Administrative Summary for Heat Stress

Students in athletic programs, particularly football players, are at high risk of heat illness, especially during the preseason when they are undergoing rigorous training and trying to make the team. Tragically, fatalities have occurred in such situations. It is imperative for coaches to be vigilant about heat illness and adhere to the CDPH Extreme Heat Guidance for Schools. More information can be found here.

1. **Heat Stress is a legal requirement under Cal/OSHA under these conditions:**
   - **a.** Employees that spend more than 50% of their time outdoors. This includes groundskeepers and occasionally M&O/custodial staff. Cal/OSHA asks the employee how much time they spend outside and they take that number instead of what might be written in a job description. You should include all your employees that spend two hours or more outside.
   - **b.** When there is a temperature of 80 or higher.
   - **c.** If there are hot environments indoors, they need to be addressed (kitchens, shops…)
   - **d.** There are 2 main kinds:
     - **i.** *Heat Exhaustion* - severe overheating: heavy sweating, nausea, dizziness.
     - **ii.** *Heat Stroke* – body system shutdown: no sweating, unconsciousness, rising body temperature

2. **The legal requirements are:**
   - **a.** **Written procedures** for how you are complying with the regulations.
   - **b.** **Providing shade** for employees that work outdoors (not usually a problem in schools).
   - **c.** **Allowing employees to take breaks** and rest in the shade whenever they feel the need.
   - **d.** **Access to water** (not usually a problem in schools).
   - **e.** **Training for affected employees.** It must be documented. The JPA can provide this and it should be done at hire.
   - **f.** **Supervisor training** to ensure they know the requirements and that they can recognize the symptoms and know what to do.

3. **At-risk employees:**
   - **a.** Groundskeepers
   - **b.** M&O/custodians that are working outside occasionally, as acclimatization is a factor.
   - **c.** Some playground aides
   - **d.** Some athletic department employees
     - **i.** There have been many documented cases involving students in athletic programs, especially football, where the students are wearing heavy equipment, are physically exhausted, and don't stop for adequate water breaks. Coaches **MUST** be well trained on this subject.
   - **e.** Employees working outside on the first few hot days.
   - **f.** Employees on outdoor field trips, especially if there is a lot of walking.
   - **g.** Overweight employees or those in poor physical condition.
   - **h.** Additional factors; age, taking certain medications, alcohol consumption, caffeine, etc.

4. **Response:**
   - **a.** **For Heat Exhaustion:** treat the symptoms. Get them out of the heat, give water, and monitor. It can take a few hours to few days to fully recover. They may need medical attention.
   - **b.** **For Heat Stroke:** *call 911 immediately*. Then cool the person quickly: wet sheets, ice packs, etc.

M&O Summary for Heat Stress

Note: Heat Stress/Illness is one of the newer Cal/OSHA regulations and they are asking about it most of the time. If they stop by for a visit, you might need to provide them with now you are complying. They have determined that 63% of heat illness fatalities occurred under supervisors that were not trained. As a supervisor, you will need proof of training.

The most likely people to be affected by a heat illness are students in athletic programs like football, especially during the preseason when students are still trying to make the team (2-a-days or physical training). Fatalities due to heat illness have happened in that situation. Although coaches are responsible for this, please watch them and remind them if they forget.

1. **Heat Stress is a legal requirement under Cal/OSHA. The admin summary addresses who is included and lists the regulations.**
   - **a.** Be conservative when deciding who to works at least 50% outdoors. Cal/OSHA includes roads, loading docks, and even sheds if they are hot enough inside. Also note that it is those people that don't usually work outdoors and are suddenly thrust into it that often have an incident.
   - **b.** Cal/OSHA is also applying this to hot indoor environments.
   - **c.** Do not forget roofs and attics. Attics can climb to 125 or more on hot days with no ventilation and some M&O people work alone.
   - **d.** The minimum temperature when this applies is 80 degrees unless circumstances cause a greater heat load than normal (work type, worker fitness, ventilation…)

2. **Compliance Tips**
   Note: Cal/OSHA has stated that it is not enough for supervisors to provide heat stress training to their employees. Supervisors must also follow up to ensure compliance.
   - **a.** **Written procedures:** The JPA provides a handout that can serve as your written procedure, but you will need to be sure you do what is written or that you modify it to reflect what you actually do.
   - **b.** **Shade:** Can be an issue for mowing/lawn care. Schedule those tasks for as early as you can.
   - **c.** **Breaks:** Allow 5 minute breaks whenever the employee feels they need them. This may mean that you get less work done on very hot days. If that becomes an issue, one solution is to start work just before daybreak so that the outdoor tasks can be started at dawn.
   - **d.** **Water:** You do not have to provide bottled water – tap or fountain water is fine. You do need to provide some kind of water bottle and some districts find it easier to use bottled water. It does not have to be kept in a cooler but it should be "suitably cool". Provide a quart an hour.
   - **e.** **Training:** The list of topics is in the regulation (attached). It must absolutely be done before working outdoors, but it is recommended you at least hand out something at initial hire. You also need documented training.

3. **Daily Observation and First Aid Response:**
   - **a.** Monitor your employees for symptoms, especially new employees, those doing outdoor work for the first time, those in poor physical condition, taking medications, and during the first few hot weeks. Push water on them.
   - **b.** Victims rarely realize they are exhibiting symptoms: train your people to watch each other.
   - **c.** If you have people working alone, you will need to check on them periodically.
   - **d.** If anyone faints from the heat and they are not sweating, **call 911.**

HEAT ILLNESS PREVENTION PLAN

District Name

Street Address

City **State** **ZIP Code**

The following designated person/persons (Administrator/Safety Coordinator/MOT Supervisor) have the authority and responsibility for implementing the provisions of this program at this worksite.

Name/Title/Phone Number

1. _____

2. _____

3. _____

4. _____

CAL/OSHA HEAT ADVISORY

When employees work in hot conditions, employers must take special precautions in order to prevent heat illness. Heat illness can progress to heat stroke and be fatal, especially when emergency treatment is delayed. An effective approach to heat illness is vital to protecting the lives of California workers.

California law requires employers to identify and evaluate workplace hazards and take the steps necessary to address them. The risk of heat illness can be significantly reduced by consistently following just a few simple steps. Employers of outdoor workers at temporary work locations must be particularly alert and also plan for providing first aid and emergency medical services should they become necessary. All workers should be accounted for during and at the end of the work shift.

Heat illness results from a combination of factors including environmental temperature and humidity, direct radiant heat from the sun or other sources, air speed, and workload. Personal factors, such as age, weight, level of fitness, medical condition, use of medications and alcohol, and acclimatization effect how well the body deals with excess heat.

HEAT ILLNESS RISK REDUCTION

1. Recognize the Hazard.

There is no absolute cut-off below which work in heat is not a risk. With heavy work at high relative humidity or if workers are wearing protective clothing, even work at 70°F can present a risk. In the relative humidity levels often found in hot areas of California (20 to 40 percent) employers need to take some actions to effectively reduce heat illness risk when temperatures approach 80 °F. At temperatures above 90 °F, especially with heavy work, heat risk reduction needs to be a major concern.

2. Water.

There must be an adequate supply of clean, cool, potable water. Employees who are working in the heat need to drink 3-4 glasses of water per hour, including at the start of the shift, in order to replace the water lost to sweat. For an eight-hour day this means employers must provide two or more gallons per person. Thirst is an unreliable indicator of dehydration. Employees often need ongoing encouragement to consume adequate fluids, especially when the workload or process does not encourage breaks.

3. Shade.

The direct heat of the sun can add as much as 15 degrees to the heat index. If possible, work should be performed in the shade. If not, employers where possible, should provide a shaded area for breaks and when employees need relief from the sun. Wide brimmed hats can also decrease the impact of direct heat.

4. Acclimatization.

People need time for their bodies to adjust to working in heat. This "acclimatization" is particularly important for employees returning to work after (1) a prolonged absence, (2) recent illness, or (3) recently moving from a cool to a hot climate. For heavy work under very hot conditions, a period of 4 to 10 days of progressively increasing work time starting with about 2 hours work per day under the working conditions is recommended. For less severe conditions at least the first 2 or 3 days of work in the heat should be limited to 2 to 4 hours. Monitor employees closely for signs and symptoms of heat illness, particularly when they have not been working in heat for the last few days, and when a heat wave occurs.

5. Rest Breaks.

Rest breaks are important to reduce internal heat load and provide time for cooling. Heat illness occurs due to a combination of environmental and internal heat that cannot be adequately dissipated. Breaks should be taken in cooler, shaded areas. Rest breaks also provide an opportunity to drink water.

6. Prompt Medical Attention.

Recognizing the symptoms of heat illness and providing an effective response requires promptly acting on early warning signs. Common early symptoms and signs of heat illness include headache, muscle cramps, and unusual fatigue. However, progression to more serious illness can be rapid and can include unusual behavior, nausea/vomiting, weakness, rapid pulse excessive sweating or hot dry skin, seizures, and fainting or loss of consciousness.

Any of these symptoms require immediate attention.

Even the initial symptoms may indicate serious heat exposure. If medical personnel are not immediately available on-site, and you suspect severe heat illness, you must call 911.

Regardless of the worker's protests, no employee with any of the symptoms of possible serious heat illness noted above should be sent home or left unattended without medical assessment and authorization.

7. Training.

Supervisors and employees must be trained in the risks of heat illness, and the measures to protect themselves and their co-workers. Training should include:

- Why it is important to prevent heat illness
- Procedures for acclimatization
- The need to drink approximately one quart per hour of water to replace fluids.
- The need to take breaks out of the heat
- How to recognize the symptoms of heat illness
- How to contact emergency services, and how to effectively report the work location to 911.

Subchapter 7. General Industry Safety Orders Group 2. Safe Practices and Personal Protection Article 10. Personal Safety Devices and Safeguards

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§3395. Heat Illness Prevention

(a) Title, Scope, and Application.

(1) This section shall be known and may be cited as the Maria Isabel Vasquez Jimenez heat illness standard, and shall apply to all outdoor places of employment.

Exception: If an industry is not listed in subsection (a)(2), employers in that industry are not required to comply with subsection (e), High-heat procedures.

(2) List of industries subject to all provisions of this standard, including subsection (e):

(A) Agriculture

(B) Construction

(C) Landscaping

(D) Oil and gas extraction

(E) Transportation or delivery of agricultural products, construction materials or other heavy materials (e.g. furniture, lumber, freight, cargo, cabinets, industrial or commercial materials), except for employment that consists of operating an air-conditioned vehicle and does not include loading or unloading.

(3) This section applies to the control of risk of occurrence of heat illness. This is not intended to exclude the application of other sections of Title 8, including, but not necessarily limited to, sections 1512, 1524, 3203, 3363, 3400, 3439, 3457, 6251, 6512, 6969, 6975, 8420 and 8602(e).

Note No. 1: The measures required here may be integrated into the employer's written Injury and Illness Program required by section 3203, or maintained in a separate document.

Note No. 2: This standard is enforceable by the Division of Occupational Safety and Health pursuant to Labor Code sections 6308 and 6317 and any other statutes conferring enforcement powers upon the Division. It is a violation of Labor Code sections 6310, 6311, and 6312 to discharge or discriminate in any other manner against employees for exercising their rights under this or any other provision offering occupational safety and health protection to employees.

(b) Definitions.

“Acclimatization” means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

“Heat Illness” means 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.

“Environmental risk factors for heat illness” means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources,

conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

“Landscaping” means providing landscape care and maintenance services and/or installing trees, shrubs, plants, lawns, or gardens, or providing these services in conjunction with the design of landscape plans and/or the construction (i.e., installation) of walkways, retaining walls, decks, fences, ponds, and similar structures, except for employment by an employer who operates a fixed establishment where the work is to be performed and where drinking water is plumbed.

“Oil and gas extraction” means operating and/or developing oil and gas field properties, exploring for crude petroleum or natural gas, mining or extracting of oil or gas or recovering liquid hydrocarbons from oil or gas field gases.

“Personal risk factors for heat illness” means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

“Shade” means 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.

“Temperature” means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the bulb or sensor of the thermometer should be shielded while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

(c) Provision of water. Employees shall have access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable, including but not limited to the requirements that it be fresh, pure, suitably cool, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water, as described in subsection (h)(1)(C), shall be encouraged.

(d) Access to shade.

(1) Shade shall be present when the temperature exceeds 80 degrees Fahrenheit. When the outdoor temperature in the work area exceeds 80 degrees Fahrenheit, the employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling. The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shade shall be located as close as practicable to the areas where employees are working. Subject to the same specifications, the amount of shade present during meal periods shall be at least enough to accommodate the number of employees on the meal period who remain onsite.

(2) Shade shall be available when the temperature does not exceed 80 degrees Fahrenheit. When the outdoor temperature in the work area does not exceed 80 degrees Fahrenheit employers shall either provide shade as per subsection (d)(1) or provide timely access to shade upon an employee's request.

(3) 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 (A) shall be monitored and asked if he or she is experiencing symptoms of heat illness; (B) shall be encouraged to remain in the shade; and (C) 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.

(4) If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool-down rest or during a preventative cool-down rest period, the employer shall provide appropriate first aid or emergency response according to subsection (f) of this section.

Exceptions to subsections (d)(1) and (d)(2):

(1) Where the employer can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, the employer may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection.

(2) Except for employers in the agricultural industry, cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

(e) High-heat procedures. The employer shall implement high-heat procedures when the temperature equals or exceeds 95 degrees Fahrenheit. These procedures shall include the following to the extent practicable:

(1) Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.

(2) Observing employees for alertness and signs or symptoms of heat illness. The employer shall ensure effective employee observation/monitoring by implementing one or more of the following:

(A) Supervisor or designee observation of 20 or fewer employees, or

(B) Mandatory buddy system, or

(C) Regular communication with sole employee such as by radio or cellular phone, or

(D) Other effective means of observation.

(3) Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.

(4) Reminding employees throughout the work shift to drink plenty of water.

(5) Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary.

(6) For employees employed in agriculture, the following shall also apply:

When temperatures reach 95 degrees or above, the employer shall ensure that the employee takes a minimum ten minute net preventative cool-down rest period every two hours. The preventative cool-down rest period required by this paragraph may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 (8 CCR 11140) if the timing of the preventative cool-down rest period coincides with a required meal or rest period thus resulting in no additional preventative cool-down rest period required in an eight hour workday. If the workday will extend beyond eight hours, then an additional preventative cool-down rest period will be required at the conclusion of the eighth hour of work; and if the workday extends beyond ten hours, then another preventative cool-down rest period will be required at the conclusion of the tenth hour and so on. For purposes of this section, preventative cool-down rest period has the same meaning as “recovery period” in Labor Code Section 226.7(a).

(f) Emergency Response Procedures. The Employer shall implement effective emergency response procedures including:

(1) Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor or emergency medical services when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services.

(2) Responding to signs and symptoms of possible heat illness, including but not limited to first aid measures and how emergency medical services will be provided.

(A) If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness.

(B) 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.

(C) 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 in accordance with the employer's procedures.

(3) Contacting emergency medical services and, if necessary, transporting employees to a place where they can be reached by an emergency medical provider.

(4) Ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.

(g) Acclimatization.

(1) All employees shall be closely observed by a supervisor or designee during 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.

(2) An employee who has been newly assigned to a high heat area shall be closely observed by a supervisor or designee for the first 14 days of the employee's employment.

(h) Training.

(1) Employee training. Effective training in the following topics shall be provided to each supervisory and non-supervisory employee before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness:

(A) 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.

(B) The employer's procedures for complying with the requirements of this standard, including, but not limited to, the employer's 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.

(C) The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.

(D) The concept, importance, and methods of acclimatization pursuant to the employer's procedures under subsection (i)(4).

(E) The different types of heat illness, the common signs and symptoms of heat illness, and 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.

(F) The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.

(G) The employer's procedures for responding to signs or symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.

(H) The employer's 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.

(I) The employer's procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders. These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.

(2) Supervisor training. Prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness effective training on the following topics shall be provided to the supervisor:

(A) The information required to be provided by section (h)(1) above.

(B) The procedures the supervisor is to follow to implement the applicable provisions in this section.

(C) The procedures the supervisor is to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures.

(D) How to monitor weather reports and how to respond to hot weather advisories.

(i) Heat Illness Prevention Plan. The employer shall establish, implement, and maintain, an effective heat illness prevention plan. The plan shall be in writing in both English and the language understood by the majority of the employees and shall be made available at the worksite to employees and to representatives of the Division upon request. The Heat Illness Prevention Plan may be included as part of the employer's Illness and Injury Prevention Program required by section 3203, and shall, at a minimum, contain:

(1) Procedures for the provision of water and access to shade.

(2) The high heat procedures referred to in subsection (e).

(3) Emergency Response Procedures in accordance with subsection (f).

(4) Acclimatization methods and procedures in accordance with subsection (g)

§3396. Heat Illness Prevention in Indoor Places of Employment.

(a) Scope and Application.

(1) This section applies to all indoor work areas where the temperature equals or exceeds 82 degrees Fahrenheit when employees are present.

EXCEPTIONS:

(A) For indoor work areas not subject to any of the conditions listed in subsection (a)(2), the employer is not required to comply with subsection (e).

(B) This section does not apply to places of employment where employees are teleworking from a location of the employee's choice, which is not under the control of the employer.

(C) This section does not apply to incidental heat exposures where an employee is exposed to temperatures at or above 82 degrees Fahrenheit and below 95 degrees Fahrenheit for less than 15 minutes in any 60-minute period. This exception does not apply to the following:

1. Vehicles without effective and functioning air conditioning; or
2. Shipping or intermodal containers during loading, unloading, or related work.

(D) This section does not apply to emergency operations directly involved in the protection of life or property.

(E) The following employers and places of employment are exempt from this section:

1. Prisons, as defined by section 6082 of the Penal Code, operated by the California Department of Corrections and Rehabilitation.
2. “Local detention facilities” as defined by Section 6031.4 of the Penal Code that are operated by a local government.
3. "Juvenile facilities” as defined by Section 850 of the Welfare and Institutions Code and subdivision (g) of Section 875 of the Welfare and Institutions Code that are operated by a local government.

(2) Conditions under which an indoor work area is subject to all provisions of this section, including subsection (e):

(A) The temperature equals or exceeds 87 degrees Fahrenheit when employees are present; or

(B) The heat index equals or exceeds 87 degrees Fahrenheit when employees are present; or

(C) Employees wear clothing that restricts heat removal and the temperature equals or exceeds 82 degrees Fahrenheit; or

(D) Employees work in a high radiant heat area and the temperature equals or exceeds 82 degrees Fahrenheit.

(3) This section applies in any other setting identified in writing by the Division of Occupational Safety and Health (the Division) through the issuance of an Order to Take Special Action, in accordance with section 332.3.

(4) This section applies to the control of risk of occurrence of heat illness. This is not intended to exclude the application of other sections of title 8, including, but not necessarily limited to, sections 1512, 1524, 3203, 3363, 3395, 3400, 3439, 3457, 6251, 6512, 6969, 6975, 8420 and 8602(e).

NOTE NO. 1: The measures required here may be integrated into the employer's written Injury and Illness Prevention Program required by section 3203, the employer's written Heat Illness Prevention Plan required by subsection 3395(i), or maintained in a separate document.

NOTE NO. 2: This section is enforceable by the Division pursuant to Labor Code sections 6308 and 6317 and any other statutes conferring enforcement powers upon the Division.

It is a violation of Labor Code sections 6310, 6311, and 6312 to discharge or discriminate in any other manner against employees for exercising their rights under this or any other provision offering occupational safety and health protection to employees.

NOTE NO. 3: This section does not exempt state entities and departments from complying with State Administrative Manual section 1805.3.

(b) Definitions.

(1) "Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

(2) "Administrative control" means a method to limit exposure to a hazard by adjustment of work procedures, practices, or schedules. Examples of administrative controls that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: acclimatizing employees, rotating employees, scheduling work earlier or later in the day, using work/rest schedules, reducing work intensity or speed, reducing work hours, changing required work clothing, and using relief workers.

(3) "Clothing that restricts heat removal" means full-body clothing covering the arms, legs, and torso that is any of the following:

(A) Waterproof; or

(B) Designed to protect the wearer from a chemical, biological, physical, radiological, or firehazard; or

(C) Designed to protect the wearer or the work process from contamination.

EXCEPTION to subsection (b)(3): "Clothing that restricts heat removal" does not include clothing demonstrated by the employer to be all of the following:

(A) Constructed only of knit or woven fibers, or otherwise an air and water vapor permeable material; and

(B) Worn in lieu of the employee's street clothing; and

(C) Worn without a full-body thermal, vapor, or moisture barrier.

(4) "Cool-down area" means an indoor or outdoor area that is blocked from direct sunlight and shielded from other high radiant heat sources to the extent feasible and is either open to the air or provided with ventilation or cooling. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. A cool-down area does not include a location where:

(A) Environmental risk factors defeat the purpose of allowing the body to cool; or

(B) Employees are exposed to unsafe or unhealthy conditions; or

(C) Employees are deterred or discouraged from accessing or using the cool-down area.

(5) "Engineering control" means a method of control or a device that removes or reduces hazardous conditions or creates a barrier between the employee and the hazard. Examples of engineering controls that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: isolation of hot processes, isolation of employees from sources of heat, air conditioning, cooling fans, cooling mist fans, evaporative coolers (also called swamp coolers), natural ventilation where the outdoor temperature or heat index is lower than the indoor temperature or heat index, local exhaust ventilation, shielding from a radiant heat source, and insulation of hot surfaces.

(6) "Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including: air temperature, air movement, relative humidity, radiant heat from the sun and other sources; conductive heat sources such as the ground, workload severity and duration, protective clothing, and personal protective equipment worn by employees.

(7) "Globe temperature" means the temperature measured by a globe thermometer, which consists of a thermometer sensor in the center of a six-inch diameter hollow copper sphere painted on the outside with a matte black finish, or equivalent. The globe thermometer may not be shielded from direct exposure to radiant heat while the globe temperature is being measured.

(8) "Heat illness" means 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.

(9) "Heat index" means a measure of heat stress developed by the National Weather Service (NWS) for outdoor environments that takes into account the dry bulb temperature and the relative humidity. For purposes of this section, heat index refers to conditions in indoor work areas. Radiant heat is not included in the heat index. The required NWS heat index chart (2019) is in Appendix A to section 3396.

(10) "Heat wave" means 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, for the purpose of this section only.

(11) "High radiant heat area" means a work area where the globe temperature is at least five degrees Fahrenheit greater than the temperature, as defined in subsection (b)(20).

(12) "High radiant heat source" means any object, surface, or other source of radiant heat that, if not shielded, would raise the globe temperature of the cool-down area five degrees Fahrenheit or greater than the dry bulb temperature of the cool-down area.

(13) "Indoor" refers to 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.

(14) "Personal heat-protective equipment" means equipment worn to protect the user against heat illness. Examples of personal heat-protective equipment that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: water-cooled garments, air-cooled garments, cooling vests, wetted over-garments, heat-reflective clothing, and supplied-air personal cooling systems.

(15) "Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of medications that affect the body's water retention or other physiological responses to heat.

(16) "Preventative cool-down rest" means a rest taken in a cool-down area to prevent overheating.

(17) "Radiant heat" means 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.

(18) "Relative humidity" means the amount of moisture in the air relative to the amount that would be present if the air were saturated.

(19) "Shielding" means a physical barrier between radiant heat sources and employees that reduces the transmission of radiant heat.

(20) "Temperature" means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer freely exposed to the air without considering humidity or radiant heat, to measure the temperature in the immediate area where employees are located.

(21) "Union representative" means a recognized or certified collective bargaining agent representing the employees.

(c) Provision of Water. Employees shall have access to potable drinking water meeting the requirements of sections 1524, 3363, and 3457, as applicable, including but not limited to the requirements that it be fresh, pure, suitably cool, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working and in indoor cool-down areas required by subsection (d). Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent consumption of water, as described in subsection (h)(1)(C), shall be encouraged.

(d) Access to Cool-Down Areas.

(1) The employer shall have and maintain one or more cool-down areas at all times while employees are present. The cool-down area shall be at least large enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a normal posture fully in the cool-down areas without having to be in physical contact with each other. The cool-down area shall be located as close as practicable to the areas where employees are working. Subject to the same specifications, the size of the cool-down area during meal periods shall be at least large enough to accommodate the number of

employees on the meal period who remain onsite. The temperature in indoor cool-down areas shall be maintained at less than 82 degrees Fahrenheit, unless the employer demonstrates it is infeasible.

(2) Employers shall allow and encourage employees to take a preventative cool-down rest in a cool-down area when employees feel the need to do so to protect themselves from overheating. Such access to cool-down areas shall be permitted at all times. An individual employee who takes a preventative cool-down rest:

(A) Shall be monitored and asked if they are experiencing symptoms of heat illness;

(B) Shall be encouraged to remain in the cool-down area; and

(C) Shall not be ordered back to work until any signs or symptoms of heat illness have abated, and in no event less than five minutes in addition to the time needed to access the cool-down area.

(3) If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool-down rest or during a preventative cool-down rest period, the employer shall provide appropriate first aid or emergency response according to subsection (f). For purposes of this section, preventative cool-down rest period has the same meaning as "recovery period" in Labor Code subsection 226.7(a).

(e) Assessment and Control Measures. This subsection only applies to work areas subject to one or more of the conditions listed in subsection (a)(2).

(1) As specified in subsections (e)(1)(A) through (e)(1)(D), the employer shall measure the temperature and heat index, and record whichever is greater. The employer shall also identify and evaluate all other environmental risk factors for heat illness.

(A) The employer shall establish and maintain accurate records of either the temperature or heat index measurements, whichever value is greater, as required by subsection (e)(1). The records shall include the date, time, and specific location of all measurements.

(B) Temperature and heat index measurements, as required by subsection (e)(1), shall be taken as follows:

1. Initial measurements shall be taken when it is reasonable to suspect that subsection (e) applies where employees work and at times during the work shift when employee exposures are expected to be the greatest.

2. Measurements shall be taken again when they are reasonably expected to be 10 degrees or more above the previous measurements where employees work and at times during the work shift when employee exposures are expected to be the greatest.

3. Records, as required by subsection (e)(1)(A), shall be retained for 12 months or until the next measurements are taken, whichever is later. The records shall be made available to employees, designated representatives as defined in section 3204, and representatives of the Division at the worksite and upon request.

(C) Instruments used to measure the temperature or heat index shall be used and maintained according to the manufacturers' recommendations. Instruments used to measure the heat index shall provide the same results as those in the NWS heat index chart in Appendix A.

(D) The employer shall have effective procedures to obtain the active involvement of employees and their union representatives in the following:

1. Planning, conducting, and recording the measurements of temperature or heat index, whichever is greater, as required by subsection (e)(1).

2. Identifying and evaluating all other environmental risk factors for heat illness.

EXCEPTIONS to subsection (e)(1):

(A) In lieu of complying with subsection (e)(1), an employer may assume a work area is subject to one or more of the conditions listed in subsection (a)(2). Such employers shall comply with subsection (e)(2).

(B) Vehicles with effective and functioning air conditioning.

(2) The employer shall use control measures as specified in subsections (e)(2)(A) through (e)(2)(C) to minimize the risk of heat illness. The selection of control measures shall be based on the environmental risk factors for heat illness present in the work area.

(A) Engineering controls. Engineering controls shall be used to reduce and maintain both the temperature and heat index to below 87 degrees Fahrenheit when employees are present, or to reduce the temperature to below 82 degrees Fahrenheit where employees wear clothing that restricts heat removal or work in high radiant heat areas, except to the extent that the employer demonstrates such controls are infeasible. When such controls are infeasible to meet the temperature and heat index thresholds, the employer shall:

1. Use engineering controls to reduce the temperature, heat index, or both, whichever applies, to the lowest feasible level, except to the extent that the employer demonstrates such controls are infeasible; and

2. Use engineering controls to otherwise minimize the risk of heat illness, except to the extent that the employer demonstrates such controls are infeasible.

(B) Administrative controls. Where feasible engineering controls are not sufficient to reduce and maintain the temperature and heat index to below 87 degrees Fahrenheit when employees are present or the temperature to below 82 degrees Fahrenheit where employees wear clothing that restricts heat removal or work in high radiant heat areas, administrative controls shall be used to minimize the risk of heat illness, except to the extent that the employer demonstrates such controls are infeasible.

(C) Personal heat-protective equipment. Where feasible engineering controls are not sufficient to reduce and maintain the temperature and heat index to below 87 degrees Fahrenheit when employees are present or the temperature to below 82 degrees Fahrenheit where employees wear clothing that restricts heat removal or work in high radiant heat areas and feasible administrative controls do not minimize the risk of heat illness, personal heat-protective equipment shall be used to minimize the risk of heat illness, except to the extent that the employer demonstrates that use of such equipment is infeasible.

(f) Emergency Response Procedures. The employer shall implement effective emergency response procedures including:

(1) Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the worksite can contact a supervisor or emergency medical services when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services.

(2) Responding to signs and symptoms of possible heat illness, including but not limited to first aid measures and how emergency medical services will be provided.

(A) If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness.

(B) 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.

(C) 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 in accordance with the employer's emergency response procedures including contacting emergency medical services.

(3) Contacting emergency medical services and, if necessary, transporting employees to a place where they can be reached by an emergency responder.

(4) Ensuring that, in the event of an emergency, clear and precise directions to the worksite can and will be provided as needed to emergency responders.

(g) Acclimatization.

(1) Where no effective engineering controls are in use to control the effect of outdoor heat on indoor temperature, all employees shall be closely observed by a supervisor or designee during a heat wave.

(2) An employee who has been newly assigned to any of the following shall be closely observed by a supervisor or designee for the first 14 days of employment:

(A) In a work area where the temperature or heat index, whichever is greater, equals or exceeds 87 degrees Fahrenheit; or

(B) In a work area where the temperature equals or exceeds 82 degrees Fahrenheit for employees who wear clothing that restricts heat removal; or

(C) In a high radiant heat area where the temperature equals or exceeds 82 degrees Fahrenheit.

(h) Training.

(1) Employee training. Effective training in the following topics shall be provided to each supervisory and non-supervisory employee before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness:

(A) 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.

(B) The employer's procedures for complying with the requirements of this section, including, but not limited to, the employer's responsibility to provide water, cool- down areas, cool-down rests, control measures, and access to first aid as well as the employees' right to exercise their rights under this section without retaliation.

(C) The importance of frequent consumption of small quantities of water, up to four cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.

(D) The concept, importance, and methods of acclimatization pursuant to the employer's procedures under subsection (i)(5).

(E) The different types of heat illness, the common signs and symptoms of heat illness, and 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.

(F) The importance of employees immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.

(G) The employer's procedures for responding to signs or symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.

(H) The employer's procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency responder.

(I) The employer's procedures for ensuring that, in the event of an emergency, clear and precise directions to the worksite can and will be provided as needed to emergency responders. These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.

(2) Supervisor training. Prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness, effective training on the following topics shall be provided to the supervisor:

(A) The information required to be provided by subsection (h)(1).

(B) The procedures the supervisor is to follow to implement the applicable provisions in this section.

(C) The procedures the supervisor is to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures.

(D) Where the work area is affected by outdoor temperatures, how to monitor weather reports and how to respond to hot weather advisories.

NOTE: Where employees are covered by section 3395 and this section, the training program for this section can be integrated into section 3395 training.

(i) Heat Illness Prevention Plan. The employer shall establish, implement, and maintain an effective Heat Illness Prevention Plan. The plan shall be in writing in both English and the language understood by the majority of the employees and shall be made available at the worksite to employees and to representatives of the Division upon request. The Heat Illness Prevention Plan may be included as part of the employer's

Injury and Illness Prevention Program required by section 3203 or Heat Illness Prevention Plan required by section 3395 and shall, at a minimum, contain:

(1) Procedures for the provision of water in accordance with subsection (c).

(2) Procedures for access to cool-down areas in accordance with subsection (d).

(3) Procedures, in accordance with subsection (e), to measure the temperature and heat index, and record whichever is greater; identify and evaluate all other environmental risk factors for heat illness; and implement control measures.

(4) Emergency response procedures in accordance with subsection (f).

(5) Procedures for acclimatization in accordance with subsection (g).

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 144.6, and 6720, Labor Code.

TITLE 8, DIVISION 1, CHAPTER 4

Add new Appendix A to new Section 3396 to read:

Appendix A to Section 3396. National Weather Service Heat Index Chart (2019).

Temperature °F \ Relative Humidity %	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87
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	86	88	89	90	91	93	95
83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97	99
84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100	103
85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	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	92	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	134	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					
104	96	98	100	103	106	110	114	119	124	131	137	145	153	161						
105	97	99	102	104	108	112	116	121	127	134	141	149	157	166						
106	98	100	103	106	109	114	119	124	130	137	145	153	162	172						
107	99	101	104	107	111	116	121	127	134	141	149	157	167							
108	100	102	105	109	113	118	123	130	137	144	153	162	172							

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	109	100	103	107	110	115	120	126	133	140	148	157	167	177							
	110	101	104	108	112	117	122	129	136	143	152	161	171								
	111	102	106	109	114	119	125	131	139	147	156	166	176								
	112	104	107	111	115	121	127	134	142	150	160	170	181								
	113	104	108	112	117	123	129	137	145	154	164	175									
	114	105	109	113	119	125	132	140	148	158	168	179									
	115	106	110	115	121	127	134	143	152	162	173	184									
	116	107	111	116	122	129	137	146	155	166	177										
	117	108	112	118	124	132	140	149	159	170	181										
	118	108	113	119	126	134	142	152	162	174	186										
	119	109	114	121	128	136	145	155	166	178											
	120	110	116	122	130	138	148	158	170	182											
	121	111	117	124	132	141	151	162	174	187											
	122	111	118	125	134	143	154	165	178												
	123	112	119	127	136	146	157	169	182												
	124	113	120	129	138	148	160	172													
	125	114	121	130	140	151	163	176													

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3, 144.6, and 6720, Labor Code.

Heat Illness Prevention
Guidance for Workers

Awareness of heat illness symptoms can save your life or the life of a co-worker

- If you are coming back to work from an illness or an extended break or you are just starting a job working in the heat, it is important to be aware that you are more vulnerable to heat stress until your body has time to adjust. Let your employer know you are not used to the heat. It takes about 5 – 7 days for your body to adjust.

- Drinking plenty of water frequently is vital to workers exposed to the heat. An individual may produce as much as 2 to 3 gallons of sweat per day. In order to replenish that fluid the worker should drink 3 to 4 cups of water every hour starting at the beginning of your shift.

- Taking your breaks in a cool shaded area and allowing time for recovery from the heat during the day are effective ways to avoid heat illness.

- Avoid or limit the use of alcohol and caffeine during periods of extreme heat. Both dehydrate the body.

- If you or a co-worker start to feel symptoms such as nausea, dizziness, weakness or unusual fatigue, let your supervisor know and rest in a cool shaded area. If symptoms persist or worsen seek immediate medical attention.

- Whenever possible, wear clothing that provides protection from the sun but allows airflow to the body. Protect your head and shade your eyes if working outdoors.

- When working in the heat be sure to pay extra attention to your co- workers and be sure you know how to call for medical attention.

For more information call Cal/OSHA or visit our Web site at: www.dir.ca.gov

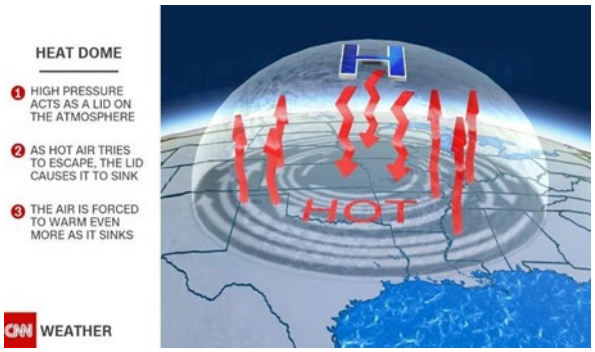
Heat Illness Prevention Plan

Objective

The purpose of the Heat Illness Prevention Plan is to meet the requirements set forth in California Code of Regulations, Title 8, and also to serve as a supplement to School District's Injury and Illness Prevention Program (IIPP). This information is intended and must be used in conjunction with the IIPP. The Heat Illness Prevention Guide establishes procedures and provides information which is necessary to ensure that workers are knowledgeable in the prevention and recognition of heat related Illness, including heat illness prevention guidance, to ensure their own safety and the safety of others.

It is the policy of the School District to prevent heat illnesses among employees. Employee Groups considered to be at risk include the following job areas:

- Food Service
- Maintenance, Custodial and Grounds
- Coaches, PE Teachers
- Security, Campus Liaisons
- Playground Supervisors
- Bus Drivers and Mechanics



The trigger temperature that supervisors will use to alter schedules and prevent employees from working in excessive heat is 103o F – OR a Heat Index of 84 (see the Temperature Humidity Chart on Page 28).

A Heat Illness App can be downloaded at https://www.osha.gov/heat/heat-app

When the temperature is between 100ºF and 103ºF, employee work may be modified to allow for tasks away from the outside heat. A second trigger temperature of 104ºF to 109ºF will be used to terminate any outside work or activity.

The threshold temperature for initiating "high heat procedures" is 95 degrees. High heat procedures include a means of observing employees for heat illness symptoms; a designated on-site employee to call for emergency medical services; and a pre-shift meeting to review high-heat precautions.

In addition, shade and water will always be available to all staff, no matter the temperature. Please report any incidents involving heat illness to the District Office.

To accomplish these objectives, the School District has adopted the following policies and procedures:

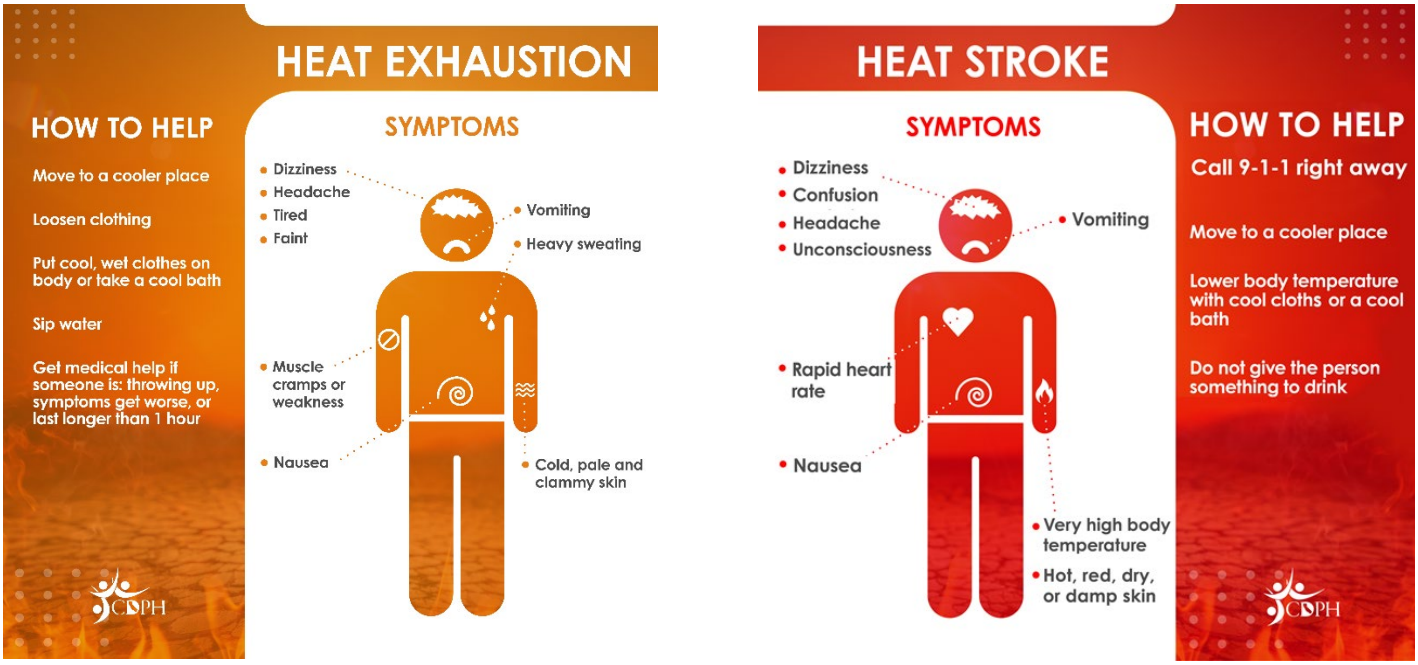
Water:

All employees who work in a hot environment shall be provided with water adequate to prevent dehydration and heat illness. This will be accomplished by assuring that piped, potable drinking water is available in or near all fixed facility work sites. Fresh, pure and suitably cool water will be provided within 400 feet of any work location. Employees who work away from fixed sites shall take with them a minimum or one quart of water per employee per hour for the period they will be working away from a potable water source. Water shall be stored in insulated containers filled with enough ice to keep the water at a palatable temperature throughout the work period. Containers will be cleaned and sanitized on a regular basis; damaged containers shall be replaced.

Shade:

Shade will be available when the temperature exceeds 80 degrees Fahrenheit and will accommodate all employees on break. Any employee who becomes ill due to dehydration or exposure to high heat must be provided a shaded place to rest and recuperate. A vehicle equipped with a working air conditioning system can be used to provide shade for an employee who needs it. In addition, Grounds and Maintenance Personnel will be provided with an umbrella for field work where vehicle shade is not appropriate or available. All employees have access to air conditioned buildings at the school campus.

For serious illness, employees in the field shall call their supervisor to obtain emergency medical services referrals and information.



Training:

All employees who may be exposed to high heat in their work shall attend annual training covering the dangers of heat illnesses, how to recognize those illnesses, and the proper first aid for each illness.

Employees shall also learn the appropriate methods for seeking emergency medical assistance.

Employees shall be trained in the factors that can make them more susceptible to heat illness and methods to protect themselves when working in a hot environment.

The attached handout, titled “Heat Illness Prevention”, shall be provided to each employee during training.

Record Keeping:

Training records shall be kept for each employee who attends annual heat illness prevention training. Records of any heat-related illness shall be maintained with the employee’s medical and/or workers’ compensation records.

Summon Emergency Medical Assistance

Employees taking cool-down breaks are be encouraged to remain in the shade until symptoms subside, and the employee will be monitored during the recovery period;

To summon emergency medical assistance, use one of the following methods. Be prepared to describe your location and the nature of the emergency. Answer any questions and stay on the line until you are told to hang up. Call 911

Heat Illness Prevention

When the body becomes overheated, a condition of heat stress exists. Heat stress can lead to a number of problems, including heat exhaustion, heat stroke, heat cramps, fainting, or heat rash.

Heat Exhaustion

Although not the most serious health problem, heat exhaustion is very common. Heat exhaustion happens when a worker sweats a lot and does not drink enough fluids or take in enough salt or both. The simple way to describe the worker is wet, pale (almost white), and weak.

- **Signs and symptoms**
  - Sweaty
  - Weak or tired, possibly giddy
  - Nausea
  - Normal or slightly higher body temperature
  - Pale, clammy skin (sometimes flushed)

- **What to do**
  - Rest in a cool place
  - Drink an electrolyte solution, such as Gatorade or another sports drink. Avoid caffeinated beverages such as colas, iced tea or coffee.
  - In severe cases involving vomiting or fainting, have the worker taken to the hospital.

Heat Stroke

Heat stroke is the most serious health problem for people working in the heat, but is not very common. It is caused by the failure of the body to regulate its core temperature. Sweating stops and the body cannot get rid of excess heat. Victims will die unless they receive proper treatment promptly.

- **Signs and symptoms**
  - Mental confusion, delirium, fainting, or seizures
  - Body temperature of 106ºF or higher
  - Hot, dry skin, usually red or bluish color

- **What to do:**
  - Call 911 immediately, request an ambulance
  - Move victim to a cool area
  - Soak the victim with cool water
  - Fan the victim vigorously to increase cooling

Heat Cramps

Heat cramps are painful muscle spasms. They occur when a worker does not replace water, and specifically salts lost from sweating. Tired muscles – those used for performing the work – are usually the most likely to have the cramps.

- **Signs and symptoms:**

  - Cramping or spasms of muscles
  - May occur during or after the work

- **What to do**

  - Drink an electrolyte solution (sports drink) such as Gatorade
  - If the cramps are severe or not relieved by drinking a sports drink, seek medical.

Fainting (Heat Syncope)

Fainting usually happens to someone who is not used to working in the hot environment and simply stands around. Moving around, rather than standing still, will usually reduce the likelihood of fainting.

- **Signs and symptoms**

  - Brief loss of consciousness
  - Sweaty skin, normal body temperature
  - No signs of heat stroke or heat exhaustion

- **What to do:**

  - Lie down in a cool place
  - Seek medical attention if not recovered after brief period of lying down

Heat Rash

Heat rash, also called prickly heat, may occur in hot and humid environments where sweat cannot evaporate easily. When the rash covers a large area or if it becomes infected, it may become very uncomfortable. Heat rash may be prevented by resting in a cool place and allowing the skin to dry.

- **Signs and symptoms**

  - rash characterized by small pink or red bumps
  - irritation or prickly sensation
  - itching

- **What to do**

  - keep skin clean and dry to prevent infection
  - wear loose cotton clothing
  - cool baths and air conditioning are very helpful
  - some over-the counter lotions may help ease pain and itching

Work Practices

- **Clothing:** Wear loose-fitting, lightweight clothing, such as cotton, to allow sweat to evaporate. Light colors absorb less heat than dark colors. When working outside, wear a lightweight hat with a good brim to keep the sun off your head and face.
- **Drinking:** Drink plenty of liquids, especially if your urine is dark yellow, to replace the fluids you lose from sweating – as much as one quart per hour may be necessary. Water and/or sports drinks are

recommended. Since caffeine is a diuretic (makes you urinate more), beverage such as cola, iced tea and coffee should be avoided. Thirst is not a reliable sign that your body needs fluids. When doing heavy work, it is better to sip rather than gulp the liquids.

- **Acclimatization:** New employees and workers returning from an absence of two weeks or more should have 5 days to get used to the heat. Begin with 50 percent of the normal workload and time exposure the first day and gradually build up to 100 percent on the fifth day.

- **Work Schedule:** If possible, heavy work should be scheduled during the cooler parts of the day. Otherwise, alternate heavy work in the heat with lighter work or work in cooler areas.

Temperature-Humidity Index

A useful guide to summertime comfort is the Temperature-Humidity Index (THI).

To use the table, find out the temperature and relative humidity of the work area.

- Start at the temperature listed on the left, and read across to the number under the relative humidity level (round up to the higher percentage). This number is the temperature-humidity index.

- The lightly highlighted area is uncomfortable for everyone. For moderate to heavy activity, workers should be concerned about heat stress and should alternate time working in the heat and time in cooler areas or light work.

- When the THI is in the darkly highlighted area, extreme caution is indicated. Try to schedule work to allow only 25% of time performing heavy work in such an environment.

Temperature (Fahrenheit)	Relative Humidity									
	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
80°	69	70	72	73	74	76	78	78	79	80
81°	70	71	72	73	76	78	77	78	80	81
82°	70	72	73	74	76	77	78	79	81	82
83°	71	72	73	76	78	78	79	80	82	83
84°	71	73	74	76	77	78	79	81	83	84
85°	72	73	76	78	78	79	80	82	84	85
86°	72	74	76	77	78	80	81	83	84	86
87°	73	74	78	77	79	81	82	84	85	87
88°	73	76	78	78	80	81	83	85	86	88
89°	74	76	77	79	81	82	84	86	87	89
90°	74	78	77	79	81	83	85	87	88	90
91°	76	78	78	80	82	84	85	87	89	91
92°	76	77	79	81	83	85	86	88	90	92
93°	76	78	80	81	83	85	87	89	91	93
94°	73	78	80	82	84	86	88	90	92	94
95°	77	79	81	83	85	87	89	91	93	95
96°	77	79	81	84	86	88	90	92	94	96
97°	78	80	82	84	86	88	91	93	95	
98°	78	80	83	85	87	89	91	94	96	
99°	79	81	83	85	88	90	92	95		
100°	79	82	84	86	89	91	93	95		
101°	80	82	84	87	89	91	94	96		
102°	80	83	85	88	90	92	95			
103°	81	83	86	88	91	93	96			
104°	81	84	86	89	91	94	96			
105°	82	84	87	90	92	95				
106°	82	85	87	90	93	96				
107°	83	85	88	91	94	96				
108°	83	86	89	92	95					
109°	84	87	89	92	95					

The values are for people wearing the right amount of clothing doing light work, with very little wind.

Warning Zone

Danger Zone

Drink plenty of fluids and be on the lookout for signs of heat stress.

Comparison of Indoor and Outdoor Heat Illness Prevention Standards

Requirement	Outdoor Heat (T8CCR 3395)	Indoor Heat (T8CCR 3396)
Scope and Application	• Applies to outdoor workplaces	• Applies to indoor workplaces when the indoor temperature is greater than 82°F
Provide Clean Drinking Water	• Provide access to potable water that is fresh, suitably cool, and free of charge • Located as close as possible to work areas	• Provide access to potable water that is fresh, suitably cool, and free of charge • Located as close as possible to work areas and cool-down areas
Access to Shade and Cool-Down Areas	• For outdoor workplaces, shade must be present when temperatures are greater than 80°F. When temperatures are less than 80°F, shade must be available upon request • For indoor workplaces, provide access to at least one cool-down area which must be kept at a temperature below 82°F • Shade and cool-down areas must be: • Blocked from direct sunlight • Large enough to accommodate the number of workers on rest breaks so they can sit comfortably without touching each other • Close as possible to the work areas • For indoor workplaces, the cool-down areas must be kept at less than 82°F and shielded from other high-radiant heat sources	
Cool-Down Rest Periods	• Encourage workers to take preventative cool-down rest periods • Allow workers who ask for a cool-down rest period to take one • Monitor workers taking such rest periods for symptoms of heat-related illness	
High-Heat Procedures	• Have and implement procedures to deal with heat when the temperature equals or exceeds 95°F • Procedures must include: • Observing and communicating effectively with workers • Reminding workers to drink water and take cool-down rest breaks	• *Not applicable to Indoor Workplaces*
Assessment and Control Measures	• *Not applicable to Outdoor Workplaces*	• Measure the temperature and heat index and record whichever is greater whenever the temperature or heat index reaches 87°F (or temperature reaches

		82°F for workers working in clothing that restricts heat removal or high-radiant-heat areas) • Implement control measures to keep workers safe. Feasible engineering controls must be implemented first.
Monitoring the Weather	• Monitor outdoor temperature and ensure that once the temperature exceeds 80°F, shade structures will be opened and made available to the workers • When it is at least 95°F, implement high-heat procedures • Train supervisors on how to check weather reports and how to respond to weather advisories	• For indoor workplaces that are affected by outdoor temperatures, train supervisors on how to check weather reports and how to respond to hot weather advisories
Emergency Response Procedures	• Provide first aid or emergency response to any workers showing heat illness signs or symptoms, including contacting emergency medical services	
Acclimatization	• Closely observe new workers and newly assigned workers working in hot areas during a 14-day acclimatization period, as well as all workers working during a heat wave	
Training	• Employers must provide training to both workers and supervisors	
Heat Illness Prevention Plan	• Establish, implement, and maintain an effective written Outdoor Heat Illness Prevention Plan that includes procedures for providing drinking water, shade, preventative rest periods, close observation during acclimatization, high-heat procedures, training, prompt emergency response	• Establish, implement, and maintain an effective written Indoor Heat Illness Prevention Plan that includes procedures for providing drinking water, cool-down areas, preventative rest periods, close observation during acclimatization, assessment and measurement of heat, training, prompt emergency response, and feasible control measures