

High Heat Illness Prevention Plan

Updated November 2024

Heat Illness Prevention regulations, the six parts; Scope and Application, Definitions, Provisions of Water, Access to Shade, High Heat Procedures, and Training are included/addressed in this plan. The following plan is in effect for the Project when the ambient temperature reaches 80 degrees.

E Light Electric Services Inc. recognizes our duty to protect employees from known and recognized hazards and has written this program in accordance with the California Code of Regulations, Title 8 Section 3395 “Heat Illness Prevention.”

Scope and Application

These procedures provide steps applicable to most outdoor work settings and are essential to reducing the incidence of heat-related illnesses. In working environments with a higher risk for heat illness (e.g., during a heat wave, hot summer months, temperatures reaching **80 degrees Fahrenheit**, or other severe working or environmental conditions), it is E Light Electric Services, Inc. duty to exercise greater caution and ensure these procedures are implemented, including additional protective measures beyond what is listed in this document, as needed to protect employees affected by high heat conditions.

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.

“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.

“Temperature” means the dry bulb (ambient air) 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.

“Provision of water”. Employees shall have access to potable drinking water meeting the requirements including but not limited to the requirement that water is to 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 (32oz) 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.

“Wet Bulb Globe Temperature (WBGT)”. A measure of the heat stress in direct sunlight, which takes into account: temperature, humidity, wind speed, sun angle and cloud cover (solar radiation). This differs from the heat index, which takes into consideration temperature and humidity and is calculated for shady areas.

Provisions of Water (Water Distribution Plan)

E Light Electric Services Inc. employees will have access to potable drinking water meeting the requirements of **1926.51**, and **1910.141** as applicable. Water shall 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. The frequent drinking of water shall be encouraged.

Bottled water is provided on-site to employees working for E Light Electric Services, Inc. Sub-Contractor's

on-site working for E-Light Electric Services, Inc. are required to provide a written Heat Illness

and Water Distribution Plan, as well as the required potable water and ice for their personnel on-site daily.

In temperatures starting at **80 degrees**, shade structures shall be provided on-site so that any employee can take a preventative cool-down break, sit down, and consume water with a place to sit in a posture to allow for the body temperature to cool down.

In temps forecast to be **95 degrees or higher**, the site is under a high heat condition, and all personnel shall consume one bottle of water with a packet of electrolyte added to the bottle of water, under the observation of their supervisor during a.m. stretch and flex in addition to the following:

1. All personnel shall consume approx. 1 cup (One-half bottle of water) every 15 minutes.
2. Employees shall keep track of the number of bottles of water they consumed during the work shift and shall note the number on the front of their Pre-task card.
3. Supervisors shall initial the number of bottles of water consumed on the back of each person's Pre-task card and if the number is inadequate, they shall counsel the person to consume the appropriate amount of water and shall note this on the back of the Pre-task card.
4. Any person that is challenged shall take note of the number of bottles of water consumed thus far in the day at that time and if the number is inadequate, they shall counsel the employee to consume the correct amount of water and shall note the time and counseling on the back of the Pre-task card. The person making a note does not need to be a supervisor.
5. The supervisor or designee shall monitor water consumption for all personnel on site, to make sure that a reasonable effort is being made to keep hydrated, but at the same time not over-hydrating themselves which could cause further problems.
6. The site shall have enough water to supply each person on site with a minimum of 2 (two) 16-ounce bottles of water per hour, per person. Water shall be made available throughout the workday to all employees. Water shall be made available to the employees so that no employee shall be required to travel more than 50 meters to obtain fresh water.
7. Water and ice will be stored in ice chests each day. Water shall be stored under shade.

Access to Shade

Shade is required to be present when the temperature reaches **80 degrees Fahrenheit**. When the outdoor temperature in the work area reaches **80 degrees Fahrenheit**, or higher, E Light Electric Services, Inc. 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 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 shade shall be located as close as practicable to the areas where employees are working.

Shade is required to be available when the outdoor temperature reaches **80 degrees Fahrenheit** or higher. When the outdoor temperature in the work area reaches **80 degrees Fahrenheit** or higher, E Light Electric Services, Inc. shall either provide shade per subsection (d)(1) or provide timely access to shade upon an employee's request.

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 them from overheating. Such access to shade shall be permitted at all times. An employee who takes a preventative cool-down rest:

- Shall be monitored and asked if he or she is experiencing symptoms of heat illness.
- Shall be encouraged to remain in the shade.
- Shall not be ordered back to work until any sign or symptom of heat illness has been abated, but in no event, less than 5 minutes in addition to the time needed to access the shade.

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 E Light Electric Services Inc. will provide appropriate first aid or emergency response.

Exception: *Where E Light Electric Services Inc. can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, E Light Electric Services, Inc. may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection. All alternative procedures must be approved by the Director of Education and Loss Prevention.*

Shade will be provided in the following ways:

1. Pop-up umbrellas or shade structures – Foremen are responsible for ensuring that pop-up umbrellas/shade structures are utilized by their respective crews and that they are maintained while erected.
2. Any vehicle/equipment with air conditioning may also be used for shade/cool-down breaks.

Shade is not adequate whenever the heat is so high that it defeats the purpose of being in the shade. For example, a vehicle sitting in the sun with no air conditioning running is not an acceptable method of providing shade.

PV Modules and other structures emanating heat shall not be utilized for shade.

Supervision shall not deny any employee who requests a break in a shaded area the ability to take this break.

High Heat Procedures

E Light Electric Services Inc. shall implement high-heat procedures when the temperature equals or exceeds **80 degrees Fahrenheit**. These procedures shall include the following to the extent practicable:

The Supervisor or their designee shall monitor the weather forecast daily.

Pre-shift Meetings (Stretch and Flex)

After the morning Stretch and Flex, the workforce shall be given the following information:

- A brief discussion covering the high heat program.
- The right to ask for a preventative cool-down period and a reminder to drink water in the recommended amount and frequency.

Supervisors shall:

- Monitor work activities closely and shall initiate additional breaks as needed based on temperature and the type of work being completed.
- All employees shall receive a short briefing concerning heat-related topics at the start of each shift by their supervisor and shall include these hazards on their Pre-task card and Job Hazard Analysis.
- Supervision shall ensure the use of the “buddy system” and shall not allow employees to work alone in temperatures exceeding 95 degrees or higher.

Acclimatization/New Hires

This plan shall be made available at all times to any employee who requests to review it. Any questions or concerns shall be reviewed with the regional safety manager or designee, and if need be, the Director of Education and Loss Prevention, Ted Smith.

Supervision shall interview employees for acclimatization to the location. At 80 degrees Fahrenheit, all new employees reporting to the site shall be considered un-acclimated unless the employee:

1. Must have lived 30 days or greater in the same heat stress environment.
2. Of those 30 days must have physically worked 10 or more of those 30 days with physical activity.
3. The worker must have worked for four hours per day of these 10 days.

All new personnel reporting to the site shall be observed for the following:

- Previous heat stress illness
- General physical condition

- Ability to perform the task assigned.

E Light reserves the right to remove any person who presents additional health hazards due to personal conditions which may place them at increased risk.

Any person that displays poor physical condition or unfit for high heat environment duty conditions shall be observed throughout the day for signs of heat related illnesses. The supervisor they are assigned to shall be alerted that they may be more susceptible to heat related injuries and will need closer observation throughout the day.

All new personnel reporting to the site that does not meet the above criteria shall be issued a **RED** hard hat sticker for the first **14 days** on site. After the completion of the 14-day period they shall be issued another appropriate colored hard hat sticker. All personnel wearing a RED hard hat sticker shall be subject to the following:

- They shall be assigned to work directly with one person that has completed the E Light High Heat Conditions Training Program.
- They shall be closely monitored and observed by site supervision.

Proposed Alternate High Heat Break Schedule

When temperatures remain at and exceed **95 degrees Fahrenheit**, project supervision may implement an alternate break schedule for outdoor work. The following proposed break schedule may be utilized and is subject to modification based on task-specific assessments.

95 Degrees Fahrenheit (Ambient)– Ten-minute net preventive cool-down break every two hours for outdoor workers. If the work shift extends beyond eight hours, an additional preventative cool-down break may be implemented at the conclusion of the eighth hour of work. If the shift extends beyond ten hours, an additional cool-down break may be implemented at the conclusion of the tenth hour.

The high heat conditions shall be monitored and assessed on the project. Should it be determined necessary to mitigate heat-related injuries, an alternate high heat schedule will be implemented for the project.

Wet Bulb Globe Temperature Procedure:

- When wet bulb globe temperature (WBGT) is predicted to reach WBGT 88° the Director of Education and Loss Prevention will be called immediately and notified of the current temperatures both in the work area and out of the work area.
- A temperature reading in and out of the work area will be taken once every 15 minutes.
- The Director of Education and Loss Prevention and notified if the temperature rises WBGT 2° or more.

- The Director of Education and Loss Prevention will consult with site management during this time and will make a determination on a case-by-case basis concerning shutting down, adding breaks, or continuing with the current schedule.

If the WBGT reaches 94°, the Project Safety Manager and Superintendent will confer with the Director of Education and Loss Prevention to determine whether or not work will be suspended for the day, or if additional breaks and mitigations will be used to prevent heat-related illness.

The Director of Education and Loss Prevention shall make a determination if the work should be suspended for the rest of the day.

Temperature Monitoring

On days when the weather forecast is consistently above 95°F ambient temperature, site supervision or safety person will monitor the temperature by placing WBGT monitors in areas where work is being performed throughout the site. Temperatures will be taken on an hourly basis and recorded using the WBGT template on the iAuditor application.

Attire

All personal shall be encouraged to dress in light colors, and use long sleeved cotton shirts and sunscreen as a precaution while working in the field. This is encouraged only, and not a requirement.

Signs and Symptoms of Heat Stress

CONDITIONS	SYMPTOMS	INITIAL FIRST AID
Heat Stroke (medical emergency)	A life-threatening emergency that occurs when the body temperature regulating mechanisms fail during excessive heat. Skin is hot, usually dry red or spotted. Victim is confused, delirious or maybe unconscious.	Call 911 immediately. Attempt to cool the body. Apply cooling vest. Soak clothing in water and vigorously fan the body.
Heat Exhaustion	A mild form of shock caused by the loss of body fluids and minerals. Skin is clammy and moist. Victim is pale and experiencing fatigue, extreme weakness, nausea, or headache.	Get victim to a cool place and provide liquids for them to drink.
Heat Cramps	A cramping condition brought on by loss of body fluids and	Get victim to a cool place and give them plenty of liquids.

	minerals due to profuse perspiration.	Provide electrolyte replacement drink if possible.
Heat Rash	Rash appears in areas that are persistently wet with un-evaporated sweat and where clothing is restrictive.	Get worker to a cool place. Wash and dry skin in affected areas.
(Fainting) Heat Syncope	Worker stands still in one place too long. Blood pools in the legs so less blood goes to the brain. Prevention: MOVE AROUND.	Call 911 immediately. Attempt to cool the body. Apply cooling vest. Soak clothing in water and vigorously fan the body.

Training Requirements

All personnel will complete the High Heat Stress Conditions Training and will consist of a power point module and an overview of this document, emphasizing emergency response protocol, the HIPP Sign in Sheet (Appendix A) shall be utilized documenting each employee has received the required training. The training consists of the following topics:

- a) The environmental and personal risk factors for heat illness.
- b) E Light Electric Services Inc., procedures for complying with the requirements of this standard and includes E Light Electric Services, Inc. responsibility to provide water, shade, cool-down rests, and access to first aid and employees rights to exercise their rights under this procedure without retaliation.
- c) The importance of frequent consumption of small quantities of water, up to 4 cups per hour (one cup is 8 oz), when the work environment is extremely hot.
- d) The importance of acclimatization.
- e) The different types of heat illness and the common signs and symptoms of heat illness and appropriate first aid and/or emergency response and that heat illness may progress quickly from mild symptoms and signs to a serious life-threatening illness.
- f) The importance to employees of immediately reporting to E Light, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in coworkers.
- g) The E Light Electric Services, Inc. procedure for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
- h) The E Light Electric Services, Inc. procedure 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 direction to the work site can and will be provided as needed to emergency

responders.

This HIPP, including the emergency response plan for heat related illness, shall be posted in a conspicuous location (cool down shelters, construction office, bulletin boards) etc. for employees' review.

Heat-Related Emergency Procedure

When an employee has been impacted with a heat-related illness, E Light Electric Services, Inc. employees shall follow this process:

The Site Safety manager or his designee shall be the designated person to call 911 in case emergency medical services are required.

1. When an employee displays possible signs or symptoms of heat illness a trained first aid worker, supervisor, or safety personnel will check the employee and determine whether resting in the shade or available cooling shelter or truck with the air conditioning running, applying the dunk vest and drinking cool water will suffice or if emergency service provider is required. Under no circumstances will the sick worker be left alone in the shade or cooling shelter.
2. When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, the designated person will call emergency service provider using the Emergency Response Request Form.
3. The designated person will call emergency service provider immediately if an employee displays signs or symptoms of severe heat illness, does not look OK, or does not get better after drinking cool water, resting in shade or cooling shelter and dunk vest applied. While the ambulance is in route, safety personnel will cool the worker by placing him or her in the cooling shelter, removing excess layers of clothing, placing the cooling vest on and fanning the victim.
4. If an employee is displaying signs and symptoms of severe heat illness and the worksite is located more than **20 minutes** away from a hospital, the designated person will call emergency service providers immediately, communicate the signs and symptoms of the victim and request an air ambulance.

Clear and precise directions to the jobsite can and will be provided as needed to emergency medical responders in the event of an emergency by utilizing the Emergency Response Request Form.

This form must be filled out by the designated employee when requesting assistance. All employees will be issued a hard hat sticker indicating the project address, employee name, emergency contact number and room to write important medical information for emergency response personnel.

Procedure for contacting emergency medical services.

1. Prior to assigning a crew to a particular worksite, the designated person(s) will ensure that a qualified, appropriately trained and appropriately equipped person will be available at the site to render first aid if necessary. (Site safety personnel)
2. Prior to the start of the shift, the supervisor will determine if a language barrier is present at the site and take steps (such as assigning the responsibility to call emergency medical services to the foreman or an English-speaking worker) to ensure emergency medical services can be immediately called in the event of an emergency.
3. All foreman and supervisors will carry cell phones, handheld radio or other means of communication to ensure that emergency medical services can be called. Prior to each shift, each foreman will check to make sure that the cell phone or other means of communication is functional at the worksite.
4. At the jobsite, the designated person will designate an employee or employees to physically go to the nearest road or highway and/or an entrance to the jobsite where emergency responders can see them and guide them to the victim location.

Providing **clear and precise directions** to the jobsite can and will be provided as needed to emergency medical responders in the event of an emergency by utilizing the Emergency Response Request Form. This form must be filled out by the designated employee when requesting assistance.

All employees will be issued a hard hat sticker indicating the project address, employee name, emergency contact number and room to write important medical information for emergency response personnel.

Recommended Equipment/Gear (quantities are estimates and will be updated when exact manpower is determined).

Type	Quantity Required	Quantity On Hand	Order date	Arrival date
Water	TBD	TBD	TBD	TBD
Ice	TBD	TBD	TBD	TBD
Cool Down Shelters	TBD	TBD	TBD	TBD
Dunk vests	TBD	TBD	TBD	TBD
Coolers for dunk vests	TBD	TBD	TBD	TBD
Sunscreen Lotion	TBD	TBD	TBD	TBD
Cooling Vests	TBD	TBD	TBD	TBD
Cooling Pumps	TBD	TBD	TBD	TBD
Umbrellas	TBD	TBD	TBD	TBD
Pop ups	TBD	TBD	TBD	TBD
Break Shelters (picnic tables)	TBD	TBD	TBD	TBD
Dew Rags	TBD	TBD	TBD	TBD
Squincher's	TBD	TBD	TBD	TBD