

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Attachment No. 1

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**DRAFT STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4**

This is not a rulemaking proposal at this time, and has not been noticed for public hearing.

Subchapter 7. General Industry Safety Orders
Article 10. Personal Safety Devices and Safeguards

Amend Section 3395 to read:

Section 3395. Heat Illness Prevention.

(a) Scope and Application.

(1) This standard applies 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.

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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.

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“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 discourage access.

“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. 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 water provided shall be fresh, pure and suitably cool, and shall be provided to employees free of charge. The frequent drinking of water, as described in subsection (f)(1)(C), shall be encouraged.

The water shall be located as close as practicable to the areas where employees are working, and shall be at a distance of not greater than 400 feet walking distance from any employee at any time other than when the employee is using a restroom or travelling between the restroom and an area where employees are

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working unless the employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance.

(d) Access to shade.

(1) Shade required to be present when the temperature exceeds ~~85~~80 degrees Fahrenheit. When the outdoor temperature in the work area exceeds ~~85~~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 ~~25% of the~~ number of employees ~~on the shift at any time~~ meal, 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 shaded area shall be located as close as practicable to the areas where employees are working but no farther than 700 feet walking distance from the area where any employee is working unless the employer can demonstrate that terrain or other conditions prohibit locating the shaded area within the prescribed distance.

(2) Shade required to be available when the temperature does not exceed ~~85~~80 degrees Fahrenheit. When the outdoor temperature in the work area does not exceed ~~85~~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 cool-down rest in the shade ~~for a period of no less than five minutes at a time~~ when they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times. An employee who takes a cool-down rest shall be encouraged to remain in the shade and shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the shade.

(4) If an employee exhibits signs or reports symptoms of heat illness, the employer shall monitor the employee during the cool down rest or recovery period to determine if signs or symptoms are abating or worsening. If signs or

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symptoms worsen or do not resolve, the employer shall provide appropriate first aid and/or emergency medical services.

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 9585 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. Employer shall ensure effective employee observation/monitoring by implementing one 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.

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(3) Designating an employee on each worksite authorized to call for emergency medical services.

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

~~(4) Close supervision of a new employee by a supervisor or designee for the first 14 days of the employee's employment by the employer, unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for 4 or more hours per day.~~

(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 where necessary.

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

For every two (2) hours an employee works continuously outdoors during temperatures of 95 degrees or above, an employer shall ensure that the employee takes a minimum ten (10) minute net recovery period. The recovery period required by this paragraph shall be taken, insofar as practicable, near the end of each second hour of work in which temperatures are 95 degrees or greater. This recovery period may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 if the timing of the recovery period coincides with a required meal or rest period. For purposes of this section, "recovery period" means the same as defined in Labor Code Section 226.7(a).

(f) 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.

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- (B) The employer's procedures for complying with the requirements of this ~~standard.~~ standard including the employer's responsibility to provide water, shade, cool-down rests, and access to first aid as well as the employee's 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, methods of acclimatization; ~~and the employer's procedures under subsection (g)(3).~~
- (E) The different types of heat ~~illness and illness,~~ the common signs and symptoms of heat ~~illness.~~ illness, and appropriate first aid and or emergency responses to the different types of heat illness. 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.

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(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 (f)(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.

(g) ~~(3)~~ Written procedures. The employer shall establish, implement, and maintain, an effective 's procedures for complying with each requirement of this standard required by subsections (f)(1)(B), (G), (H), and (I) heat illness prevention plan. The plan shall be in writing and shall be made available at the worksite to employees and to representatives of the Division upon request. request in both English and the language understood by the majority of the employees. The heat illness prevention plan shall, at a minimum contain:

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

(2) The high heat procedures listed in subsection (e).

(3) Procedures for the close supervision of all employees during periods when it is predicted that the high temperature for the day will be 80 degrees Fahrenheit or more and ten degrees Fahrenheit or more above the average high daily temperature in the preceding five days, and for an employee newly assigned to high heat areas by a supervisor or designee for the first 14 days of the employee's employment by the employer.

(4) Emergency Response Procedures:

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- (A) 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.
- (B) 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.
- (C) Contacting emergency medical services and, if necessary, transporting employees to a place where they can be reached by an emergency medical provider.
- (D) 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.
- (h) 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. 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. An employee exhibiting signs or symptoms of heat illness shall not be sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer's procedures.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.