



## HEAT ILLNESS PREVENTION PROGRAM COMPLIANCE

California employers with any outdoor places of employment must comply with the Heat Illness Prevention Standard - Title 8, California Code of Regulations (T8 CCR) Section [3395](#). This document was created as a guide to assist districts in crafting or revising your own heat illness prevention procedures, and to reduce the risk of work related heat illnesses among employees.

These procedures are not intended to supersede or replace the application of any other T8 CCR sections, particularly T8 CCR [3203](#) Injury and Illness Prevention Program (IIPP). T8 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.

These procedures describe 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 apply additional protective measures beyond what is listed in this document, as needed to protect employees.

To effectively establish district procedures, ASCIP recommends to carefully review the key elements and examples provided in this document, and then develop written procedures applicable to your workplace. The Heat Illness Prevention Plan must be written in English and the language understood by the majority of the employees and must be available at the worksite. Implement and train employees and supervisors on district procedures and follow-up to ensure your procedures are fulfilled.

Furthermore, to successfully tailor these procedures to district 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 you evaluate and take into account conditions found in our individual workplace that are likely to cause heat illness. Some of the information can be copied and pasted into your existing Heat Illness Prevention Plan.

**Mandatory - Requirements for written procedures must:**

1. Identify the designated person(s) who has been assigned the responsibility implementing this program (e.g. supervisor, foreman, safety coordinator, crew leader). Below is sample language that can be used for a new or existing plan.

*The following designated person or persons (Program Administrator Safety Coordinator/ Supervisor/Foreman/Field Supervisor/Crew Leader) have the authority and responsibility for implementing the provisions of this program at this worksite.*

**Name/Title/Phone Number**

- 1.
- 2.
- 3.
- 4.
- 5.

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, distance to placement, frequency of water-level replenishment/weather-tracking/water breaks/reminders, etc.). Specify how these procedures will be communicated to our employees and in particular to the persons assigned these responsibilities (e.g. via training, meeting), and how it will be ascertained that these District instructions and procedures are followed.

Note: Any of the following items applicable for the provision of water, shade, high heat, acclimatization methods and emergency procedures must have additional language added to provide specifics on how the district intends to implement these provisions at the job site.

## **Sample Procedures to Consider for the Provision of Water:**

- Drinking water containers (5 to 10 gallons each) will be brought to the site, so that at least 2 quarts per employee are available at the start of the shift. All employees, whether working individually or in smaller crews, will have access to drinking water.
- Paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to employees and will be kept clean until used.
- As part of the Effective Replenishment Procedures, the water level of all containers will be checked periodically (e.g. every hour, every 30 min), and more frequently when the temperature rises. Water containers will be refilled with cool water, when the water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried, to replace water as needed.
- Water will be fresh, pure, and suitably cool and provided to employees free of charge. Supervisors will visually examine the water and pour some on their skin to insure that the water is suitably cool. During hot weather, the water must be cooler than the ambient temperature but not so cool as to cause discomfort.
- Water containers will be located as close as practicable to the areas where employees are working (given the working conditions and layout of the worksite), to encourage frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the employees, bottled water or personal water containers will be made available, so that employees can have drinking water readily accessible.
- Since water containers are smaller than shade structures, they can be placed closer to employees than shade structures. Placing water only in designated shade areas or where toilet facilities are located is not sufficient. When employees are working across large areas, water will be placed in multiple locations. For example, on a multi-story construction site, water should be placed in a safely accessible location on every floor where employees are working.
- All water containers will be kept in sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used, they must be governmentally approved for potable drinking water systems, as shown on the manufactures label.
- Daily, employees will be reminded of the location of the water coolers and of the importance of drinking water frequently. When the temperature exceeds or is expected to exceed 80 degrees Fahrenheit, brief 'tailgate' meetings will be held each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.
- Audible devices (i.e. whistles or horns) will be used to remind employees to drink water.
- When temperatures equal or exceed 95 degrees Fahrenheit or during a heat wave, pre-shift meetings before the commencement of work to encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary will be conducted. Additionally, the number of water breaks will be increased. Supervisors/foreman will lead by example and employees will be reminded throughout the work shift to drink water.
- Individual water containers or bottled water provided to employees will be adequately identified to eliminate the possibility of drinking from a co-worker's container or bottle.

## **Sample Procedures for Access to Shade:**

- Shade structures will be opened and placed as close as practical to employees, when the temperature equals or exceeds 80 degrees Fahrenheit. When the temperature is below 80 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee. **Note:** The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.
- Enough shade structures will be available at the site, to accommodate all of the employees who are on such a break at any point in time. During meal periods there will be enough shade for all of the employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. (Employers may rotate employees in and out of meal periods, as with recovery and rest periods.)
- Daily, employees will be informed of the location of the shade structures and will be encouraged to take a five minute cool-down rest in the shade. An employee who takes a preventative cool-down rest break will be monitored and asked if he/she is experiencing symptoms of heat illness and in no case will the employee be ordered back to work until signs or symptoms of heat illness have abated. (See also the section on Emergency Response for additional information)
- Shade structures will be relocated to follow along with the crew and they will be placed as close as practical to the employees, so that access to shade is provided at all times. All employees on a recovery, rest break or meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with each other.
- In situations where trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated, before assuming that sufficient shadow is being cast to protect employees.
- In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide shade upon request.
- For non-agricultural employers, in situations where it is not safe or feasible to provide shade (mobile equipment and vehicle hazards, high winds), a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide alternative cooling measures but with equivalent protection as shade.

## **Sample Procedures for Monitoring Weather:**

- The supervisor will be trained and instructed to check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet (<http://www.nws.noaa.gov>), or by calling the National Weather Service phone numbers (see California numbers below) or by checking the Weather Channel TV Network. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected. This type of advance planning should take place all summer long.

### **CALIFORNIA Dial-A-Forecast**

- Eureka 707-443-7062
- Hanford 559-584-8047
- Los Angeles 805-988-6610 (#1)
- Sacramento 916-979-3051
- San Diego 619-297-2107 (#1)
- San Francisco 831-656-1725 (#1)

- Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Heat Index to evaluate the risk level for heat illness. Determination will be made of whether or not employees will be exposed at a temperature and humidity characterized as either "extreme caution" or "extreme danger" for heat illnesses. It is important to note that the temperature at which these warnings occur must be lowered as much as 15 degrees if the employees under consideration are in direct sunlight.
- Prior to each workday, the supervisor will monitor the weather (using <http://www.nws.noaa.gov> or with the aid of a simple thermometer, available at most hardware stores) at the worksite. This critical weather information will be taken into consideration, to determine, when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).
- A thermometer will be used at the jobsite to monitor for sudden increases in temperature, and to ensure that once the temperature exceeds 80 degrees Fahrenheit, shade structures will be opened and made available to the employees. In addition, when the temperature equals or exceeds 95 degrees Fahrenheit, additional preventive measures such as the High Heat Procedures will be implemented.

## **Sample Procedures for Handling a Heat Wave:**

For purposes of this section only, “heat wave” means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days.

- During a heat wave or heat spike, the work day will be cut short or rescheduled (example conducted at night or during cooler hours).
- During a heat wave or heat spike, and before starting work, tailgate meetings will be held, to review the company heat illness prevention procedures, the weather forecast and emergency response. In addition, if schedule modifications are not possible, employees will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.
- Each employee will be assigned a “buddy” to be on the lookout for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

## **Sample High Heat Procedures:**

High Heat Procedures are additional preventive measures that this company will use when the temperature equals or exceeds 95 degrees Fahrenheit.

- Effective communication by voice, direct observation (applicable for work crews of 20 or fewer), mandatory buddy system, or electronic means will be maintained, so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the employees (to observe them or communicate with them), then an electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable.
- Frequent communication will be maintained with employees working by themselves or in smaller groups (keep tabs on them via phone or two-way radio), to be on the lookout for possible symptoms of heat illness. The employee(s) will be contacted regularly and as frequently as possible throughout the day, since an employee in distress may not be able to summon help on his or her own.
- Effective communication and direct observation for alertness and/or signs and symptoms of heat illness will be conducted frequently. When the supervisor is not available, a designated alternate responsible person must be assigned, to look for signs and symptoms of heat illness. If a supervisor, designated observer, or any employee reports any signs or symptoms of heat illness in any employee, the supervisor or designated person will take immediate action commensurate with the severity of the illness (see Emergency Response Procedures).
- Employees will be reminded constantly throughout the work shift to drink plenty of water and take preventative cool-down rest break when needed.

**In addition to the High Heat Procedures listed above, the following High Heat Procedures apply only to agricultural work sites.**

- When the temperature equals or exceeds 95 degrees, employees will be provided one 10 minute "preventative cool-down rest period" every 2 hours. (During the first 8 hours of a shift, the cool-down periods may be provided at the same time as the rest periods already required by Industrial Welfare Commission Order No. 14.)
- Employees working longer than 8 hours will be provided an additional 10 minute cool-down rest period every 2 hours (for example, if the shift extends beyond 8 hours, an additional rest period is required at the end of the 8<sup>th</sup> hour of work. If the shift extends beyond 10 hours, another is required at the end of the 10<sup>th</sup> hour, and so on).
- All employees will be required to take the cool-down rest periods and merely offering the opportunity for a break is not enough.
- Once the temperature equals or exceeds 95 degrees, records will be kept documenting the fact that mandatory cool-down rest periods are provided and taken.

## **Sample Procedures for Acclimatization:**

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted.

Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

- The weather will be monitored daily. The supervisor will be on the lookout for sudden heat wave(s), or increases in temperatures to which employees haven't been exposed to for several weeks or longer.
- During a heat wave or heat spike, the work day will be cut short (example 12 p.m.), will be rescheduled (example conducted at night or during cooler hours) or if at all possible cease for the day.
- New employees, or those employees who have been newly assigned to a high heat area, will be closely observed by the supervisor or designee for the first 14 days. The intensity of the work will be lessened during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.
- The supervisor, or designee, will be extra-vigilant with new employees and stay alert to the presence of heat related symptoms.
- New employees will be assigned a "buddy" or experienced co-worker to watch each other closely for discomfort or symptoms of heat illness.
- During a heat wave, all employees will be observed closely (or maintain frequent communication via phone or radio), to be on the lookout for possible symptoms of heat illness.
- Employees and supervisors will be trained on the importance of acclimatization, how it is developed and how these company procedures address it.

## **Sample Procedures for Emergency Response:**

- Prior to assigning a crew to a particular worksite, employees and the foreman will be provided a map of the site, along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads), to avoid a delay of emergency medical services.
- Prior to assigning a crew to a particular worksite, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.
- Prior to the start of the shift, a determination will be made of whether or not a language barrier is present at the site and steps will be taken (such as assigning the responsibility to call emergency medical services to the foreman or an English speaking worker) to ensure that emergency medical services can be immediately called in the event of an emergency.
- All foremen and supervisors will carry cell phones or other means of communication, to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift.
- When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness). Under no circumstances will the affected employee be left unattended.
- At remote locations such as rural farms, lots or undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.
- During a heat wave or hot temperatures, employees will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.
- Employees and supervisors training will include every detail of these written emergency procedures.

## **Sample Procedures for Handling a Sick Employee:**

- When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called. A sick worker will not be left alone in the shade, as he or she can take a turn for the worse!
- When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be called.
- Emergency service providers will be called immediately if an employee displays signs or symptoms of heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face, etc.), does not look OK or does not get better after drinking cool water and resting in the shade. While the ambulance is in route, first aid will be initiated (cool the worker: place the worker in the shade, remove excess layers of clothing, place ice pack in the armpits and groin area and fan the victim). Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital!
- If an employee does not look OK and displays signs or symptoms of severe heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 minutes away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request an Air Ambulance.

## **Sample Procedures for Employee and Supervisory Training:**

To be effective, training must be understood by employees and given in a language the employees understand. All employers must maintain records of the training showing the date of training, who performed the training, who attended training, and subject(s) covered.

- Supervisors will be trained prior to being assigned to supervise other employees. Training will include this company's written procedures and the steps supervisors will follow when employees' exhibit symptoms consistent with heat illness.
- Supervisors will be trained on their responsibility to provide water, shade, cool-down rests, and access to first aid as well as the employees' right to exercise their rights under this standard without retaliation.
- Supervisors will be trained in appropriate first aid and/or emergency responses to different types of heat illness, and in addition, that heat illness may progress quickly from mild symptoms and signs to serious and life threatening illness.
- Supervisors will be trained on how to track the weather at the job site (by monitoring predicted temperature highs and periodically using a thermometer). Supervisors will be instructed on, how weather information will be used to modify work schedules, to increase number of water and rest breaks or cease work early if necessary.
- All employees and supervisors will be trained prior to working outside. Training will include all aspects of implementing an effective Heat Illness Prevention Plan including, but not limited to; providing sufficient water, providing access to shade, high-heat procedures, emergency response procedures and acclimatization contained in the company's written prevention procedures.
- Employees will be trained on the steps that will be followed for contacting emergency medical services, including how they are to proceed when there are non-English speaking employees, how clear and precise directions to the site will be provided and the importance of making visual contact with emergency responders at the nearest road or landmark to direct them to their worksite.
- When the temperature is expected to exceed 80 degrees Fahrenheit, short 'tailgate' meetings will be held to review the weather report, to reinforce heat illness prevention with all employees, to provide reminders to drink water frequently, to inform them that shade can be made available upon request and to remind them to be on the lookout for signs and symptoms of heat illness.
- New employees will be assigned a "buddy" or experienced coworker to ensure that they understand the training and follow company procedures.

## **Resources:**

Heat Illness Prevention Enforcement Q&A: <http://www.dir.ca.gov/dosh/heatillnessQA.html>

Cal/OSHA's Heat Illness Prevention eTool: <http://www.dir.ca.gov/dosh/etools/08-006/index.htm>

Cal/OSHA's Heat Illness Prevention Website: <http://www.dir.ca.gov/DOSH/HeatillnessInfo.html>