

Heat Illness Prevention Plan Template

California – Indoor & Outdoor Requirements

Contents

Contents	2
Introduction.....	3
Scope	4
Workplace Hazards.....	7
Communication & Training.....	8
Heat Measurement Procedures	9
Heat Illness Prevention Procedures.....	12
Threshold-Based Heat Procedures.....	16
First Aid & Emergency Response	20
Reporting.....	23
Appendices.....	24

Disclaimer: KPA Services, LLC and its partners/affiliates, collectively (KPA), has made reasonable efforts to ensure the accuracy of the subject matter presented. KPA makes no express or implied warranty with respect to the information presented and assumes no responsibility for errors or omission. This resource is designed to address best-practice compliance; additional state laws and/or regulations may also apply. This resource should not be used as a substitute for professional or legal advice. If legal advice or other expert assistance is required, the services of a legal professional should be sought.

Introduction

Employees have a right to a safe and healthy work environment. Excessive heat exposure at work poses a health threat. When temperatures in indoor or outdoor work environments rise beyond the body’s capacity to cool itself and dispel heat, individuals may be in grave danger. Impacts range from comparatively minor problems, such as heat cramps, to severe afflictions, such as organ damage, heat exhaustion, stroke, or death.

This template will help you get started in meeting heat illness prevention procedures. **To meet the requirements of the California Code of Regulations (CCR) Title 8 §3395 (outdoor heat illness prevention) and §3396 (indoor heat illness prevention), you must modify this plan to include your business specifics.**

Please consult with competent legal professionals, heat illness prevention experts, and/or third-party vendors as needed to implement all applicable initiatives discussed herein.

This plan should also be modified as needed based on specific circumstances surrounding heat exposure since appropriate responses may vary based on the type of exposure or severity of temperatures/heat index.

How to Use this Document

Please complete the following document with your site-specific procedures and operations for protecting workers from heat exposure in the workplace.

- Where blank blue boxes appear, fill them out with your facility information that answers the prompt in **bolded, blue text**. An additional sheet is attached as Appendix B to record more details if necessary.
- Where you see options to fill out checkboxes - Select the box that is appropriate to your workplace.



Look for this icon to help you identify areas where your input is required.

Company Name



State the company names to which the practices outlined within this document apply. Throughout the following pages, we will collectively refer to these organizations as the “Company.”

Plan Evaluation

The Company will evaluate this plan as procedures change or as needed to determine its effectiveness in the workplace. Issues identified during evaluation shall be corrected.

Scope

Effective Date



State the effective date of the program. This Heat Illness Prevention Plan is effective as of:

Purpose

The procedures outlined in this plan describe heat illness prevention procedures. When implemented and all applicable employees follow them, they reduce the risk of work-related heat illnesses.

The Company's Heat Illness Prevention Plan is available in English. If necessary, it will also be made available in the language that the majority of employees understand. It is available to all employees and regulatory representatives upon request. Our Heat Illness Prevention Plan is included as part of our Company's Injury and Illness Prevention Program as required by state laws.

Goals

The goals for our plan include:

- Providing clear procedures for protecting employees from heat-related illnesses in the workplace.
- Describing our procedures for provisioning water and accessing cool-down and shaded areas.
- Appropriately measuring workplace heat and assessing necessary controls.
- Communicating our emergency response procedures for employees experiencing heat illnesses.
- Communicating procedures for employee observation in heat waves and other acclimatization requirements.

Applicability

The Company's written Heat Illness Prevention Plan applies to workplaces in California where employees are required to perform work activities in an outdoor environment and/or employees who work indoors when temperatures or the heat index meet or exceed 82° Fahrenheit (F) indoors.

INDOOR VS. OUTDOOR PLACES OF EMPLOYMENT

As defined by 8 CCR §3396 (b)(12), "indoor" means,

"...A space that is under a ceiling or overhead covering that restricts airflow and is enclosed along its entire perimeter by walls, doors, windows, dividers, or other physical barriers that restrict airflow, whether open or closed. All work areas that are not indoor are considered outdoor and covered by section 3395. EXCEPTION: Indoor does not refer to a shaded area that meets the requirements of subsection 3395(d) and is used exclusively as a source of shade for employees covered by section 3395."

Any workplace that does not meet this definition, such as a lean-to or a structure with one or more open sides, is considered an outdoor place of employment.

EXCEPTIONS

The following roles are excluded from this plan and its procedures:

- Employees who work at locations of their choosing not under the control of the employer.

Additional Exceptions for Indoor Places of Employment

In addition to the roles listed above, the following are excluded from this plan and its procedures:

- Incidental heat exposures where a worker is exposed to temperatures at or above 82° Fahrenheit and below 95° Fahrenheit for less than 15 minutes in any 60 minutes. This exception does not apply to:
 - Vehicles without effective and functioning air conditioning.
 - Shipping or intermodal containers during loading, unloading, or related work.
- Emergency operations that are directly involved in the protection of life or property.
- Prisons, local detention facilities, and juvenile facilities.



Please check the appropriate box below to define the scope of your Heat Illness Prevention Plan.

Remember: *The outdoor standard does not have a temperature threshold. If you have an outdoor place of employment, the regulations apply, no matter the temperature!*

- My workplace has only indoor places of employment that meet the standard's applicability. We will comply with all applicable regulatory requirements of 8 of CCR §3396 Heat Illness Prevention in Indoor Places of Employment.
- My workplace has only outdoor places of employment. We will comply with all applicable regulatory requirements of 8 CCR §3395, Heat Illness Prevention in Outdoor Places of Employment.
- My workplace has indoor places of employment that meet the standard's applicability, as well as outdoor places of employment. We will comply with all applicable regulatory requirements of 8 CCR §3396 Heat Illness Prevention in Indoor Places of Employment and Title 8 of CCR §3395 Heat Illness Prevention in Outdoor Places of Employment.
- Based on the requirements of 8 CCR §3396 Heat Illness Prevention in Indoor Places of Employment and 8 CCR §3395 Heat Illness Prevention in Outdoor Places of Employment, these provisions do not apply to my workplace.

Definitions

The following definitions are provided as they are written in 8 CCR §3396 and/or 8 CCR §3395:

Heat wave: Any day in which the predicted high outdoor temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit greater than the average high daily outdoor temperature for the preceding five days.

High radiant heat area: A work area where the globe temperature is at least five degrees Fahrenheit greater than the temperature, as defined in subsection (b)(19).

Radiant heat: heat transmitted by electromagnetic waves and not transmitted by conduction or convection. Sources of radiant heat include the sun, hot objects, hot liquids, hot surfaces, and fire.

Shade: Blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use.

Clothing that restricts heat removal, or heat-restrictive clothing, means full-body clothing covering the arms, legs, and torso that is any of the following:

- Waterproof, or,

- Designed to protect the wearer from a chemical, biological, physical, radiological, or fire hazard; or
- Designed to protect the wearer or the work process from contamination.

EXCEPTION: “Clothing that restricts heat removal” does not include clothing with flame or arc-flash-resistant properties demonstrated by the employer to be all of the following:

- Constructed only of knit or woven fibers and
- Worn in lieu of the employee’s street clothing; and
- Worn without a full-body thermal or moisture barrier.

Responsible Parties

PROGRAM ADMINISTRATOR

To help meet compliance requirements and ensure the success of our program, the same person(s) who administer our Injury and Illness Prevention Program or similar safety programs also assume ownership for implementing our Heat Illness Prevention Plan.

The Program Administrator is responsible for upholding all the policies outlined herein. Responsibilities include:

- Conduct a risk assessment and take measures to help prevent heat illnesses in the workplace.
- Train and communicate with employees and employee representatives about the plan.
- Set up a process to investigate heat illnesses reported at work and prevent future instances.
- Review this plan and update it as necessary.

MANAGEMENT & SUPERVISORS

- Monitor workplace temperatures to which employees may be exposed to heat hazards.
- Provide engineering controls, administrative controls, and protective equipment to reduce exposure levels.
- Ensure the availability of water or other appropriate beverages to employees.
- Ensure employees new to the work area complete an acclimatization or conditioning period.
- Monitor employees during the acclimatization period and as required during heat waves.
- Ensure that employees who have had time off (thereby reducing their ability to acclimate to the environment more easily) are reminded of this reduction in tolerance. (Time off includes weekends and holidays.)
- Ensure that employees who have symptoms of a temperature-related condition have access to a healthcare provider should they need medical treatment.

EMPLOYEES

- Follow proper work practices and procedures to help protect their health and safety.
- Know the signs and symptoms of heat-related illness and report any of them to their supervisor immediately.
- Work with Human Resources on appropriate accommodations if they have a health condition that could impact your heat stress tolerance. (The Company complies with the Americans with Disabilities Act (ADA).)
- Wear appropriate clothing and attire and use provided protective equipment as needed or required.

Enforcement

In accordance and coordination with the Company’s human resources policies, violations of this Heat Illness Prevention Plan may result in disciplinary action up to and including termination.

EMPLOYEE PROTECTION

Under California Labor Code Sections 6310, 6311, and 6312, employees are protected from retaliation for exercising their rights to employee protections offered by 8 CCR §3395 and 8 CCR §3396.

Workplace Hazards

Understanding Heat-Based Hazards

Employees' risk factors for heat illnesses may vary based on their exertion level, clothing, exposure to heat sources, and environmental conditions. To assess the worker's total heat stress risk fully, supervisors use environmental measurements (heat index, temperature), clothing adjustment factors, worksite conditions, and exertion level to determine the best protections.

ENVIRONMENTAL RISK FACTORS

- Worksite Temperatures
- Humidity
- A lack of air movement and exchange
- The amount of time employees spend working in the heat.
- The time-of-day work takes place.
- Sources of radiant heat (e.g., sunlight, fire, hot equipment, boilers, furnaces)
- Work that produces heat (e.g., welding, laying asphalt, forge work)
- Physical contact with warm or hot objects, liquids, or steam.
- Required clothing and personal protective equipment (PPE)
- Physically strenuous work

Personal Health Factors

Some employee conditions can increase their risk for heat-related illness. **Note: Employers are not entitled to know whether workers have any specific conditions, but only that they have a “health condition” that may limit their ability to perform their job duties.** Advise workers to check with their doctors if they have questions. The health conditions may include but are not limited to:

- Pregnancy
- Fever
- Gastrointestinal illnesses
- Heart disease
- Obesity
- Medications (amphetamines, diuretics/water pills, blood pressure antihypertensives, anticholinergics for COPD, and antihistamines for allergies)
- Diabetes
- High blood pressure
- Lower level of physical fitness
- Drug or alcohol use

Some people are also naturally more susceptible to heat illnesses than others. This includes anyone who comes to work dehydrated or who isn't used to the heat. During heat waves, everyone, including young and healthy workers, becomes more prone to heat illnesses.

Communication & Training

Communication

The Company’s communication requirements for heat illness prevention are as follows:

- Notifying employees about this plan and its protocols *before* they are exposed to the risk of heat illness.
- Alerting employees when heat illness procedures are currently in effect.
- Designating who will ensure that heat illness prevention measures are properly executed.
- Email and texting will be used whenever possible to notify employees of heat illness prevention protocols. Verbal or phone communication will be used if employees do not have email or text access.

Company supervisors, managers, crew leaders, forepersons, and safety coordinators will carry out the requirements of this plan, including ensuring adequate cool water, rest breaks, shade access, etc.

The supervisor will also announce water and rest breaks as needed. If employees are too spread out to hear the supervisor’s verbal reminders, a whistle, air horn, or other auditory signal will be used.



Describe any additional communication procedures.

*Tips: Signage, emails, texts, verbal communication, and toolbox talks are all great ways to communicate heat illness prevention measures. **This prompt applies to both indoor and outdoor places of employment.***

OR

Not applicable; no additional communication procedures are used.

Training Elements

Employees and supervisors must be trained before they’re exposed to the risk of heat illness. Training will be conducted at the Company’s expense during paid work time. It will also be available in both English or the language that the majority of employees understand. While not required by the regulatory standards, annual heat illness prevention refresher training is encouraged to ensure employees are current on the Company’s plan.

Employers may satisfy their heat illness prevention training requirements in one of the following ways:

- Using heat illness prevention course(s) consistent with relevant regulatory requirements. KPA has a “Heat Illness Prevention (Heat Stress)” training course available in its software for general awareness.
- Using a Company-appointed representative to deliver effective on-site training consistent with relevant regulatory requirements.

Employee Training Requirements

- The details of this heat illness prevention plan
- How employees have a right to report heat illness concerns without fear of retaliation
- Environmental and personal risk factors that affect heat illnesses, **including the added burden of heat load on the body caused by exertion, clothing, and PPE.**
- The different types of heat illnesses, their signs and symptoms, their progressions, and the appropriate first aid and emergency responses
- The concept, importance, and methods of acclimatization
- The employer's specific processes for reducing heat illness threats in the workplace.
- The importance of frequent consumption of small quantities of water (up to 4 cups or 32 fluid oz. per hour)
- The importance for employees to immediately tell their supervisor if they or a coworker may be experiencing signs of a heat illness.
- Steps for contacting emergency medical services, including how to proceed when there are non-English speaking employees and how to give clear and precise directions to the site, also including designating a responsible person to invoke emergency protocols as applicable.
- The employer's procedures for complying with water, shade, cool-down areas, preventative rests, control measures, access to First aid, and employee's rights without retaliation.
- Employer's procedures for transporting employees, if necessary, in an emergency to where they can be reached by emergency personnel.

Supervisor Requirements

All of the Employee Training Requirements plus the following:

- Required procedures, frequency, and timing for complying with heat illness prevention, including, but not limited to, the employer's responsibility to provide water, heat conditions information (including employees' risks of experiencing a heat-related illness), shade, preventative rest breaks, and access to First aid
- Monitoring weather reports
- Calculating heat index values
- When to implement high heat procedures and what they consist of
- Knowing what the supervisor's responsibilities are during emergency heat illness situations

Training Recordkeeping

Maintain written or electronic training records that can be provided to government authorities upon request.

Such records must contain:

- The name of each employee trained
- Date(s) of the training
- Name of the person/organization conducting the training

Heat Measurement Procedures

Measuring Temperature

Temperature can be measured for both indoor and outdoor heat measurements using a thermometer. Supervisors are trained to take accurate measurements by doing the following:

- Exposing the thermometer directly to air but shielding it from direct exposure to heat sources such as sunlight, radiant heat, fire, etc.
 - Outdoor temperatures must be measured in areas where there is no shade.
- The temperature must be taken in the area where workers are located.

EQUIPMENT CONTROL

Temperature measuring equipment is used per the manufacturer’s instructions and is periodically inspected to monitor availability, good condition, and usage.



State the type of temperature measuring equipment the Company uses.

*Tips: Examples include thermometers, weather stations, wet-bulb globe thermometers, and hygrometers for humidity readings. **This prompt applies to both indoor and outdoor places of employment.***

Monitoring Forecasts

Below are recognized sources for weather forecasts. These sources are utilized to plan and schedule work appropriately and monitor for upcoming heat waves.

NATIONAL RESOURCES

The following resources are available for use in monitoring and preparing for upcoming hot forecasts and temperature changes:

Online: National Weather Service (National Oceanic and Atmospheric Administration): weather.gov

Television: The Weather Channel or local channels that provide frequent weather updates

STATE-SPECIFIC RESOURCES

The following California-specific resources are available for use in monitoring and preparing for upcoming hot forecasts and temperature changes:

California Dial-A-Forecast

Eureka: (707) 443-7062

Hanford: (559) 584-8047

Los Angeles: (805) 988-6610 (#1)

Sacramento: (916) 979-3038

San Diego: (619) 297-2107 (#1)

San Francisco: (831) 656-1725 (#1)

Supervisor Procedures

Using the information gathered from monitoring forecasts and measuring temperatures, supervisors will do the following:

- Based on predicted forecasts, the supervisor will determine if modifications are needed to outdoor work schedules.
 - At the beginning of heat seasons, monitoring will include heat spikes or other temperature extremes where workers may not be adequately acclimated, in addition to monitoring for heatwave conditions.
- Temperature measurements will be taken for outdoor places of employment in a predicted heat wave.
- If outdoor conditions impact the indoor temperature, supervisors shall monitor indoor temperatures and heat index to determine if indoor heat illness prevention measures are in effect.
- At the beginning of each shift, during qualifying heat conditions, supervisors will inform employees if the procedures outlined in this plan are in effect for the day. These procedures will be reviewed with any new employees during their orientation.

Measurements of Heat Index

The **heat index** measures how hot it feels when relative humidity and actual air temperature are considered. It can be measured using a heat index monitor or a combination of a thermometer and a hygrometer. The indoor heat index can be determined by referencing the Heat Index Chart in **Appendix C**. **Remember:** Heat index values do not account for heat produced by radiant heat sources.

Indoor Heat Measurement Procedures

Per 8 CCR §3396(e), when it is reasonably suspected that indoor temperatures or heat index exceed 87° F or the temperature exceeds 82° F when employees are wearing heat-restrictive clothing or working near radiant heat sources, temperature or heat index measurements are taken. Additionally, temperatures are taken at times when the highest heat exposure is expected and when it is reasonably expected to be 10° F higher than the previous measurements.

The locations for measurements are chosen collaboratively between workers, supervisors, and union representatives (where applicable) and will be a representative sample of worker exposure. A sample template for recording sampling results is included in **Appendix A** of this plan.

Employers can choose to forgo taking temperatures for indoor heat measurements. Still, they must then meet the requirements of 8 CCR §3396(e) and implement controls for lowering indoor temperatures.



State the temperature measurement methods your workplace will use.

Tips: If taking sample measurements, make sure they are representative of the workplace and areas where exposure will be greatest. Companies that perform air monitoring work can assist with this process to ensure the representative sample is appropriate.

- Our workplace will measure indoor temperatures/heat indexes as required by 8 CCR §3396 to determine when additional indoor heat control procedures are necessary.
- Our workplace will not measure temperatures or heat index and will enact controls necessary to meet the requirements of 8 CCR §3396(e).
- Not applicable, as this facility is an outdoor place of employment only.

RECORDKEEPING

Records of the temperature or heat index measurements will be retained for 1 year or until the next measurements are taken, whichever is later. They will be made available on-site and upon request to workers and representatives. Records include date, time, and location of all measurements.

Heat Illness Prevention Procedures

Acclimatization & Employee Monitoring

The [U.S. Centers for Disease Control and Prevention \(CDC\)](#) defines heat acclimatization as “the beneficial physiological adaptations that occur during repeated exposure to a hot environment.” It is also described as improving one’s ability to tolerate heat. This happens by gradually increasing the intensity and duration of work performed in a hot setting, typically over a 4 to 14-day period with at least 2 hours of regular work in the heat. Acclimatization is necessary not only for new employees but for all employees when there is sudden exposure to increased heat, such as heat waves or early season temperature spikes. Acclimatization will be maintained for a few days after heat exposure stops, but employees will lose their full acclimatization level after not working in the heat for 1 week or more.

During a heat wave, when conditions are at least 80° F and at least 10° F higher than the 5-day average, outdoor employees will be closely monitored by a supervisor or designee. If engineering controls are not sufficient to mitigate the impact of outdoor heat conditions on indoor temperatures, then indoor employees should also be monitored by a supervisor or designee.

New employees in indoor work areas are monitored or closely observed by a supervisor or designee when:

- Temperatures or the heat index equals or exceeds 87° F.
- If the temperature equals or exceeds 82° F, and a worker does either of the following:
 - Works in clothing that restricts heat removal.
 - Works adjacent to a radiant heat source.

Acclimatization procedures can include:

- Gradually increase the employee’s work time in hot conditions over 4-14 days or longer as needed.
- In addition to getting used to the heat, employees also need to acclimatize to the level of work they need to do. Doing light or brief physical work in the heat will only acclimatize employees to light, brief work. More strenuous or longer tasks require more acclimatization.
- Employees should eat their regular meals and stay hydrated while they are acclimatizing.



Describe your facility’s acclimatization procedures.

*Tips: In addition to acclimatizing new employees, remember procedures for employees who return to work after a long period of absence. **This prompt applies to both indoor and outdoor places of employment.***



Describe your facility’s heat wave monitoring procedures.

*Tips: Examples include verbal communication, using the buddy system, or using communication devices to check in with employees. **This prompt applies to both indoor and outdoor places of employment.***

Providing Shade

Shade will be made available for outdoor places of employment when temperatures exceed 80° F. It can be provided using natural or artificial means as long as the location does not expose employees to hazardous conditions. Shade areas should be open to the air or ventilated/cooled to allow for air movement and be located as close as possible to the employee work area. Supervisors will determine if shade is needed and ensure the following:

- Enough shade structures will be available at the site to accommodate all employees taking a break. During meal periods, there will be enough shade for all employees who choose to remain in the general area of work or areas designated for recovery and rest periods.
- Supervisors will remind employees where to find shade locations, as the shade location may change based on the job location, weather conditions, or sun position.
- The shaded area will be evaluated to ensure that a sufficient shadow is cast to protect employees.
- In situations where providing access to shade is not safe or feasible (e.g., during high winds, at the edge of a trench), employees will be informed, and alternative procedures will be used to provide shade upon request.

Note: When the temperature is below 80° F, shade will be provided if requested by an employee.



Describe your procedures for providing shade to employees.

Tips: Describe the shade sources: natural, artificial, etc. State who is responsible for moving shade structures if necessary. If alternatives to shade will be used (i.e., misting fans), state what the other options are and where they'll be located.

OR

Not applicable, as this facility is an indoor-only place of employment.

Establishing Cool-Down Areas

Where there is potential for indoor heat exposure, cool-down areas should be available as close as reasonably practicable to the employees' work area. Cool-down areas may be indoors or outdoors if they are blocked from direct sunlight, shielded from radiant heat sources, and open to the air and/or ventilated or cooled. They must be kept to a temperature of 82° F or cooler unless not reasonably feasible.

Cool down areas should:

- Be always available for employee use.
- Be in a safe area that does not expose the employee to hazardous conditions.
- It should be large enough to accommodate all employees on rest periods, allowing them to sit in a normal position without touching other employees.
 - The same shall be true for meal breaks.



Describe your procedures for providing cool-down areas to employees.

Tips: State where your cool-down area(s) is located and how the temperature of the cool-down area will be regulated to keep it from exceeding 82° F.

OR

Not applicable, as this facility is an outdoor-only place of employment.

Provisioning Drinking Water

The Company will provide employees with an adequate supply of fresh, suitably cool drinking water. In addition to heat illness prevention requirements, the 8 CCR §3363 Water Supply requirements apply to drinking water provided to employees to ensure it meets sanitary requirements.

Note: Water sources and dispensers CANNOT be located in a bathroom.

Additional information for the provisioning of water at our facility follows:

- Employees are made aware of the locations of sinks, water fountains, coolers, and other water and drink sources throughout the facility or outside of it.
- Enough drinking water is provided to employees so that they can drink 1 quart of water per hour during their shift.
 - When drinking water is not readily available or easily replenished, the necessary amount will be supplied at the beginning of the shift. Where it is available to be replenished, such as in areas with a plumbed water supply, employees may start their shifts with a lesser amount and replenish throughout their shifts.
- Supervisors will test drinking water periodically to ensure that it 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 and other water sources will be located as close as functionally possible to areas where employees are working. This will depend on working conditions and the worksite layout. Water will be made available in indoor cooldown areas.
- All provided water containers will be kept in a sanitary condition and labeled appropriately with the contents. Only water from approved and tested water sources will be used, with hoses or connections approved for use with potable water drinking systems.
- Employees are encouraged via verbal communication by their supervisors to drink water throughout their shifts.

Describe your procedures for providing drinking water to employees.



*Tips: State where employees can access drinking water, like break rooms, water fountains, portable coolers, etc. Describe where these are located and how you plan to keep water cool and replenished. How will you encourage employees to drink water throughout their shifts? Remember: Have a plan to replenish water; you cannot wait until it's empty! **This prompt applies to both indoor and outdoor places of employment.***

Promoting Preventative Cool-Down Rest Breaks

Preventative measures, like taking a break in a shaded or cool-down area before heat illness symptoms develop, can help slow or eliminate the onset of serious heat illnesses. Employees have access to cool-down or shaded areas at any time (as required) and are encouraged to use them to take preventative breaks. If an employee takes a preventative cool-down rest break, supervisors will do the following:

- Monitor employees, including asking them if they are experiencing any symptoms of heat illness.
- Encourage employees to stay in the cool-down area. Employees should not return to work until any signs of heat illness are abated or for a minimum of 5 minutes, whichever is longer.
 - The travel time to and from the shade or cool-down area is not included in the minimum 5-minute break period.
- If employees are experiencing heat illness, supervisors follow the necessary heat illness first aid or emergency response procedures applicable to the symptoms. **Remember:** If an employee is exhibiting symptoms of heat illness, they should not be left alone.

Higher temperatures, humidity, and increased direct sunlight will prompt more frequent breaks. Supervisors will encourage these breaks and account for them when planning work.



Describe your procedures for promoting preventative cool-down rest breaks to employees.

*Tips: Employees should be taking these breaks as required. Describe how your supervisors will ensure breaks are being taken. **This prompt applies to both indoor and outdoor places of employment.***

Threshold-Based Heat Procedures

Both indoor and outdoor heat illness prevention regulations require employers to take additional measures when temperatures climb to certain temperature thresholds. The applicability of these provisions is listed below.

Workplace Type	Temperature Threshold	Applicability	Summary of Required Actions
Indoor	<ul style="list-style-type: none"> The indoor temperature and/or heat index equals or exceeds 87° F or The indoor temperature equals or exceeds 82° F, and employees are required to wear heat-restrictive clothing or work in high-radiant heat areas. 	All indoor places of employment	<ul style="list-style-type: none"> Implement feasible controls — engineering, administrative, and/or personal protective equipment — to keep workers safe.
Outdoor	The outdoor temperature exceeds 95° F.	Outdoor places of employment in the following industries: <ul style="list-style-type: none"> Agriculture Construction Landscaping Oil and gas extraction Transportation or delivery of agricultural products, construction materials, or other heavy materials – except for employment that consists of operating an air-conditioned vehicle and does not include loading operations. 	<ul style="list-style-type: none"> Communicate with and observe workers. Ensure workers take breaks and drink water.

Threshold-Based Procedures for Indoor Places of Employment

When indoor temperatures or heat index exceed 87° F, or when workers wear heat-restrictive clothing or work near radiant heat sources at an indoor temperature of 82° F or above, employers must implement controls to reduce the temperature below those thresholds. Employers should follow the hierarchy of controls.

HIERARCHY OF CONTROLS

Every workplace shall have procedures to eliminate hazards and set up the work area for safety. The hierarchy of controls shall be used to manage hazards or when a new hazard is introduced into the workplace. The hierarchy of controls is as follows:

1. Use **engineering controls** to protect workers from exposure to hazards in a process. *These include air conditioning, fans, ventilation, etc.*

2. Implement **administrative controls** to teach workers how to complete a process safely. *Review written procedures, complete training, or modify work schedules.*
3. Provide **personal protective equipment**. It is the user's last defense against the remaining workplace hazards. *It shall be appropriate for the task and fit the user properly without posing additional hazards.*

FEASIBILITY OF CONTROLS

Implementing some measures of control to protect workers will be necessary to comply with the regulatory framework. While not specifically defined in the regulation, the term "feasibility" is used to determine how controls will be implemented. Feasibility can vary from worksite to worksite and even with various areas of the same building. Factors that may impact feasibility include:

- Economic
- Operational
- Technical

Our Company has considered the feasibility of adding controls to protect our employees. It has enacted those that allow us to operate at a safe standard to protect our employees as best as possible from heat exposure.

ENGINEERING CONTROL MEASURES

When indoor temperatures or heat index exceed 87° F, or when workers wear heat-restrictive clothing or work near radiant heat sources at 82° F or above, feasible engineering controls must be implemented to reduce indoor temperatures or heat index to the lowest feasible level.

- Fans: Cooling, mist, etc.
- Ventilation: Natural, local exhaust
- Evaporative coolers
- Air conditioners
- Isolating hot processes and heat sources: shielding, insulation
- Eliminate steam leaks
- Cooled seats or benches



Describe your engineering control measures that will be used to reduce employee exposure to indoor conditions that meet or exceed the temperature thresholds.

Tip: Think about controlling both temperature and humidity when implementing engineering controls.

OR

Not applicable, as this facility is an outdoor-only place of employment.

ADMINISTRATIVE CONTROLS

Administrative controls can establish work practices to reduce the duration, frequency, or intensity of workplace exposure to heat. Administrative controls that can be utilized include:

- Work schedule rotation
- Modified tasks
- Mandatory rest breaks in a cool area
- Modify work clothing
- Using the buddy system to allow workers to monitor each other for heat illness.



Describe the administrative controls that will be used to reduce employee exposure to indoor heat.

Tips: Administrative controls are ways to change how people work in relation to a hazard. Describe what your facility will do to minimize employee exposure to excessive heat.

OR

Not applicable, as this facility is an outdoor-only place of employment.

PERSONAL HEAT-PROTECTIVE EQUIPMENT

When temperatures cannot be reduced sufficiently using engineering and administrative controls, indoor workers shall use personal heat-protective equipment to minimize the risk of heat illness unless deemed infeasible.

Examples of personal heat protective equipment include:

- Cooling vests
- Water or air-cooled garments
- Wetted over-garments
- Heat-reflective clothing
- Supplied-air personal cooling systems
- Neck fans

Hazard Considerations

Supervisors must assess the risk associated with adding personal heat-protective equipment. While they provide measures for cooling down the employee, they also add weight to the person's load and limit the employee's range of motion. Feasible engineering and administrative controls shall be introduced prior to considering personal heat-protective equipment.



Describe your procedures for provisioning personal heat-protective equipment.

Tip: Describe the types you will use and how you will ensure they do not interfere with an employee's ability to perform their tasks safely.

OR

Not applicable, as this facility is an outdoor place of employment only.

High-Heat Procedures for Outdoor Places of Employment

The requirements of subsection (e) of 8 CCR §3395 Heat Illness Prevention in Outdoor Places of Employment for employers to develop procedures for protecting employees working in outdoor high heat (temperatures exceeding 95°F) apply only to the following categories of employer:

- Agriculture
- Construction
- Landscaping
- Oil and gas extraction
- Transportation or delivery of agricultural products, construction materials, or other heavy materials – except for employment that consists of operating an air-conditioned vehicle and does not include loading operations.



Please check the appropriate box below to designate if these requirements apply to your workplace.

Remember: *This subsection is not applicable to all employers. Please carefully review the qualifiers.*

Our business is an indoor place of employment only; therefore, subsection (e) of 8 CCR §3395, Heat Illness Prevention in Outdoor Places of Employment, does not apply to our operations.

Our workplace is an outdoor place of employment, but not in one of the above-listed categories of employment; therefore, subsection (e) of 8 CCR §3395, Heat Illness Prevention in Outdoor Places of Employment, does not apply to our operations.

Our workplace is an outdoor place of employment in one of the above-listed categories. Therefore, subsection (e) of 8 CCR §3395, Heat Illness Prevention in Outdoor Places of Employment, applies to our operations.

PROCEDURES FOR APPLICABLE EMPLOYERS

When the outdoor temperature equals or exceeds 95° Fahrenheit, Company supervisors will implement ALL of these additional measures.

- Supervisors will conduct pre-shift meetings to both encourage employees to drink plenty of water and to remind employees of their right to take a cool-down rest when necessary.
- Throughout the shift, supervisors will continually remind employees to drink water.
- Effective communication methods will be employed along with frequent check-ins and extra vigilance to monitor employee health and signs of heat distress.
- Regular communication will be maintained with employees working alone, or a buddy system will be implemented.

Agricultural Employer-specific Requirements

Implement a minimum of a 10-minute preventative cool-down rest break every 2 hours. This break can be concurrent with meals or other rest periods. If the workday extends beyond 8 hours, an additional cool-down rest break will occur at the end of the 8th hour. If the workday extends beyond 10 hours, an additional cool-down rest break will occur at the end of the 10th hour.



Describe your high-heat procedures.

*Tips: Describe the communication methods you plan to use to keep in touch with employees, especially for those who will be working alone. How will you encourage employees to drink water? **Remember:** This is only applicable to outdoor employers in the categories listed above.*

OR

- Not applicable, as this facility is an indoor place of employment only.
- Not applicable, as this facility is an outdoor place of employment that does not fall into the employment categories that require provisions of this section.

First Aid & Emergency Response

Understanding Heat Illnesses

Your body has two main processes to maintain a stable 98.6° F body temperature: blood circulation closer to the surface of the skin and sweating. **Heat illness refers to serious and potentially life-threatening medical conditions that happen when the body is unable to cope with excessive heat.** Many work environments may have hot conditions that can lead to one or more heat illnesses.

	Type of Heat Illness	Description	Symptoms
Mild	Heat Rash	Visible skin irritation, such as a cluster of blisters, is caused by excessive sweating and clogged pores during hot, humid weather.	<ul style="list-style-type: none"> • Clusters of red bumps on the skin • Often appears on neck, upper chest, and skin folds
Moderate	Heat Cramps	Because sweating causes the body to lose salts, electrolytes, fluids, and minerals, painful muscle cramps may result.	<ul style="list-style-type: none"> • Muscle spasms or pain • Usually in legs, arms, or trunk

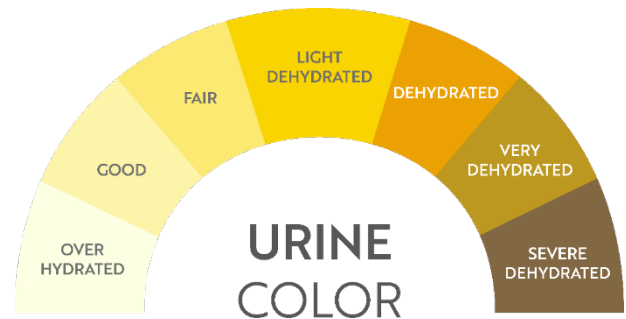
Moderate	Heat Syncope	In high-heat environments, the body compensates for how it circulates blood, and not enough oxygenated blood may reach the brain.	<ul style="list-style-type: none"> • Fainting • Dizziness
Severe	Rhabdomyolysis / Rhabdo	Associated with prolonged physical exertion and heat stress. A type of muscle breakdown that happens when proteins and electrolytes that are normally part of the muscle tissue are released into the bloodstream. These substances may damage the heart, kidneys, or other organs.	<ul style="list-style-type: none"> • Muscle pain • Dark urine or reduced urine output • Weakness
Severe	Heat Exhaustion	This happens when the body has lost too much water, salt, and electrolytes. The person may have a combination of heat illnesses, excessive weakness, shallow breathing, and a weak pulse.	<ul style="list-style-type: none"> • Fatigue • Irritability • Thirst • Nausea • Dizziness or lightheadedness • Heavy sweating • Elevated body temperature or fast heart rate
Severe	Acute Kidney Injury	Kidneys may become damaged when there is inadequate blood flow, or rhabdomyolysis affects kidney muscle tissue. If undiagnosed, it may lead to kidney failure.	<ul style="list-style-type: none"> • Diagnosed by elevated creatinine levels in the blood • Reduced urine output
Deadly	Heatstroke	THIS IS A LIFE-THREATENING CONDITION. It requires IMMEDIATE emergency medical care. If a person's body temperature rises too quickly, there is the potential for severe damage to the brain, muscles, and vital organs, as well as death.	<ul style="list-style-type: none"> • Confusion • Slurred speech • Unconsciousness • Seizures • Heavy sweating or hot, dry skin • Very high body temperature • Rapid heart rate

How to Recognize Symptoms of Dehydration

The best way to identify dehydration is for employees to monitor their urination frequency and its color. Avoid drinks with caffeine and high sugar content, such as soda, because they are not hydrating.

Signs of dehydration may include:

- Thirst
- Warm to the touch
- No longer sweating
- Headache
- Dizziness
- Flushed skin



How to Respond to Suspected Heat Illnesses in Others

Below are the practices that the Company follows for employees experiencing heat illnesses:

- Prior to assigning a crew to a worksite without healthcare services nearby, the Company will ensure that an appropriately trained and equipped person is available to render first aid, if necessary.
- 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 911 needs to be called. A sick employee will not be left alone in the shade or air-conditioned area, 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, 911 will be called.
- Emergency service providers will be called immediately if an employee displays signs or symptoms of severe heat illness:
 - Decreased level of consciousness
 - Staggering
 - Vomiting
 - Disorientation
 - Irrational behavior
 - Incoherent speech
 - Convulsions
 - Flushed face
- While an ambulance is in route, first aid will be initiated:
 - 1) Cool the employee by placing the employee in the shade or air-conditioned area.
 - 2) Remove excess layers of clothing.
 - 3) Place ice packs or cool wet towels on the employee's head, neck, trunk, armpits, and groin.
 - 4) Use fans to circulate air around the employee.
 - 5) The employee will not be left unattended or permitted to leave.
- If an employee is displaying signs of severe heat illness and the worksite is located over 20 minutes away from a hospital, 911 will be called, and an air ambulance/flight for life will be requested.

Emergency Protocols

- 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 supervisor or an English-speaking employee, to ensure that emergency medical services can be immediately called in the event of an emergency.
- All supervisors will carry cell phones to ensure that emergency medical services can be called. Prior to each shift, checks will be made to ensure that these electronic devices are functional. If an electronic device does not provide reliable communication in the work area, alternative means of contacting emergency responders will be provided.
- Effective communication by voice, observation, or electronic means shall be maintained so that employees can contact a supervisor when necessary.
- 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 progression to more serious illness. **Under no circumstances will the affected employee be left unattended.**
- At remote locations, such as rural lots or undeveloped areas, the supervisor will designate an employee to physically go to the nearest road or highway where emergency responders can see them. If daylight is fading, the designated employee shall be given a reflective vest or flashlight to direct emergency personnel to the sick employee's location, which may not be visible from the road. Alternatively, the affected employees shall be transported to an area where emergency responders can reach them.

Describe your emergency procedures.



*Tips: State your communication methods—phone/electronic, voice, observation, etc. What will your backup be if electronic means don't work? How will you ensure employees can give directions to the worksite? This prompt applies to **both indoor and outdoor employers**.*

Reporting

Cal/OSHA Reporting

If an employee's heat illness stemmed from the workplace, the following aspects must be reported to Cal/OSHA. The Company will follow any additional state reporting requirements as required.

- Report serious injuries or illnesses, such as in-patient heat illness hospitalizations, amputation, loss of an eye, or serious degree of permanent disfigurement, to Cal/OSHA within 8 hours.
- Report work-related heat illness deaths to Cal/OSHA within 8 hours.

What to Report

When reporting a fatality or hospitalization, Company representatives will provide the following information:

- Time and date of accident/event
- Employer's name, address and telephone number
- Name and job title of the person reporting the accident
- Address of accident/event site
- Name of person to contact at accident/event site
- Name and address of injured employee(s)
- Nature of injuries
- Location where injured employee(s) was/were taken for medical treatment
- List and identity of other law enforcement agencies present at the accident/event site
- Describe the accident/event and whether the accident scene or instrumentality has been altered.

Understanding Indoor Heat Measurements

Per the California Code of Regulations Title 8 §3396 Heat Illness Prevention in Indoor Places of Employment, indoor heat measurements are critical in determining the appropriate protections for employees.

WHEN ARE MEASUREMENTS REQUIRED?

Indoor temperature measurements are required when it's reasonably suspected that:

- The indoor temperature and/or heat index equals or exceeds 87° F.
- Employees are required to wear heat-restrictive clothing at temperatures or heat index of 82° F or higher.
- Employees work in high-temperature radiant areas at temperatures or heat index of 82° F or higher.

WHAT IS THE DIFFERENCE BETWEEN TEMPERATURE AND HEAT INDEX?

Temperature is a measurement, in degrees, that reflects the reading of the air by a thermometer. A heat index measurement considers not only the temperature of the air but also the relative humidity in the area. This is sometimes considered the “real feel” temperature, as it better reflects the stress put on the body to regulate both temperature and humidity. The heat index does not account for the heat generated by radiant heat sources.

DETERMINING THE HEAT INDEX

To determine the heat index, refer to the National Weather Service Heat Index Chart.

Example: Your thermometer's air temperature reading is 84° F, and the hygrometer's relative humidity reading is 60%. From referencing the heat index chart, you determine that the heat index is 88° F.

What does this mean for your workplace? Record the higher of the two measurements on your Indoor Heat Measurement Log – in this case, the heat index. Because the heat index is 88° F, it is greater than the 87° F threshold, and controls must be enacted to cool the temperature in the work area to the lowest feasible temperature.

Tip: If you don't want to consult a chart, heat index monitors are commercially available. Just make sure that the instrument uses the National Weather Service Heat Index Values.

HOW TO PERFORM A TEMPERATURE MEASUREMENT

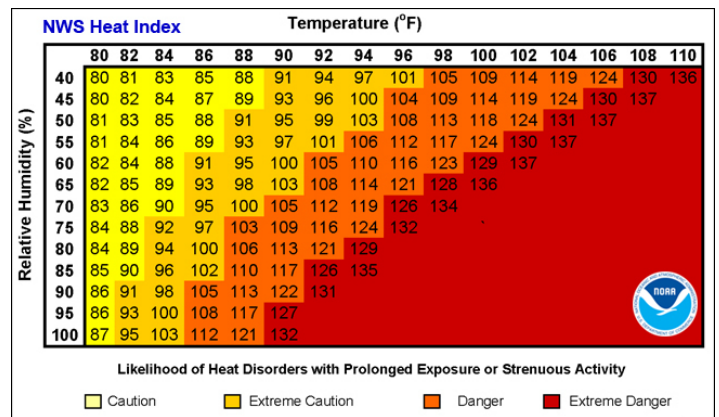
Expose the thermometer directly to air but shield it from direct exposure to heat sources such as sunlight, radiant heat, fire, etc. Remember: Take the temperature in areas where workers are located.

WHERE SHOULD I TAKE MY MEASUREMENTS?

If you haven't already, work with supervisors, employees, and union representatives (if applicable) to determine the locations that will serve as a representative sample of the workplace.

WHEN SHOULD I TAKE MEASUREMENTS?

Measurements should be taken when it is reasonably expected that the temperature will exceed the thresholds listed in the requirements section. Additionally, measurements should be taken when the highest heat exposure is expected and when it's reasonably expected that the temperature will be 10° F higher than the previous measurements.



The National Weather Service Heat Index Chart allows for the calculation of heat index when relative humidity and temperature data has been collected.

Appendix C: Additional Information (Optional)

Instructions: You can use this page to record additional information related to your heat illness prevention requirements.

Associated Prompt: _____

Additional Information:

Associated Prompt: _____

Additional Information:

Associated Prompt: _____

Additional Information:

Appendix D: National Weather Service Heat Index Chart

Instructions: This National Weather Service Heat Index Chart, as provided in Appendix A of California Code of Regulations Title 8 §3396 Heat Illness Prevention in Indoor Places of Employment, can be used to determine the heat index for indoor places of employment.

		Relative Humidity%																			
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Temperature °F	81	78	79	79	79	79	80	80	81	81	82	82	83	84	85	86	86	87	88	90	91
	82	79	79	80	80	80	80	81	81	82	83	84	84	85	88	88	89	90	91	93	95
	83	79	80	80	81	81	81	82	82	83	84	85	86	87	90	90	91	93	95	97	99
	84	80	81	81	81	82	82	83	83	84	85	86	88	89	92	93	94	96	98	100	103
	85	81	81	82	82	82	83	84	84	85	86	88	89	91	95	96	97	99	102	104	107
	86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108	112
	87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113	116
	88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117	121
	89	84	84	85	85	86	87	88	89	91	93	95	97	100	103	106	110	113	117	122	
	90	84	85	86	86	87	88	89	91	93	95	97	100	103	106	109	113	117	122	127	
	91	85	86	87	87	88	89	90	92	94	97	99	102	105	109	113	117	122	126	132	
	92	86	87	88	88	89	90	92	94	96	99	101	105	108	112	116	121	126	131		
	93	87	88	89	89	90	92	93	95	98	101	104	107	111	116	120	125	130	136		
	94	87	89	90	90	91	93	95	97	100	103	106	110	114	119	124	129	135	141		
	95	88	89	91	91	93	94	96	99	102	105	109	113	118	123	128	131	140			
	96	89	90	92	93	94	96	98	101	104	108	112	116	121	126	132	138	145			
	97	90	91	93	94	95	97	100	103	106	110	114	119	125	130	136	143	150			
	98	91	92	94	95	97	99	102	105	109	113	117	123	128	134	141	148				
	99	92	93	95	96	98	101	104	107	111	115	120	126	132	138	145	153				
	100	93	94	96	97	100	102	106	109	114	118	124	129	136	143	150	158				
101	93	95	97	99	101	104	108	112	116	121	127	133	140	147	155						
102	94	96	98	100	103	106	110	114	119	124	130	137	144	152	160						
103	95	97	99	101	104	108	112	116	122	127	134	141	148	157	165						

Source: National Weather Service Heat Index Chart (2019)