EMPLOYER SAMPLE PROCEDURES FOR HEAT ILLNESS PREVENTION

Cal/OSHA Publications Unit

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California employers with any outdoor places of employment must comply with the Heat Illness Prevention standard, California Code of Regulations, title 8, section 3395 (8 CCR 3395). These procedures have been created to assist employers in establishing their own heat illness prevention procedures and to reduce the risk of work-related heat illnesses to their employees.

These procedures are not intended to supersede or replace the application of any other title 8 sections, particularly 8 CCR 3203, Injury and Illness Prevention Program (IIPP), which requires an employer to establish, implement, and maintain an effective IIPP. You may integrate your heat illness prevention procedures into your IIPP. You must also be aware that other standards also apply to heat illness prevention, such as the construction, agriculture, and general industry requirements to provide drinking water, first aid, and emergency response.

Note: These procedures describe the minimum essential heat illness prevention steps applicable to most outdoor work settings. In work environments where there is a higher risk for heat illness (e.g., during a heat wave or other severe working or environmental conditions), you must exercise greater caution and employ protective measures beyond what is listed in this document, as needed to protect employees.

To effectively establish your company procedures, carefully review the key elements listed in this document, as well as the examples provided, 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 procedures, train employees and supervisors on your company procedures, and follow-up to ensure your procedures are fulfilled.

To tailor these procedures to your work activities, evaluate and consider the specific conditions present at your site such as:

1. The size of the crew.
2. The length of the work-shift.
3. The ambient temperature (which can either be taken using a simple thermometer or estimated by monitoring the weather).

4. Additional sources of heat or the use of personal protective equipment that may increase the body's heat burden.
5. Again, these sample procedures do not include every workplace scenario so it is crucial that you take into account and evaluate conditions found in your individual workplace that are likely to cause a heat illness.

Mandatory requirements for written procedures must also do the following:

1. Identify the person(s) responsible for the particular task(s) (e.g., supervisor, foreman, safety coordinator, crew leader).

2. Describe in detail the steps required to carry out the task and ensure that the task is accomplished successfully, including the number and size of water containers and shade structures; distance to their placement; and frequency of water replenishment, water breaks/reminders, weather-tracking, etc. For additional information, see the Enforcement Q&A.

3. Specify how you will communicate these procedures to your employees, particularly the person(s) assigned to be responsible for them, and how you will verify that the procedures and instructions are being followed.

(Employer's Name)

The following designated person(s) (e.g., program administrator, safety coordinator, supervisor, foreman, field supervisor, crew leader) has (have) the authority and responsibility for implementing the provisions of this program at this worksite.

Name/Title/Phone Number

1.

2.

3.

4.

5.

Instructions: *Choose the items below that are applicable to your work operations for water and shade provision, high heat procedures, acclimatization methods, and emergency procedures, and add additional language to specify how your company intends to implement these provisions at the job site.*

Procedures for the Provision of Water:

☐ Drinking water containers (5 to 10 gallons each) will be brought to the site so that at least two quarts per employee are available at the start of the shift. All employees, whether working individuallyor in smaller crews, will have access to drinking water.

☐ Paper cones 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 minutes) 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 delivered to replace water as needed.

☐ Water will be fresh, pure, suitably cool, and provided to employees free of charge. Supervisors will visually examine the water and pour some on their skin to ensure 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 (depending on the working conditions and layout of the worksite) to encourage the frequent drinking of water. If field terrain prevents the water from being placed within a reasonable distance from 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 will be placed in a safely accessible location on every floor where employees are working.

☐ All water containers will be kept in a 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 approved for potable drinking water systems, as shown on the manufacturer's 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 with employees each morning to review the importance of drinking water, the number and schedule of water and rest breaks, and the signs and symptoms of heat illness.

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

☐ When the temperature equals or exceeds 95 degrees Fahrenheit, or during a heat wave, pre-shift meetings will be conducted before the commencement of work to both encourage employees to drink plenty of water and to remind employees of their right to take a cool-down rest when necessary. Additionally, the number of water breaks will be increased. Supervisors/foremen will lead by example and remind employees 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.

In addition to the procedures above, the employer will ensure the provision of water using the following procedures:

1.

2.

3.

4.

Procedures for Access to Shade:

☐ Shade structures will be opened and placed as close as practicable to the 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 a break at any point in time. During meal periods, there will be enough shade for all 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 they are experiencing symptoms of heat illness. In no case will the employee be ordered back to work until signs or symptoms of heat illness have abated (see the section on Emergency Response for additional information).

☐ As crews move, shade structures will be relocated to be placed as close as practicable to the employees so that access to shade is provided at all times. All employees ona recovery or rest break or a 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.

☐ Before trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated to ensure that sufficient shadowis 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 alternative procedures will be used to provide access to shade upon request. (Below, describe the alternative procedure for access to shade.)

☐ For non-agricultural employers, cooling measures other than shade (e.g., use of misting machines) are provided in lieu of shade if these measures are demonstrably as effective as shade in allowing employees to cool, and of the steps that will be taken to provide alternative cooling measures but with equivalent protection as shade.

In addition to the procedures above, the employer will ensure access to shade using the following procedures:

1.

2.

3.

4.

Procedures for Monitoring the 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/), bycalling the National Weather Service phone numbers (see CA 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 advanced planning should take place whenever the temperature is expected to reach 70 degrees Fahrenheit or higher.

CALIFORNIA Dial-A-Forecast

- Eureka 707-443-7062
- Hanford 559-584-8047
- Los Angeles 805-988-6610 (#1)
- Sacramento 916-979-3038

CALIFORNIA Dial-A-Forecast

- 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 to 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 are working in direct sunlight. Additional steps, such as those listed below, will be taken to address these hazards.

☐ Prior to each workday, the supervisor will monitor the weather (using http://www.nws.noaa.gov/ or 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 (e.g., 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 job site to monitor for a sudden increase 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 high-heat procedures, will be implemented.

In addition to the procedures above, the employer will ensure the weather is monitored using the following procedures:

1.

2.

3.

4.

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 (e.g., 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 (HIPP), the weather forecast, and emergency response procedures. Additionally, if schedule modifications are not possible, employees will be provided with an increased number of water and rest breaks and 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.

In addition to the procedures above, the employer will ensure heat waves are addressed with the following procedures:

1.

2.

3.

4.

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 (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 their own.

☐ Effective communication and direct observation for alertness and 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 breaks when needed.

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

☐ When the temperature equals or exceeds 95 degrees Fahrenheit, employees will be provided one 10-minute “preventative cool-down rest period” every two hours. During the first eight 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 eight hours will be provided an additional 10-minute cool-down rest period every two hours. For example, if the shift extends beyond eight hours, an additional rest period is required at the end of the eighth hour of work. If the shift extends beyond 10 hours, another rest period is

required at the end of the 10th hour, and so on.

☐ All employees will be required to take the cool-down rest periods. Merely offering the opportunity for a break is not enough.

☐ Once the temperature equals or exceeds 95 degrees Fahrenheit, records will be kept documenting the fact that mandatory cool-down rest periods are provided and taken.

In addition to the procedures above, the employer will ensure high heat is addressed with the following procedures:

1.

2.

3.

4.

Procedures for Acclimatization:

Acclimatization is the temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. 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 or heat spike 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 implement additional protective measures when conditions result in sudden exposure to heat their employees are not accustomed to.

☐ The weather will be monitored daily. The supervisor will be on the lookout for heat waves, heat spikes, or temperatures to which employees haven't been exposed for several weeks or longer.

☐ During a heat wave or heat spike, the work day will be cut short (e.g., 12:00 p.m.), be rescheduled (e.g., conducted at night or during cooler hours), or if at all possible, cease for the day.

☐ New employees and those 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 by using procedures 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 the 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 coworker, so they can 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) 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.

In addition to the procedures above, the employer will ensure employee acclimatization is accomplished with the following procedures:

1.

2.

3.

4.

Procedures for Emergency Response:

☐ When a crew is assigned to a particular worksite, the employees and the foreman will be provided a map of the site that will allow them to give clear and precise directions to the worksite (e.g., street 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 worksite without an infirmary, clinic, or hospital nearby, the employer will ensure that an 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 as to whether a language barrier is present at the site, and, if necessary, steps will be taken, such as assigning the responsibility to call emergency medical services to the foreman or an English speaking employee, 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 shows symptom(s) of possible heat illness, emergency medical services will be called, and steps will immediately be taken to keep the stricken employee cool and comfortable to prevent 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 vests or flashlights to direct emergency personnel to the sick employee's location, which may not be visible from the road or highway.

☐ During a heat wave, heat spike, 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 will be trained on every detail of these written Procedures for Emergency Response.

In addition to the procedures above, the employer will ensure emergency response with the following procedures:

1.

2.

3.

4.

Procedures for Handling a Sick Employee:

☐ When an employee displays possible signs or symptoms of heat illness, a trained first aid employee or supervisor will evaluate 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 employee will not be left alone in the shade, as they could take a turn for the worse!

☐ When an employee displays possible signs or symptoms of heat illness and no trained first aid employee 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 severe heat illness (e.g., decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), does not look okay, or does not get better after drinking cool water and resting in the shade. While the ambulance is en route, first aid will be initiated (i.e., cool the employee by placing the employee in the shade, removing excess layers of clothing, placing ice packs in the armpits and groin area, and fan the victim). **Do not let a sick employee leave the site, as they can get lost or die before reaching a hospital!**

☐ If an employee displays signs or symptoms of severe heat illness (e.g., 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, emergency service providers will be called, the signs and symptoms of the victim will be communicated to them, and an Air Ambulance will be requested.

In addition to the procedures above, the employer will ensure sick employees are attended to with the following procedures:

1.

2.

3.

4.

Procedures for Employee and Supervisor Training:

To be effective, training must be understood by employees. Therefore, it must be given in a language and vocabulary the employees understand. Training records will be maintained and will include the date of the training, who performed the training, who attended the training, and the 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 response to different types of heat illness and made aware that heat illness may progress quickly from mild signs and symptoms to a serious, 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, increase the 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 providing sufficient water, providing access to shade, high-heat procedures, emergency response procedures, and acclimatization procedures contained in the company's written plan. Employees and supervisors will also be trained on the environmental and personal risk factors of heat illness and the importance of immediately reporting signs and symptoms of heat illness.

☐ In addition to initial training, employees will be retrained annually.

☐ Employees will be trained on the steps 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, reinforce heat illness prevention with all employees, provide reminders to drink water frequently, inform them that shade will be available, and remind them to be on the lookout for signs and symptoms of heat illness.

☐ New employees will be assigned a "buddy," or experienced co-worker, to ensure that they understand the training and follow company procedures.

In addition to the procedures above, the employer will ensure proper training of employees and supervisors with the following procedures:

1.

2.

3.

4.

Resources:

Heat Illness Prevention Enforcement Q&A	https://www.dir.ca.gov/dosh/heatIllnessQA.html
Cal/OSHA Heat Illness Prevention etool	https://www.dir.ca.gov/dosh/etools/08-006/index.htm
Cal/OSHA Heat Illness Prevention Website	https://www.dir.ca.gov/dosh/heatillnessinfo.html
Cal/OSHA Consultation Program	https://www.dir.ca.gov/dosh/consultation.html Toll-free Number: 1-800-963-9424