



Heat Illness Prevention Program

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Purpose

This program is in place to protect employees from heat hazards posed by working in the outdoor environment, as required by the heat illness prevention regulation (Title 8 CCR 3395).

Tehama County is committed to preventing heat-related illnesses that can occur to employees working outdoors by implementing the following key steps:

- Identifying outdoor work environments and conditions
- Monitoring weather conditions
- Monitoring employee acclimatization for working outdoors in heat
- Providing clean drinking water
- Providing adequate shade
- Addressing high-heat procedures
- Handling an ill employee and initiating emergency procedures
- Providing supervisor and employee training

Responsibilities:

Risk Manager

The Risk Manager has the authority and responsibility for implementing and maintaining the Heat Illness Prevention Program. The duties include, but are not limited to:

- Update the program as needed
- Ensure Department Heads/Supervisors have the training resources to implement the program

Department Heads/Supervisors

Department Heads will have the authority and responsibility for implementing the provisions of this program at the affected worksites. The duties include, but are not limited to:

- Implement the program
- Follow all safety policies and procedures as outlined in the program
- Attend required training
- Train affected employees under their direction

Employees

Employee responsibilities include, but are not limited to:

- Follow all safety policies and procedures as outlined in the program
- Attend required training

Affected Employees

When any employee is performing outdoor work, regardless of the duration of the work, they are expected to comply with all aspects of this program whenever the outdoor temperature is 80° F or greater.

Weather Monitoring

Weather Forecast

When environmental risk factors create the possibility for heat illness, the supervisor/lead person will monitor the two-week forecast for the work area. Supervisors/lead persons will review the forecasted temperature and humidity for the worksite and compare it against the National Weather Service Heat Index to evaluate the risk level for heat illness. It is important to keep in mind that the temperature at which these warnings occur must be lowered as much as 15 degrees if the workers under consideration are in direct sunlight.

Weather information will be obtained using www.weather.gov, weather apps or local weather forecasts. Work schedules will be planned in advance, based upon the forecast. Modifications to the work schedules may be made accordingly, especially if a heat wave is expected. This monitoring will take place all summer long.

Weather monitoring prior to workday during times of risk

Prior to each workday, supervisors/lead persons will be responsible for monitoring the weather using www.weather.gov, [weather apps](#), [local weather forecasts](#) or with the aid of a thermometer at the worksite. This 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).

If schedule modifications are not possible and workers have to work during a heat wave, supervisors/lead persons will provide a tailgate meeting to reinforce heat illness prevention with emergency response procedures and review the weather forecast with the workers. In addition, supervisors/lead persons will provide workers with an increased number of water and rest breaks. Supervisors/lead persons will ensure workers stop and take these breaks and closely observe all workers for signs of heat illness. Supervisor/lead persons will also assign each employee a buddy to watch for signs of heat illness and ensure emergency procedures are initiated when someone displays signs of heat illness.

Supervisors/lead persons will be responsible for periodically checking the temperature to monitor for sudden increases. Once the temperature exceeds 80° F, access to shade will be made available to employees. Once the temperature equals or exceeds 95° F, additional preventive measures such as the high-heat procedures will be implemented. See Access to Shade and High Heat Provisions for additional information.

Employee 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. The County is responsible for the working conditions of their employees, and will utilize the following procedures when conditions result in sudden exposure to heat to which employees are not used to.

The supervisor/lead person 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.

New employees, or those employees who have been newly assigned to a high heat area, will be closely observed by the supervisor/lead person 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), or increasing the frequency of rest periods. Steps taken to lessen the intensity of the workload for new employees will be documented.

The supervisor/lead person 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 them closely for discomfort or symptoms of heat illness.

Employees and supervisors/lead persons will be trained on the importance of acclimatization, how it is developed and how these procedures address it.

Provisions for Water

Where drinking water is not plumbed or otherwise continuously supplied, drinking water containers will be brought to the worksite so that employees have at least one quart per hour scheduled for work available at the start of the shift. All workers whether working individually or in smaller crews, will have access to drinking water.

The water level of all containers will be checked periodically (e.g. every hour), 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. 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 the frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the

workers, bottled water or personal water containers will be made available, so that workers 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. If employees are working across large areas, water will be placed in multiple locations so that it is easily accessible.

All water containers will be kept in sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not permitted. If hoses or connections are used, they must be governmentally approved for potable drinking water systems, as shown on the manufactures label.

Workers will be reminded daily 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.

Paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until used.

Audible devices, such as whistles or air horns, may be used to remind employees to drink water.

When the temperature is expected to equal or exceed 95° F, or during a heat wave, pre-shift meetings will be conducted to encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest period when necessary. Additionally, the number of water breaks will be increased. Supervisors/lead persons will lead by example and workers will be reminded throughout the work shift to drink water.

Individual water containers or bottled water provided to workers will be adequately identified to eliminate the possibility of drinking from a co-workers container or bottle.

Electrolyte replacement drinks may be used to supplement the water supply, but it cannot be used to replace the total amount of water that is required.

Access to Shade

When the outdoor temperature in the work area exceeds 80° F, the County will provide and maintain one or more areas with shade at all times while employees are present. These areas will either be open to the air or provided with ventilation or cooling. Shade will also be provided promptly when an employee specifically requests it, even when the temperature does not exceed 80° F.

Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times. An individual employee who takes a preventative cool-down rest

shall be monitored and asked if he or she is experiencing symptoms of heat illness, shall be encouraged to remain in the shade, and shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the shade.

Depending on the worksite, shade may be provided by trees or buildings. When natural shade is not available, other acceptable means of shade such as umbrellas, tents, canopies, etc., to block the sunlight will be provided. In these instances, chairs, benches, sheets, towels, or any other items will be provided to allow employees to sit and rest without contacting the bare ground. Shade structures will be relocated as the work environment or location changes.

The interior of a vehicle may only be used to provide shade when the vehicle is air-conditioned, and the air conditioner has been turned on so that it is sufficiently cool prior to the employee entering the vehicle.

The amount of shade present for recovery, rest, and meal periods will be enough to accommodate all employees who are on such a break at any point in time. There will be enough room so employees can sit in a normal posture, fully in the shade without having to be in physical contact with each other. The shaded area will be located as close as practicable to the areas where employees are working. Water will also be available in the rest area so that employees are encouraged to drink more water.

In instances where natural shade is not available, supervisors/lead persons will:

- Bring sufficient shade structures to the site
- Ensure sufficient shade structures are opened and placed as close as practical to the workers when the temperature equals or exceeds 80° F.
- Point out the daily location of the shade structures to the workers, as well as allow and encourage employees to take a minimum five minute cool-down rest in the shade when they feel the need to do so to protect themselves from overheating
- Ensure the shade structures are relocated to follow along with the crew when necessary and double-check they are as close as practical to the employees so access to shade is provided at all times

If it is infeasible or unsafe to have shade structures, or to have shade present on a continuous basis, the County will provide alternative procedures with equivalent protection.

In instances where natural shade such as a tree is available, supervisors/lead persons will evaluate the thickness and shape of the shaded area in orchards or other areas of vegetation (given the changing angles of the sun during the entire shift), before assuming that sufficient shadow is being cast to protect employees.

In situations where it is not safe to provide shade (e.g. during high winds), supervisors/lead persons will document how the determination was made and identify what steps will be taken if someone requests shade, or the supervisors will identify other cooling measures with equivalent protection. Cooling measures other than shade may be used if they are as effective as shade in allowing employees to cool.

Employees may opt to take a “preventive cool-down rest” in the shade to help the body relieve excess heat. The employee will be monitored during this rest and asked if they are experiencing any symptoms of heat illness. If any signs or symptoms of heat illness are observed or reported, the employee will not be ordered back to work and will be continuously observed until the signs or symptoms have abated, but in no event less than five minutes in addition to the time needed to access the shade.

If employees work in small groups the supervisor/lead person will establish a buddy system for monitoring. If an employee works alone, the supervisor will establish a communication system so the employee can make immediate contact when needed.

The importance of prevention is critical. Employees who wait until symptoms appear before seeking shade and recovery are at significant risk of developing heat illness.

Heat Wave Procedures

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° F *and* at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days.

During a heat wave, workloads may be reduced, rest periods added, or the work day may be cut short or rescheduled (example conducted at night or during cooler hours).

During a heat wave, 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, workers 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.

High-Heat Procedures (95° F)

High Heat Procedures are additional preventive measures that are implemented when the temperature equals or exceeds 95° F.

Effective communication by voice, direct observation, mandatory buddy system, or electronic means will be maintained, so that employees at the worksite can contact a supervisor/lead person when necessary. If the supervisor/lead person is unable to be near the workers to observe them or communicate with them, then an electronic device, such as a cell phone or two-way radio, will 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 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/lead person is not available, a designated alternate responsible person will be assigned, to look for signs and symptoms of heat illness. If a supervisor/lead person, designated observer, or any employee reports any signs or symptoms of heat illness in any employee, the supervisor/lead person 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.

Emergency Response Procedures

When an employee displays possible signs of heat illness (refer to appendix A for a list of heat illness symptoms) a supervisor/lead person will take immediate action commensurate with the severity of the illness that includes, but is not limited to:

- Moving the employee to a cooler/shaded area
- Removing excess layers of clothing
- Fanning and misting the worker with water
- Applying ice (ice bags or ice towels)
- Providing cool drinking water, if able to drink
- Calling for emergency medical services

If the signs or symptoms are indicators of severe heat illness (such as, but not limited to, decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior or convulsions), the employer must implement emergency response procedures.

When emergency medical services are called, a supervisor/lead person will remain with the sick employee until emergency help arrives. If the area is remote, the supervisor/lead person must be able to provide clear and precise directions (such as streets or road names, distinguishing features, and distances to major roads) of the site to clearly communicate the location to emergency medical services. If needed, the supervisor/lead person will designate someone to physically go to the nearest road or highway where emergency responders can see them. If necessary, employees will be transported to a place where they can be reached by emergency medical services.

An employee exhibiting signs or symptoms of heat illness shall be monitored and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services.

Prior to assigning a crew to a particular worksite, the supervisor/lead person will:

- Provide workers and the foreman with clear and precise directions (such as streets or road names, distinguishing features, and distances to major roads) of the site to avoid a delay of emergency medical services
- Ensure a qualified, appropriately trained, and equipped person will be available at the site to render first aid if necessary
- Ensure responsibility for calling emergency medical service is assigned to an English-speaking worker at the site
- Verify all supervisors/lead persons carry cell phones, two-way radios or other means of communication to ensure emergency medical services can be called
- Ensure all communication devices are functional at the worksite prior to each shift

Supervisor and Employee Training

Employees

All employees are required to attend a safety training session prior to beginning work that should be reasonably anticipated to result in exposure to the risk of heat illness. The following information will be provided:

- The environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment
- Procedures for complying with the requirements of the heat illness prevention regulation
- The importance of frequent consumption of small quantities of water
- The concept, importance and methods of acclimatization
- The different types of heat illness, the common signs and symptoms of heat illness
- The appropriate first aid and/or emergency responses to the 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
- The importance of employees immediately reporting symptoms or signs of heat illness for themselves and co-workers
- Procedures for responding to possible heat illness, including how emergency medical services will be provided should they become necessary
- Specific procedures for contacting emergency medical services and, if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider
- Procedures for designating a person to be available to ensure emergency procedures are invoked when appropriate
- Specific procedures for ensuring clear and precise directions to the work site will be provided as needed to emergency responders

Supervisors

In addition to obtaining the training required for employees listed above, supervisors will be trained before performing work that could be reasonably anticipated to result in exposure to heat illness. Training will include:

- All information provided during employee training
- Procedures for preventing heat illness, including monitoring weather reports and how to respond to hot weather advisories
- Information about how to identify heat illness
- Steps to take for emergency response to heat illness

Appendix A

Heat Illness Employee Training Handout

This training program was developed to increase employee awareness of the occurrence of exposures to heat illnesses when working outdoors and to motivate employees to protect themselves.

Overview of Heat Illness Prevention Regulation

The heat illness prevention regulation is intended to ensure both the County and its employees understand the dangers associated with working in heat in outdoor workplaces. The following information is a review of the specific requirements of a heat illness prevention program, including water, shade, high-heat procedures, and training.

Written Heat Illness Prevention Program

The written program that outlines how the County provides information on and control of exposures that can result in heat illness while performing outdoor work in the heat. This program is available to you during our training or during your work shift from your supervisor.

Work Environment and Conditions in Our Workplace

The written program includes the identification of work that is performed outdoors when the weather is hot. This list is not all inclusive and when other types of work or conditions are identified, we will update the program and training. The most important element is to realize that when it is hot outside and you are working, take precautions to protect yourself.

Water

The County will provide enough fresh drinking water so you have access to at least one quart of water per hour and actively encourage you to drink it. Refrain from alcoholic beverages or beverages that contain caffeine, such as soft drinks, coffee, and tea.

Shade

The goal is to provide shade so everyone who needs it has access to it to cool off when the weather is hot. If infeasible or unsafe to provide shade, other means to help keep you cool will be provided.

High-Heat Procedures

When the outside temperature reaches or exceeds 95° F, additional precautions, to the extent they are feasible, will be taken to ensure your safety and health. This includes good communication, close supervision if you have not recently worked outdoors in the heat for four or more hours per day, observing you, and reminding you to drink plenty of water.

Training

All employees and supervisors who have potential heat exposures receive the same training so everyone understands our policy and procedures for keeping everyone safe when working outdoors. Training addresses how to acclimate to the heat, how much water to drink, the signs and symptoms of heat illness, the importance of reporting symptoms to your supervisor, and how to get help in an emergency.

Types of Heat Illness

Heat illness is a serious medical condition resulting from the body's inability to cope with a particular heat load and includes heat cramps, heat exhaustion, heat syncope, and heat stroke.

Heat Stroke

The most life-threatening heat-related illness; heat stroke happens when the body can no longer control its temperature. The body's temperature rises fast. The body cannot sweat and is unable to cool itself. Warning signs include red, hot, dry skin; very high body temperature; dizziness; nausea; confusion; strange behavior or unconsciousness; rapid pulse or throbbing headache. Heat stroke can cause death or disability if treatment is not given.

Heat Exhaustion

Heat exhaustion is a milder illness that happens when the body has lost too much water and salt in sweat. Warning signs include heavy sweating, cramps, headache, nausea or vomiting, paleness, tiredness, weakness, dizziness, and fainting. If heat exhaustion is not treated, it can turn into heat stroke. Get medical assistance if the symptoms are severe or if the victim has heart problems or high blood pressure.

Heat Syncope

Heat syncope is a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization. Symptoms of heat syncope include light-headedness, dizziness, and fainting.

Heat Cramps

Heat cramps are muscle pains and spasms due to heavy activity. They usually involve the stomach muscles or the legs. It is generally thought that the loss of water and salt from heavy sweating causes the cramps. If you have heart problems or are on a low-sodium diet, get medical attention for heat cramps.

Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. Symptoms include red cluster of pimples or small blisters. Heat rash is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

Sunburn

Sunburn is when skin becomes red, painful, and unusually warm after being in the sun. Sunburn should be avoided because it damages the skin and could lead to more serious illness.

Additional training resources are available at <http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>.