce that often works in the lowest paid and most hazardous jobs that nobody else wants. Making the job even more difficult is the fact that culturally, this population has been raised to follow their supervisors' instructions without question, often increasing their risk of injury, illness, or death on the job.

To confront this extraordinary problem, the Fort Lauderdale Area Office is coming up with creative

*Safety and health officers from the Fort Lauderdale Area Office talk with a Hispanic field worker in his native language. Photo by Luis Santiago*



Fort Lauderdale area to hire a bilingual safety and health director, already qualified under the OSHA 500 Trainer Course for the Construction Industry, to conduct Spanish-language training.

These training sessions have received rave reviews by attendees and have opened doors to increased interaction between workers, employers, and OSHA. Hispanic and Latino workers are beginning to call the office to inquire about safety and health issues, confident that they can talk with staff members who speak their native language and do not pass judgment on their immigration status. To help reinforce this openness, the office's recorded greeting, which plays when the staff is unavailable to answer a call, is recorded in both English and Spanish. Additionally, the office is distributing a Spanish-language videotape, *An Introduction to OSHA for the Latino Worker*, that gives general guidance about safety and health issues and how OSHA can help workers and employers alike. This tape, with a written English translation, is being delivered to employers, employee groups, associations, and any others interested.

The Fort Lauderdale Area Office has taken to the airwaves, too, to communicate with the Hispanic and Latino workforce. As office director, I participated in a live radio talk show, telling the audience

*An OSHA compliance officer interviews a Latino worker during an inspection. Photo by Luis Santiago*

new ways to reach out to Hispanic and Latino workers and their employers, and making promising inroads.

The office conducts training sessions in Spanish at local construction companies with a predominantly Spanish-speaking workforce. The office recently conducted another training session, offered in partnership with the Mexican Consulate, that tied occupational safety and health issues with issues covered by the Department of Labor's Wage and Hour Division. In addition, the area office staff was instrumental in getting the largest employers' associations in the

about services the area office provides and answering questions called in by the audience during the show. As a result of this program, the office receives regular calls from listeners who say they learned about OSHA on the radio and are happy to know that they can get help in their native language. The office is arranging to participate in more of these forums to get its message out to more Hispanics and Latinos.

In the office, the staff meets regularly with Spanish-speaking immigrant groups to build relationships and establish the climate of trust needed to work cooperatively to reduce injury and fatality rates among Hispanic and Latino workers. The staff



*An OSHA staffer from the Fort Lauderdale Area Office meets with members of the Hispanic community. Photo by Luis Santiago*

also sends a bilingual staff whenever possible to inspect workplaces with a large percentage of Hispanic or Latino workers. During inspections, the compliance staff contacts several of these workers to ensure they understand their rights and protections under the *Occupational Safety and Health Act*.

In addition, the office's Construction Accident Reduction Emphasis, or CARE, program has been extremely successful in reaching this working segment. Established in March 1999, this program, as well as local emphasis programs focused on preventing falls and overhead power-line accidents, has helped reduce fatality rates among Hispanic and Latino workers.

These are just a few examples of the activities the Fort Lauderdale Area Office is involved in in its ongoing effort to help protect Hispanic and Latino workers. Although the fatality rates may be starting to dip, one death is still one too many. For more information or to offer suggestions, contact the area office at (954) 232-2895. [ISHQ](#)

*Santiago is the Director of the OSHA Fort Lauderdale Area Office.*

The office is coming up with creative new ways to reach out to Hispanic and Latino workers and their employers, and making promising inroads.

# OSHA Training October–December 2002

Course dates are subject to change. For tuition rates and registration information, contact the institution offering the courses or visit OSHA's website at [www.osha.gov](http://www.osha.gov). Unless otherwise identified courses listed below are offered at the sponsoring institution.

Keene State College  
Manchester, NH  
(800) 449-6742

222A Respiratory Protection—  
December 9-12 (Augusta, ME)

309A Electrical Standards—  
October 7-11

311 Fall Arrest Systems—  
October 28-31

500 Trainer Course in  
Occupational Safety and Health  
for the Construction Industry—  
October 21-25 (Hartford, CT);  
November 4-8 (Augusta, ME);  
November 18-22 (Manchester);  
December 2-6 (Portsmouth, RI);  
December 16-20 (Springfield, MA)

501 Trainer Course in Occupational  
Safety and Health for General  
Industry—October 21-25,  
December 9-13 (Manchester);  
December 2-6 (Hartford, CT)

502 Update Course for  
Construction Industry  
Outreach Trainer—  
October 7-9, November 4-6,  
December 16-18 (Manchester);  
October 28 (Partial online);  
November 18-20 (Hartford, CT);  
December 2-4 (Portsmouth, RI)

503 Update for General Industry  
Outreach Trainers—October 7,  
December 16 (Partial online);  
October 9-11, November 6-8,  
December 18-20 (Manchester);  
November 20-22 (Hartford, CT);  
December 4-6 (Portsmouth, RI)

510 Occupational Safety and  
Health Standards for the  
Construction Industry—  
October 7-11 (Springfield, MA);  
October 28-November 1,  
December 9-13 (Manchester)

845 Recordkeeping Rule  
Seminar—October 16,  
December 6 (Manchester)

Niagara County Community College  
Lockport, NY  
(800) 280-6742

201A Hazardous Materials—  
October 15-18

226 Permit Required Confined  
Space Entry—October 28-30

309A Electrical Standards—  
November 4-7

311 Fall Arrest Systems—  
October 21-23

500 Trainer Course in Occupational  
Safety and Health for the Construction  
Industry—October 15-18,  
December 9-12

501 Trainer Course in Occupational  
Safety and Health in the General  
Industry—October 7-10,  
November 4-7, December 2-5

502 Update Course for Construction  
Industry Outreach Trainers—  
November 12-14

503 Update for General Industry  
Outreach Trainers—November 25

510 Occupational Safety and  
Health Standards for the  
Construction Industry—  
November 25-28 (Lockport);  
December 10-13 (Garden City, NY)

521 OSHA Guide to Industrial  
Hygiene—October 21-24

National Resource Center for  
OSHA Training  
Washington, DC  
(800) 367-6724

204A Machinery and  
Machine Guarding Standards—  
November 4-7 (Lancaster, PA)

225 Principles for Ergonomics  
Applied to Work-Related Muscu-  
loskeletal and Nerve Disorders—  
October 21-24 (Morgantown, WV)

226 Permit Required Confined  
Space Entry—October 21 (Online)

309A Electrical Standards—  
November 18-21 (York, PA)

500 Trainer Course in Occupational  
Safety and Health for the Construction  
Industry—October 7-10  
(Morgantown, WV);  
October 14-17 (Reading, PA);  
October 21-24, December 9-12  
(Silver Spring, MD);  
November 4-7 (Charlestown, WV);  
December 2-5 (Pittsburgh, PA)

501 Trainer Course for Occupational  
Safety and Health for General  
Industry—October 15-18  
(Morgantown, WV);  
October 15-18, November 18-21  
(Wilkes-Barre, PA);  
November 18-21 (Silver Spring, MD);  
November 19-22 (Huntington, WV);  
December 3-6 (Charlestown, WV)

502 Update Course for Construction  
Industry Outreach Trainers—  
October 28-30 (Morgantown, WV);  
December 2-4 (Silver Spring, MD)

503 Update for General Industry  
Outreach Trainers—October 28-30  
(Morgantown, WV);  
December 16-18 (Silver Spring, MD)

510 Occupational Safety and Health  
Standards for the Construction  
Industry—November 4-7  
(Silver Spring, MD)

845 Recordkeeping Rule Seminar—  
October 10 (York, PA)

Georgia Tech OSHA Training  
Institute Education Center  
Atlanta, GA (404) 984-0024

222A Respiratory Protection—  
October 15-17

301 Excavation, Trenching and Soil  
Mechanics—December 3-6

309A Electrical Standards—  
November 4-8 (Raleigh, NC)

500 Trainer Course in Occupational  
Safety and Health Standards for the  
Construction Industry—October 28-  
November 1 (Atlanta);



November 11-15 (Miami, FL);  
November 18-22 (Raleigh, NC);  
December 9-13 (Mobile, AL);  
December 16-20 (Columbia, SC)

501 Trainer Course on Occupational Safety and Health Standards for General Industry—  
October 7-11 (Charlotte, NC);  
November 4-8 (Atlanta);  
December 9-13 (Mobile, AL);  
December 16-20 (Columbia, SC)

502 Update for Construction Industry Outreach Trainers—  
October 15-17 (Raleigh, NC)

503 Update for General Industry Outreach Trainers—  
November 19-21

510 Occupational Safety and Health Standards for the Construction Industry—October 21-25

**Motor City Education Center**  
Eastern Michigan University  
United Auto Workers  
Ypsilanti, MI  
(800) 932-8689

201A Hazardous Materials—  
October 21-24 (Livonia);  
November 6 (Online)

225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—  
October 2 (Online);  
November 4-6 (Livonia)

226 Permit Required Confined Space Entry—October 19,  
December 4 (Online)

309A Electrical Standards—  
October 21-24 (Livonia)

311 Fall Arrest Systems—  
November 4-7 (Livonia)

500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry—  
October 7-10, November 4-7,  
December 2-5 (Livonia);  
November 13 (Online)

502 Update for Construction Industry Outreach Trainers—  
November 11-13,  
December 2-4 (Livonia)

503 Update for General Industry Outreach Trainers—  
November 4-6 (Livonia)

510 Occupational Safety and Health Standards for the Construction Industry—November 4-7 (Livonia)

521 OSHA Guide to Industrial Hygiene—October 14-17 (Livonia);  
October 16, December 4 (Online)

600 Collateral Duty Course for Other Federal Agencies—  
November 20 (Online);  
December 9-13 (Livonia)

**National Safety Education Center**  
DeKalb, IL  
(800) 656-5317

225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—  
October 7-9

311 Fall Arrest Systems—  
November 19-21 (Decatur, IL)

500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry—  
November 4-8 (Hillside, IL)

501 Trainer Course in Occupational Safety and Health Standards for General Industry—  
October 14-17 (Green Bay, WI);  
November 11-14 (Hillside, IL)

502 Update for Construction Industry Outreach Trainers—  
November 12-14 (Hillside, IL)

503 Update for General Industry Outreach Trainers—  
October 15-17 (Naperville, IL)

510 Occupational Safety and Health Standards for the Construction Industry—October 14-17,  
December 9-12 (Hillside, IL);  
October 28-31 (Decatur, IL)

521 OSHA Guide to Industrial Hygiene—November 28-  
December 1 (Naperville, IL)

845 Recordkeeping Rule Seminar—  
November 19 (Naperville, IL)

**Great Lakes OSHA Training Consortium**  
Minneapolis, MN  
(800) 493-2060

201A Hazardous Materials—  
November 6 (Online)

204A Machinery and Machine Guarding Standards—  
October 7-10 (St. Paul, MN)

225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—  
October 2-4 (St. Paul, MN)

226 Permit Required Confined Space Entry—  
October 15-18 (Cincinnati, OH)

311 Fall Arrest Systems—  
October 8-11 (Cincinnati, OH)

501 Trainer Course in Occupational Safety and Health Standards for General Industry—October 21-24 (Bemidji, MN);  
November 12-15 (Cincinnati, OH)

502 Update for Construction Industry Outreach Trainers—  
November 19-21 (Cincinnati, OH);  
December 16-18 (St. Paul, MN)

503 Update for General Industry Outreach Trainers—  
November 20-22 (Cincinnati, OH)

510 Occupational Safety and Health Standards for the Construction Industry—  
November 12-15 (Cincinnati, OH)

521 OSHA Guide to Industrial Hygiene—  
October 16, December 4 (Online)

**Texas Engineering Extension Service OSHA Training Institute**  
Mesquite, TX (800) 723-3811

204A Machinery and Machine Guarding Standards—October 7-10

225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—  
October 21-23 (Austin, TX)  
December 9-13 (Norman, OK)

502 Update for Construction Industry Outreach Trainers—  
November 25-27

503 Update for General Industry Outreach Trainers—December 10-12  
510 Occupational Safety and Health Standards for the Construction Industry—October 1-4, December 2-5 (Houston, TX); October 28-31 (Little Rock, AR); November 12-15 (Mesquite)  
521 OSHA Guide to Industrial Hygiene—December 10-13  
845 Recordkeeping Rule Seminar—December 9

**Metropolitan Community Colleges  
Kansas City, MO  
(800) 841-7158**

204A Machinery and Machine Guarding Standards—November 11-14  
222A Respiratory Protection—October 14-17  
225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—November 18-21  
226 Permit Required Confined Space Entry—October 7-9  
309A Electrical Standards—November 4-7  
501 Trainer Course in Occupational Safety and Health Standards for General Industry—October 7-10, December 2-5  
502 Update for Construction Industry Outreach Trainers—December 9-11  
503 Update for General Industry Outreach Trainers—October 14-16  
510 Occupational Safety and Health Standards for the Construction Industry—November 11-14  
521 OSHA Guide to Industrial Hygiene—November 4-7  
600 Collateral Duty Course for Other Federal Agencies—December 2-5  
845 Recordkeeping Rule Seminar—October 11, October 25, December 6

**Rocky Mountain Education Center  
Lakewood, CO  
(800) 933-8394**

201A Hazardous Materials—November 4-7  
204A Machinery and Machine Guarding Standards—October 1-4  
222A Respiratory Protection—October 28-31  
225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—October 7-9  
226 Permit Required Confined Space Entry—October 2-4  
500 Trainer Course on Occupational Safety and Health Standards for the Construction Industry—October 7-10, November 4-7, December 2-5 (Lakewood); November 11-14 (Ogden, UT)  
501 Trainer Course in Occupational Safety and Health Standards for General Industry—October 14-17, November 11-14, December 9-12 (Lakewood); October 21-24 (Ogden, UT)  
502 Update for Construction Industry Outreach Trainers—October 21-23  
503 Update for General Industry Outreach Trainers—October 23-25  
845 Recordkeeping Rule Seminar—November 6 (Ogden, UT)

**University of California San Diego  
San Diego, CA  
(800) 358-9206**

201A Hazardous Materials—November 18-21 (Phoenix, AZ)  
204A Machinery and Machine Guarding Standards—October 14-17  
226 Permit Required Confined Space Entry—November 18-20  
301 Excavation, Trenching and Soil Mechanics—October 28-30  
311 Fall Arrest Systems—November 18-20  
500 Trainer Course in Occupational Safety and Health Standards for the

Construction Industry—October 28-31 (Las Vegas, NV); November 4-7, December 9-12 (San Diego)

501 Trainer Course in Occupational Safety and Health for General Industry—September 30-November 3 (Honolulu, HI); October 21-24, December 9-12 (San Diego); October 28-31 (Phoenix, AZ); November 4-7 (Las Vegas, NV); November 18-21 (Sacramento, CA)  
503 Update for General Industry Outreach Trainers—November 18-20  
521 OSHA Guide to Industrial Hygiene—November 4-7  
600 Collateral Duty Course for Other Federal Agencies—October 14-17

**University of Washington  
Seattle, WA  
(800) 326-7568**

222A Respiratory Protection—December 10-12 (Portland, OR)  
225 Principles of Ergonomics Applied to Work-Related Musculoskeletal and Nerve Disorders—October 22-24 (Seattle); December 3-5 (Anchorage, AK)  
226 Permit Required Confined Space Entry—November 13-15  
301 Excavation, Trenching and Soil Mechanics—November 4-7 (Portland, OR)  
309A Electrical Standards—December 2-5  
500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry—October 7-10; November 18-21 (Spokane, WA)  
521 OSHA Guide to Industrial Hygiene—November 18-21 (Portland, OR)  
600 Collateral Duty Course for Other Federal Agencies—October 15-18 (Boise, ID)  
845 Recordkeeping Rule Seminar—December 17 (Spokane, WA); December 19 (Portland, OR); December 20 (Seattle)

# 1001BOX - Heat Stress Card



## The Heat Equation

HIGH TEMPERATURE + HIGH HUMIDITY  
+ PHYSICAL WORK = HEAT ILLNESS

When the body  
is unable to cool  
itself through  
sweating



## Heat Exhaustion

*What are the symptoms?*

HEADACHES; DIZZINESS OR LIGHTEADEDNESS;  
WEAKNESS; MOOD CHANGES SUCH AS IRRITABILITY,  
CONFUSION, OR THE INABILITY TO THINK STRAIGHT;  
UPSET STOMACH; VOMITING; DECREASED OR DARK-  
COLORED URINE; FAINTING OR PASSING OUT; AND  
PALE, CLAMMY SKIN

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# Caja de Herramienta - Tarjeta de Información sobre Estrés por el Calor

**La ecuación del calor**

**TEMPERATURA ALTA + HUMEDAD ALTA + TRABAJO FÍSICO = ENFERMEDADES POR EL CALOR**

Cuando el cuerpo es incapaz de enfriarse...

Humedad Relativa

Temperatura

**Agotamiento**

*¿Cuáles son los síntomas?*

DOLORES DE CABEZA, MAREOS, DEBILIDAD, CAMBIOS DE HUMOR COMO LA IRRITACIÓN, LA CONFUSIÓN, O LA INHABILIDAD DE PENSAR CLARAMENTE, DOLORES DE ESTÓMAGO, VÓMITOS, ORINA DISMINUIDA O DE COLOR OSCURO, DESMAYOS, Y PIEL PÁLIDA Y PEGAJOSA.

