

Division of Occupational Safety and Health (Cal/OSHA)

# 2012 HEAT ILLNESS PREVENTION TRAINING



“Water. Rest. Shade. The work can't get done without them.”

# *Training Goals*

- ❖ Review the regulatory language and heat illness preventive measures.
- ❖ Increase awareness and commitment to safety and health at the work site.

# *Heat Illness Prevention Elements Include:*

- ❖ Access to Water
- ❖ Access to Shade
- ❖ Weather Monitoring and Acclimatization
- ❖ High Heat Procedures
- ❖ Employee and Supervisory Training
- ❖ Written Procedures Including  
Emergency Response

# *Access to Water*

- ❖ Potable drinking water must be made available at no cost to the employee.
- ❖ Maintain, at all times, sufficient quantities of cool potable drinking water (i.e. enough to provide at least one quart per employee per hour for the entire shift).



# *Access to Water*



- ❖ Water must be fit to drink. Water containers CAN NOT be refilled from non-potable water sources (e.g. irrigation wells, sprinkler or firefighting systems).
- ❖ Care must be taken to prevent contamination of the drinking water supplied to the workers.



# *Access to Water*

- ❖ Implement and maintain effective replenishment procedures when commencing the shift with smaller quantities.



Unacceptable

# *Access to Water*

- ❖ Locate the water containers as close as practicable given the working conditions and layout of the worksite.
- ❖ Maintain it readily accessible!
- ❖ Encourage the frequent drinking of water.

Remind workers not to wait until they are thirsty!



# *Shade Up:*

## *When the temperature exceeds 85° F*

- ❖ Have and maintain one or more areas of shade at all times, when employees are present.
- ❖ Locate the shade as close as practical to the area where employees are working.





# *Shade Up:*

## *When the temperature exceeds 85° F*

- ❖ Provide enough shade to accommodate at least 25% of the employees on the shift at any one time. However, retain the ability to permit access to all workers that request it.
- ❖ Remember: Access to shade must be permitted at all times.



# *Access to Shade, cont.*



- ❖ Encourage employees to take a cool-down rest in the shade, for a period of no less than 5 minutes at a time.
- ❖ Shaded area must not cause exposure to another health or safety hazard. Areas underneath mobile equipment (e.g. tractor), or areas that require crouching in order to sit fully in the shade are not acceptable.



*If temperature is below 85° F*



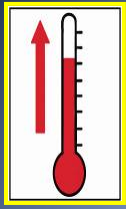
- ❖ When the temperature does not exceed 85° F, provide timely access to shade upon request.



# *When Infeasible or Unsafe*



- ❖ In situations where the employer can demonstrate that it is not safe or feasible to provide shade, an employer can utilize established procedures for providing shade upon request or, for non-agricultural employers, alternative cooling measures that provide equivalent protection.



# Monitor the Weather

[www.nws.noaa.gov](http://www.nws.noaa.gov)

- ❖ Instruct supervisors to track the weather of the job site [by monitoring predicted temperature highs and periodically using a thermometer.]
- ❖ Determine, and instruct supervisors on, how weather information will be used to modify work schedule, increase number of water and rest breaks or cease work early if necessary.

The screenshot displays the National Weather Service (NWS) website. At the top, the NOAA logo is on the left, and the text "National Oceanic and Atmospheric Administration's National Weather Service" is on the right. Below this is a navigation bar with "Site Map", "News", and "Organization". The main content area is titled "California State Information" and features a map of California with various weather stations labeled. To the left of the map is a sidebar with links for "Local forecast by 'City, St'", "XML RSS Feeds", "Warnings", "Current", "By State/County...", "UV Alerts", "Observations", "Radar", "Satellite", "Snow Cover", "Surface Weather...", "Observed Precip", "Forecasts", "Local", "Graphical", "Aviation", "Marine", "Hurricanes", "Severe Weather", "Fire Weather", "Text Messages", "By State", and "By Message Type". To the right of the map are several buttons for "Hourly Report", "Public Information", "State Forecast", "Climatic Data", "Zone Forecast", "Hydro Products", "Short Term Forecast", "Aviation Products", "Forecast Discussion", "Watches", "Weather Summary", "Special Weather", "Warnings and Advisories", and "Back to Main Lvl". A text box at the bottom of the map area says "Click on the above map for current site specific weather observations".



# *Address Lack of Acclimatization*

- ✓ As an employer, you are responsible for the working conditions of your employees, so you must act effectively when conditions result in sudden exposure to heat that your workers are not used to.
- ✓ Thus, determine how your company will:
  - lessen the intensity and/or shift length of the newly-hired employees' work during a two or more week break-in period;
  - modify the work schedule or reschedule non essential duties, during the hot summer months;
  - be extra-vigilant with your employees to recognize immediately symptoms of possible heat illness.

# *High Heat Procedures*

Industries covered by this subsection:

- ✓ Agriculture
- ✓ Construction
- ✓ Landscaping
- ✓ Oil and Gas Extraction
- ✓ Transportation or delivery of agricultural, construction materials or other heavy materials.

# *When the temperature equals or exceeds 95° F*

You must implement additional preventive measures:

1. Ensure effective communication (by voice, observation or electronic means).
2. Observe employees for alertness and signs and symptoms of heat illness.



# *When the temperature equals or exceeds 95° F*



3. Give more frequent reminders to drink plenty of water.
4. Closely supervise new employees, for the first 14 days.



# *Employee & Supervisor Training*

Ensure all employees and supervisors:

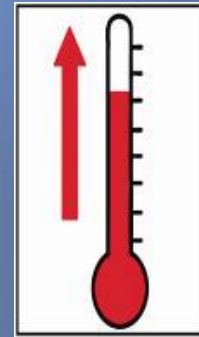
- ❖ Are trained before beginning work that should reasonably be anticipated to result in a heat illness.





# *Employee Training*

- ❖ The environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body
- ❖ Your company's heat illness prevention procedures



# Employee Training, cont.

- ❖ Importance of frequent consumption of small quantities of water
- ❖ Different types of heat illness, common signs and symptoms

 **Stay safe and healthy!**  
**WATER. REST. SHADE.** *The work can't get done without them.*

**Drink water even if you aren't thirsty – every 15 minutes.**  
 

**Rest in the shade.**  
 

**Watch out for each other.**  


**Wear hats and light-colored clothing.**  
 

**2** “Easy does it” on your first days of work in the heat. You need to get used to it. Rest in the shade – at least 5 minutes as needed to cool down.

 **Health effects of heat**  
**Two types of heat illness:**

**Heat Exhaustion**  


**Heat Stroke**  




**1** Watch out for early symptoms. You may need medical help. People react differently – you may have just a few of these symptoms, or most of them.

# *Employee Training, cont.*

- ❖ Importance of acclimatization

Training must include the importance of acclimatization, how it is developed, and how your procedures address it.

- ❖ Importance of immediately reporting signs or symptoms of heat illness to a supervisor
- ❖ Procedures for responding to possible heat illness





# *Employee Training, cont.*

- ❖ Procedures to follow when contacting emergency medical services and if necessary transporting employees.
- ❖ Procedures that ensure clear and precise directions to the work site, including designating a person to be available to ensure that emergency procedures are invoked when appropriate.



# *Supervisor Training*

- ❖ The information required to be provided by this regulation.
- ❖ The procedures to follow to implement the applicable provisions in this section.
- ❖ Procedures to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- ❖ How to monitor the weather reports and how to respond to hot weather advisories.



# Written Procedures

- ❖ As long as they are effective, your Heat Illness Procedures can be integrated into the IIPP.
- ❖ Maintain the procedures on site or close to the site, so that it can be made available to representatives of Cal/OSHA upon request.

## EMPLOYER SAMPLE PROCEDURES FOR HEAT ILLNESS PREVENTION

August 2011



California employers with any outdoor places of employment must comply with the Heat Illness Prevention Standard T8 CCR 3395. These procedures have been created to assist employers in crafting their own heat illness prevention procedures, and to reduce the risk of work related heat illnesses among their employees.

These procedures are not intended to supersede or replace the application of any other Title 8 regulation, particularly T8 3203 Injury and Illness Prevention Program (IIPP). Title 8 CCR 3203 requires an employer to establish, implement, and maintain an effective IIPP. The measures listed here may be integrated into the Employer's Injury and Illness Prevention Program. The employer must also be aware that other standards apply to Heat Illness Prevention such as the requirement to provide for drinking water, first aid and emergency response.

Please note: These procedures provide the minimal steps applicable to most outdoor work settings and are essential to reducing the incidence of heat related illnesses. In working environments with a higher risk for heat illness (e.g., during a heat wave, or other severe working or environmental conditions), it is the employer's duty to exercise greater caution and additional protective measures beyond what is listed in this document, as needed to protect their employees.

To effectively establish your company procedures, carefully review the key elements listed on this document, as well as the examples provided, then select and fill out the procedures applicable to your workplace. Please use additional paper when necessary. Implement and train employees and supervisors on your company procedures and follow-up to ensure your procedures are fulfilled.

Furthermore, to successfully tailor these procedures to your work activities, evaluate and consider the individual conditions present at your site (such as, but not limited to):

- (1) Size of the crew
- (2) The length of the work-shift
- (3) The ambient temperature (which can be taken either with the aid of a simple thermometer or by monitoring the weather)
- (4) The presence of personal protective equipment or additional sources of heat

Again, these sample procedures do not include every workplace scenario, so it is crucial that your company evaluate and take into account conditions found in your individual workplace that are likely to cause a heat illness.

### Your written procedures should also:

1. Identify the designated person(s) that has been assigned the applicable task(s) (e.g. supervisor, foreman, safety coordinator, crew leader).
2. Provide specific details required to carry out the task and ensure that the task is accomplished successfully (e.g. how many water containers/shade structures, of what size,

# *Written Procedures, cont.*

## Detail how your company will:

- ❖ Provide access to water & shade.
- ❖ Monitor the weather.
- ❖ Institute high heat procedures and address lack of acclimatization.
- ❖ Train all employees and supervisors.
- ❖ Respond to heat illnesses without delay, provide first aid and emergency services.
- ❖ Provide clear and precise directions to the worksite.

# *Serious Hazard*

You risk a serious citation if the outdoor temperature in the work area exceeds 85° F and any of these required elements is not present at the site:

- ❖ Drinking water
- ❖ Shade
- ❖ Trained employees or supervisor
- ❖ Emergency response procedures

# *Imminent Hazard Don't Risk an OPU!*

You may also risk an Order Prohibiting Use (OPU) and a Serious Citation if the heat and lack of facilities create an imminent hazard. An OPU may be issued if:

- ❖ The temperature is  $\geq 95^{\circ}$  and water, shade, training or emergency procedures are not in place;
- ❖ The temperature is  $\geq 85^{\circ}$ , and there is a heat wave, heavy workload or other critical factor putting employees in danger.

An OPU:

- ❖ Will shut down the operation, and;
- ❖ Work will not be allowed to resume until the employer demonstrates that the imminent hazard has been corrected.



# For Additional Information

Visit the Cal/OSHA Heat Illness Webpage:

<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>



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**Division of Occupational Safety and Health (DOSH) - Heat Illness Prevention Standard**

**California employers are required to take these four steps to prevent heat illness**



- 1. Training**  
Train all employees and supervisors about heat illness prevention.
- 2. Water**  
Provide enough fresh water so that each employee can drink at least 1 quart per hour, *and encourage them to do so.*
- 3. Shade**  
Provide access to shade for at least 5 minutes of rest when an employee believes he or she needs a preventative recovery period. *They should not wait until they feel sick to do so.*
- 4. Planning**  
Develop and implement written procedures for complying with the Cal/OSHA Heat Illness Prevention Standard.

**Outreach and Education Campaign**


- » **NEW** [Final Performance and Evaluation Report on the Heat Illness Prevention Standard](#)
- » [Outreach and Education Campaign](#)



# For Heat Illness Materials, Visit: [WWW.99calor.org](http://WWW.99calor.org)

**WATER. REST. SHADE.**  
*The work can't get done without them.*

[Educational Resources](#) [For Employers](#) [Campaign](#) [FAQ's](#) [Contact](#) **877-99-CALOR**



**YOU'LL LAST LONGER AFTER  
A LITTLE REST.**

**HEAT SAFETY TIPS:**

- Drink water often
- Rest in the shade
- Report heat symptoms early
- Know what to do in an emergency
- Employers must train workers about heat safety and provide water, rest, shade.

*Welcome to the California campaign  
to protect outdoor workers from HEAT ILLNESS.*

# *Cal/OSHA Consultation*

## How to reach us

Visit [www.dir.ca.gov/dosh/consultation.html](http://www.dir.ca.gov/dosh/consultation.html) for complete listing of our services. **Contact the nearest office at:**

<b>State wide Toll Free No.</b>	<b>800-963-9424</b>
<b>Central Valley/Fresno</b>	<b>559-454-1295</b>
<b>San Francisco/Oakland</b>	<b>510-622-2891</b>
<b>No. California/Sacramento</b>	<b>916-263-0704</b>
<b>San Diego/Imperial</b>	<b>619-767-2060</b>
<b>San Bernardino</b>	<b>909-383-4567</b>
<b>Santa Fe/Los Angeles/Orange</b>	<b>714-562-5525</b>
<b>San Fernando Valley</b>	<b>818-901-5754</b>
<b>Cal/VPP</b>	<b>510-622-1081</b>

