

2021

BEI Construction, Inc.

[HEAT INJURY AND ILLNESS PREVENTION PROGRAM]

1101 Marina Village Parkway, Suite 100, Alameda, CA 94501
HEAT ILLNESS PREVENTION PROGRAM

CSLB 528322

A. Purpose

This program is intended to reduce and control the hazards associated with temperature extremes in the workplace, minimizing heat related illnesses, and ensuring employees plan for working outdoors in elevated temperatures.

B. Roles and Responsibility

1. The direct supervising employee, (Foreman, General Foreman, Superintendent, etc.) is responsible for implementing this program in the field.
2. Management is responsible for ensuring this program is kept up to date, implemented as required, employees are trained in its contents, and that all employees follow as required, by employee supervision.

C. Procedure

1. Employees shall be trained in awareness of the early warning signs of heat related illnesses such as heat rash, heat cramps, heat exhaustion, and heat stroke.
2. Employees shall be evaluated to ensure fitness to work in elevated heat conditions that exceed 80 degrees Fahrenheit. Evaluate to observe include consideration of age, weight, physical fitness, metabolism, alcohol or drug use, work hours, and general medical conditions including medications and medical restrictions.
3. An adequate supply of suitably cool water, which, at a minimum is 1 quart of water per person, per hour, will be made available to employees by their supervisor on each project. Each project Foreman/Supervisor is responsible to maintain an adequate supply of drinking water to ensure a minimum of 1 quart of water, per hour, per employee, is always available and in close proximity to the working area.
4. Suitably cool, potable drinking water will be provided at all times. Water will be maintained in close proximity to the workers and maintained in sanitary conditions. Water shall be fresh, pure, suitably cool, and provided to employees free of charge, and located as close as practicable to the areas where employees are working, to encourage workers to drink water often and avoid interrupting their work to do so.

To ensure that water is fresh, pure, and suitably cool, Cal/OSHA advises employers or Foremen/Supervisors visually examine the water and pour some on their skin.

5. Ensuring adequate drinking water supplies are available for all personnel is the responsibility of each project's senior management representative.
6. Foremen/Supervisors must take inventory of drinking water before the crews are dispatched to ensure supplies are adequate for that day's work.
7. Electrolyte replacement drinks should be made available on site when temperatures exceed 95 degrees Fahrenheit.
8. Acclimatization to elevated heat conditions must be considered for new employees to ensure their body's adaptation to the heat occurs gradually over a period between four to fourteen days.
9. When working near sources of radiant heat, shields or barriers of radiant-reflective or heat-absorbent materials should be placed between the source and the employee as a mechanism to reduce heat exposure.
10. When possible, a heat source shall be isolated by turning it off.
11. The substitution of mechanical means to perform a specific job application shall be incorporated whenever possible.
12. When the outdoor temperature in the work area exceeds 80 degrees Fahrenheit, the Foreman/Supervisor 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 on the shift at any time, 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.
13. Employees may request shade when temperatures are below 80 degrees, and that shade shall be provided as requested.
14. Employees shall be allowed and encouraged to take a cool-down rest breaks 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.

15. Employees shall be educated in the use and encouraged to dress in breathable layers of clothing.
16. Should job tasks require the use of impermeable protective clothing, the use of auxiliary cooling systems may be required.
17. When conditions allow and conditions warrant, physical work activities should be scheduled in the early morning hours.
18. A work/rest regime may be required in situations where engineering and other controls are not adequate. This will require the monitoring of the ambient temperature, employee physical condition, including heart rate.
19. **High-heat procedures.** Foremen/Supervisors shall implement high-heat procedures when the temperature equals or exceeds 95 degrees Fahrenheit. These procedures shall include the following to the extent practicable:
 - a. Conduct a daily pre-shift meeting with employees to discuss high-heat procedures that are designed to prevent heat illness and to document communication of heat illness prevention techniques that must be followed.
 - b. 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.
 - c. Reminding employees throughout the work shift to drink plenty of water.
 - d. 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.
 - e. Observing employees for alertness and signs or symptoms of heat illness.
 - g. 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.

D. Training and Documentation

1. Effective training shall be provided to each supervisory and non-supervisory employee before any employee begins work that their job scope would reasonably be anticipated to result in exposure to the risk of heat illness:
2. Re-training shall be provided whenever inadequacies in the employee's knowledge or use of this program are identified.
3. Documentation shall contain employee's name and signature, the name and signature of their trainers, and the dates of training.
4. Training shall include:
 - a) A copy of this program/procedure.
 - b) 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.
 - 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 importance of acclimatization.
 - e) The different types of heat illness and the common signs and symptoms of heat 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) Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.

- h) 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.

E. Foreman/Supervisory Training.

1. 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:
2. The information required to be provided in sections C & D above, and.
3. The procedures the supervisor follows to implement the applicable provisions in this section.
4. The procedures the supervisor follows when an employee exhibits symptom consistent with possible heat illness, including emergency response procedures.
5. How to monitor weather reports and how to respond to hot weather advisories. When a victim experiences symptoms of heat illness the supervisor must be immediately notified. If an employee exhibits or complains of any sign or symptom of heat illness, first-aid procedures should be initiated without delay.

F. Procedures for Responding to Heat Illness Symptoms.

1. When a victim experiences symptoms of heat illness the supervisor must be immediately notified. If an employee exhibits or complains of any sign or symptom of heat illness, first-aid procedures should be initiated without delay.
2. Progression to more serious illness can be rapid, and can include altered coordination and speech, mental confusion, unusual behavior, nausea, vomiting, hot dry skin, unusually profuse sweating, loss of consciousness, and seizures.
3. The affected employee may be unable to self-diagnose these problems. If heat illness is suspected, emergency medical personnel should be contacted immediately.
4. No employee with signs or symptoms of heat illness should be left unattended or sent home without being offered on-site first aid or provided emergency medical services.

G. Heat Related Illnesses and Required Response:

Sunburn - Symptoms of sunburn usually include redness and pain. In severe cases there may be swelling of skin, blisters, fever and headaches. Response and treatment include:

1. Use ointment for mild cases of blisters.
2. If the blisters break one should apply dry sterile dressing.
3. A physician should be seen for extensive cases.
 - a) Keep the affected area dry.
 - b) Avoid using ointments or creams- they may make the condition worse.

H. Heat Rash

This form of heat illness is one of the most common problems in hot work environments. Symptoms generally include red clusters of pimples or small blisters on the neck and upper chest.

I. Heat Cramps

The victim will feel muscle pains or spasms, usually in the abdomen, arms or legs.

1. Stop all activity and sit in an air-conditioned or shaded area.
2. Drink cool water, clear juices, or sports drinks.
3. Seek medical attention if cramps continue.

J. Heat Exhaustion

Symptoms of heat exhaustion may include heavy sweating and weakness, a fast and weak pulse rate, nausea, fainting or vomiting.

1. Stop all activity and get into an air-conditioned or shaded area.
2. Lie down and loosen clothing.
3. Drink cool, not iced, water or sports drinks.

4. Cool the person by spraying or sponging him or her with cool water and fanning.
5. Monitor the person carefully. Heat exhaustion can quickly become heatstroke. If fever greater than 102 F, fainting, confusion, or seizures occur, call 911 for emergency medical assistance.

K. Heatstroke or Sunstroke – Symptoms

Symptoms of heatstroke may include high body temperature (102 F or higher), hot dry skin, unconsciousness, or convulsions.

1. Stop all activity and get victim into an air-conditioned or shaded area.
2. Call for 911 for emergency medical assistance and assign responsibility of an individual to meet responders and guide them to the victim.
3. Do not give anything by mouth (even water).
4. Cool the person by spraying or sponging him or her with cool water and fanning.
5. Standby until emergency medical assistance arrive.
6. If the victim is hospitalized the supervisor must immediately notify

Cal-OSHA.

L. Post Heat Illness Incident Procedure

1. Once the employee has been treated, the supervisor should conduct refresher training on Heat Illness Prevention for all employees on site and document all employees understand the cause and effect of heat illness, before allowing work to restart.
2. The Foreman/Supervisor must ensure that other employees are not at risk of heat illness before allowing work to restart.
3. The Foreman/Supervisor must immediately contact management to conduct an incident investigation to understand how the heat illness occurred and develop measures to prevent recurrence.

M. Water Requirements

1. Fresh and pure water must be fit to drink (i.e., potable) and free from odors that would discourage workers from drinking the water.
2. If an employer supplies individual water container, the containers must be clean, and a source of potable water (e.g., a municipal water source) must be readily available.
3. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable.
4. If hoses or connections are used, they must be governmentally approved for potable drinking water systems, as shown on the manufacturer's label.
5. Suitably cool during hot weather: The water must be cooler than the ambient temperature but not so cool as to cause discomfort and located as **"Close As Practicable to Where Employees Are Working."**

N. Shade Requirements

1. The trigger temperature for shade being present is 80 degrees Fahrenheit. When temperatures exceed 80 degrees, shade structures must be erected if no other shade is readily available. Even if temperatures do not exceed 80 degrees, shade must still be available in case an employee request it.
2. Shade shall be present when the temperature exceeds 80 degrees Fahrenheit. When the outdoor temperature in the work area exceeds 80 degrees Fahrenheit, the Foreman/Supervisor 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.
3. 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.
4. The shade shall be located as close as practicable to the areas where employees are working.

5. 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.
6. Recovery and rest periods are required under Industrial Welfare Commission wage orders and enough shade must be provided that will accommodate all of the employees who are on such a break at any point in time.
7. Supervisors must rotate the breaks among employees to ensure all employees get rest and recovery breaks out of the sun.
8. Supervisors may need to rotate employees in and out of meal periods, as with recovery and rest periods, to meet the requirements of this policy.
9. An employee may opt to take a “preventative cool-down rest” in the shade to help the body relieve excess heat. It is crucial that employees not be rushed while taking the cool-down rest. During periods of high heat, it is crucial that employees be monitored for early signs and symptoms of heat illness.
 - a. When there are too many employees to allow direct observation, the employer may use the buddy system and pair up employees.
 - b. With the buddy system, the supervisor is responsible to require the employees to stay in contact, observe each other throughout the day, and immediately report any signs or symptoms of heat illness.
 - c. For employees who are required to work alone, the supervisor must ensure communication with the employee by radio, text or cell phone in locations where there is adequate coverage. The employee must be contacted regularly and as frequently as possible throughout the day, since an employee in distress may not be able to summon help on his or her own.
 - d. Whatever method is used, the supervisor must be able to ascertain the condition of employees at regular intervals and provide emergency services when an employee reports symptoms of heat illness or is unable to respond.
 - e. Pre-shift meetings are required when temperatures are expected to exceed 95 degrees Fahrenheit. Pre-Shift meetings are required to briefly remind supervisors and employees to review high-heat procedures. Topics that should be covered in high-heat

pre-shift meetings include staying hydrated, taking preventative cool-down rests, water location and supply,

O. High Heat Specific Procedures

- When the temperature equals or exceeds 95 degrees, supervisors must provide one 10-minute “preventative cool-down rest period” every 2 hours. During the first 8 hours of a shift, the cool-down periods may be provided at the same time as the rest periods already required by Industrial Welfare Commission Order No. 14.
- If employees work longer than 8 hours, the supervisor must provide an additional 10-minute cool-down rest period every 2 hours.
- Supervisors must ensure that employees actually take the cool-down rest periods required under this section. Merely offering the opportunity for a break is not enough.
- When employees work in small groups of no more than 20 workers, direct observation by a supervisor or designee may be sufficient. physical location of job to give to emergency responders, identifying phone numbers to call and who is responsible for calling emergency medical services if heat illness is suspected.

P. Emergency Response Procedures

1. Emergency medical services must be provided as quickly as possible if an employee suffers from or is suspected of suffering from heat illness. Pre-established emergency response procedures will be required at any remote work sites or at work sites where access is difficult or new with a non-established (Internet based maps) physical address.
2. If employees cannot reach emergency medical services directly (because cell phone coverage is inadequate, for example), the employer must designate a person who can immediately contact emergency services on behalf of the employees. The employees must be able to reach this person quickly (such as by radio or land line), to request that emergency medical services be summoned. If, however, employees are able to contact emergency medical services directly, they must be allowed to do so in an emergency and not be required to contact a supervisor first.

3. Emergency procedures must include immediate steps to keep a stricken employee cool and comfortable once emergency service responder have been called. When necessary, employers must be prepared to transport employees safely to a place where they can be reached by an emergency medical provider.
4. Mobile crews must be provided with a map of their location or detailed directions that can be given to emergency responders.

Q. Acclimating Employees

1. Acclimatization is a process by which the body adjusts to increased heat exposure. The body needs time to adapt when working in hotter environments.
2. Employees are more like to develop heat illness if not allowed or encouraged to take it easy when a heat wave strikes or when starting a job that newly exposes them to heat.
3. Acclimatization is fully achieved in most people within 4 to 14 days of regular work involving at least 2 hours per day in the heat.
4. During heat waves and with new employees, supervisors must be extra vigilant to prevent heat illness. a. A supervisor or their specified designee must closely observe employees in a concerted effort to prevent heart illness.

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