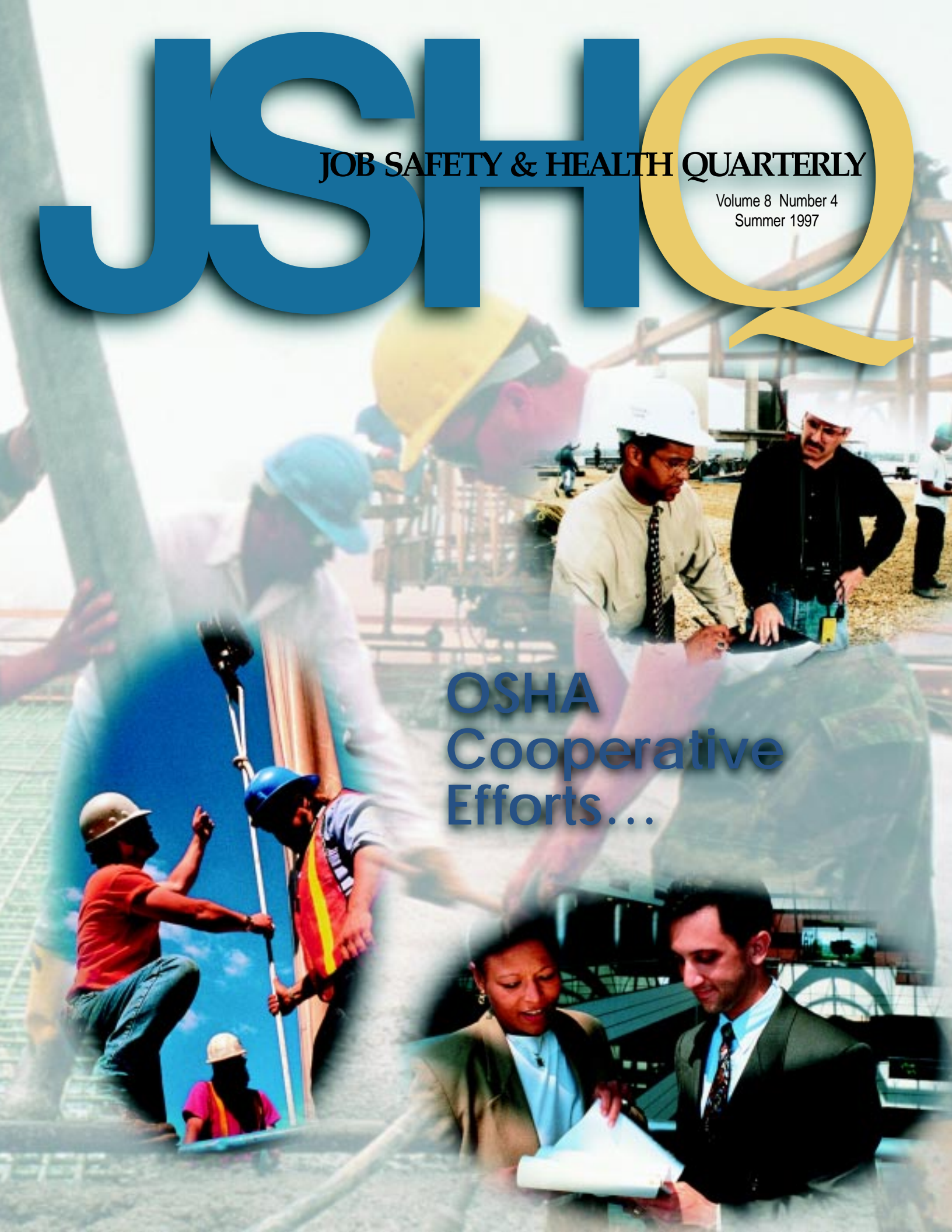


JSHQ

JOB SAFETY & HEALTH QUARTERLY

Volume 8 Number 4
Summer 1997

OSHA
Cooperative
Efforts...



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



Occupational Safety and Health Administration
Greg Watchman, Acting Assistant Secretary

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From the Editor...

Our summer issue has a special focus on OSHA's cooperative efforts and effective safety and health programs. Safety and health program management is the cornerstone of effective worker protection. The cover story is the first of a two-part series that looks at how partnerships can help employers, workers, and OSHA.

Our feature stories on Alaska and North Carolina also highlight the key element of excellence in safety and health management programs. Our Alaska story recaps a recent onsite visit to a fish processing vessel for approval in the Federal OSHA's Voluntary Protection Programs. Our state plan partners in North Carolina summarize how they improved their state program.

One short piece updates OSHA's activities in the arena of online communication and information, and another describes the "First North American Occupational Safety and Health Week." See also our regular departments such as *What's Happening?* for current activities and *Mark Your Calendar* for a listing of training courses. This issue also contains OSHA's semiannual agenda of regulations under development or review. The *Toolbox* column takes a close-up look at ground-fault circuit interrupters in construction. *SafeWorks* shows how the Consultation Program helped one employer with guarding a wire nibbler machine, and *FatalFacts* details the hazards of trenching operations.

Enjoy the issue.

Anne Crown-Cyr
Editor

JSHQ

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ASSISTANT SECRETARY'S MESSAGE

One of the hottest topics for OSHA during the summer sizzle is safety and health programs. We're committed to developing a proposed standard this year. And over the summer, we've been seeking help from small businesses.

Both my predecessor, Joe Dear, and I believe strongly that safety and health programs are the best hope for reducing workplace injuries and illnesses. We know they work. We've got proof.

Participants in OSHA's Voluntary Protection Programs, with effective safety and health programs, have lost-workday injury rates ranging from 35 to 90 percent below their industry averages. In addition, for every dollar spent on safety and health programs, employers are likely to save between \$4 and \$6 in workers' compensation expenses, reduced employee turnover, and other related costs.

Safety and health programs benefit businesses of all sizes. Establishments employing fewer than 10 workers account for 17 percent of employment but experience more than 33 percent of workplace fatalities. More than a million injuries and illnesses a year occur in establishments with fewer than 20 employees.

Last fall, we met with small business owners in Cleveland to discuss the safety and health program concept. With their help, we revised our working draft to add a longer phase-in program for small employers and exempt small employers from hazard documentation requirements.

This summer, with the Office of Advocacy of the Small Business Administration (SBA) we have held regional meetings to get additional input from small businesses



on our draft proposal. OSHA selected half of the attendees and the Office of Advocacy the other half.

We invited 20 participants to each of the meetings held in Atlanta, GA, Philadelphia, PA, Columbus, OH, and Portland, OR. Each participant received a copy of the draft proposed standard before the sessions. We also sent estimates of the number of hours that most small employers would need to expend to comply and estimates of the cost savings they could expect to reap by reducing injuries and illnesses through a safety and health program. We asked these small employers to provide comments on the feasibility of the proposed requirements for their workplaces and the accuracy of our estimates. We also wanted ideas on ways to increase flexibility for small businesses while preserving the essential objectives of the standard.

We wanted to get their input on how the draft proposed standard might be revised to provide small business employers with greater flexibility in compliance while preserving the essential objectives of the standard.

The meetings were not intended to substitute for the procedures required by the *Small Business Regulatory Enforcement Fairness Act* (SBREFA) but to serve as a prelude to OSHA's compliance with the Act's requirements for a panel to hear the views of representatives of small businesses that might be affected by such a standard.

They also further President Clinton's aim to have the widest possible input from those affected as we develop proposed standards. This meant "getting out of Washington" to get the views of constituents at the grass-roots level.

I am aware that some small business organizations have voiced concerns about a rule for safety and health programs. But there is considerable evidence that these programs reduce injuries and illnesses.

Many states have become believers in the effectiveness of such programs. Some require them even for the smallest firms. Others have provisions in their workers' compensation laws that encourage programs. These states have seen dramatic results in occupational injury and illness rates and declines in workers' compensation rates.

With the help of small businesses themselves, OSHA can develop a standard that will reduce their injuries and illnesses, cut costs, and improve employee morale without imposing any undue burdens. [JSHQ](#)

A handwritten signature in blue ink that reads "Greg Watchman".

Greg Watchman,
Acting Assistant Secretary
of Labor for Occupational Safety
and Health

Q: Many small businesses are affected by OSHA's new Methylene Chloride (MC) standard? Is the agency doing anything special to help these employers comply with the new standards?

A: Part of the "New OSHA's" outreach effort is to cooperate with employers to enhance the protection of workers. OSHA recognizes that many small businesses need detailed guidance to comply with the agency's new MC standard. And through a series of fact sheets and seminars the agency plans to do just that.

OSHA has produced 11 fact sheets geared to employers who need specific recommendations for work practices and engineering controls to limit MC exposures during routine work activities. Targeted toward industries that include many small businesses where MC exposures are common, the fact sheets were developed with help from employers and employees in those industries.

The general fact sheets on exposure monitoring and medical surveillance will be useful to all employers. Specific fact sheets cover cold degreasing and other cold cleaning operations, construction work, furniture refinishing, flexible polyurethane foam manufacturing, and vapor degreasing. Copies of the fact sheets can be found on the Internet at <http://www.osha.gov> under **Publications**. Single copies can be obtained from the OSHA Publications Office at (202) 219-4667.

In addition, MC seminars will offer employers and employees more in-depth guidance and will

respond to their specific questions about complying with the MC standard. Plans are currently underway to hold the seminars later this year.

Q: Does OSHA still have plans to address the growing number of ergonomics issues in the workplace?

A: Yes. In fact, OSHA just recently created a new Internet web page on ergonomics and the prevention of repetitive stress injuries. The new Web page, located at <http://www.osha.gov/ergo>, is just the first step in an outreach effort to educate employers and employees on ergonomics and repetitive stress injuries.

Visitors to the new ergonomics website will find help in setting up effective workplace ergonomics programs, OSHA publications and articles on the subject, highlights from a recent national conference on ergo, information on corporate-wide settlement agreements involving ergo issues, OSHA special emphasis initiatives to avoid repetitive stress injuries in meatpacking and nursing homes, a listing of international ergonomic standards, and links to technical OSHA information.

OSHA intends to address ergonomics through a four-pronged program including training, educational, and outreach activities; study and analysis of work-related ergonomic hazards to identify innovative and cost-effective solutions; enforcement; and rulemaking. The ergo web page is part of the first phase of the education and outreach effort.

Q: Tuberculosis has been making headlines again across the nation. Is the disease on the uprise? Does OSHA have any standards covering workplace exposure to TB?

A: Although tuberculosis (TB) is preventable, the upsurge of recent cases demonstrates that the battle has not been won. From 1985 to 1992, the number of active TB cases increased 20 percent, reversing a previous 30-year downward trend.

This summer, OSHA plans to publish a proposed standard on occupational exposure to tuberculosis (TB). The proposal would cover 5.3 million workers in about 102,000 establishments including hospitals, nursing homes, hospices, correctional facilities, homeless shelters, substance abuse centers, immigration detention facilities, and laboratories.

The proposal is based largely on guidelines issued in 1990 by the Centers for Disease Control and reissued in 1994. The agency estimates that the proposed standard would prevent 90 percent of TB infections in hospitals and 70-90 percent of TB infections in other work settings. Annually that would translate to approximately 24,000-33,000 TB infections avoided; 1,800-2,400 cases of active TB prevented; 140-190 lives saved; and \$89-\$116 million dollars saved in direct costs.

Job Safety & Health Quarterly will have more information on TB and OSHA's proposed standard in future issues. The agency will publish the proposal in the *Federal Register*. **JSHQ**

Awards

On June 24, 1997, at Fire-fighter's Park in Margate, FL, the Occupational Safety and Health Administration (OSHA) recognized the following for "outstanding skill, professionalism, and regard for human life": Broward County Fire-Rescue Squad 65,



Haz-Mat 32, Engine 20, Technical Rescue Team, Air Rescue 85; Fort Lauderdale Fire-Rescue units Engines 49 and 249; Battalion 13, Technical Rescue Team; Margate Fire and Rescue units Engine 18, Rescue 18, Engine 58, Rescue 58; and Margate detective Nick Leischen, the lead investigator. The rescue team members saved three people's lives when a 10-foot-deep trench caved in outside the Beverly Manor Nursing Home in Margate, FL. One man died in the accident, but as Margate Mayor Mitch Anton notes, "Without you men and women, more than one life would have been lost in this accident."

On June 25, 1997, OSHA honored Patricia D. Bieles with its "Champion of the Year" award. Bieles, OSHA's Workplace Violence Program Coordinator, received recognition for her work in developing voluntary workplace violence guidelines. The award recognizes employees who have demonstrated exceptional performance in support of agency goals. Recipients of the award must, among other things, show leadership, initiative, innovation, and creativity beyond that normally required by the job as well as outstanding customer service and substantial improvement in the quality of work.

Publications

NIOSH

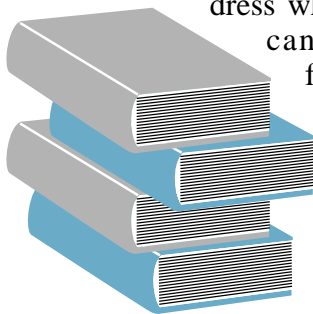
The National Institute for Occupational Safety and Health (NIOSH) has issued an expanded version of its Criteria Documents on CD-ROM. The new two-disc CD-ROM set, entitled *Criteria Documents Plus*, contains the full text of all 143 Criteria Documents, *Special Occupational Hazard Reviews*, *Occupational Hazard Assessments*, and *Joint Occupational Health Documents*; 57 *Current Intelligence Bulletins*; and 43 *Alerts* issued by NIOSH through December 1996. Price: \$60.00.

To order, contact the National Technical Information Service (NTIS), Springfield, VA 22161; or call (703) 487-4650; fax (703) 321-8547. Request NTIS stock number PB97-502082.

OSHA

Three new publications on OSHA's Voluntary Protection Program (VPP) are now available.

So You Want to Apply to VPP? Here's How to Do It! outlines the elements an application should address when applicants apply



for participation in OSHA's VPP.

You've Been Selected to Be a VPP

Onsite Team Member! Now What? explains the duties of a team member.

What to Expect During OSHA's Visit outlines the specific documentation needed for the visit and the steps OSHA follows in the onsite review.

For a copy of these publications, contact the U.S. Department of Labor, OSHA Publications, P.O. Box 37535, Washington, DC 20013-7535; or call (202) 219-4667. Please send a self-addressed mailing label with your request.

Another new OSHA booklet, *Assessing the Need for Personal Protective Equipment (PPE)—A Guide for Small Business Employers* is the second in the *Small Business Management Series* and helps employers to comply with OSHA's general PPE requirements.

For a copy, contact the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800. Order No. 029-016-00179-4. Cost: \$4.25.

The National Safety Council

The National Safety Council offers an *Advanced Safety Certificate (ASC)* to participants who complete required courses at the Council's training institute in Baltimore, MD. The ASC is the National Safety Council's program for the development of safety professionals and targets skills that increase compliance with regulatory standards, improve productivity, and enhance employee participation in the safety and health process.

The National Safety Council also offers a course entitled *Fundamentals of Industrial Hygiene* for safety, health, environmental, and management personnel who have industrial hygiene on-the-job responsibilities but lack the training or experience in industrial hygiene.

For more information, contact the Safety Council of Maryland, Inc., at (410) 298-4770 or (800) 875-4770.

VPP Update

Recent additions to OSHA's VPP *Star* list are Lucent Technologies, Optoelectronics, Breinigsville, PA; Elano Corp., Dayton, OH; Frito-Lay, Inc., Beloit, WI; Fort Howard Corp., Rincon, GA; Monsanto Chemical Co., Indian Orchard



Plant, Springfield, MA; Union Camp Corp., Flexible Packaging Div., Hazelton, PA; Union Camp, Folding Carton Division, Clifton, NJ; Georgia-Pacific Corp., Warm Springs Plywood Plant, Warm Springs, GA; Milliken & Co., Kingsley Plant, Thomson, GA; Milliken & Co., Newton Plant, Hartwell, GA; Georgia-Pacific Corp., Monticello Plywood Plant, Monticello, GA; Georgia-Pacific Corp., Madison Plywood Plant, Madison, GA; MASSPOWER, Indian Orchard, MA; Verotex CertainTeed Corp., Wichita Falls, TX; Weyerhaeuser Customer Service Center, Cleveland, OH; General Electric Co., Power Generation Div., Bangor, ME; Milliken & Co., Sibley Plant, Lavonia, GA; Adirondack Resource Recovery Associates, L.P.-Foster Wheeler, Hudson Falls, NY; Cerdec Corp., Drakenfield Products, Washington, PA; PPG Industries, Inc., Appleton, WI; Lyondell Petrochemical Co., Alathon Technology Center, Alvin, TX; Lyondell Petrochemical Co.,

Channelview, TX; Monsanto Co., Carondelet Plant, St. Louis, MO; and Monroe Auto Equipment Co., Cozad, NE.

Recent additions to OSHA's VPP *Merit* list are ALCOA, Massena, NY; Bayer Corp., Baytown, TX; Westway Terminal Co., Jacksonville, FL; Lucent Technologies, Microelectronics Group, Reading, PA; Lucent Technologies, Inc., Merrimack Valley Works, North Andover, MA; and Monsanto Co., W.G. Krummich Plant, Sauget, IL.

Russell Corp.'s Sylacauga Plant, Sylacauga, AL, has now been in the *Star* Program for 9 years; and Georgia-Pacific Corp., Leaf River Pulp Operations, New Augusta, MS; General Electric (GE), Bay St. Louis, MS; Thrall Car Manufacturing Co., Winder, GA; Weyerhaeuser Paper Co., Columbus, MS; and Monsanto Chemical Co., Anniston, AL, have been in the *Star* Program for 3 years.

Morton Powder Coatings, Reading, PA; Westinghouse Electric Corp., Blairsville, PA; Amoco Oil Co., Mandan, ND; Midas International Corp., Bedford Park Manufacturing Corp., Bedford Park, IL; International Paper Liquid Packaging Div., East Point, GA; and Torcon Inc., JFK Medical Center, Edison, NJ, advanced from *Merit* to *Star*.

As of July 31, 1997, there were 318 sites in the Federal VPP: 262 in *Star*, 48 in *Merit*, and 8 in *Demonstration*.

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

1-800-4-CANCER

Knowledge
F.P.O.

It's Part
of the
Cure

Thanks to research, we now know much more about breast cancer and how to treat it. Today, most women with breast cancer who are diagnosed and treated early continue to lead active and vibrant lives. For current information on breast cancer, call the *National Cancer Institute's Cancer Information Service* at **1-800-4-CANCER.**

MARK YOUR CALENDAR

Conferences

National Institute for Occupational Safety and Health (NIOSH)

On October 15-17, 1997, The National Institute for Occupational Safety and Health (NIOSH), in association with its public and private sector partners, will host the "National Occupational Injury Research Symposium" at the Appalachian Laboratories for Occupational Safety and Health in Morgantown, WV. Some objectives of the symposium include, but are not limited to, providing a forum for the presentation of scientific research findings and methods in the field of traumatic occupational injury; fostering collaboration between researchers in the various disciplines and between the public and private organizations that conduct or sponsor traumatic occupational injury research; and identifying effective interventions, and increase injury prevention efforts based on research findings. For more information, contact Martha Brocato at (404) 634-0804 (ext. 42), or fax (404) 634-6040.

Oregon State

During September 10-12, 1997, Oregon OSHA will cosponsor an occupational safety and health conference at Central Oregon Community College in Bend, OR. Many regional and national safety and health experts will discuss topics such as managing change in today's workplace, machine guarding, office work station ergonomics, trenching, emergency preparedness, environment of care for hospitals and clinics, and rock drilling and blasting.

From September 30 through October 2, 1997, Oregon OSHA will address safety and health issues of eastern Oregon, southwest-

ern Idaho, and southeast Washington. The conference will be held at Four Rivers Cultural Center, Ontario, OR, and will include sessions on job safety analysis, bloodborne pathogens, air quality, workplace violence, ergonomics, construction safety, high-performance organization, on-the-job training, and conducting accident investigations.

On October 14-16, 1997, the 7th annual Southern Oregon Occupational Safety and Health Conference will focus on "Simplifying Safety for Success!" Sessions and workshops will deal with topics on applied quality techniques to improve safety, accident investigation, safety committee operations, required written programs, toxicology, latex sensitivity, air quality management, and hazardous material spill responses.

For more information on these conferences and on registration, please contact Sharell McMurry or Laverlyne Gray, Oregon OSHA Conference Section, at (503) 378-3272, or fax (503) 378-5729.

OSHA Expo

On November 19-21, 1997, Environmental Engineers and Managers Institute (EEMI) will sponsor the "OSHA Compliance Expo" at the Georgia World Congress Center in Atlanta, GA. Cosponsors include the Environmental Protection Agency, the U.S. Department of Labor, OSHA, the National Safety Council, National Fire Protection Association, the American Society for Industrial Security, and the American Industrial Hygiene Association. The expo provides solutions for meeting today's worker safety and health requirements, reducing the risk of accidents, improving operations, minimizing lost work time, and limiting employer liability. Participants also

can examine new products for improving indoor air quality, upgrading fire protection, and controlling noise. For more information, call (770) 447-5083, or fax (770) 446-3969.

Safety and Industrial Hygiene

On September 17-19, 1997, the State of Utah will hold its 14th annual "Safety and Health Industrial Hygiene" conference at the University of Utah, Olpin Union Building. Sessions will focus on topics such as personal protective equipment, professional certification, employee motivation, workplace violence, silica, ergonomics, medical surveillance, recordkeeping, and construction safety. For more information, contact Tori Burns at (801) 530-6897, or fax (801) 530-7606.

Steel Erection Negotiated Rulemaking Advisory Committee (SENRAC)

On July 24, 1997, in Washington, DC at the Department of Labor, SENRAC met and signed its consensus proposal for a revised steel erection standard and to present it to OSHA. SENRAC was established in May 1994 to negotiate issues involved in revising OSHA's steel erection standard. The committee includes representatives of organized labor, industry, public interests, and government. The committee began negotiations in mid-June 1994 and has met 11 times since then. In December 1995, it reached consensus on a proposed standard. In the ensuing months, OSHA prepared a preamble and a notice of proposed rulemaking to support the SENRAC text. The proposal is available online at <http://www.osha.gov/> under **What's New**.

Washington State

October 30-31, 1997, the State of Washington will host the 46th



annual "Governor's Industrial Safety and Health Conference" at the Seattle Center in Seattle, WA. The conference will deal with topics such as workplace violence, the politics of regulatory safety and health, the big three hazards of safety and health, partners in safety, emergency preparedness, and managing change. For more information call the conference hotline at (360) 902-5160.

OSHA Training Institute Schedule

121 Introduction to Industrial Hygiene for Safety Personnel

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

Tuition: \$1,039

Dates: 9/9/97 - 9/19/97

143 Introduction to OSHA For Non-Technical Personnel

Provides an overview of OSHA's history, terminology, structure, and operations. Includes the *OSH Act*,

the inspection process, and various programs within OSHA.

Tuition: Federal and state personnel only

Dates: 9/23/97 - 9/26/97

205 Cranes and Rigging Safety for Construction

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

Tuition: \$415

Dates: 9/9/97 - 9/12/97

222 Respiratory Protection

Includes the requirements for establishing, maintaining, and monitoring a respirator program. Includes terminology, OSHA and ANSI standards, NIOSH certifications, and medical evaluation recommendations.

Tuition: \$790

Dates: 8/21/97 - 8/29/97

225 Principles of Ergonomics

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

Tuition: \$415

Dates: 8/26/97 - 8/29/97

302 Tunneling and Underground Operations

Focuses on the safety and health aspects of underground operations and the related OSHA standards. Introduces basic tunneling operations, from sinking the initial shaft to completion of the project.

Tuition: \$415

Dates: 8/26/97 - 8/29/97

601 Occupational Safety and Health Course for Other Federal Agencies

Designed for full-time federal agency safety and health officers or supervisors assigned responsibilities under Executive Order 12196 and CFR 1960.

Tuition: \$1,101

Dates: 8/18/97 - 8/29/97

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

OSHA Training Institute Education Centers

The OSHA Training Institute also has a program for other institutions to conduct OSHA courses for the private sector and other federal agencies. These include Eastern Michigan University/United Auto Workers, Ypsilanti, MI, (800) 932-8689; Georgia Technological Research Institute, Atlanta, GA, (800) 653-3629; Great Lakes OSHA Training Consortium, St. Paul, MN, (800) 493-2060; Keene State College, Manchester, NH, (800) 449-6742; Maple Woods Community College, Kansas City,

MO, (800) 841-7158; National Resource Center for OSHA Training, Washington, DC, (800) 367-6724; Niagara County Community College, Lockport, NY, (800) 280-6742; Red Rocks Community College/Trinidad State Junior College, Lakewood, CO, (800) 933-8394; The National Safety Education Center, DeKalb, IL, (800) 656-5317; Texas Engineering Extension Service, Mesquite, TX, (800) 723-3811; University of California, San Diego, CA, (800) 358-9206; and University of Washington, Seattle, WA, (800) 326-7568.

For tuition rates and registration information, contact the institution offering the courses and see also OSHA's Web site.

201a Hazardous Materials

Location: Keene State College
 Dates: 9/29/97 - 10/3/97
 Location: Niagara County Community College
 Dates: 9/8/97 - 9/11/97
 Location: Red Rocks Community College
 Dates: 9/29/97 - 10/3/97

204a Machinery and Machine Guarding Standards

Location: Eastern Michigan University-United Auto Workers
 Dates: 9/22/97 - 9/26/97
 Location: Great Lakes OSHA Training Consortium
 Dates: 9/9/97 - 9/12/97*
 Location: Maple Woods Community College
 Dates: 9/22/97 - 9/25/97

225 Principles of Ergonomics

Location: Georgia Technological Research Institute
 Dates: 9/9/97 - 9/12/97
 Location: Keene State College
 Dates: 9/22/97 - 9/25/97

309a Electrical Standards

Location: Maple Woods Community College
 Dates: 9/22/97 - 9/25/97
 Location: Red Rocks Community College
 Dates: 9/8/97 - 9/12/97
 Location: Texas Engineering Extension Service
 Dates: 9/22/97 - 9/26/97

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

Location: Eastern Michigan University-United Auto Workers
 Dates: 9/8/97 - 9/12/97
 Location: Maple Woods Community College
 Dates: 9/8/97 - 9/11/97
 9/15/97 - 9/18/97
 Location: National Resource Center for OSHA Training
 Dates: 9/8/97 - 9/12/97(W)
 Location: Niagara County Community College
 Dates: 9/15/97 - 9/18/97
 Location: Red Rocks Community College
 Dates: 9/8/97 - 9/12/97
 Location: Texas Engineering Extension Service
 Dates: 9/29/97 - 10/3/97
 Location: University of California, San Diego
 Dates: 9/8/97 - 9/12/97

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

Location: Eastern Michigan University-United Auto Workers
 Dates: 9/15/97 - 9/19/97
 Location: Georgia Technological Research Institute
 Dates: 9/22/97 - 9/26/97

Location: Keene State College
 Dates: 9/8/97 - 9/12/97
 Location: Maple Woods Community College
 Dates: 9/15/97 - 9/18/97
 Location: National Resource Center for OSHA Training
 Dates: 9/15/97 - 9/18/97
 Location: Niagara County Community College
 Dates: 9/22/97 - 9/25/97
 Location: The National Safety Education Center
 Dates: 9/15/97 - 9/19/97
 Location: Red Rocks Community College
 Dates: 9/15/97 - 9/19/97
 Location: Texas Engineering Extension Service
 Dates: 9/8/97 - 9/12/97
 Location: University of California, San Diego
 Dates: 9/15/97 - 9/19/97

510 Occupational Safety and Health Standards for the Construction Industry

Location: National Resource Center for OSHA Training
 Dates: 9/22/97 - 9/25/97
 Location: Texas Engineering Extension Service
 Dates: 9/22/97 - 9/25/97
 Location: University of Washington
 Dates: 10/27/97 - 10/30/97

521 OSHA Guide to Industrial Hygiene

Location: National Resource Center for OSHA Training
 Dates: 9/22/97 - 9/26/97 (W)
 Location: Texas Engineering Extension Service
 Dates: 9/15/97 - 9/19/97 **JSHQ**

* Scheduled at University of Cincinnati, Cincinnati, OH
 (W) Scheduled at West Virginia University, Morgantown, WV

Published in April and October each year, the agenda includes all regulations expected to be under development or review by the agency during that period. The following list is from the agenda as published in the *Federal Register* 62 (80):21965-21980, April 25, 1997.

Prerule

Title and Regulation Identifier Number (RIN)*

Standards Advisory Committee on Metalworking Fluids
1218-AB58

Control of Hazardous Energy Sources (Lockout/Tagout) (Section 610 Review)
1218-AB59

Occupational Exposure to Ethylene Oxide (Section 610 Review)
1218-AB60

Fire Brigades
1218-AB64

Proposed Rule

Steel Erection (Part 1926) (Safety Protection for Ironworking)
1218-AA-65

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

Occupational Exposure to Tuberculosis
1218-AB46

Confined Spaces for Construction (Part 1926) (Construction: Prevent-

ing Suffocation/Explosions in Confined Spaces)
1218-AB47

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

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

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

Revision of Certain Standards Promulgated Under Section 6(A) of the *Williams-Steiger Occupational Safety and Health Act of 1970*
1218-AB55

Flammable and Combustible Liquids
1218-AB61

Process Safety Management of Highly Hazardous Chemicals
1218-AB63

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

Revision of Certain Standards Promulgated Under Section 6(A) of the *Williams-Steiger Act* (Phase II)
1218-AB66

Final Rule

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

Safety and Health Regulations for Longshoring (Part 1918) and Marine Terminals (Part 1917)



(Shipyards: Protecting Longshoring Workers)
1218-AA56

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

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

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

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

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

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

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1218-AB53

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

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1218-AB30 JSHQ

*Office of Management and Budget (OMB) Identification Number. For copies of OSHA final rules published in the *Federal Register*, contact the Superintendent of Documents, Government Printing Office, Washington, DC 20402, for \$8.00 a copy prepaid. Subscriptions are available at \$651 per year.



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OSHA Cooperative Efforts: A Good Deal for Workers and Employers

Part One of a Two-Part Series on OSHA Partnership Efforts

by Judith Weinberg

The Occupational Safety and Health Administration (OSHA) has been taking the advice it gives employers: Examine your safety and health programs, see what works and what doesn't, build on your successes, and make improvements where needed. One result of this self-appraisal is a growing agencywide commitment to cooperative partnerships, which are proving to be a good deal for workers, employers, and OSHA.¹

OSHA's interest in partnerships is not new. Two well-established programs, OSHA Consultation and the Voluntary Protection Programs (VPP), which make up the agency's Office of Cooperative Programs, for years have worked cooperatively with employers and workers

¹ OSHA partnerships include alliances with employers and workers who have implemented effective safety and health programs; businesses that want to do the right thing by their workers but need technical assistance, training, and other consultative services; labor unions; industry associations; 25 states and territories that operate their own OSHA-approved workplace safety and health plans; 47 state and other agencies that deliver onsite consultation services under cooperative agreements with OSHA, occupational safety and health professionals, insurance companies, educators; and others



Partnerships and mentoring go hand in hand. Exxon Chemical extends mentoring to Epicor, Inc. From left to right: Bill Warvel, Exxon Chemical Paramins; John Griffiths, Epicor; and Rose Bussiculo, Epicor President, demonstrate their improved labeling system during a site walkthrough.

to improve worker safety and health. The agency is vigorously applying many of the lessons first learned in these two “voluntary programs” to many new programs and initiatives to augment and enhance OSHA's traditional standards-setting and enforcement activities.

Spurring this change is OSHA's recognition that its past attempts to command and control U.S. workplaces, while contributing to a more than 50-percent drop in the overall workplace death rate, were not able to prevent many needless deaths, injuries, and illnesses. Fair but firm enforcement of workplace safety and health standards continues to

be a central tenet of the agency, but OSHA needs new approaches if it is going to help employers do more to protect their workers.

Safety and Health Program Management

The major lesson that has emerged from OSHA's voluntary programs is the value—both in injuries and illnesses prevented and dollars saved—of employers and employees working together to create an effective workplace safety and health program. For anyone new to the concept, the place to begin is OSHA's voluntary “Safety and Health Program Management Guidelines” (*Federal Register*

(16):3904-3916, January 26, 1989).²

The 1989 guidelines describe four major elements essential to an effective program:

- *Management commitment and employee involvement,*
- *Worksite analysis of existing and potential hazards,*
- *Hazard prevention and control, and*
- *Safety and health training.*

In the years since publication, a growing body of evidence continues to confirm that when employers, managers, and employees work

compensation and related costs come down, the impact injuries and illnesses have on workers' families lessens, and relations between management and employees improve overall. OSHA has many programs to help employers get from here to there. Take a look at the OSHA Onsite Consultation Program, for example.

The OSHA Consultation Program

OSHA offered its first structured program of cooperative assistance to employers in 1975.³ Working with an initial congressional appropriation of \$3 million, OSHA established a free onsite consultation service directed primarily to small employers and delivered by the states under cooperative agreements with OSHA to worksites that requested assistance.

The program grew rapidly, fueled by employer interest and increased funding from the Congress. By 1977, OSHA was able to assume up to 90 percent of the Consultation Program's costs and to begin a nationwide training

program for all consultants. The OSHA consultation service is available to private sector employers in every state and to state and local government employers in 25 states.⁴

Using well-trained state professional safety and health staff, OSHA provides free onsite consultation to employers, upon request. Consultant training has been a constant within the program. Early consultant training reflected the program's original focus: Identification and correction of specific worksite hazards. But in 1984, OSHA announced an important shift in emphasis. Based on its first 10 years' experience, OSHA concluded it could best protect workers by encouraging employers to develop effective workplace safety and health management systems. Experience had shown that hazards are likely to recur if not continually addressed within the parameters of an ongoing safety and health management system—a good worksite program. The program began training its more than 650 consultants and state project managers in comprehensive workplace safety and health program assessment and assistance. As a result of this initial phase of safety and health program training, the scope of employer services expanded as consultants began encouraging employers to take a broader approach to worker protection by working with them to implement comprehensive safety and health programs instead of just correcting hazards. The second phase of this safety and health program assistance course is being delivered now and throughout the summer, again, to all OSHA consultants nationwide.

Both of these courses emphasize OSHA's approach of encouraging employers to request "full service"

The major lesson that has emerged from OSHA's voluntary programs is the value...of employers and employees working together to create an effective workplace safety and health program.

together within the framework of a comprehensive safety and health program tailored to the company, myriad benefits ensue. Injuries and illnesses drop, employee morale and productivity improve, workers'

²For a copy of OSHA's safety and health program management guidelines, contact OSHA Publications, U.S. Department of Labor, P.O. Box 37535, Washington, DC 20013-7535; call (202) 219-4667 or fax (202) 219-9266; or under **Federal Register Notices** on OSHA's Web site at <http://www.osha.gov>. See also, Anne Crown-Cyr and Susan Hall Fleming, "Safety and Health: A Plus for the Bottom Line," *Job Safety & Health Quarterly* 8(2-3):10-15, Winter/Spring 1997.

³Authorized under section 7(c)(1) of the *Occupational Safety and Health Act of 1970* (Public Law 91-596, December 29, 1970, as amended by P.L. 101-552, §3101, November 5, 1990), the Consultation Program began as a joint federal-state effort to help small employers engaged in hazardous operations.

⁴Private sector consultation is available in all 50 states plus the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands, either with 90-percent federal funding under section 7(c)(1) of the OSH Act (consultation) or 50-percent federal funding in eight states under sections 18 and 23(g) of the OSH Act (state plan). Consultation services are also available in the public sector in states that operate OSHA-approved state plans: Alaska, Arizona, California, Connecticut, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, New Mexico, New York, Nevada, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, the Virgin Islands, Washington, and Wyoming.

consultation, which gives employers information on the identification and control of workplace safety and health hazards and includes assistance on the development, implementation, or “fine tuning” of an employer’s entire safety and health management program. This means that the consultant, the requesting employer, and his/her employees join hands in a voluntary long-term partnership aimed at improving the workplace environment. The effectiveness of this approach is being put to the test throughout OSHA’s Region IV(Atlanta),⁵ where the CASH pilot program—Comprehensive Assistance in Safety and Health—encourages employers to request full-service consultation instead of the limited, hazard-based service.⁶

Another incentive program, SHARP (Safety and Health Achievement Recognition Program), recognizes employers who establish comprehensive, effective safety and health programs. Participation in SHARP is open to small, high-hazard employers who request full-service consultation services; involve their employees in the development, operation, and improvement of all elements of the site’s safety and health program; work with project consultants for at least 1 year to improve worker protection at the site; and meet other program requirements. In return, employers receive public recognition for their exemplary efforts and achievement, reap the benefits of extensive professional support and assistance, and may be eligible to receive a 1-year exemption from OSHA’s general scheduled inspec-



Potlatch Corporation, Consumer Products Division, Lewiston, ID, celebrates Merit status in OSHA’s VPP. From left to right: Chris Brown, Safety Coordinator, Potlatch; Steve Brown, Potlatch and VPPPA Director at Large; Dan Hoeschen, Region X, OSHA; Frank Radle, Vice President, Potlatch, Lewiston; Dick Terrill, Region X OSHA Administrator; Lee Anne Elliott, VPPPA Executive Director; Kent Lang, VPPP Facilitator, Potlatch; and Craig Nelson, Vice President, Potlatch, Corporate.

tions. Participating employers may reapply annually for continuing SHARP recognition.

To complement its onsite services, the OSHA Consultation Program also provides onsite and offsite training to employers and employees, participates in cooperative training seminars and safety and health conventions, provides outreach services in support of OSHA special emphasis enforcement programs, and participates actively in other agency initiatives.

Voluntary Protection Programs

Another popular program, OSHA’s Voluntary Protection Programs (VPP), began in 1982 with a handful of supporters within the agency and considerable doubts about the program’s ability to significantly affect worker safety and health. VPP has

since demonstrated the accuracy of its original twofold premise:

- Effective safety and health program management is essential to worker protection.
- A voluntary, cooperative, proactive partnership of management, labor, and OSHA can be a valuable complement to the traditional approach of standards promulgation and enforcement.

As OSHA’s premiere recognition program, VPP encourages excellence in private sector workplace safety and health.⁷ The worksites that meet the VPP’s rigorous participation requirements have succeeded in implementing safety and health programs that go well beyond OSHA standards to provide comprehensive, systems-based, effective worker protection. Common to all these worksites, regardless of their size or industry, are employers who assume responsibility for operating an effective program, and employees who play crucial roles by working with management to ensure high levels of protection.

⁵ With headquarters in Atlanta, this region covers Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

⁶ See “Region IV—Redirecting Consultation’s Emphasis for Lasting Results,” *Job Safety & Health Quarterly* 6(4):19-21, Summer 1995.

⁷ For copies of *So You Want to Apply to VPP? Here’s How to Do It!* and *What to Expect During OSHA’s Visit*, see **Publications** at <http://www.osha.gov/>, or call (202) 219-7266.

There are currently 318 worksites participating in the federally operated VPP program and 50 worksites participate in state-run VPPs.⁸ The rapid growth of the VPP has strained OSHA's ability to



Members of the Georgia Consultation Program participate in Hydrochem's Safety Committee meeting. From left to right: Wendy Jones, Safety Consultant, Georgia Consultation; Paul Middendorf, Georgia Consultation Program Manager; Monroe Bailey, Hydrochem; David Ray, Hydrochem; and Lee Wynn, Health and Safety Manager, Hydrochem.

conduct the increasing numbers of required pre- and post-approval site reviews and, at the same time, provide the technical assistance and support that interested applicants often need. So the agency and its VPP partners have been coming up with new ways to manage the program and spread its message.

Volunteers

One way the VPP is tackling the resource problem and simultaneously creating new forms of partnership is by using qualified volunteers to augment the OSHA teams that travel to VPP applicants' and participants' worksites to assess the effectiveness of their safety and health programs. The OSHA Volunteers Program gives safety

and health managers, union safety representatives, and other experienced employees from established VPP sites the opportunity to serve as full-fledged members of VPP onsite review teams. These non-OSHA team members are known as OSHA Volunteers or Special Government Employees (SGEs). Their willingness, and their employers' very substantial commitment to the VPP and to partnership with OSHA—employers pay the salaries and travel expenses of employees who serve as volunteers—are what make this innovative program possible. Dennis Scullion, Manager of Audits and Assessments for Occidental Chemical

Corporation, Dallas, TX, who has been involved in worker safety and health for more than 20 years, comments, "I view the SGE concept as a logical extension of the partnership between government, labor, and management that has made VPP so successful. Participating in VPP reviews gives me the chance to share my industry and company best practices, and to compare them against the best practices of other industries and companies with outstanding safety and health programs. As an SGE, I have a great

opportunity for benchmarking safety and health programs."

Experience has shown that the program's benefits go beyond its cost savings to OSHA. Volunteers and their employers also benefit. The volunteers' practical experience, insistence on workplace safety and health excellence, and empathetic response to site problems are real pluses that have made believers of previous doubters within OSHA. OSHA's Region II (New York)⁹ VPP Manager Norman Deitch comments, "I was in favor of the program but skeptical about the ability and knowledge of the SGEs. I thought they might not have a proper understanding of the concept of systems and that they might be more standards oriented. After working with many SGEs, I've become a very strong advocate of the program. They have all demonstrated excellent knowledge and ability in all aspects of the VPP and have performed very well as active team members."

Mentoring

Another VPP effort, the OSHA-Voluntary Protection Programs Participants' Association (VPPPA) Mentoring Program, formalized in 1994, is a joint effort between OSHA and the private, non-profit association that fosters communication among VPP member sites and promotes workplace and environmental safety and health excellence. The program pairs a work site interested in applying to the VPP (or to the Department of Energy's Voluntary Protection Programs¹⁰) or in improving its safety and health program with a VPP site that has volunteered to share its

⁸ Eleven of the 25 OSHA-approved state plans (Arizona, California, Iowa, North Carolina, South Carolina, Utah, Wyoming, and Tennessee) currently have their own VPPs. Others are under development.

⁹ Covers New Jersey, New York, Puerto Rico, and the U.S. Virgin Islands.

¹⁰ The Department of Energy's VPP is fashioned after OSHA's program. Participation is open to private contractors employed at DOE-owned facilities.

experience and expertise. OSHA and the VPPA are working together to refine the program, but the association has assumed responsibility for its day-to-day operation. The Mentoring Program is working: 16 sites that have gone through the mentoring process have improved their safety and health programs enough to meet the VPP's rigorous participation requirements, and OSHA personnel have had to spend less time on these sites' applications.

Cluster mentoring is another way OSHA leverages resources and involves its partners in a project to help other companies develop and improve their worker protection programs. The cluster concept began as a pilot project in Linden, NJ, in the summer of 1995, when the Linden Industrial Association and Exxon Chemical Company's Linden plant, a VPP participant, agreed to work with OSHA to mentor four small businesses. These four businesses, selected by the association from firms that volunteered to participate, met as a group with Exxon's safety manager. The sessions focused on bringing the businesses' safety and health programs up to VPP quality levels and then preparing their VPP applications. All four firms completed the mentoring and went on to be approved for VPP's *Merit* program. They are now working towards qualifying for VPP's top level *Star* program.

This project demonstrated the feasibility of group mentoring. The mentored businesses benefitted, not only from Exxon's expertise, but also from tackling similar problems together in a spirit of cooperation. OSHA is now aiming to replicate the Linden plant's success elsewhere. The agency is working with the U.S. Small Business Administration and the VPPA to identify

other likely communities having both a willing VPP mentor site and several small businesses ready to accept VPP's challenge.

second booklet, *What to Expect During OSHA's Visit*, helps the site prepare for OSHA's onsite review once its application has been ac-

The worksites that meet the VPP's rigorous participation requirements have succeeded in implementing safety and health programs that go well beyond OSHA standards to provide comprehensive, systems-based, effective worker protection.

Voluntary Compliance Tools

OSHA uses a variety of means, in addition to the Consultation Program and VPP, to assist employers and workers who choose to follow its voluntary guidelines. The agency produces numerous booklets and other materials—many available free of charge—that address a wide range of workplace safety and health topics.¹¹ For example, OSHA has three interactive computer software expert systems to help employers understand and comply with OSHA standards on cadmium, asbestos, and permit-required confined spaces standards.¹² The agency continues to work on additional user-friendly aids and is exploring the feasibility of a future expert system devoted to comprehensive safety and health programs.

Three new VPP publications also are now available. The first, *So You Want to Apply to VPP? Here's How to Do It!*, is a step-by-step workbook for those who are seriously ready to apply to the program. The

accepted. The third booklet in the series, *You've Been Selected to Be a VPP Onsite Team Member! Now What?*, is to help prepare VPP onsite team members for their roles in the onsite review and evaluation. These publications are available from the OSHA Publications Office, P.O. Box 37535, Washington DC, 20013-7535; phone (202) 219-4667, or fax (202) 219-9266. These and other OSHA materials are available on OSHA's Web site at <http://www.osha.gov/>.

Partnerships don't stop here, though. OSHA also works closely with its approved state plans to improve worker safety and health, which is the topic for part two of this series. This, along with grants, training and education, and enforcement programs will appear in the fall 1997 issue of *Job Safety & Health Quarterly*. **JSHQ**

Weinberg is a writer-editor in OSHA's Directorate of Federal-State Operations, Washington, DC.

¹¹ For a single free copy of "OSHA Publications and Audiovisual Programs-OSHA 2019," which lists materials available to the public, send a self-addressed mail label to the OSHA Publications Office, P.O. Box 37535, Washington, DC 20013-7535.

¹² Available online at www.osha.gov under **Compliance Assistance**, or by mail from the Office of Policy, 200 Constitution Avenue, N.W., Room 3641, Washington, DC 20210, Attn: Ed Stern.

Trekking North to Find a Star

by Dan Hoeschen

When I think about “the great Alaska wilderness” these days, a popular film does not first come to mind. In fact, last year at about this time, I was in Alaska surrounded by rough seas and fish, *lots* of fish—but it was a personal adventure I won’t soon forget.

The trip had been planned for weeks. I had been in constant communication with Leauri Lopes, Safety Director for Icicle Seafoods,

VPP is built on the foundation of voluntary workplace safety and health excellence and cooperation among industry, labor, and government.

Inc., to help work out our schedule for the visit. I guess you could say this was a “fishing expedition” of sorts, since Leauri was arranging for us to be onboard Icicle’s *P.V. Bering Star*,¹ a fish processing vessel, to do a site evaluation for OSHA’s Voluntary Protection Programs (VPP).²

VPP is built on the foundation of voluntary workplace safety and health excellence and cooperation among industry, labor, and government. The program recognizes workplaces with comprehensive safety and health programs that exceed OSHA standards. During a typical VPP onsite review, the OSHA team³ conducts a complete review of the participants’ safety and health program, writes a draft report while onsite, and makes its recommendation for VPP status at the closing conference.

I’d been on the *Bering Star* in March 1994 for a pre-approval VPP review at Dutch Harbor, AK, an island on the Aleutian chain. At that time, our team recommended the vessel be approved for VPP at the *Merit* level.⁴ In consultation with the vessel manager, we had set 11 *Merit* goals which, if completed in 2 years, could qualify the *Bering Star* for VPP *Star* status, the highest recognition level in the program. Now we were to evaluate the progress of the vessel’s safety and health program in meeting these goals.

We needed to be aboard when the *Bering* crew would be processing fish. Since it was nearing the end of the herring season, trying to guess when tenders would off-load to the *Bering Star* was a hit and miss proposition. On the Friday before I left, I knew it only looked

¹The processing vessel *P/V Bering Star* is a 210-foot barge converted to a fish processing vessel. The vessel is towed to Alaskan fishing waters each season to process crab, herring, and salmon. A seasonal processing crew of 110 and 15 supervisors work aboard the vessel.

²The VPP is an OSHA program, initiated in 1982, which provides recognition to workplaces with comprehensive health and safety programs that exceed OSHA standards. (See cover story in this issue, page 11.) Although Alaska has a state occupational safety and health program, it does not cover the maritime industry or fish processing vessels; therefore, Federal OSHA has jurisdiction and is responsible for VPP.

³Usually a safety professional, an industrial hygienist, and team leader.

⁴*Merit* level participation is recommended when one or more VPP program requirements are not fully implemented and the facility commits to completing work on required “Merit Goals” in an agreed upon time frame.

promising and that Leauri had left some time during the weekend to get to the vessel so she could be there for the VPP evaluation. In retrospect, things came together pretty well to get us where we needed to be.

Monday, May 21, 1996:

In the afternoon, I met Joe at the Seattle-Tacoma International Airport for our departure on the Alaska Airlines flight to Anchorage. I'd known Josu "Joe" Eisaguarre, an industrial hygienist from the Boise Area Office, for several years and we'd worked together on several

other VPP evaluations, but Joe had not participated in the pre-approval evaluation for the *Bering Star*.

That evening as Joe and I ate dinner in Anchorage, we talked about what to expect on this review. Because of the limited time we would have on the *Bering* and because other program documents were available only at Icicle corporate offices in Seattle, we would be conducting a partial evaluation instead of the usual draft report and recommendations. Of course, we still didn't know whether there would be fish for processing while onboard the *Bering Star*.

Tuesday, May 22, 1996:

Joe and I checked out of the hotel and headed for the Anchorage airport. As we waited for the 18-seat Penn Air flight, I studied the other passengers—all in jeans with heavy coats and many beards, no ties anywhere. After about 2 hours of flying we arrived at Dillingham, a fishing town located on the Nushagak River, which flows into Bristol Bay. Dillingham is considered one of the most upscale towns west of the Aleutian chain. It has paved roads, a handful of shops,



The P.V. Bering Star fish processing vessel, Nushagak River, AK.



Joe Eisaguarre (left) and me (right) in Dillingham air terminal on the way to Clarks Point, AK.

and two grocery/hardware/general stores. Because it is in a muskeg and tundra landscape, there are very few trees.

Once in the Dillingham air terminal, I called the Icicle Seafoods dispatch office about our helicopter connection. It turns out the company helicopter, which was to transport us from Dillingham to the *Bering Star*, was being used in Norton Sound. So in plan B fashion, we jumped into the back of a cargo van that took us down a bumpy dirt road to the Yute Airline terminal, and from there, a four-seater plane would take us to Clarks Point near where the *Bering Star* was anchored.

Joe and I loaded our gear onto the plane. I'd flown previously in a number of small planes, but this

was the first one with wads of paper towels stuffed between the windshield and superstructure of the plane to control noise. Not to worry! After 15 minutes in the air, the *Bering Star* was visible about half a mile out into the mouth of

the Nushagak River from the gravel runway at Clarks Point.

The air terminal at Clarks Point is a weathered grey shack with one side missing and an orange wind sock. Once safely on the ground, Joe and I got out of the plane, but

Employee interviews help determine worker awareness of potential hazards, safety training they have received, and the general level of satisfaction with the site safety program and working conditions.

no one was around except a couple of stray dogs; we gathered our gear and headed for the beach. Soon a skiff was cruising in our direction. With rubber boots on, we waded into the water, threw our gear onto the skiff, and jumped into the boat. After the 15-minute ride, we climbed aboard the *P/V Bering Star* where Leauri and vessel manager, Bart Cox, greeted us. After stowing our gear in a crew bunkroom on the quarter-deck, we headed for the manager's office/radio room on the upper deck.

There we held an opening conference—explaining the purpose of the evaluation and the process, such as safety program document re-

view, employee interviews, and a walkaround of the vessel. We also made a tentative activity schedule. This had to be flexible since the latest radio communication with a tender vessel carrying the fish indicated it would likely arrive at approximately 3:00 a.m.

The vessel safety manager, Scott Farris, briefed us on the alarm system, evacuation routes, and actual donning of immersion suits—those hi-tech suits that keep you alive and afloat in freezing water for several hours—a.k.a. “Gumby suits” since everyone who puts one on looks like Gumby! You know, that green rubberlike cartoon character from the ‘70s.

We began reviewing documents on activities such as self-inspections, industrial hygiene surveys, safety committee meetings, safety training, evacuation drills, and job safety analyses. Joe, who has had advanced process safety management training, also began reviewing work completed by the chief engineer and others in analyzing hazards associated with the large ammonia refrigeration system. With our short time frame and the likelihood that fish processing work could begin during the night, we decided to do a group interview that evening with eight employees



Here we are at Clarks Point air terminal (Joe on right).

whom Joe and I selected from a list of the processing crew. Employee interviews help determine worker awareness of potential hazards, safety training they have received, and the general level of satisfaction with the site safety program and working conditions.

After an afternoon of reviewing documents on self-inspections, safety committee meeting records, job hazard analyses, and training records and discussing various facets of the safety program with key staff members such as the chief engineer, deck foreman, processing foreman, vessel manager, and safety manager, it was dinner time and we headed for the galley. The conditions may be crowded, noisy, and lack privacy, but we soon real-

ized that much of this is made up by the great food—and no fish!

After dinner, Joe and I conducted the group interview. Processing crew members (seasonal workers who process the fish) expressed nothing but satisfaction with the safety and health conditions on the *Bering* and demonstrated awareness of potential job hazards. The crew said they had more safety training than they had ever had working other vessels (e.g., emergency egress, fire safety, hazard communication, and general vessel safety procedures). Most of the processing crew had never worked on the *Bering Star* prior to this season, but many had worked on other processing vessels for other employers.

Following the interview session, we headed back to the manager's office and learned that rough seas in the Bering Sea were delaying the tender vessel. The new estimated time of arrival was now about 6:00 a.m. Joe and I felt a little relieved on hearing of this, and since it was now about 9:00 p.m., we headed for our bunks.

Because Alaska is so far north, the year is split between full daylight and no daylight. Fortunately, May is the time of year when daylight prevails for approximately 20 hours a day. Even during stormy weather, the sun doesn't set until 11:00 p.m. and rises by 3:00 a.m. Unless you have something covering the porthole next to your bunk, it can be difficult to fall asleep.



Steve Burch, processor, removes crabs from cooking tank.



Workers box and weigh herring.

Wednesday, May 23, 1996:

Sometime during the night I awoke to a distinct rolling sensation coupled with creaking and groaning noises from the *Bering*. Apparently, the stormy weather in the Bering Sea had arrived at the mouth of the Nushagak. The Nushagak River has one of the highest tides in Alaska. The tide changes so quickly that the *Bering Star* spins around its anchor whenever the direction of the water changes, which occurs four times a day. Add to this the normal rocking and rolling of life onboard, and it makes for a sense of queasiness unsurpassed except on the high seas.

Joe and I awoke later to the sounds of voices and machinery in addition to the sounds associated with the rolling seas. We dressed with boots and rain gear, looked out a porthole, and saw the tender vessel, *M/V Deer Harbor*, bobbing up and down alongside the *Bering*.

Loading the herring had begun. The crew was gearing up to begin processing fish. After grabbing cups of coffee in the galley, Joe and I headed to the processing area.

Herring is processed solely for the roe (eggs) of the female. The roe is a specialty item in Japan,

Processing crew members (seasonal workers who process the fish) expressed nothing but satisfaction with the safety and health conditions on the *Bering* and demonstrated awareness of potential job hazards.



Ailee Aviles lends a hand during cleanup.

where it is given to family and friends during holidays. The herring are pumped on board the *Bering* using a large fish pump. The pump sucks the herring out of the tender holds and deposits them in the *Bering's* holding tanks. Temperature is very important—if the water is too cold, the roe is dam-

aged; if the water is too warm, the fish spoil more quickly, which also damages the roe.

Watching the processing of tons of fish is an amazing sight. Herring are pumped from the holding tanks onto a dewatering belt where workers sort out and remove other species—jelly fish, kelp, flounder,

wolf eel—from the herring. The herring then are packed into box bottoms, put onto metal carts, and then pushed onto elevators and lowered to the freezer flat. Next, carts go into blast freezers, and the product slides off onto freezer coils.

Once a freezer is full, an attendant closes the doors and turns on

During VPP onsite visits, we look to see that work conditions and procedures are consistent with a fully implemented, comprehensive safety and health program. We found the safety and health conditions on the *Bering Star* to be well above the industry average.

the fans. Freezing takes from 6 to 8 hours, and then the herring are put back into carts and sent to the case-up area. The fish are glazed with fresh water to reduce freezer burn, the lid is placed on the box, boxes are then stamped with identifying information, strapped, and pushed out a chute on the side of the vessel. The boxes slide down a ramp to a landing called a sponson, where they are put on pallets and are lifted by crane to a waiting tramper, or cargo ship. If no tramper is alongside, the product is stacked in the lower freezer hold.

After watching this process carefully, Joe and I walked through the rest of the vessel to observe other activities and equipment, including cardboard product boxes, the freezer deck, the ammonia refrigeration system, the generator room, deck hand tasks, and of course, the galley.

During VPP onsite visits, we look to see that work conditions and procedures are consistent with a fully implemented, comprehensive safety and health program. We found the safety and health conditions on the *Bering Star* to be well above the industry average. General housekeeping was exemplary, workers frequently rotated to other tasks to limit musculoskeletal stresses, and management listened seriously to employee issues for

improved safety and took action. For example, an employee expressed concern that his limited view when operating a product elevator from the freezer deck made it hard to know when the elevator was clear of other workers and full of product. Management soon installed a large convex mirror so the operator would have a proper view of the elevator platform above.

During the rest of the morning and early afternoon, we continued our walkaround and asked more questions of crew members we encountered about their work and safety on the vessel. The winds continued at about 40 knots throughout the day with what we were told were “moderate” seas.

That afternoon, Joe and I compared our findings and conclusions regarding progress on *Merit* goals as well as other VPP requirements. During the closing conference with vessel managers, we discussed significant advances and identified several areas where more information and work were needed. We all agreed to meet at Icicle’s offices in Seattle during August to review additional documentation and improvement on several *Merit* goals.

Given the rolling seas and general feelings of unease both Joe and I were experiencing, we were very pleased that we had not promised to complete a written report while

onboard. Soon we would be on solid ground, but first we had to get there.

When it was time to disembark, I admittedly had been quietly dreading the prospect of trying to get from the *Bering* to the skiff in substantial waves with the processing barge going up while the skiff was bobbing down. I was assured that the trick in jumping over to the skiff was all in the timing. Of course, in the back of my mind I was aware of my general lack of athletic aptitude or coordination! With life preserver on, we went to the aft of the *Bering* and found the waves weren’t nearly as bad as I had feared.

Leauri, Joe, and I successfully boarded the skiff and headed for shore. The ride was a wind-whipping and drenching 15 to 20 minutes. In the 40 knot winds, it was a physical workout just trying to hold on and stay upright. Upon nearing shore, we jumped off the skiff into the shallow water near the beach, only to realize that strong winds were forcing the skiff into shore. We threw our bags onto the rocky beach and trudged back into the icy, cold water, pushing at the side of the skiff to ease it back into water deep enough for the engine and rudder to take over. It took three of us, plus one of the deck hands, to get it floating long enough for the

driver to gun the engine. The deck hand swung himself back on board and they were headed back out to the *Bering*.

Once on shore, we dragged our gear a couple hundred yards from the beach to the Clarks Point "air terminal." There, we watched as the little plane struggled to land against the hefty wind. As the plane hovered overhead, it was not at all clear it would be able to land, or once it did, that it could hold steady with those gusts of wind buffeting the wings. Once on the ground and with the plane's engine still running, Joe, Leauri, and I quickly boarded and were off to Dillingham.

months later....
Tuesday,
August 6, 1996:

As Joe Eisaguarre and I met in Seattle with *Bering Star* and Icicle staff, we were able to reminisce about our trip as well as further document the progress the *Bering Star* had made in its safety program. We agreed that, primarily through the direct involvement of the vessel manager and other key staff in every aspect of the safety program, along with the support of

the corporate safety director, the *Bering Star* had become a model of safety excellence in the floating fish processing industry. The vessel achieved its 11 *Merit* goals, including improvements in areas such as employee involvement, chemical inventory, hazard correcting tracking, and program evaluation. The *Bering Star* had successfully focused on many proactive and preventive safety and health efforts rather than waiting until after serious problems had occurred. Unfortunately, in all too many instances, companies initiate safety measures after the fact.

In the fall, we obtained all program documentation necessary to enable Joe and me to make a recommendation that the *Bering Star* be approved for *Star* status in the OSHA Voluntary Protection Program. We also recognized that we were fortunate to have this unique experience in trekking north to find that hard work and commitment were paying off in providing the safest working conditions possible in a traditionally high-risk and difficult work environment.⁵ [JSHQ](#)

Hoeschen is VPP manager in OSHA's Region X Office, Seattle, WA.

In OSHA's VPP, labor, management, and OSHA establish a cooperative relationship to help employers build strong safety and health programs. Once OSHA verifies that the program meets its rigorous criteria, the agency publicly recognizes the worksite for its exemplary program and removes it from routine scheduled OSHA inspections. Participation in VPP is voluntary.

OSHA has printed information on VPP, including booklets entitled, *So You Want to Apply to VPP? Here's How to Do It!* and *What to Expect During OSHA's Visit*. For these and other publications on OSHA programs, visit <http://www.osha.gov/> or contact the OSHA Publications Office, P.O. Box 37535, Washington, DC 20013-7535; or call (202) 219-4667, or fax (202) 219-9266.

For more information on OSHA's VPP, write to the U.S. Department of Labor, OSHA, Office of Federal-State Operations, 200 Constitution Avenue, N.W., Room N-3700, Washington, DC 20210.

The author expresses his thanks to Leauri Lopes, Icicle's Safety Director, for her help in editing this article, for describing the herring processing, and for providing the adventurous ride in the skiff back to shore.

⁵ For the last 3 years, the *Bering Star* average injury incidence rate has been 6.26 per 100 workers, and the lost-workday rate has been 1.86 per 100 workers. The injury incident rate is 60 percent lower and the lost-workday rate is 77 percent lower than the industry average of 15.5 and 8.1 per 100 workers, respectively. OSHA approved the *P/V Bering Star* for *Star* level participation in the VPP on December 23, 1996.

...primarily through the direct involvement of the vessel manager and other key staff in every aspect of the safety program, along with the support of the corporate safety director, the *Bering Star* had become a model of safety excellence in the floating fish processing industry.

Celebrating the First North American Occupational Safety and Health Week

by Vivian Allen

To heighten awareness among employers and employees in the United States, Mexico, and Canada about the importance of developing and maintaining an effective safety and health program, the three countries sponsored the first annual celebration of “North American Occupational Safety and Health Week” on June 2-6 in Washington, DC.

The Presidents of the United States and Mexico and the Prime Minister of Canada signed the “North American Agreement on Labor Cooperation” (NAALC) in September 1993. One of the main objectives of the NAALC is to improve working conditions in each of the three countries. The agreement obligates each country, among other things, to maintain high labor standards through its labor laws and regulations and to strive continuously to improve those standards.

“The NAALC provides the U.S., Canada, and Mexico with the framework for increased communication and cooperation when addressing worker safety and health issues,” according to Jacquelyn DeMesme-Gray, OSHA Coordinator for International Affairs. “It has

been instrumental in developing an ongoing and constructive exchange of best practices and information so that safety and health conditions for workers in all three countries are enhanced,” she adds.

To highlight North American Occupational Safety and Health

Week, OSHA participated in a major outreach effort that included disseminating information to employers and workers about the celebration and the importance of workplace safety and health. An OSHA exhibit entitled, “A Healthy Workplace...A Healthy Business,”



Representatives from the U.S., Mexico, and Canada at technical seminar on safety and health in the petrochemical industry, Edmonton, Alberta, Canada. From left to right: Dr. Alejandro Galindo Barajas, Mexican Secretariat of Labour and Social Welfare; James Lowry, AMOCO Foam Products Company, Symrna, GA; Robert Riley, Oil, Chemical and Atomic Workers International Union, Local 423, Port Arthur, TX; Gilberto Muñoz Mosqueda, Mexican Union of Workers in the Chemical, Petrochemical, Coal Industries and Similar or Connected Industries; R.C. Basken, Communications, Energy and Paperworkers Union of Canada, Ottawa.

also promoted the trinational, tripartite partnership forged to improve conditions for working men and women.

The outreach effort also helped inform workers of the major elements of an effective safety and health program: Top management commitment; meaningful employee involvement (e.g., appropriately structured labor/management committees); training (education and outreach); and prevention, compliance, and enforcement. The participating countries all recognize that an informed safety and health community is better able to reduce or eliminate workplace safety and health hazards.

This special event also enabled all the countries to showcase major trinational, tripartite accomplishments under the NAALC. For example, in 1994, each country brought together representatives from government, industry, and labor to participate in technical seminars on worker safety and health in three vital areas: electronics, construction, and petrochemicals. These key industries either involve significant cross-border trade or result in a high incidence of illnesses and injuries, and/or catastrophic accidents in all three countries.

These seminars helped increase awareness of occupational safety and health hazards and the need for effective worksite programs.

This special event also enabled all the countries to showcase major trinational, tripartite accomplishments under the NAALC.



Select staff from the U.S., Mexico, and Canada plan for the "North American Occupational Safety and Health Week."

To build upon the relationships developed and the lessons learned during the technical seminars, the countries coordinated small trinational, tripartite study tours that focused greater attention on items such as eliminating falls in the construction industry and preventing catastrophic explosions in the petrochemical industry. These study tours were held in concert with the National Safety Council's (NSC) Congresses and Exhibitions of 1995 and 1996 dealing with safety and health in the construction and petrochemical industries.¹ These congresses provide a valuable forum for promoting a dialogue among NAFTA participants and other safety and health experts in areas like state-of-the-art technology in occupational safety and health.

Other major NAALC activities include tripartite exchanges of scientific studies and information on permissible exposure limits for airborne contaminants and model safety and health programs. Also, using the "train-the-trainer" approach, the OSHA

Training Institute conducted numerous training courses to help upgrade the technical skills of Mexican inspectors. On the horizon, OSHA's Office of Intra-Governmental Affairs hopes to work with its NAFTA partners to build upon this success and past joint endeavors, both through follow-up activities and continued training for Mexican labor inspectors. The U.S., Canada, and Mexico are exploring ways to broaden partnerships with their counterparts in industry, labor, and government to improve occupational safety and health for workers in their countries.

For further information about OSHA's International Program, please contact Jacquelyn DeMesme-Gray at (202) 219-8091, ext. 121.

JSHQ

Allen is a program analyst in the Office of Intra-Governmental Affairs in OSHA's Directorate of Policy, Washington, DC.

¹ The 1995 Congress dealt with "Focus on the Future: Promoting a Safe and Healthful Workplace Culture in Construction"; and 1996 "Sharing Ideas: Preventing Catastrophic Explosions in the Petrochemical Industry." For information on these and other NSC activities, write the National Safety Council, 444 N. Michigan Avenue, Chicago, IL 60611; or call (800) 621-7615.

North Carolina's Final Approval: Recognition of a Better Program

by Steve Sykes

OSHA's final approval of North Carolina's safety and health program last December was the culmination of the state's success in meeting its goal of self-sufficiency and in mak-

ing a positive impact on occupational safety and health for North Carolina citizens. In presenting the certificate of final approval to Commissioner of Labor Harry E. Payne, Jr., OSHA recognized North

Carolina as a fully independent partner, and in typical fashion, Payne gave the credit to department employees and thanked them for working hard to improve North Carolina's program.



Spring flowers surround the Raleigh Legislative Building.



The Raleigh skyline.

Long-T ime Commitment to Employee Safety and Health

Final approval—relinquishing federal occupational safety and health authority in a state—is the highest level of state plan achievement and the fruit of North Carolina’s hard work over many years. Even more important, such recognition highlights an ongoing commitment to the working men and women of the state. This commitment has a history dating back to 1887 when the North Carolina General Assembly created the State Department of Labor and made it responsible for promulgating and enforcing rules and regulations to protect employees from occupational accidents and diseases.

Even before the passage of the *Occupational Safety and Health Act of 1970*¹ (OSH Act), the state had a safety and health inspections

division covering general industry and construction.

Section 18 of the OSH Act² further reinforced efforts of states that had already made a real commitment to employee safety and health. There was never any doubt that North Carolina would develop its own state plan, because the safety and health of working citizens had always been seen in North Carolina as a state responsibility.

North Carolina received initial approval of its state plan on January 26, 1973, and then certification of completion of its developmental commitments on October 5, 1976. It appeared that nothing would stand in the state’s way of

Final approval...is the highest level of state plan achievement and the fruit of North Carolina’s hard work over many years.

the next logical step in the state plan process, final approval. But the U.S. Court of Appeals’ decision in the case of *AFL-CIO v. Marshall* was an action that no one had anticipated. The court ruled that states operating approved state plans must establish “fully effective” compliance staffing levels. Although it might affect the immediate pursuit of final approval status, North Carolina was determined to have staffing that honestly reflected the needs of the state, even though these numbers would require a significant amount of additional funding at a time when legislative bodies were not increasing appropriations for government programs.

¹ Public Law 91-597, December 29, 1970; as amended by P.L. 101-552, §3101, November 5, 1990.

² This section encourages states to develop and operate, under OSHA guidance, their own job safety and health plans. An OSHA-approved state plan must have safety and health requirements at least as effective as those of Federal OSHA and must adopt comparable state standards within 6 months of promulgation of the federal standards.



From left to right: Commissioner of Labor Harry E. Payne, Jr., and former Assistant Secretary for OSHA Joe Dear sign certificate of final approval of North Carolina's occupational safety and health program.

The state was still developing a strategy to meet the compliance staffing “benchmark” when, on September 3, 1991, a devastating fire at the Imperial Food Products plant in Hamlet, NC, killed 25 workers and injured 56. This event challenged the state to reexamine its commitment to the safety and health of North Carolina’s working people.

Commitment Reaffirmed

In the wake of the Imperial Food Products fire, the citizens of the state spoke—and spoke loudly. Their voices were heard in the halls of the North Carolina General Assembly and rang throughout all of state government. As the Congress met to consider what happened, lawmakers in North Carolina were taking action to help assure that a similar accident did not happen again. State legislators provided funding that more than doubled the safety and health compliance staff and allowed the state program to

reach the “fully effective” enforcement benchmark levels of 64 safety and 50 health compliance officers. The state share of the budget for the program increased from less than \$3 million to more than \$7.5 million.

Federal OSHA provides up to 50-percent funding for a state plan, and for Fiscal Year 1997, North Carolina received about \$3 million in federal funds, or 24 percent of

the total state program budget. Subsequent action by the General Assembly resulted in funding for 19 new positions dedicated to strengthening the state’s consultative and education and training efforts.

OSHA reform also quickly became a reality in North Carolina. Employers with high workers’ compensation ratings were required to establish safety and health

State legislators provided funding that more than doubled the safety and health compliance staff and allowed the state program to reach the “fully effective” enforcement benchmark levels of 64 safety and 50 health compliance officers.

programs and committees made up of both management and employee representatives.

State legislators passed a bill to create a special emphasis inspection program for those employers with a significant history of work-related accidents. General Assembly legislation also gave the State Department of Labor access to workers' compensation data so inspection assignments could be made on a site-specific basis. Also, there was a requirement that all state agencies establish safety and health programs and committees and that monetary penalties for OSHA violations be extended to the public sector. The reform effort set additional rights for employees who experienced retaliatory discrimination, extended the deadline for filing such a complaint from 30 days to 180 days, and gave the complainant the right to sue and the opportunity to collect treble damages.

A Change of Leadership and Style

In 1992, the citizens of North Carolina elected a new Commissioner of Labor, Harry E. Payne, Jr. Commissioner Payne took the Department from a mind set of defending past actions to establishing goals to reach new heights. This further reaffirmed the State Department of Labor's safety and health mission in such a way that each employee was sure of his or her role. A decentralization of much of the department's activity began. This need for restructuring was critical in the compliance area with the doubling of the compliance field staff. With decentralization came a flexibility that allowed the organization to respond quickly to customer needs. And speaking of customers, the department became

With decentralization came a flexibility that allowed the organization to respond quickly to customer needs. And...the department became more conscious of the public being served.

more conscious of the public being served.

The use of employee and employer surveys helped identify those areas of program operations where improvements should be made. In general, most of those surveyed thought that the department was on the right track and doing a good job. This positive response represented a drastic improvement in the public perception of the department, especially in light of the negative publicity after the Imperial Food Products fire.

Decentralization also freed managers to improve the department in fresh and innovative ways. In many cases, the challenge to achieve specific goals was put in the hands of those employees who were closest to the activity being affected. For example, using real world experience, a team of compliance officers revised the way penalties are calculated and helped the Bureau Chief of Management Information and Evaluation, Sharon Bryant, revise the inspection scheduling system.

The relationship with the Federal OSHA Raleigh Area Office also changed for the better. Now when a federal monitor announced that a procedure needed improvement,

the state's response was, "Show us how to make it better." In fact, Health Compliance Bureau Chief Mary Carol Lewis and Safety Compliance Bureau Chief Mike Peeler went to a federal area office in a nonstate plan state to study Federal OSHA management of compliance activity, and the local area office helped the state revise its complaint processing procedures.

The State Department of Labor used the best ideas, whether federal or state, and often the result was a mix that reflected the best of both worlds. The number of inspections tripled in 4 years, citation lapse time was cut in half, and a backlog of complaints was eliminated. Through the commitment of Federal OSHA's Raleigh Area Office Director Suzanne Street and her staff and Regional Administrator Davis Layne, a federal-state partnership was alive and well in North Carolina and reaping much success.

New Initiatives

The leadership and vision of North Carolina OSHA Director Charles Jeffress also resulted in new programs and policies. Gone was the organization that hopped from one fire to the next. Instead,

there were new ideas to address existing and potential problems and an organization that used all resources available to accomplish its mission—worker safety and health.

A scheduling system that sometimes identified good employers in a bad industry was supplemented with one driven by site-specific data. With no standard and prolonged, labor-intensive compliance procedures as the only answer to ergonomics—the health challenge of the 1990s—Assistant Director Angela Waldorf and Bureau Chief Mary Carol Lewis worked together to devise the North Carolina Ergonomics Resource Center and partnerships with employers through the Cooperative Assessment Program (CAP). Both efforts have been a success. The Ford Founda-



Moreover, to recognize those employers striving for excellence in the safety and health field, North Carolina's 50-year-old *Safety Awards* program was supplemented with the *Carolina Star Program*, which is patterned on Federal OSHA's Voluntary Protection Programs. Bureau Chief of Consultative Services Worth Joyner notes, "We are especially proud of this program because it recognizes good safety and health management programs that go beyond minimum requirements." There are currently 12 sites in North Carolina that have attained *Carolina Star* status.

In addition to linking up with North Carolina State University through the Ergonomics Resource Center, the department tapped into another educational resource, the state's community college system. Through the local community colleges, small business owners can choose 2-day training sessions that address their safety and health needs. From six sites scattered throughout the state, the program has expanded to 15 community colleges with training for more than 1,000 participants. As Bureau Chief

The number of inspections tripled in 4 years, citation lapse time was cut in half, and a backlog of complaints was eliminated.

tion and Harvard University honored the center as one of the 25 most innovative governmental programs in America. Other efforts to give employers a choice in the intervention that they receive from the department include industry partnerships, such as the agreement with the logging industry, brought educational and consultative services to a thousand loggers in the State. This paid off! The number of deaths in the industry dropped from 13 fatalities to 3 in a 1-year period.



*Hoechst Celanese Plant in Shelby, NC, receives **Carolina Star** award. Clarence Kegler, Plant Facilities Manager (left center), and Harry Payne, Commissioner of Labor (right center), along with other members of the plant's safety and health committee, display **Star** banner during ceremony.*

of Education and Training Brad Thompson observes, "With 58 community colleges scattered throughout the state, this program can ultimately make safety and health training available within a one hour drive for every employer and employee in North Carolina."

Payne best sums up North Carolina's response to final approval: "The higher degree of autonomy doesn't really matter. If we're not doing a great job, I want them to take over. We haven't been working to get the Federal Government off our backs. We've been working to make the agency [the state program] better."

The goal posed by Payne for the state program to get better will not end with final approval, or Section 18 (e)³ determination. Already the Commissioner has established new challenges for the state labor department to attain. As well as maintaining the level of performance required by final approval, departmental employees have accepted the Payne's challenge to attain *Carolina Star* status and receive ISO 9000 Certification.⁴ This means setting new criteria and standards for how the state program will conduct business in the future.

"We are especially proud of this program [*Carolina Star*] because it recognizes good safety and health management programs that go beyond minimum requirements."

Worth Joyner, Bureau Chief of Consultative Services

It is hoped that both of these challenges will serve as a departmental rallying point—to improve worker safety and health—over the next few years just as final approval has been during the last 4 years. [JSHQ](#)

Sykes is State Plan Coordinator for the Division of Occupational Safety and Health, North Carolina Department of Labor, Raleigh, NC.

³ See P.L. 9-597 and footnote 2 above.

⁴ International Organization for Standardization. The 9000 certification is a process by which a third party gives written assurance that a product, process, or service conforms to specific requirements.

OSHANET 1997

by James Kallenborn

Online communications and the Internet, in particular, have become common parts of everyday life for millions of Americans at home, in business, and in schools.

So, it's not surprising that online communications in OSHA are advancing as well. The agency has been working hard to take advantage of the Internet's vast potential to improve the public's and the agency staff's access to important information, data, and tools to help improve workplace safety and health.

In the early 1980s, OSHA began building the infrastructure to capture electronically thousands of pages of key agency documents to make them readily available to agency staff: OSHA regulations, letters of interpretation, agency directives, and agency manuals. In 1991, OSHA produced its first CD-ROM and made some databases available to the public. Two years later, the public gained dial-up, online access to those databases available on the CD-ROM.

In the early 1990s—before the word “Internet” was part of the everyday American vocabulary—a few visionary OSHA staff members



and contractors secured access to the World Wide Web for the agency, in particular OSHA's home page Internet address of www.osha.gov. During this time, OSHA began to seriously develop a presence on the Internet. By fall 1994, OSHA was making its regulations accessible to the public on the Internet.

Today, OSHA has an extensive presence on the Internet and it is expanding daily. Thousands of pages of regulations, publications, and other documents are currently available online, such as those discussed in the following paragraphs.

OSHA Regulatory Information (under **Standards**) includes all safety and health standards, updated with current changes issued in the *Federal Register* as they occur; decisions from the Occupa-

tional Safety and Health Review Commission; links to interpretations issued by the agency in response to questions received from the public; and an area devoted to the latest information on OSHA efforts to reduce or minimize ergonomic hazards (under **Ergonomics**) in the workplace, including detailed statistical data for injuries and illnesses related to ergonomics.

The OSHA poster (under **Publications**), which must be displayed by all covered employers, is now available from OSHA's home page in either color or black and white and can be downloaded in two sections.

OSHA's office directory (under **Office Directory**) is now available via a map of the United States. By simply clicking on any state, the user receives information on all



of OSHA's offices within that state, including both federal and state offices. There are also directories of OSHA state plan states and OSHA consultation offices throughout the United States.

New and improved search capabilities have been added to OSHA's web offerings and can be accessed through the OSHA-OCIS link at the bottom of OSHA's home page. More importantly, the new search engine provides greater intelligence and thus can more precisely respond to search requests. Also, user request words are now highlighted in the documents returned from the search.

OSHA software advisors (under **OSHA Software/Advisors**) for some of OSHA's more intricate regulations can be downloaded from the website. In addition to

downloading the software on a user PC, the Confined Spaces Advisor can now be run on OSHA's server on the web. As time and resources permit, OSHA's other advisors will be set to run interactively on the Internet.

Technical Links is a new offering located under the Technical Information link on OSHA's home page. The Technical links site now contains over 40 technical occupational safety and health interest areas—each containing a growing collection of technically reviewed information and data sources for that particular area. Sources for the information include OSHA, other government agencies, universities, and nonprofit organizations. For example, the bloodborne pathogens section contains general references, the OSHA standard, the preamble

to the standard, directives, standard interpretations, and compliance letters.

In the *Construction* area (under **Industries**), OSHA has an electronic construction manual that includes all relevant mandatory standards for construction work that have been codified in the *Code of Federal Regulations*, Part 1926, as well as important compliance directives, standard interpretations, memos, and letters specific to construction industry topics. Introductory materials in each subpart offer insights on OSHA's enforcement of the most frequently violated requirements also listed in Appendix B of the manual. These introductory materials also offer suggestions to help employers and employees with providing a safe and healthful work environment.

Statistics and Data allow users to search the inspection database just by typing in the name of the company or the standard industrial classification code (SIC) they are interested in (see **Establishment Search** under **Statistics and Data** on the Web page).

The *Ergonomics* page provides the latest on agency outreach, enforcement, and other related

activities in this area and will soon include proceedings from the January ergonomics conference as well as some international ergonomics standards (see **Ergonomics** on the Web page).

New initiatives and special emphasis programs (under OSHA-OCIS) also are being added to the website. Included in the current list are the 1,3-butadiene initiative, the nursing home initiative, scaffolds outreach, the small business initiative, the tuberculosis outreach memo, the workplace violence initiative, and industries and special focus subjects. Some of the presentations on the special emphasis programs provide outreach and training materials, including slide shows that are accessible online.

The *Small Business Initiative* includes a description of agency programs and assistance available to small businesses as well as the *Small Business Handbook* (See **Publications** on the Web page).

In addition, the agency evaluated *lead test kits* (under OSHA-OCIS) and is making these evaluations available to the public to further the advancement of occupational safety and health.

OSHA's *recordkeeping guidelines* (under OSHA-OCIS, **Additional Documents, and Publications**) can be downloaded and printed as a single document that

looks just like the published "Blue Book."¹ The guidelines are also available in the standard Internet (html) format on a chapter-by-chapter basis.

Training (under **Programs and Services**) offers a description of courses available through the OSHA Training Institute in Des Plaines, IL, and from Outreach Education Centers throughout the country.

On the Drawing Board

OSHA is only beginning to exploit the power of the Internet to facilitate its many programs. The real challenge facing the agency now is organizing a vast amount of data and information into a useable and user-friendly system for OSHA's stakeholders and the general public. There are plans for a major overhaul of the public Web site to ensure a more integrated userfriendly approach. A new page providing workers with detailed information on how to file a complaint with OSHA about hazardous working conditions—with an option to file a complaint online—is under development and testing.

Links now are included in OSHA standards and more are being planned. Recently links to letters of interpretation have been added to the regulations. In the future, a greater variety of links will be added throughout the standards where appropriate. For example, planned links include preambles, other related standards, definitions of key words, an encyclopedia, and a thesaurus.

Additional initiatives include the expansion and enhancement of the statistical data section, including the use of charts; the selective use of web conferencing for technical conferences; and how users can submit selected data and information submissions to OSHA via the Internet. Also, the use of multimedia presentations will be expanded from the current small base of pictures and slide presentations in some of OSHA's outreach materials, and more interactive expert *Advisors*.

Another major effort continuing within the agency is the implementation of a nationwide network. At this time, agency staff are installing the network in OSHA's national and field offices. The network has opened the door for the beginning of OSHA's Intranet, currently in the early phase of design and development.

OSHA—not unlike the rest of government and industry worldwide—is taking advantage of electronic communications to provide a vast array of information to the world. What this means for the public at large is that more and more data, information, and tools will be available on the Internet to help employers provide safer and more healthful workplaces across the nation. [JSHQ](#)

Kallenborn is a program analyst in the Division of Data Analysis in OSHA's Office of Statistics, Washington, DC.

¹U.S. Department of Labor, Bureau of Labor Statistics, *Recordkeeping Guidelines for Occupational Injuries and Illnesses*, Washington, DC. Order from the U.S. Government Printing Office, Superintendent of Documents, at (202) 512-1800, or (202) 512-2250 (fax). Order No. 029-016-00165-4; cost \$6.

Ground Fault Circuit Interrupters (GFCIs)

1926.404(b)(1)(ii)

Rank in Frequency Cited: #13*

Rule

All 120-volt, single-phase, 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees, shall have approved GFCIs for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW (kilowatts), where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with GFCIs.

Intent

This standard requires the use of electrical hardware that is designed for monitoring ground fault current and is capable of stopping the fault current in the circuit—i.e., through an employee’s body. This rule states that all 120 volt 15- and 20-amp receptacle outlets on construction sites will be protected by ground fault circuit interrupters (GFCIs), when not part of the permanent wiring of a structure. Because a receptacle is in effect part of the branch circuit wiring, this rule is effectively identical to 1926.404 (b)(1)(i)—*Ground Fault Protection*.

This rule exempts portable or vehicle-mounted generators that meet the following: (1) rated <5kW; (2) system wiring is two-wire, single phase; and (3) circuit conductors are insulated from the generator frame and all other grounded surfaces. **Note:** GFCIs are not to be used in lieu of equipment grounding. GFCIs are supplemental protection and must only be considered as a backup to equipment grounding. GFCIs can be placed anywhere in the circuit and still be effective. They may be put in a panel box as a breaker, at the receptacle, or in line anywhere along an extension cord up to the tool. GFCIs are very important on construction sites because of the likely probability of encountering wet/damp locations that greatly increase the risk of electrical shock.

Hazards

Fatal electrocution, electrical burns ranging from critical to minor, and fires and explosions. Electric shock has been an initiator of other type hazards— i.e., electrical shocks can cause employees to fall from elevated work surfaces and lose control of handheld equipment which, in turn, can strike other employees in the immediate work area.

Among Other Suggested Abatements

- Frequently trip GFCIs while test tool is operating to ensure GFCI is operating correctly.
- Use double-insulated tools. Double-insulated tools can protect the user from fault currents,

which might energize the case of the tool or equipment.

- GFCIs for 220-volt circuits are available. **Note:** They are not required by this standard.

Selected Case Histories

An employee attempted to plug an extension cord into a temporary power spider box. The employee was kneeling on the ground and held the box in his hand. Fault current energized the case of the box and electrocuted the employee. No GFCIs were used.

Comments

- Although double-insulated tools are recommended, using them does not relieve the employer from providing ground fault protection. Extension cords connecting a fixed electrical system (permanent outlet) and a tool can become worn with exposed energized conductors; therefore, ground fault protection or an Assured Equipment Grounding Conductor Program (AEGCP) should be required.
- According to OSHA, there were 48 fatalities in the years 1985 to 1989 related to 120-volt electrical systems.
- Employers have attempted to skirt the requirements of providing ground fault protection by using 30-amp breakers in their 120-volt, single phase systems. This not only defeats the intent of the ground fault provision, but also introduces new hazards because the system is no longer rated for the actual over current protection (30 amp breaker) that

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

is in place. (Personal experience and conversations with Compliance Safety and Health Officers (CSHOs)).

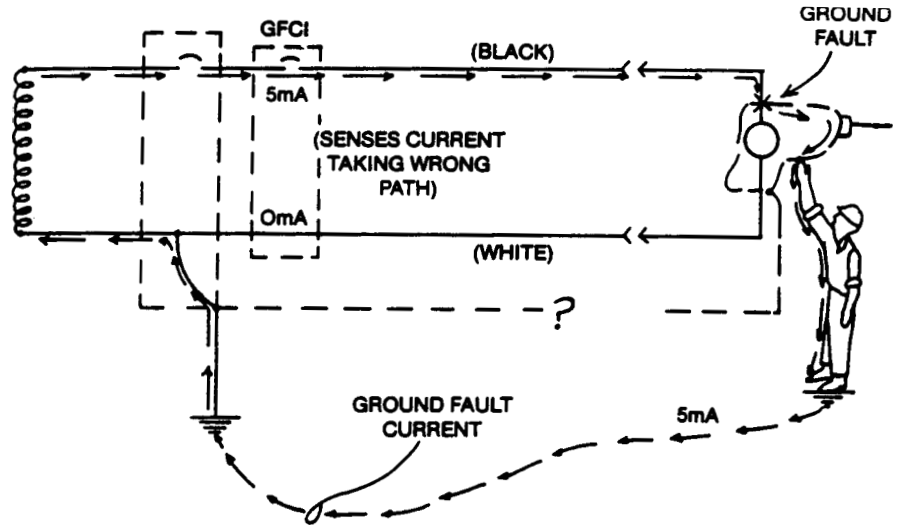
- Had all three requirements for ground fault protection been combined— (1926.404(b)(1)(i), (ii), and (iii))—they would have ranked #1 on the *100 Most Cited Physical List* and #4 on the *100 Most Cited List*.

Additional Documents to Aid in Compliance

Section 404(b). [JSHQ](#)

The Ground-Fault-Circuit Interrupter (“GFCI”) provides an additional precaution.

The GFCI is a solid-state sensitive device which can be applied to open the circuit in case of ground-fault leakage **too small to trip the circuit breaker**, but large enough to be dangerous to people.



How the GFCI Protects People

(By opening the circuit when current flows through a ground-fault path.)

Note that the GFCI will open the circuit if 5 mA or more of current returns to the service entrance by any path other than the intended white wire. If the equipment grounding conductor is properly installed and maintained this will happen **as soon as the faulty tool is plugged in**. If by chance this grounding conductor is not intact, the GFCI may not trip out **until a person provides the path**. In this case the person will receive a shock, but the GFCI should trip out so quickly that the shock will not be harmful.

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Where are GFCIs required?

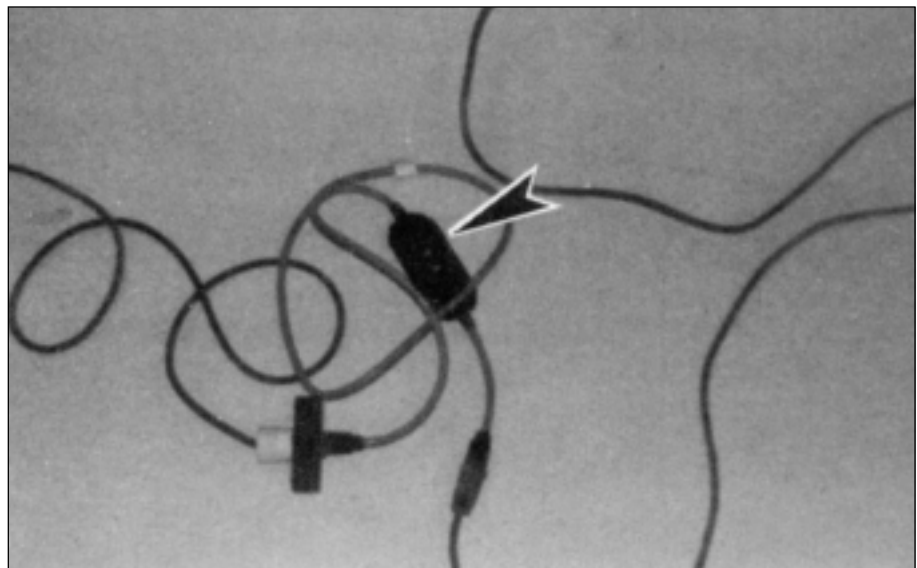
OSHA requires GFCIs on **construction sites** because of the combined special hazards of two conditions:

- Questionable integrity of the ground-fault path through **temporary wiring**.
- Presence of **wetness** due to working on earth, wet concrete, etc.

VIOLATION

INCOMPLIANCE

The use of portable GFCIs (arrow) meets this requirement.



Onsite Consultation

Wire Nibbler Guard

From U.S. Department of Labor
Occupational Safety and Health Administration *SafeWorks* No. 18

Wire Baskets and Display Racks Produced

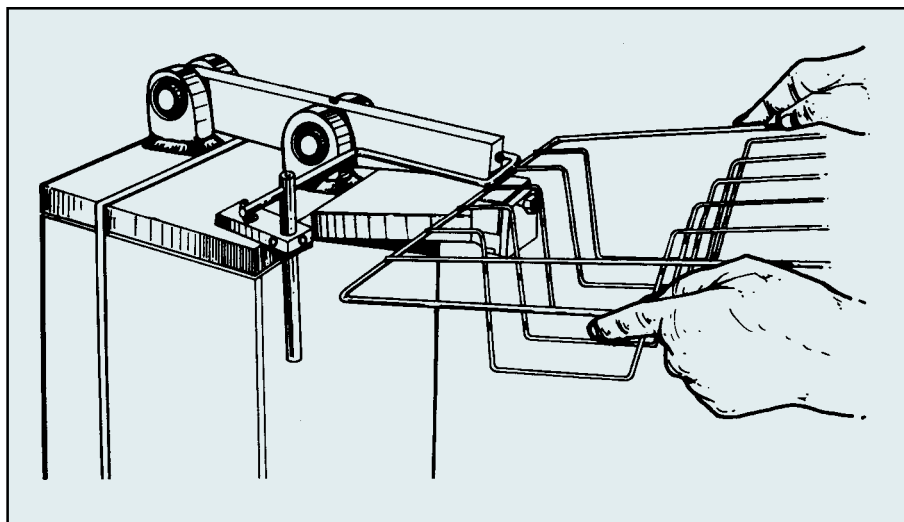
The employer uses 1/8- to 5/16-inch diameter cold roll steel wire, supplied on spools, to manufacture a variety of custom products, including wire baskets and wire display racks.

The product or a section of the product is formed from rough lengths of wire appropriately shaped and spot welded together. Wire ends, unwanted on the finished products, are trimmed with machine nibblers. An upper moving blade, with a vertical stroke of approximately 1/2 inch, and a lower stationary blade shorten the wire by shearing a series of bits off the end in quick succession (about 240 cuts per minute) as the operator feeds the wire into the nibbler.

Consultant's Analysis and Recommendations

An unguarded nibbler machine, recognized by the employer as a hazard but thought to be impossible to guard, presented a special challenge to the consultant.

The operator holds the product and feeds unwanted wire ends, one at a time, into the nibbler, watching closely in order to stop when the trimming is complete. With small work, there was a clear potential for fingertip injury. Larger work, the employer demonstrated, could kick up and back toward the operator's face. (This kicking up and back apparently was caused by a combination of the spring action of the product and the rapid upward



motion of the cutter immediately following the cut.)

A point-of-operation guard properly designed and placed would protect the operator from fingertip injury and prevent the kick-up of the product but would still allow correct placement of the work and give the necessary visual access. The consultant recommended that such a guard be fabricated and installed.

Results and Benefits

The employer made a guard from a 5/16-inch steel rod. A straight section of the rod, the part which functions as the guard, is just above, in front of, and parallel to the cutting edges of the nibbler, between the operator and the point-of-operation. The rod is bent in a zigzag pattern so that the mount is out of the way, to the side, and behind the point-of-operation. Up-and-down and forward-and-back adjustments accommodate various

sized products. Wire ends are fed under the guard into the nibbler. The guard prevents the work from kicking up and also keeps the operator's fingers away from the point-of-operation.

Not only are the employees protected from injury but also the assurance of their safety gives the operators confidence and relieves much of the tension associated with operating the nibbler machine. The results are safer, happier employees, increased production, and a pleased employer. [JSHQ](#)

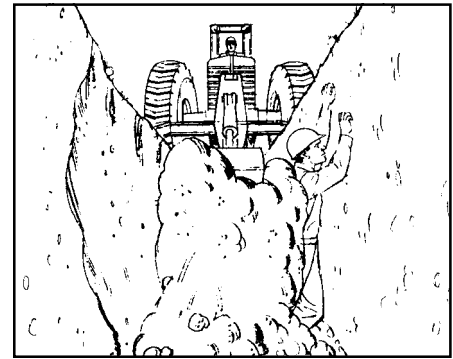
SafeWorks provides a brief summary of the results of an employer's request for workplace safety and health assistance. Such assistance can identify and help the employer correct workplace hazards, develop or improve an effective safety and health management system, or both. Small business employers can receive this assistance, without cost, under a consultation program funded largely by OSHA and administered by state agencies and universities. Contact the OSHA office in your area for additional information on the consultation program.

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Accident Report

From the U.S. Department of Labor
Occupational Safety and Health
FatalFacts No. 61

Administration



Accident Summary

Accident Type	Trench Collapse
Weather	Fair
Type of Operation Work	Excavation Work
Crew Size	2
Competent Safety Monitor Onsite?	No
Safety and Health Program in Effect?	No
Was the Worksite Inspected Regularly by the Employer?	No
Training and Education Provided?	Inadequate
Employer Job Title	Laborer
Age/Sex	51/Male
Experience at This Type of Work	6 Months
Time on Project	2 Days

three serious violations. OSHA's construction standards include several requirements which, if they had been followed here, might have prevented this fatality.

Accident Prevention Recommendations

(1) The employer did not instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazard or other exposure to illness or injury [29 CFR 1926.219 (b)(2)].

(2) The employer should not allow work in trenches where the sides are not shored or otherwise supported when the trench is ≥ 5 feet deep and ≥ 8 feet long [new standard 29 CFR 1926.652(a)].

(3) The employer allowed workers in trenches more than 4 feet deep without adequate means of exit, such as a ladder or steps [new standard 29 CFR 1926.651 (c)(2)].

Sources of Help

Title 29 Code of Federal Regulations (CFR) Part 1926—OSHA construction standards. Revised 7/1/96. Stock number 869-028-00115-7 (\$30). Available from the Superintendent of Documents, Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954, phone (202) 512-1800. For phone orders, you may use Visa, MasterCard, or check made payable to Superintendent of Documents. Fax orders to (202) 512-2250. Obtain information and order electronically via GPO Access, Superintendent of Documents'

Home Page on the GPO Web—URL:http://www.gpo.gov/su_docs/

Also available from GPO: *Training Requirements in OSHA Standards and Training Guidelines* (OSHA 2254)—Order No. 029-016-00160-3, Cost \$6.00; *Construction Industry Digest* (OSHA 2202)—Order No. 029-016-00151-4, Cost \$2.25; and *Excavations* (OSHA 2226)—Order No. 029-016-00167-1, Cost \$1.25.

For information on OSHA-funded free consultation services, call the nearest OSHA area office listed in telephone directories under U.S. Labor Department or under the state government section for states administering their own OSHA programs. See also OSHA's Website at <http://www.osha.gov>

Courses in construction safety are offered by the OSHA Training Institute, 1555 Times Drive, Des Plaines, IL 60018; (847)297-4810.

JSHQ

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

Brief Description of Accident

An employee was working in a trench 4 feet wide and 7 feet deep. About 30 feet away, a backhoe was straddling the trench.

When the backhoe operator noticed a large chunk of dirt falling from the side wall behind the worker in the trench, he called out a warning. Before the worker could climb out, 6 to 8 feet of the trench wall collapsed on him and covered his body up to his neck. He suffocated before the backhoe operator could dig him out. There were no exit ladders. No sloping or shoring had been used in the trench.

Inspection Results

As a result of its investigation, OSHA issued citations alleging

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



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



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