



## NSMS February 2006 DIGEST

### Welcoming Our New 2006 NSMS Members

On behalf NSMS President Roosevelt, the NSMS Executive Committee and the NSMS Board of Directors, we like to thank all members who have renewed their 2006 membership to the National Safety Management Society. We would also like to acknowledge and welcome the following new members to our Society:

- § John Phillips, Aramark Facilities Services – (Downers Grove, IL)
- § Michelle Railton, Bishop Wisecarver – (Pittsburg, CA)
- § Thomas Schirmer, R.A. Waffensmith – (Franktown, CO)
- § Scott Stevens, Midwest Steel, Inc. – (Detroit, MI)
- § Kenneth W. Swallow, ConAgra Foods – (Garner, NC)

We appreciate your interest in furthering your skills, knowledge and abilities in the management of safety and risks, as well as your interest to networking and professional development. Welcome again to NSMS!

### Calling All NSMS Members: Volunteers Are Needed for Our National Conference Planning Committee

NSMS is still seeking volunteers to form a working committee for planning our 2006 National Conference. We need the efforts and support of all members to keep the information exchange and networking possible. If you are interested in participating, please email us at [nsmsinc@yahoo.com](mailto:nsmsinc@yahoo.com) or call and leave a message at (800) 321-2910. Please spread the word and get involved! Thank you.

### OSHA Revokes Slip Resistance Portion of Steel Erection Standard

OSHA has revoked part of its Steel Erection Standard referring to slip resistance of skeletal structural steel because the test methods it referenced aren't ready and may not be for the foreseeable future. Employers thus may be unable to comply with the slip resistance requirement, OSHA reasoned. The change took effect immediately.

Commenters suggested the two slip resistance testing devices referenced in the standard's Appendix B are reliable, but "there continues to be a debate within the industry on the issue of reliability and this debate emphasizes the need to have approved precision and bias statements for the applicable ASTM test methods," the agency said in its Jan. 18 *Federal Register* document. "The precision and bias statements are necessary for employers to know with certainty when they are in compliance with the slip resistant standard -- by allowing them to rely on documentation or certification reflecting the results of testing using a test method that has been approved or shown to be suitable and appropriate for measuring the slip resistance of steel. ... It now appears that not only will there be no completed precision and bias statements by July 2006, but that there will be no applicable ASTM standards in place as of September, 2006. Finally, with this degree of uncertainty regarding the future of ASTM standards for such devices, the agency is unable to make a reasonable estimate for how much longer it will take beyond July 2006 for that process to be completed."

The standard was issued in January 2001 after years of work by the Steel Erection Negotiated Rulemaking Advisory Committee, a panel created specifically to write it. The panel wanted slip-resistant coatings included because of evidence workers were slipping and falling when working on painted or coated structural steel surfaces that were wet from rain or condensation. There was debate all along whether these coatings were technically feasible. Appendix B, "Acceptable Test Methods for Testing Slip-Resistance of Walking/Working Surfaces," lists two acceptable test methods to meet the 29 CFR 1926.754(c)(3) slip resistance provision: Standard Test Method for Using a Portable Inclineable Articulated Strut Slip Tester (ASTM F1677-96); and Standard Test Method for Using a Variable Incidence Tribometer (ASTM F1679-96). OSHA delayed the provision's effective date by five years, until July 18, 2006, because it expected the methods to be fully supported by that date. The agency has chosen not to set a three-year additional delay (suggested by the International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers) or to modify the standard by adding an exception to 1926.754(c)(3) where employees use fall protection at all heights.



Officials with the American Institute of Steel Construction Inc. (AISC) said that they agreed with OSHA's position to withdraw the standard since without adequate and consistent measurement, which is not currently possible, any standards become meaningless. Stated AISC President Roger Ferch: "While AISC is a strong supporter of measures that improve the safety of steel erection, we opposed these provisions because there was no reliable method of testing available."

The January 2001 slip-resistance provision was challenged in the U. S. Court of Appeals for the D.C. Circuit by the Steel Coalition and the Resilient Floor Covering Institute. On April 3, 2003, OSHA entered into a settlement agreement with those petitioners. In that agreement, OSHA agreed to provide the petitioners and other interested parties with a further opportunity to present evidence on the progress that has been made on slip resistant coatings and test methods. OSHA

agreed to then evaluate the evidence in the expanded record on these topics and, based on the entire rulemaking record issue a final rule, not later than Jan. 18, 2006, reaffirming, amending, or revoking the requirements.

The *Federal Register* notice can be accessed at [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=FEDERAL\\_REGISTER&p\\_id=18497](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=18497).

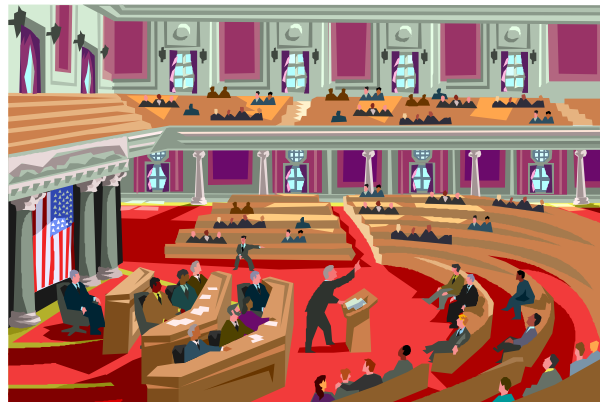
Additional information can be found on OSHA's Steel Erection page at <http://www.osha.gov/steelerection>.

## Enzi pushes OSHA legislation in Senate

In November 2005, Sen. Mike Enzi, R-WY, chairman of the Senate Health, Education, Labor and Pensions Committee, introduced a package of bills he said would assist OSHA in combating workplace injuries and illnesses. Enzi said the three bills would authorize OSHA to implement voluntary safety initiatives to provide relief from what he called an “inspect-and-fine enforcement mindset.” The measures expand on the workplace safety programs Enzi developed previously, including the SAFE Act of 2004. “Cooperation, not confrontation, is essential in making our workplaces safer. The notion that employers care little about worker safety, or are prepared to sacrifice worker health in the pursuit of profit, is a dangerous myth,” Enzi said.

According to Enzi, the bills reward businesses with temporary waivers from fines when they seek advice on correcting safety hazards from properly certified consultants, and include targeted benefits for small businesses that allow them to recoup attorneys’ fees from lawsuits in which they prevail against the government following an OSHA claim.

According to Enzi, the bills include:



**The Occupational Safety Partnership Act (S. 2065)**, which contains provisions that encourage employers to engage the services of third-party safety consultants; extend the benefits of initiatives, such as the Voluntary Protection Plan to smaller employers; increase the level of government outreach and technical help to employers seeking assistance; promote greater understanding of workplace safety issues through a cross-training and exchange program between OSHA and the business community; and remove legal barriers for employers to establish drug and alcohol testing programs.

**The Occupational Safety Fairness Act (S. 2066)**, which contains provisions that provide for the recovery of attorneys’ fees by small businesses that win lawsuits against the government in

an OSHA claim; increase the size of the Occupational Safety and Health Review Commission to ensure the issuance of more timely results; return the Review Commission to the status of a fully independent body; create flexibility into the Occupational Safety and Health Act of 1970 by empowering inspectors to weigh the actual safety of an individual workplace over one-size-fits-all regulations; and allow OSHA to issue citations and impose limited fines on employees that violate rules and procedures regarding the use of company-supplied personal protective equipment.

**The HazCom Simplification and Modernization Act (S.2067)**, which contains provisions that would provide for the simplification of current hazard communication standards; create a commission designed to review and make recommendations regarding the implementation of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals; hazard communication; and a variety of related issues.

In S.2065, a provision likely to receive stakeholder scrutiny is the proposal to allow OSHA to certify third-party consultants for workplace audits. Currently, OSHA Special Government Employees assist OSHA personnel with audits through the Voluntary Protection Program, but no provision exists for fully placing inspections into the hands of a third party.

Under Enzi's plan, employers who use the services of third-party consultants would receive a certificate of compliance and would be exempt for two years from any civil penalties prescribed under the OSH Act, although OSHA's authority to "inspect and investigate workplaces covered by a certificate of compliance" would not be usurped, according to the legislation.

"The third-party program is a compliance initiative, not a substitute enforcement mechanism. Third-party consultants are not empowered to issue citations," said Craig Orfield, HELP Committee spokesperson. Orfield said Enzi's proposal does not provide for training of third-party consultants, but would require accreditation by the Secretary of Labor, who "may rely on various state licensures, substantial relevant experience, and/or accreditation by nationally recognized private health and safety organizations as the criteria for individual certification."

The cost of retaining the consultant would be completely paid for by the participating employer, Orfield said. Labor unions traditionally have been opposed to such programs, claiming they take the teeth out of enforcement. Jackie Nowell, director, occupational safety and health for the Washington-based United Food and Commercial Workers, said more attention should be paid to enforcement targeting in order to inspect more highly hazardous workplaces. "Rather than Congress trying to find way around OSHA enforcement, the pressure ought to be on OSHA to do a better job at targeting," Nowell said. "They spend the bulk of their time where they are not getting the best bang for their buck."

## ACGIH® BOARD RATIFIES 2006 TLVs® AND BEIs®

On January 31, 2006, the ACGIH® announced today that its [Board of Directors](#) ratified the 2006 Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs®). The [Board](#) also approved recommendations for additions to the [Notice of Intended Changes \(NIC\)](#).

## Hearing Forecasts Intense MSHA Focus on Rescue

Look for MSHA to stay intensely focused on underground mine rescue technology and practices during the next few months, when the agency says incidents tend to rise as mines reopen after the winter. That's the message from questions and answers at the Jan. 31 confirmation hearing by the U.S. Senate Health, Education, Labor and Pensions Committee for both Edwin G. Foulke Jr. as OSHA administrator and Richard Stickler as MSHA chief. It was routine, except that the recent mine fatalities in West Virginia and Kentucky dominated the questioning. (Neither agency gets much attention on Capitol Hill, but it's safe to say Foulke would have faced the lion's share of questions rather than Stickler, if January hadn't been so deadly for coal miners.)

MSHA has already asked for stakeholders' input on better rescue technology, as Stickler testified yesterday. Ray McKinney, MSHA's administrator for Coal Mine Safety and Health, also recently sent a helpful Program Information Bulletin to underground coal mine operators, unions, and equipment manufacturers. It clarifies the basic requirement for underground coal mine operators to test and maintain each fire suppression system installed on diesel-powered equipment and fuel transportation units in accordance with the manufacturer's recommendations, as required by 30 CFR 75.1911(i).



The bulletin said that section aims to ensure the people conducting inspections and maintenance on fire suppression systems on diesel-powered equipment are properly trained to perform such work and have sufficient knowledge to determine whether the system is functioning properly. "A provision within a fire suppression system manufacturer's recommendations restricts and limits the inspection and maintenance of the system to the manufacturer's personnel, authorized distributor personnel, or persons designated by the manufacturer or authorized distributor. However, it appears that neither the manufacturer nor the authorized distributors provide training or designate mine operator's employees to perform the inspections and maintenance of the system," it says. The bulletin spells out the mine operators' compliance responsibilities.

## Nationwide Study Describes Working Conditions Of Day Laborers

In what researchers say is the first-ever national account of America's day laborers, a new study documents workplace conditions including violence at the hands of employers, withheld wages and situations so dangerous that it is not unusual for them to be sidelined for more than a month with work-related injuries or to work for weeks on end in pain.

Organized by social scientists from the University of California, Los Angeles (UCLA), the University of Illinois at Chicago (UIC) and New York's New School University, "On the Corner: Day Labor in the United States" presents findings from a survey of 264 hiring sites in 143 municipalities in 20 U.S. states and the District of Columbia.

"The goal was to document a population that, though quite visible on the corners of U.S. cities, is poorly understood by the public and by policy makers," said Nik Theodore, an assistant professor in the Urban Planning and Policy Program at the University of Illinois, Chicago, and one of the study's three lead authors. "We hope to inform policy debates so that decision-makers can devise thoughtful and effective strategies for resolving many of the problems that day laborers face."



Three years in the making, the report includes a national count of U.S. day laborers, little-known characteristics of these workers' backgrounds and aspects of their working conditions across five U.S. regions: the West, Midwest, Southwest, South and East.

"Day labor has been thrust into the public consciousness, but we're concerned that the debate has gone on without an understanding of what gives rise to the phenomenon or what the many downsides are to work in this field," said Abel Valenzuela, a UCLA social scientist and study co-author.

Among the findings:

- Once contained to ports-of-entry cities along the East and West coasts, day labor is now a nationwide phenomenon, spilling into small and rural towns throughout America, including the South and Midwest.
- Wage theft is the most common abuse suffered by day laborers, with nearly half of all workers having been denied payment in the two months prior to the survey.
- Just over three-quarters of day laborers are undocumented immigrants, meaning that the share of American citizens working in day labor is much higher than commonly supposed and that day laborers account for only a small fraction of the estimated 7- to 11-million undocumented immigrants in America today.

Valenzuela, Theodore and New School economist Edwin Meléndez directed teams of surveyors during July and August 2004 as they interviewed 2,660 randomly selected day laborers at 264 hiring sites across the nation.

Interviewers asked about the workers' educational backgrounds, family lives, occupational histories and experiences as day laborers, including injuries sustained on the job.

In the two months leading up to the survey, 44 percent of day laborers were denied food, water and breaks; 32 percent worked more hours than initially agreed to with the employer; 28 percent were insulted or threatened by the employer; and 27 percent were abandoned at the worksite by an employer.

"Coming into the study, we knew that the low-wage market is rife with violations of basic labor standards, but we still found the statistics shocking and disturbing," said Theodore, who also is the director of UIC's Center for Urban Economic Development.

Day laborers suffered violence at the hands of employers, fellow day laborers and bands of youths who see easy marks in the workers who are paid in cash for a day's work.

"I don't know of any other occupation so susceptible to so many abuses," Valenzuela said.

In the year leading up to the study, 20 percent of day laborers were injured on the job, and of those two-thirds missed work as a result. In fact, accidents sidelined injured workers for an average of 33 days and caused them to work in pain for an average of 20 days. More than half did not receive the medical care they needed for the injury, either because the worker could not afford health care or the employer refused to cover the worker under the company's workers' compensation insurance.

The Midwest was found by the researchers to be the most risky in almost every category. Also with the highest overall injury rate, the region's laborers were the most likely to face physical risk. About 92 percent said they considered their work to be dangerous.

"The dangers and injuries in the Midwest may have to do with the fact that roofing jobs are undertaken at significantly higher rates than in the other regions," Theodore said.

The researchers call for greater worker protections, better monitoring of safety conditions and increased access to legal services to adjudicate workers' rights violations.

"Many day laborers believe that avenues for enforcement of labor and employment laws are effectively closed to them," Valenzuela said. "This belief is reinforced by the general climate of hostility that exists toward day laborers in many parts of the country."

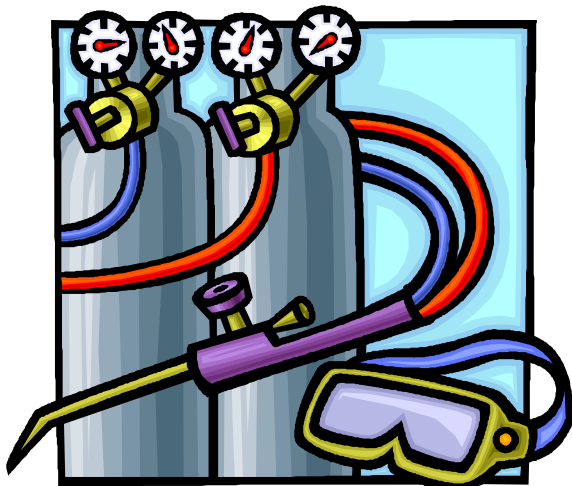
The researchers also advocate support for strategies that can help day laborers make the transition from the informal economy into better jobs and what the report calls realistic immigration reform, including the normalizing of the immigration status of undocumented workers.

"Employers are often able to deter workers from contesting labor violations by threatening to turn them over to federal immigration authorities," Theodore said. "Even when employers do not make these threats overtly, day laborers, mindful of their undocumented status, are reluctant to seek recourse through government channels. We want to change that."

Additional information on "On the Corner: Day Labor in the United States" can be found at <http://www.sscnet.ucla.edu/issr/csup/index.php>.

## CSB Calls For Special Precautions In Handling Acetylene

On Jan. 26, the U.S. Chemical Safety and Hazard Investigation Board (CSB) issued a safety bulletin, warning acetylene gas producers to take special precautions in handling this potentially dangerous product. The [safety bulletin](#) contains safe handling guidelines as well as CSB findings and recommendations from a year-long investigation into a powerful explosion that killed three workers and injured a fourth at the Acetylene Services Co. (ASCO) in Perth Amboy, N.J., on Jan. 25, 2005. The CSB has also issued and posted on its web site a [Video Safety Bulletin](#) on the incident.



CSB investigators found that a combination of factors resulted in acetylene flowing backward from the company's acetylene production generator through water pipes and out of an open drain valve into a shed. The highly-explosive gas built up to a dangerous level and likely was ignited when it reached the hot surface of the shed's propane space heater. Three workers shoveling snow near the shed -- constructed of wood panels built around six recycled-water tanks -- were killed in the powerful blast, and a fourth worker was seriously injured.

CSB Board Member Gary L. Visscher, who accompanied the investigation team to the scene when the accident occurred, said, "The tragic accident at ASCO points to how important it is to have comprehensive operating procedures, to train workers in those procedures, and to have effective measures in place to prevent the backflow of flammable gases. The CSB is urging acetylene producers and handlers to review the safety bulletin and examine their systems and safety procedures to prevent this kind of accident from occurring again."

The safety bulletin notes that water pipes at the facility ran between the acetylene generator and large outdoor tanks attached to the shed, and included a drain valve. Water pressure and a safety device called a check valve normally prevented acetylene from backing into the shed. Operators began generating acetylene the morning of Jan. 25, 2005, using water from the city supply. CSB investigators concluded that this supply was shut off with the apparent intention of switching to

the recycled-water supply. The recycled-water valve was opened, but for reasons that could not be conclusively determined, operators did not actually switch on the flow of recycled water.

This left an open path from the acetylene generator to the shed's drain valve, which had been left open the night before to prevent the pipes from freezing in the cold weather. The check valve should have prevented the acetylene from flowing backwards through the pipes, but CSB investigators determined the valve contained a design flaw that made it susceptible to failure. Rather than seating properly and sealing off acetylene, a rubber plug in the valve hung up at an angle, allowing acetylene to easily flow backwards through the check valve.

Investigations Manager Steve Selk said, "Several situations combined to cause this tragedy, including the unsafe location of the pipe drain, a lack of procedures that allowed the recycled-water valve to be opened without water actually running through the pipe, and the check valve design that made it susceptible to failure. Operators should review our safety bulletin and focus attention on hazards that can be deadly."

The CSB safety bulletin urges operators to maintain up-to-date operating procedures; use checklists; train on the procedures; relocate vents to safe, outside locations; test critical valves and ensure that enclosures, such as sheds that contain hazardous materials, meet national fire code standards.

In addition, CSB issued formal recommendations to the companies involved and to OSHA. The CSB recommended ASCO implement an effective process safety management program and include written checklists that are understood by workers; Rexarc International Inc., the manufacturer of the check valve, was urged to inform other customers about the ASCO incident, recommend actions to ensure the valves are working safely, and to replace check valves in service with ones that will operate more reliably. The CSB recommended that OSHA remove obsolete information from its Acetylene Standard (29 CFR 1910.102), and update it.

For additional information, go to <http://www.csb.gov>.

## **New OSHA Guidelines Seek To Help Reduce Motor Vehicle Crashes**

OSHA, the National Highway Traffic Safety Administration (NHTSA) and Network of Employers for Traffic Safety (NETS) have developed new guidelines to help employers and employees to reduce motor vehicle crashes.

"Motor vehicle crashes are costly to employers and employees," said Acting Assistant Secretary of Labor for OSHA Jonathan L. Snare. "This new guidance document will show companies how safe-driving practices and safety-conscious behavior can help employees avoid tragedy."





## Research Study: Work Stress Leads to Heart Disease, Diabetes

Stress at work is an important risk factor for the development of heart disease and diabetes, according to a study published online on Jan. 18 by the *British Medical Journal*.

Stress at work has been linked with heart disease, but the biological processes were unclear. This study provides new evidence for the biological plausibility of the link between work stress and heart disease.

Researchers examined the association between work stress and the metabolic syndrome (a cluster of factors that increases the risk of heart disease and type 2 diabetes) in 10,308 British civil servants aged between 35 and 55, over a 14 year period.

Work stress was measured on four occasions between 1985 and 1999. Components of the metabolic syndrome, such as obesity, high blood pressure, and high cholesterol levels, were measured between 1997 and 1999. Social position and health damaging behaviors, such as smoking, heavy alcohol consumption, and lack of exercise, were also recorded.

A dose-response relation was found between exposure to job stress and the metabolic syndrome, even after adjusting for other risk factors. For example, men with chronic work stress were nearly twice as likely to develop the syndrome than those with no exposure to work stress. Women with chronic work stress were also more likely to have the syndrome, but they formed a small group.

Both men and women from lower employment grades were more likely to have the syndrome, confirming previous reports that the syndrome has a social gradient.

The association between the metabolic syndrome and exposure to health damaging behaviors was stronger among men than women. Poor diet (no fruit and vegetable consumption), smoking, heavy alcohol consumption, and physical inactivity were all associated with higher odds of the syndrome.

Despite some study limitations, a dose-response relation exists between exposure to work stress and the metabolic syndrome, even after other risk factors are taken into account, say the authors.

One possible explanation is that prolonged exposure to work stress may affect the nervous system. Alternatively, chronic stress may reduce biological resilience and thus disturb the body's physiological balance (homeostasis).

This study provides evidence for the biological plausibility of psychosocial stress mechanisms linking stressors from everyday life with heart disease, they conclude.

To view full paper, go to <http://press.psprings.co.uk/bmj/january/workstress.pdf>.



## **Businesses' HIV/AIDS Concern Growing, But Few Preparing**

Businesses worldwide increasingly believe HIV/AIDS will affect their operations in the next five years, but few companies outside the hardest-hit countries have developed policies to combat the virus, the new "Business & HIV/AIDS: A Healthier Partnership?" report for the World Economic Forum finds. The survey underlying the report involved more than 10,000 executives in 117 countries and the Harvard School of Public Health.

Only 9 percent of respondents said they have conducted a quantitative HIV/AIDS risk assessment. Only where the national prevalence of HIV/AIDS exceeds 20 percent do most firms have HIV/AIDS policies in place. "In hard-hit settings and in some wealthy regions, firms have begun to address discrimination based on HIV status. Elsewhere, this issue has been largely neglected in surveyed firms' policies," says the report's executive summary.

The challenges for businesses considering a response to HIV/AIDS are these, the report says: assessing the threat, developing a response, non-discrimination, long-term care, cooperative efforts with governmental and other organizations, and protecting employees through workplace efforts.

Additional information can be accessed at  
[http://www.weforum.org/pdf/Initiatives/gbs2006\\_summary.pdf](http://www.weforum.org/pdf/Initiatives/gbs2006_summary.pdf)

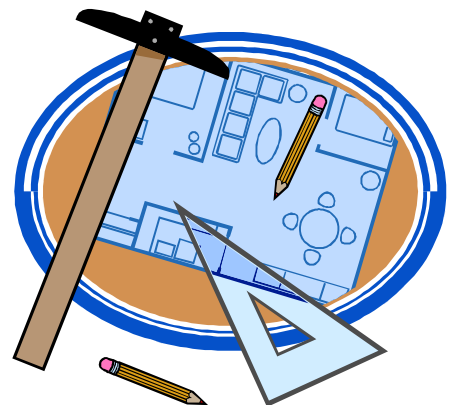
## **Tips: Plan Ahead To Stay In Business**

Oregon OSHA requires employers to provide a safe and healthful workplace for their employees. Those requirements including having emergency plans in place to address fires, disasters and weather emergencies that could occur during work.

While a number of hazards exist year-round, winter in Oregon brings a higher risk of weather-related emergencies, including winter ice storms, power outages and a higher likelihood of lowland floods. Employers that plan ahead to keep workers safe in an emergency are also employers that are better equipped to survive a natural disaster and continue operations.

Employers should focus on three objectives when planning for emergencies:

- Protecting the safety of your workers.
- Planning for business continuity during a crisis.
- Finding resources to help you plan ahead.



## **Step One: Protect Your Workers**

Follow these tips to make sure your employees can stay safe during emergencies, including workplace incidents and winter weather events:

- Communication is vital before, during and after an emergency. Include emergency preparedness information in newsletters, bulletin boards, all-staff e-mails and other internal communication tools.
- Consider setting up a telephone-calling tree, a password-protected page on the company Web site, an alert message sent to home e-mail accounts or an answer-only voicemail recording to provide information to employees in an emergency.
- Provide workers with wallet cards detailing instructions, including phone numbers and Web sites, for getting company information during an emergency. Information about closures and delays can protect workers from being exposed to unnecessary traffic hazards.
- Establish a process for safely evacuating your facility, if appropriate, and coordinate a safe area where workers can be accounted for.
- Once snow has fallen or ice has formed, make sure that parking lots and walkways are cleared of those hazards. Make sure heavy snow accumulations are removed from roofs to not impact structural safety of the building.
- Identify co-workers in your organization with special needs. Train people willing to help those workers with special needs get to safety and be sure they are physically suited to their responsibility. This is particularly important if a worker needs to be lifted or carried.
- Plan how you will alert people who cannot hear an alarm or instructions during an emergency.

## **Step Two: Protect Your Business Plan**

- Carefully assess your company's external and internal functions to determine staff, materials, procedures and equipment that are absolutely necessary to keep the business operating.
- Identify operations critical to survival and recovery. Ensure that time is built in to your plan to assess the safety of production equipment or working conditions following an incident.
- Include planning for emergency payroll continuity, expedited purchasing procedures and accounting systems to track and document costs in the event of a disaster.
- Establish procedures for succession of management. Include at least one person who is not at the company headquarters, if possible.
- Create a contact list for existing business contractors, vendors and other key members of your supply chain to contact in an emergency. Keep this list with other important documents in your emergency supply kit and at a secure off-site location.
- Consider if you can run the business from a different location (or from your home) if your building, plant or store is not accessible. If appropriate, develop relationships with other companies to use their facilities in case an incident makes your location unusable. Ensure that your back-up location can provide a safe work environment for your employees.

- Include a broad cross-section of people from throughout your organization for your emergency team. Include workers from all levels in planning and as active members, but focus on those with expertise vital to daily business functions. This team will likely include skilled technical specialists as well as company leaders.
- Define incident-management procedures and individual responsibilities in advance. Make sure those involved know what they are supposed to do, and train others who can serve as a back up.
- Talk with first responders, local emergency managers and utility providers about your plan.
- Review your emergency plans annually. When you hire new employees or when there are changes in how your company functions, update your plan and inform your people.

### **Step Three: Get Help With Your Emergency Plan**

Oregon OSHA has developed a free 28-page guide to emergency planning in the workplace called "Expecting the Unexpected". The guide introduces employers to incident-management systems for the workplace, and explains factors to consider when planning for an emergency. The guide also addresses how to plan for modern emergencies such as threats of violence and terrorism.

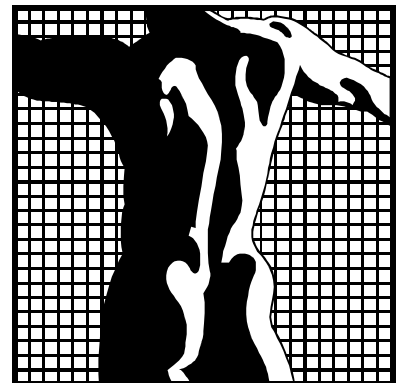
The guide is available in print, as a free download in the publications section of the Oregon OSHA Web site, <http://www.orosha.org>, or on CD-ROM.

### **Research Study: Low-Level Heat Wrap Therapy Improves Mobility in the Workplace**

The use of continuous low-level heat wrap therapy (CLHT) significantly reduces acute low back pain and related disability and improves occupational performance of employees in physically demanding jobs suffering from acute low back pain, according to a Johns Hopkins study.

"With recent concerns around the safety of oral pain medications, both patients and physicians are considering alternative treatment options for acute low back pain," said Edward J. Bernacki, M.D., M.P.H., associate professor of medicine at The Johns Hopkins University School of Medicine and the study's principal investigator. "The dramatic relief we see in workers using CLHT shows that this therapy has clear benefits for low back pain and that it plays an important role in pain management. Physicians and other health care providers in an occupational environment can tell patients that CLHT is a safe and effective alternative for treating acute low back pain."

In the study, 43 patients (age 20 to 62) who visited an occupational injury clinic for low back pain were randomized into one of two intervention arms: 18 patients received education



regarding back therapy and pain management alone, while 25 received education regarding back therapy and pain management combined with three consecutive days of CLHT for eight hours continuously (ThermaCare® HeatWraps). The heat wrap is a wrap worn over the lower back, under the clothing. It uses an exothermic chemical reaction to deliver a low level of topical heat for at least eight continuous hours. All groups were assessed for measures of pain intensity and pain relief levels four times a day during the three treatment days, followed by measures for pain intensity and pain relief levels obtained in three follow-up visits on days four, seven and 14 from the beginning of the treatment. In addition, other measures were obtained and assessed by the Roland-Morris Low Back Disability Questionnaire and the Lifeware Musculoskeletal Abbreviated Assessment Form.

Patients who received CLHT for low back pain over a three-day period in conjunction with pain management education experienced rapid and significant reduction in pain intensity and greater pain relief when compared to patients who only received pain education. Patients on CLHT showed a 52 percent reduction in pain intensity and a 43 percent improvement in pain relief within one day of treatment as compared to the reference group. Both pain intensity reduction and pain relief were maintained for the three days of treatment with CLHT at 60 percent and 41 percent, respectively. Additionally, the benefits of pain relief and pain intensity reduction were maintained at a significant level in the CLHT patients in a follow-up period on day 4 and day 14 after treatment was discontinued.

Low back pain is one of the most common and therefore costly medical problems in industrialized countries, according to Bernacki, who also directs the Hopkins Department of Health, Safety and the Environment. Approximately 50 percent of working-age people in the United States are reported to suffer from acute low back pain every year, and it is estimated that the annual productivity loss from this condition totals between \$20 and \$50 billion. While guidelines for treating back pain are available, little has been done to translate these recommendations into occupational management to prevent episodic disability and loss of productivity and to improve employee effectiveness in the workplace, notes Bernacki.

Edward J. Bernacki: <http://www.hopkinsmedicine.org/administrative/healthsafety.html>

## **SILVER RECOGNITION**

This isn't exactly a Safety meeting idea, but it IS a good idea that works on the "floor".

Try to spot people doing things right (rather than doing them wrong) and to give them an immediate token of appreciation. One way is to make up several Safety Thank-You cards on the computer, signed them, and attached a silver dollar to each of them. Carry them with you and give them to people who go above and beyond to be safe.

## **Safety Training Strategies – PPE Pop**

The purpose of PPE is to provide a barrier that prevents some hazard in the workplace from injuring the employee. Here's an interesting and effective approach to PPE (personal protective equipment) training. It's a cool attention-grabbing way to introduce a PPE safety meeting.

Take a balloon that you had previously blown up and ask the attendees to think of the balloon as themselves. Then take a push pin and tell them to think of it as a hazard in the workplace. Show them what happens when an unprotected person is exposed to a hazard. As expected the balloon popped quite loudly when the pin pushed into it.

Take another balloon that you previously inflated and put a small piece of scotch tape on it. (The tape was nearly invisible.) Next, place a small Post-it note that is labeled "PPE" and stick it onto the balloon. Next stick a push pin into the balloon making sure you stuck it where the scotch tape was hidden on the balloon. The balloon does not break even though there is a push pin visibly sticking into it. This should illustrate that PPE protects employees from hazards.

Go one step further with another balloon with no secret taped spot on it. This time put on a Post-it note that says "PPE", but make the note was torn and dirty. Stick a push pin through the balloon and it will naturally burst. This will illustrate that if a you do not take care of your PPE it may not protect you.

## **Safety Training/Meeting – Pencil Break Lesson**

You may want to try to get your point across about back safety by using an ordinary pencil to illustrate your message.

A pencil in the vertical position is quite strong as is your spine. But when you lift improperly your spine, in the horizontal position, like the pencil has very little strength and is easily damaged. You would illustrate this by holding an ordinary wooden pencil vertically and pounding it on a table. It has all kinds of strength because the pressure is from top to bottom just like bending my knees and keeping my spine straight while lifting.

With the pencil in the horizontal position however, you can (and do) easily break it into several pieces with only the fingers of one hand because the force is applied differently just as it is when you lift improperly.

**Safety Tidbits** (from "Safety Stuff" by Richard Hawk Inc. <http://www.richardhawking.com>)

- One reason why cats handle falls better than humans: Cats tend to fall at a relatively slow speed of about 60 miles per hour (wind resistance), compared with falling humans, who travel at about 120 miles per hour.
- History's deadliest cyclone was in 1970 in the Bay of Bengal and killed about 300,000 people.
- Boys, of all races, are 25% less likely to reach their first birthday than girls.
- For a person 19 or under and a licensed driver, his/her chances of having an accident this year: 28%.
- The hardest bone in the human body is the jawbone.
- The risk that someone who threatens to commit suicide will actually do it is 1-in-10.
- The use of a child restraint device reduces the chances of fatal injury to an infant under one year old by about 70%.
- Four million cells divide each second in a normal body.
- As a rule, if you can't carry on a conversation without raising your voice while standing 4 feet away from someone, the noise can damage your hearing.
- In terms of the pollution he or she will cause, one citizen in the U.S. is the equivalent to about eighty citizens in India.
- About half of all driving fatalities are due to driver violating traffic rules.