The
Newsletter
of The
Center To
Protect
Workers'
Rights



The Research, Training, and Service Arm of the Building and Construction Trades Department, AFL-CIO

PRESIDENT'S COLUMN

Responding to Storms With Safety Training

n September 2005, days after Hurricane Katrina devastated parts of four states, the Center to Protect Workers' Rights began working to ensure that construction workers who clean up and rebuild the region receive needed safety and health training.

Since September,
CPWR staff have been
on site tailoring training materials to the
region and providing
training - thus far to
more than 900 federal
agency officials and
building trades workers
in Louisiana. Most
recently, CPWR has
gotten the go-ahead



President Sullivan

to provide site-specific safety training for workers restoring damaged industrial facilities in the state.

The process has been intense. First, with the Building and Construction Trades Department, CPWR reached out to local building trades councils and unions, such as the Asbestos Workers, to offer support for local-union safety and health training.

By early November, after Hurricanes Katrina and Rita had struck, the National Institute of Environmental Health Sciences (NIEHS) asked CPWR to send trainers to Louisiana to help develop and provide training for federal agencies and cleanup or construction contractors. CPWR sent trainers to begin supporting work-related safety and health activities with NIEHS, OSHA, and other agencies. (The agencies have been assigning and deploying federal and other workers in the state.) CPWR conducted demonstration training sessions for OSHA, EPA, Army Corps of Engineers, and Federal **Emergency Management Agency supervisors** and directors.

In the meantime, NIEHS and other agencies quickly produced a booklet and PowerPoint presentation for workers,

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Helping Day Laborers Work Construction Safely

esearchers and worker advocates in New Jersey are developing a program to teach construction safety and health to Hispanic immigrant day laborers, a group at high risk in the workplace and underserved. The Rutgers University Occupational Training and Education Consortium, part of CPWR's consortium, is leading an effort to provide OSHA 10-hour training.

"The workers know the work is dangerous, but feel they must continue in order to send money home to their families," said Michele Ochsner, who heads the effort. Most of those who were surveyed as the program was being developed reported earning less than \$350 per week.

Nationwide, the work-related death rate for Hispanic construction workers is higher than for all construction workers. For day laborers, the hazards

increase because they may not know the work they're expected to do until they arrive at a job site where they receive no general or site-specific safety training.

The New Jersey project involves more than translation to Spanish; the building trades' Smart Mark 10-hour course and others already are in Spanish, mainly as presentations by an instructor. The new approach uses worker participation, allowing for a lot more interaction, Ochsner said. Problems are presented for discussion: On a support frame scaffold, what should you do if a brace is missing and there are no guardrails?

Also, more photos are needed to show equipment and work being discussed. Many day laborers from Latin America have limited reading skills in any language and are unfamiliar with construction workplaces and their culture in this country.

Thus far, the project has been refining the curriculum with 20 workers at each of four sites in central and northern New Jersey: Lakewood, Red Bank, Orange, and Dover. Six immigrant workers took a three-day workshop to prepare to be peer researchers and trainers.

What's striking, Ochsner said, is the workers take "ownership" of the lessons, reading to each other, asking lots of questions. "They focus on the training and are interested."

By fall 2006, courses should be available on evenings and weekends for workers seeking the OSHA 10-hour certificate and for others who may just want part of the training.

Rutgers is developing the training in partnership with New Labor, a worker advocacy nonprofit, and with the help of the New Jersey Laborers' Health and Safety Fund and Local 1030, in North Bergen.



Peer trainers Gustavo Vazques (at left), Alejandro de la Paz, and Francisco Valentin share ideas in a workshop at the Rutgers University Labor Education Center in New Brunswick.





Protecting Welders from Toxic Fumes

Whith the Plumbers and Pipefitters Union, the Center to Protect Workers' Rights has tested a lightweight portable ventilation unit to reduce metal fume exposures during welding. Welding in poorly ventilated areas can cause serious health risks, some long term.

Pipefitters, ironworkers, sheet metal workers, and boilermakers often weld. Other trades sometimes weld or do thermal cutting.

Manganese fume may cause neurological disorders similar to Parkinson's Disease, reproductive health effects, and other disorders. CPWR has docu-

mented high probabilities of overexposure to manganese and total fume among construction welders. Welding on stainless steel generates a type of chromium fume (hexavalent chromium or chrome 6) that is associated with lung cancer and occupational asthma. OSHA's new hexavalent chromium standard requires employers to reduce exposure to chrome 6 using engineering controls, such as local-exhaust ventilation.



Fred Weber, a union instructor, TIG-welds pipe during the evaluation of a portable local-exhaust ventilation unit.

The equipment tested weighs 33 lbs and has a filter efficiency rating of 99.97. A bell-shaped nozzle with a magnetic foot was used at the end of the hose to funnel fume into the vacuum.

An instructor from Local 120 in Cleveland performed stick welding of carbon and stainless steels, and tungsten inert gas (TIG) welding of stainless. The welder used a powered air-purifying respirator/welding hood. David Feldscher, an instructor, helped industrial hygienists collect personal air monitoring samples.

Use of the portable ventilation unit cut manganese exposure 4-fold during carbon steel

welding. The unit cut chrome 6 exposure levels 55% during stainless steel welding. Having proved that the equipment works in a controlled setting (at the union training center), CPWR plans to test the equipment in the field. We hope to hear from unions and contractors who may know of upcoming projects where this equipment could be tried. For information, call Pam Susi at 856-985-9300 or 301-495-8510.

Researchers Study Chromium in Cement

exavalent chromium, or chrome 6, is in construction materials such as, stainless steel, Portland cement, paint and abrasives, and refractory brick. Chrome 6 was what harmed neighborhood residents shown in the movie *Erin Brockovich*. Unfortunately, less attention has been given to the hazards faced by construction workers. The heavy metal increases the risk of lung cancer, asthma, and skin problems (allergic dermatitis) serious enough to force workers to leave the trades.

A Center to Protect Workers' Rights research team is finding reason for concern about hazards to workers, based on levels of chrome 6 found in a small sample of cements taken recently. This, even as a new OSHA rule to protect workers from chrome 6 excludes Portland cement.

CPWR, Harvard University, and the International Masonry Institute (IMI) are trying to see if workers who handle large amounts of dry Portland cement breathe in hazardous levels of chrome 6. To begin the research, in the last few months, IMI training centers from around the United States sent bulk samples of cement products

to CPWR, along with material safety data sheets for the products sent. CPWR had 12 samples from California, Illinois, Ohio, Massachusetts, Nevada, New York, and Texas analyzed; 5 of the 8 Portland cement samples had chrome 6 higher than 2 parts per million (ppm), with one of the samples at 27 ppm.

By contrast, some countries in Europe limit chrome 6 in Portland cement to 2 ppm to reduce dermatitis in workers.

The skin hazards are well known. The researchers will continue to study the lung hazard.

Protect Yourself

As much as possible, protect your skin, lungs, and eyes from chrome 6. When mixing, pouring, or other cement work can endanger your eyes, at least wear safety glasses with sideshields or goggles. If it's very dusty, wear tight-fitting unvented or indirectly vented goggles. Don't wear contact lenses when handling cement or cement products. See CPWR's hazard alerts on skin problems and eye injuries (in English and Spanish) at www.cpwr.com and www.elcosh.org.



Work Takes Its Toll on Roofers, CPWR and Roofers Union Find

PWR and the Roofers Union are studying how work-related injuries and illnesses lead to disability, retirement, or job changes for roofers. The first results of the study show a high rate of illnesses and musculoskeletal disorders, some limits on work that can be done afterward, and financial effects of the illnesses and lost worktime.

The study, led by Laura Welch MD, focuses on a sample of 989 roofers from among members of the union who were employed (full or part time) when the study began – or expected to be employed in the following 3 months. Roofers are of particular interest because (1) they have a high injury rate and more-severe injuries than most other construction workers and (2) large numbers of roofers quit the trade at all stages of their careers.

Confidential interviews were conducted in English and Spanish from May through December 2005. Questions covered these and other topics for the preceding 2 years: any serious medical condition or musculoskeletal disorders (MSDs), missed work or changes in job assignments that resulted, how often and for how

long did the roofer have any MSD symptoms, was the roofer able to work, and were there any resulting financial problems.

Sixty-nine percent of the participating roofers said they had at least one medical condition or musculoskeletal disorder, with 54% reporting at least one MSD and 42% at least one medical condition. The percentage suffering medical conditions increased with age, with 43% of participants reporting 2 to 9 conditions, while 29% reported 2 or more MSDs. Low-back/sciatica problems were the most common health problem; lung or breathing problems led the list of medical conditions. MSDs accounted for 7 of the 10 most-reported health problems.

Compared with the results of an interview survey of all U.S. occupations, the roofer numbers are high. For instance, low-back/sciatica problems affected 25% of the roofers, while 18% of the overall U.S. population reported low-back pain. And 15% of the roofers reported asthma

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Cutting Injuries and Silica Exposures

ometimes you can kill two birds with one stone. Construction contractors in Massachusetts have developed a way to reduce workers' injury risks and exposures to silica.

Workers often grind concrete residue from ceilings while standing on scaffolds or ladders. This "overhead" work holding up the 9-pound grinder and with the head bent back to look up can injure workers' necks, shoulders, and backs. Working from scaffolds and ladders puts workers at risk of falls. At the same time, unprotected exposure to silica, which is in concrete, can cause a crippling, sometimes-fatal lung disease, silicosis, and increase workers'

risks of getting lung cancer and tuberculosis.

S&F Concrete, based in Hudson, Mass., has been using what they call a giraffe for years to reduce the ergonomic hazard. The homemade gadget has welded tubing with wheels and a pivot arm to hold the grinder at ceiling height.



A cement finisher wears a respirator while testing dust control on an overhead grinder.

A worker pushes the giraffe around the area and can pivot the grinder against the ceiling without having to stand for hours with his/her head bent back to look up or holding his/her arms above shoulder height. The worker doesn't have to stand on a ladder or scaffold to do this. The giraffe was developed about 10 years ago by a foreman, said Susan Shepherd, a student at the University of Massachusetts Lowell's Construction Occupational Health Project.

But there's one more problem. The grinding pro-

duces a cloud of concrete dust. The grinder operator must wear a cartridge respirator, which requires fit-testing and a complete respiratory protection program, under OSHA rules. To protect other workers from the dust, all other

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BIIII news

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Building Trades National Medical Screening Program Expands to Include 15 DOE Sites

Starting in 1996, the Center to Protect Workers Rights (CPWR) began coordinating a national program that provides free medical screenings for the more than 700,000 building trades workers whose service to their country's nuclear weapons programs in World War II and afterward put them at risk for life-threatening ailments. CPWR is the research and development arm of the Building and Construction Trades Department, AFL-CIO. The Building Trades National Medical Screening Program—http://btmed.org—was formed in part by merging six site specific medical screening programs and adding nine new DOE sites to the covered population. With Department of Energy (DOE) funding mandated by Congress, the program has grown to 15 sites nationwide. More than 12,000 former workers have been screened. It is the largest medical study of older construction workers in the United States.

COVERED DOE SITES. Hanford, in Washington; Oak Ridge, Tennessee; Savannah River, in South Carolina; Amchitka, Alaska; the Pinellas Plant, in Florida; INEEL, in Idaho; Paducah, Kentucky; Kansas City, Mallinckrodt, and Weldon Springs, in Missouri; Brookhaven, in New York; Rocky Flats, in Colorado; and Fernald, Mound, and Portsmouth, in Ohio.

Local building trades unions reach out to inform members about the program. Each participant first completes a work history interview, which is conducted by a building trades worker who has received special training. The participant is then offered a free medical screening examination with tests for any exposures identified in the interview. Some participants are referred for further medical attention. Construction or maintenance workers in the weapons program who may have had significant exposures to asbestos, beryllium, cadmium, chromium, lead, mercury, noise, radiation, silica, solvents or other health hazards are eligible.

So far, the screenings have:

- Determined that construction workers are at significant risk for illnesses as a result of having been exposed to health hazards in DOE facilities. (This program was the first to document that construction workers are at risk for beryllium disease.) As a result, the Department of Energy is emphasizing health protection during such work, including maintenance, repair, renovation and demolition.
- Identified medical problems that were untreated or poorly treated and, as a result, has enabled thousands of workers to get better medical care.
- Provided part of the evidence that led Congress to enact the Energy Employees Occupational Illness Compensation Program Act in 2000, and to include construction and maintenance workers in this program.

"The medical exam was very helpful and determined the amount of hearing loss I suffered. I am glad to hear they are offering re-screenings and I am sure going to make an appointment to go in for another test because even though you don't have anything today doesn't mean you won't have anything tomorrow."

Dennis Rocque, Electrician Local 1579, Savannah River

"It's a thorough program probably the most complete physical exam I've ever taken. And everybody I've talked to seems pleased with it. Very beneficial to working men and women who have been exposed on DOE sites."

Danny Hatfield, Asbestos Worker Local 46, Oak Ridge

"All people who worked with nuclear energy should have a medical screening. It's a positive, very easy experience."

Paul Prince, Plumbers & Pipefitters Local 521, Paducah, Fernald & Portsmouth

"I went in for a physical exam and a mass in my lungs was found. I also took a hemocult test which indicated that I needed a colonoscopy. If anything is found from the colonoscopy it will be at an early enough stage that it can be taken care of. I am very pleased that they are so quick."

Fred Dopp, Allied Painter and Trades Local 764, INEEL

For more information on the program please call 1-800-866-9663 or check us out on line at http://www.btmed.org.



BTmed.org Facilitates Program Access

The Building Trades National Medical Screening Program maintains a comprehensive website—www.btmed.org—to inform DOE construction workers of the program's benefits and allow the workers to register for a free medical screening. The website provides information about the requirements for participation, how the program works and how to participate. Workers will also find information on the EEOICPA, a law passed to provide compensation to those diagnosed with an illness related to work performed on a DOE site, and whom to contact about filing a claim.

B.T. National Offers Free Re-Screening

Former DOE construction workers who have already been screened for possible work-related illnesses by the Building Trades National Medical Screening Program may be eligible to receive a free re-screening. The re-examination will be offered to participants three years from the date of their initial screening exam as part of Hanford, Savannah River, Oak Ridge, and Amchitka construction workers' screening programs. The objective of the re-screenings is to detect possible health problems that may have developed since the first medical screening. If you are a former construction worker who has participated in a medical screening at one of the four previously mentioned DOE sites, please contact 1-800-866-9663 about the free medical re-screening.

Building Trades Medical Screening Sites



Building Trades Outreach Office Locations and Staff

Amchitka Contact: Don Weber Phone: 1-888-827-6772

Mound Contact: Bud Lipinski Phone: 937-222-8920 Brookhaven Contact: Angela De Vito Phone: 631-813-2725

Oak Ridge Contact: Kim Cranford Phone: 1-888-464-0009 Fernald Contact: Lou Doll Phone: 513-681-0864

Paducah Contact: Joe Hudson Phone: 270-443-2850 Hanford Contact: Elaine Monlux Phone: 509-542-9347

Portsmouth Contact: Ron Bush Phone: 740-353-8808 Idaho National Laboratory (INEEL) Contact: Dan Obrey Phone: 208-233-4611

Rocky Flats
Contact:
Dwayne Adkins
Phone:
303-744-6169 ext. 11

Kansas City Plant Contact: J.J. Jones Phone:

816-333-3020

Savannah River Site Contact: Charles Jernigan Phone: 706-722-7272

For Pinellas, Mallinckrodt and Weldon Springs Call Toll Free 1-800-866-9663



CPWR Training Minority Workers In Safety, Skills in Gulf States

PWR has begun post-hurricane construction training for minority workers in New Orleans. Classes started in March, with funding from the National Institute of Environmental Health Sciences.

Since 1999, CPWR and Carpenters' Union staff have offered a mix of training in life skills, basic construction skills, and environmental work in New Orleans and elsewhere to members of minority groups who want to enter the construction trades. In the aftermath of Hurricanes Katrina and Rita, the goal is to bring 100 trained apprentices into building trades unions in the region by September 2006; similar training is planned for Mississippi and Alabama, as well.

For some trainees, a 40-hour course will briefly cover safety-and-health orientation for the area (after the hurricanes) and hazardous waste

worker training. Other trainees will take a 4-week course that includes, in addition, an introduction to construction skills.

Surprisingly, most applicants are seeking the 4-week course, said Kizetta Vaughn, director of CPWR's program. "This shows a need for skills training in the region."

The total number trained will depend on demand and employment opportunities, she added.

Effects of Roofer Injuries

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or chronic obstructive pulmonary disease, compared to 9% of the overall U.S. population.

The participants linked most of their MSDs – 772 of 1,053 – to work-related injuries. And 77% of the roofers with low-back problems – 221 of 287 cases – said they were work-related, although less than half, or 85, filed a workers' compensation claim. In the interview survey of all occupations, 23% of laborers with back pains said their back pains were work-related.

Nearly one-third (31%) of the participants said a medical condition or MSD had caused them to miss work in the preceding 2 years.

This group continues to be at risk. Of the 27% of roofers who had both an MSD and medical condition, 25% reported they were in poor or fair health and 39% had dipped into savings in the past year, compared to 5% and 24%, respectively, among roofers without an MSD or medical condition.

The study, funded by the National Institute for Occupational Safety and Health, is continuing to learn more about the personal, financial, and social effects of work-related injuries and illnesses.

New Reports from CPWR On cpwr.com and elcosh.org

Xiuwen Dong, Yurong Men, and Elizabeth Haile. Work-Related Fatal and Nonfatal Injuries among U.S. Construction Workers, 1992-2003. 2005.

Sue Dong, CPWR Data Center director, analyzes trends in rates of deaths (from injuries) and of injuries and illnesses and finds the overall construction death rate has remained fairly constant (with a slight decrease), while the rate of reported injuries and illnesses has declined steadily. Shows trends for bricklayers, carpenters, construction laborers, electrical power installers, electricians, excavating/ loading machine operators, rader/dozer/scraper operators, ironworkers, operating engineers, painters, plumbers, roofers, truck drivers, and welders/cutters.

Michael Behm. An Analysis of Construction Accidents from a Design Perspective. 2006.

Finds that design improvements could have reduced the hazard in about one-third of 450 cases analyzed.

Protecting Yourself While Helping Others

(continued from page 1)

Protecting Yourself While Helping Others, and CPWR translated it to Spanish. (Go to www.cpwr.com and look under What's New.) CPWR trainers toured and photographed the area, so as to add site-specific information to training materials – about hazards, such as, unstable terrain, use of power saws, mold, heat stroke, and poisonous snakes. Our trainees

learned crews had found 40 healthy water moccasins in just one damaged home.

On request, CPWR has also developed and delivered training modules that include driving safety, electrical safety, and helicopter rigging safety.

CPWR is ready to provide the training in Spanish, as needed.

When federal agency staff identify new needs, CPWR will continue to respond. As always, we want to make sure construction workers know how to most effectively help those in need while working safely.



Enhancing Training for Immigrant Workers

very summer, union trainers in the CPWR consortium meet to exchange information and learn ways to improve the courses they provide in hazardous waste abatement and other subjects. This year, the program for 80 trainers from 10 unions had a twist – a focus on immigrant workers in our industry. The 2005 Trainer Enhancement, in San Diego, featured a visit to a hazardous waste site in Tijuana and presentations by trainers and academics who work with Mexican immigrant construction workers in the United States and Mexico. In addition to lead and asbestos refresher sessions, the agenda included cultural differences in training.



Trainers in a workshop roleplay talking to immigrant construction workers about safety and health on the job. Left to right: Gary Von Behren, Painters' Union; John Totten, Bricklayers; Kevin Elliott, Plasterers; Benhamin Amodeo, Electrical Workers; and Mike Kassman, Bricklayers.

Grinding Away Silica, Injuries

Continued from page 3

work nearby had to be scheduled around the grinding or the grinding had to be done at night. Through the efforts of Mike Joel, Safety Director for Suffolk and Steve Monteiro, Superintendent for S & F Concrete, a grinder with a dust collector was found and mounted onto the giraffe. After a week or two of trial and error, the system was up and running daily in January 2005.

The grinder did burn out more often than the old one, but has reduced much of the dust. S&F Concrete says the cost of the equip-

ment is covered by greater productivity and reduced scheduling problems. The grinder operators, members of Plasterers and Cement Finishers Local 534, no longer have to wear a respirator and other workers may work nearby.

Other attempts to reduce workers' exposure to dust and silica have been developed by University of Iowa researcher William Heitbrink (see On Center, April 2005) and by workers in Boston (at www.elcosh.org, search Big Dig), who were monitored by researchers from U Mass Lowell, part of the CPWR-NIOSH research consortium.

In the case of the giraffe, the researchers measured dust in the air where workers are operating it with the dust collector. Respirable (breathable) dust measured 0.094 mg/m³ and the respirable crystalline silica was "not detectable," Shepherd said.

The giraffe with the dust collector is a good example of a subcontractor and general contractor working together to solve a problem to help protect workers' health. The researchers are continuing to help contractors and unions develop dust controls for drilling and chipping concrete. To learn more, contact susan_shepherd@student.uml.edu.

Use Ladders Safely: "Don't Fall for It"

PWR has a new DVD for workers about ladder safety, plus four short tip sheets in English and Spanish. The materials are part of a campaign, known as Don't Fall for It, in New Jersey. The 10-minute DVD, also available as a video cassette, shows safe procedures on ladders and includes interviews with survivors of falls from ladders (or their survivors). "Don't Fall for It," begun in 2003, is modeled on a safety campaign in Great Britain that has worked to reduce construction injuries.

The CPWR effort is focusing on 350 workers in New Jersey – their knowledge and attitudes about worker safety. In 2006, the researchers will decide whether to expand the program to other states.

About 400 workers are killed in the United States each year by falls from ladders. CPWR is working on the campaign with the New Jersey Building an Construction Trades Council and the state Department of Health and Senior Services. Questions? Contact jgittleman@cpwr.com.



OSHA Rule Not Enough for Construction

SHA has issued a standard for hexavalent chromium (or chrome 6) that does not protect construction workers enough, in the view of the Center to Protect Workers' Rights. Chrome 6, a heavy metal, can cause lung cancer. Painters who apply and blast paints that contain chrome are exposed to high levels. So are welders who do hot work on stainless and specialty steels. Chrome 6 in Portland cement can cause skin problems severe enough to force some workers to leave the trades.

The OSHA rule, issued February 28, excludes Portland cement, so employers don't have to protect workers from chrome 6 in the dry or wet cement. For other chrome 6 exposures, OSHA raised the permissible exposure limit (PEL) to 5 micrograms per cubic meter ($\mu g/m^3$) of air from the proposal of 1 $\mu g/m^3$. At 5 micrograms, an estimated 10 to 45 workers per 1,000 could die of cancer if exposed for their working lifetimes (45 years). No health standard passed since after OSHA's founding allows such a high risk of dying. By contrast, OSHA's estimate of the risk of dying of a construction injury, such as a fall or trench cave-in, is 8.7 per 1,000 workers.

OSHA has said the new PEL is the lowest level that is feasible for all industries.

There are other problems with the standard. First, employers don't always have to tell workers the results of exposure monitoring, even though levels below OSHA's PEL could be harmful. Second, engi-

OSHA estimates of cancer deaths with new PELs (excess per 1,000 workers, 45-year exposure)

Substance	Year passed	Est. deaths
Asbestos	1986	6.7
Cadmium	1992	3 to 15
Chromium VI	2006	10 to 45

neering controls are not required until May 31, 2010, four years after the standard takes effect. Yet, engineering controls – at least for hot work – are usually small, portable exhaust systems that are relatively inexpensive and easy to get.

When the new OSHA standard was proposed in 2004, CPWR and building trades unions provided the federal agency with research findings about the hazards of exposure to chrome 6 in Portland cement, and other concerns. CPWR and the unions are continuing to work to make sure the hazard is addressed (see story on page 2).

See CPWR and other publications on skin problems at **www.elcosh.org** (search *cement*). To reduce the risk of lung cancer from hot work, use engineering controls to prevent exposure; then use respirators, if more protection is needed. Videos and other information on engineering controls for hot work are on eLCOSH (under trade: welder), as is information on respirators, including a CPWR hazard alert (search respirator).

> WWW.eLCUSH.org www.cpwr.com



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