

# Safety News

ISSUE TWO, 2009

S T A T E C O M P E N S A T I O N I N S U R A N C E F U N D

## Let Workers Acclimate To Heat

Cal/OSHA studies of heat-related illnesses and deaths indicate that allowing workers to acclimate to the heat is one of the best defenses against heat-related illnesses and fatalities. The risk of dying from heat illness appears to be especially critical during the first exposure to the high temperatures and for new workers who just begin working in extreme heat as the body needs to adapt gradually to exertions in the heat and humidity. It's imperative to monitor workers at all times during hot weather and allow those who are new to working in hot weather to gradually adapt to the daily routine.

Letting workers adjust to changes in weather by gradually increasing their heat exposure and physical activity likely reduces the risk of heat-related issues. According to Cal/OSHA heat illness prevention data, most people adjust to the weather or acclimate within four-to-14 days of regular work levels.

Raising awareness is also an important key in preventing heat illness. California Heat Illness Prevention Standards require mandatory training for employees and supervisors. Information on acclimatization, encouraging employees to continuously drink water throughout the day, and taking frequent cool-down breaks or preventative

recovery periods in the shade, among other actions are included in the mandatory training.

In addition to the requirements outlined in the heat illness prevention regulations (section 3395 of Title 8), employers may consider starting the work day early and pacing work activities for their workers. Other prevention techniques include increasing the number of water and rest breaks or

preventative recovery periods on hot days and encouraging the use of a "buddy system" to monitor employees in the field.

Employees who work indoors should take the same precautions as those who work outdoors in extreme heat, and follow similar measures under (section 3203 of Title 8) their employers' Injury and Illness Prevention Program.

Employers with workers near sources of heat or inside buildings with limited cooling capabilities must ensure that work areas with risk of heat illness have been identified and evaluated, and that corrective measures and training have been implemented to protect workers. Cal/OSHA studies show effective reduction of heat illness depends on written procedures, access to water, access to cooler areas, acclimatization and weather monitoring, emergency response and employee and supervisor training. □



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## The Expert's Corner

# Going Green With Office Lighting

In a standard office, lighting accounts for about 60% of a company's electrical costs. Despite recent efforts to make offices more energy efficient, surprisingly the majority are still overlit for computer work. According to the American National Standards Institute (ANSI), about 30 foot candles (fc) of surrounding light for monitor viewing are all that is necessary for healthy computer use. Any more than this can create glare and reflections on the monitor screen, which can result in awkward postures and symptoms like headaches, nausea and fatigue in the user. Yet the typical office ranges from 60-100 fc, far more than is recommended, which results in a correspondingly larger consumption of energy as well.

Some simple steps companies can take to both make their lighting environment healthier for employees and to reduce their energy costs:

If your company hasn't done so already, replace all fluorescent fixture ballasts with

high-frequency electronic ballasts and full-spectrum T-8 tubes. This will substantially reduce your energy costs.

Better yet, replace those ballasts with a dimmable type, so that your entire system can be lowered down to the preferred 30 fc range with ease.



Maintaining a balanced overhead lighting system is important, so simply turning off some fixtures or removing certain tubes are not good options, as these can create hot spots or dark areas and electrical safety

hazards. Some systems are wired so that one wall switch controls the center tube in a three-tube fixture. If yours is set up this way, simply turning off this center tube can effectively reduce consumption by a third and result in an overall reduction in illumination of 20-30 fc.

Another simple energy saving technique in warmer weather is to close the blinds on the south and west facing sides of your building before leaving for the weekend. This will minimize the heat gain your HVAC system must overcome when the system comes back up to speed on Monday. □

*Jeff Tiedeman, an Ergonomics Consultant with State Fund, is a Certified Safety Professional (CSP), and a Board-Certified Industrial Ergonomist (CIE). He has done extensive research on specialized topics related to ergonomics, including illumination in the workplace and seating design, and has written articles and spoken at conferences on these subjects.*

## High-Voltage Insulating Equipment

Cal/OSHA has new requirements for insulating protective equipment used in high-voltage electrical work. The new rules update American Society for Testing Material (ASTM) standards for storage, inspection, and testing intervals for insulating protective equipment including gloves, mittens, sleeves, covers, blankets, and mats.

Insulating equipment is usually made of a material that will not conduct electricity (dielectric) that's designed to protect workers from the risk of injury and death from

electrical shock. Employers should have a variety of insulating equipment that meets ASTM standards and is appropriate for the differing voltage levels that workers may encounter.

Daily visually inspection of insulating protective equipment before each use and regular maintenance assure that it functions properly. If there are cuts, punctures, worn areas, or other openings in the equipment, it will not be able to insulate against electrical current and could result in a shock to the user. If the insulating equipment is defective or damaged,

take it out of service immediately.

In addition to the daily inspections and cleanings, insulating equipment requires periodic visual and electrical testing to ensure that it functions properly. This additional testing is required for all insulating gloves, sleeves and blankets, as well as line hoses and covers. Testing protocol must follow the appropriate ASTM standards and time intervals.

*Continued on next page*

# New Rules For Table Saw Safety

Cal/OSHA has revised rules for table saw operation, addressing guarding, anti-kickback devices, definitions of woodcutting processes, and push stick requirements.

The guard hood can be fixed in place, manually adjusted, or self-adjustable. It should cover the saw blade that extends above the table top and above the material being cut. Self-adjustable hoods lift up and over the stock material as it's fed into the saw blade. Fixed or manually adjusted hoods should allow a maximum gap of ¼ inch between the stock material and the bottom of the hood. Kickbacks occur when wood is caught by the rear saw blade edge, lifted off the table surface, and propelled toward the operator. The guard hood should prevent kickbacks and work for all material thicknesses.

For rip cuts, a spreader, splitter, or riving knife that holds the cut edges of material apart must be securely fastened to the table saw to prevent kickbacks. A rip cut is made parallel to the grain of natural wood; crosscuts are against the grain. Rip cuts are through the long side of the manufactured wood stock or parallel to the edge of the stock. Cal/OSHA defines crosscuts on laminated or manufactured wood products with no grain, as cutting through the short side of a rectangular piece of stock.

A spreader is not required for crosscutting, grooving,

dadoing, or rabbeting operations. However, combs (featherboards) or appropriate jigs are necessary when a standard blade guard can't be used in these operations, including jointing, or moulding. Align spreaders with the blade and not more than ½ inch away from the back of the saw blade. The spreader should be thinner than the saw kerf left by the blade.



Cal/OSHA requires guarding on hand-fed table saws to prevent accidental contact with the saw blade, and flying splinters or broken saw teeth. A push stick, other material with a notch cut, or a block of wood with a handle can be used to push material through the table saw. □

## Continued from previous page

Mark gloves, sleeves and blankets to show compliance with the testing schedule. These marks should include the date that the equipment was tested or the date the next test is due. Certification tests are only good for one year. Don't use newly issued gloves, sleeves, and blankets unless they have been electrically tested within the previous twelve months. Never use insulating equipment if it has not been properly tested and within required time frames.

Store insulating equipment properly to maintain and protect it from damage. Keep insulating gloves and sleeves in glove bags or containers. Store

insulating blankets in a canister or other container offering the same protection. Store insulating equipment out of direct sunlight and away from excessive heat sources (steam pipes, radiators, etc.). Don't fold gloves, sleeves, or blankets while they are in storage; the materials can wear out at the edges of the folds. You can, however, roll a blanket for storage.

For more on this regulation, see Cal/OSHA's website at [www.dir.ca.gov](http://www.dir.ca.gov) for links to Title 8, Section 2940.6, Tools and Protective Equipment, and Appendix C of Article 36. □

# June Is National Safety Month

Accidents and resulting injuries take their toll not only with the tragic price of human suffering but also with the monumental costs of economic capital in lost wages, productivity or property, and in increased medical, administrative, and insurance expenses. In an effort to raise awareness about how to stay healthy and safe both on- and off-the-job, the National Safety Council (NSC) has designated June as National Safety Month.

Each of the four weeks in June focuses on a specific safety topic, which includes some of our nation's most pressing safety risks, according to research. The following link to NSC's website <http://www.nsc.org/NSM/> provides detailed information on each week's activities, along with posters and tip sheets for employers, designed to help develop employee safety recognition.

- **Week 1 – Teen Driving**
- **Week 2 – Falls** (in the workplace and at home)
- **Week 3 – Overexertion** (in the workplace and at home)
- **Week 4 – Distracted Driving** (primarily from cell phone talking and texting)

We hope employers will join with the National Safety Council for this National Safety Month and do their part to reduce the number of accidental injuries and deaths not only for the month of June but for all year...every year. □

# Safety Topic

Safety News

State Compensation Insurance Fund

Issue Two, 2009



## Roofing (Heat) Hazards

**R**oofing work using tar, torches, or welding can expose you to heat, burns, and overexertion that can lead to serious injuries and heat illness.

Dress to protect yourself from heat and burns. Wear light-colored, flame-resistant clothing with long sleeves and cuffless long pants. Wear a hard hat, safety boots with a non-slip sole and heel, and leather or heat-resistant gloves. Face shields, side-shielded safety glasses, and goggles can protect your eyes and a respirator can guard against fume exposures.

Check the weather. Working in high temperatures and humidity can lead to heat illness. Do the heaviest work during the coolest part of the day. Stay hydrated by drinking water frequently. And, take breaks in cool, shaded areas.

To prevent fires, clear flammable material, gases and/or liquids off the roof and have fire extinguishers available. Don't torch directly onto building materials, flashing, or voids in the roof. Be careful on heavy slopes; walk-behinds can roll away or tip over. Don't pull a walk-behind back-

ward on roofs that exceed a 4:12 slope. When you set a torch down, turn it off and set it upright on its legs. Don't hang a torch over the roof edge. When turning off a torch, first turn off the propane fuel tank, then allow the gas in the line to burn off. Stop work 2-3 hours before you leave the job to prevent hot spots or smoldering fires.

Wear a face shield when you add tar chunks or kegs to the tanker truck or kettle. Pump hot tar to a hot lugger tank on the roof and then to a mop cart. Use a hoist line to transport hot tar buckets to the roof, keeping buckets and carts covered until you use or dump the materials.

To prevent electric shock from welding machines, use ground fault circuit interrupters (GFCI) and avoid rain or wet areas. And, don't touch grounded objects such as pipes or scaffolding while operating the equipment.

In case of an emergency, have a roof escape route, know phone numbers for local fire and medical services, and know first aid procedures for heat illness and severe burns.

### TOPIC REVIEW

**Instructor** \_\_\_\_\_

**Date** \_\_\_\_\_

**Location** \_\_\_\_\_

**Attended By**

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**Safety Recommendations**

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Please forward to the person responsible for your safety program

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News about Occupational Safety and Health in Construction

Issue Two, 2009

## Employer Education Series

State Fund continues to promote community educational outreach by increasing the quantity and frequency of employer seminars. These seminars are produced and sponsored by State Fund and are open to State Fund policyholders. The seminar topics cover all aspects of worker's compensation and are offered statewide.

As part of State Fund's Employer Education Series, the local State Fund Loss Control departments offer safety seminars dedicated to loss prevention. They feature safety training targeted to specific industries and safety topics of interest to California employers. Various programs in the series are developed in conjunction with State Fund insured Group Programs and external affiliates and partners. Some of these partners are occupational safety and health providers such as Cal/OSHA Consultation Service, the Department of Health Services, and the University of California.

The goal of State Fund's Employer Education Series is to present valuable information from recognized safety and health experts to enable employers to reduce the frequency and severity of workplace injuries, facilitate regulatory compliance, and increase business profits.

The program venues provide the opportunity for attendees to have their workplace safety questions immediately and personally answered by industry experts. The typically half-day seminars are usually held at regional State Fund offices. To learn what programs are scheduled in your area, visit [www.scif.com](http://www.scif.com) and click on Seminars. □

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## Reporting Work-Related Injuries

State Fund's Claims Reporting Center (1-888-222-3211) is available 24 hours a day, 7 days a week for policyholders to report injuries as soon as they occur. Agents will do the necessary paperwork to get the claim started and refer the injured to the designated physician or provider.

Within 8 hours of any serious illness or injury (requiring hospitalization over 24 hours, other than for medical observation or where there is permanent employee disfigurement) or death occurring in the workplace or in connection with employment, employers must report the incident to the Division of Occupational Safety and Health. □

This Construction Safety News is produced by the Safety and Health Services Department of State Fund to assist clients in their loss control efforts. Information or recommendations contained in this publication were obtained from sources believed to be reliable at the date of publication. Information is only advisory and does not presume to be exhaustive or inclusive of all workplace hazards or situations. Permission to reprint articles subject to approval by State Compensation Insurance Fund.

Published by State Compensation Insurance Fund Safety and Health Services Department. Editor: Judy Kerry

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