

# Employer's Name

## Heat Illness Prevention Program

### **(A) Scope and Application**

This section of the Safety and Health Procedures Plan deals directly with methods of protecting each employee from the "Environmental risk factors of heat illness."

We shall instruct and train each of our employees concerning and related to Safety and Health methods that will assure the safest and healthiest means of protection from heat stress. Certain protective measures such as, acclimatization, necessary shade, fluid intake, and frequent breaks, are mandatory steps employers must address when outdoor activities create dangerous environmental risks related to the employee(s) outdoor activities.

### **(B) Definitions**

#### **"Acclimatization"**

Acclimatization is a temporary adaptation of the body at 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"**

Heat Illness means a serious medical condition resulting from the body's inability to cope with a particular heat load. Employers must remember each employee is an individual, therefore control and prevention of heat stress may vary.

#### **"Heat Wave"**

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.

#### **"Environmental Risk Factors"**

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"**

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

## **“Preventive Recovery Period”**

Preventative recovery period means a period of time to recover from the heat in order to prevent heat illness. This shall be implemented by administrative decisions controlled by the **Superintendent** and communicated to all sub-contractors supervisory personnel.

## **“Shade”**

“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.

## **(C) Provisions for Water**

We will ensure employees have access to potable drinking water. The water will be "fresh, pure, suitably cool, and provided to employees free of charge. The water will be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it will 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. If the beginning of the shift starts with smaller quantities of water, effective procedures for replenishment during the shift will be followed as needed to allow employees to drink one quart or more per hour.

## **(D) Access to Shade / Preventative Cool Down Rest**

Employees suffering from heat illness or believing a preventative recovery period is needed, shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling. Employees taking a "preventative cool-down rest" will be monitored for symptoms of heat illness, encouraged to remain in the shade and not ordered back to work until symptoms are gone. Employees with symptoms will be provided appropriate first aid or emergency response.

Access to shade shall be permitted at all times. Each [ **designated person** ] will bring [ **XX No. of** ] shade structures to the site, to accommodate all employees on recovery or rest periods, and those onsite taking meal periods. Chairs, benches, sheets, towels or any other items will be used to allow employees to sit and rest without contacting the bare ground. However, chairs, benches, etc. are not required for acceptable sources of shade such as trees.

The [ **designated person** ] will ensure that [ **XX No. of** ] shade structures are opened and placed as close as practical to the areas where employees are working, **when the temperature equals or exceeds 80 degrees Fahrenheit**. One or more areas with shade will be maintained 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 shaded area **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.

When the temperature is below 80 degrees Fahrenheit, the shade structures will be brought to the site, and opened and set in place upon worker(s) request. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned and the air conditioner is on.

We will encourage employees to take a preventative cool-down rest in the shade for a period of no less than five minutes when they feel the need to protect themselves from overheating. Access to shade will be permitted at all times.

Employees taking preventative cool-down rest:

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

(B) will be encouraged to remain in the shade; and

(C) will 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) First aid or emergency response will be provided to employees who exhibit signs or have been reported to have symptoms of heat illness while taking a preventative cool-down rest or during a preventative cool-down rest period.

**Note:** If it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, we may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection.

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 following procedures may be used to the extent practicable when the temperature equals or exceeds 95 degrees Fahrenheit.

(1) We will ensure 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) We will observe employees for alertness and signs or symptoms of heat illness and ensure effective employee observation/monitoring by implementing one or more of the following:

(A) The Supervisor or designee will observe 20 or fewer employees, or

(B) There will be a mandatory buddy system, or

(C) We will have regular communication with sole employee such as by radio or cellular phone, or

(D) We will have other effective means of observation.

(3) We will designate 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) We will remind employees throughout the work shift to drink plenty of water.

(5) We will have 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.

#### **(F) Emergency Response Procedures.**

We will 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.

**Note:** Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted. Inadequate acclimatization can imperil anyone exposed to conditions of heat and physical stress significantly more intense than what they are used to. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

### **(H) Training and Instruction**

(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.

(E) The different types of heat illness, and 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 (f)(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.

### **Site Specific Heat Illness Training and Emergency Plan**

- I. (Name) will conduct (weekly/bi-monthly) safety meetings for all job site supervisors, foreman, and any persons having direct responsibility for directing employees work activities at the job site. (If sub-contractors are hired) Each sub-contractor will be responsible for their weekly safety meetings with all non-supervisory employees. All safety meetings by sub-contractors shall be documented and shall contain the date, subjects discussed, questions asked by employees and signatures by all employees in attendance. One copy of each safety meeting conducted by sub-contractor shall be given to the (project supervisor) no later than the next scheduled work day. The job superintendent (name) will audit safety meeting records to ensure that all aspects of heat illness training are being conducted. All safety controls and procedures for the prevention of heat illness shall be implemented by (name) and changes concerning the systems and safety measures installed or provided shall meet his/her final approval,
- II. All definitions communicated under section (b) Definitions, will be discussed and any questions resolved during safety meetings or whenever changes in this plan or job site conditions are required.
- III. Train every employee that one quart of water, per hour, is the minimum requirement under extreme environmental conditions. This should help maintain consistent perspiration.
- IV. Employees shall be given frequent breaks, in shaded areas designed by management, the duration of breaks shall be decided by (name) and the management team, based on the environmental risks

- V. Adequate water supply and individual drinking cups shall be made available at all areas of shade, with trash containers for disposal of drinking cups. Train employees to avoid liquids containing caffeine, which can affect their body's water retention and greatly affect their protection. Alcoholic beverages or liquids containing alcohol are prohibited.
- VI. Employees will be trained to recognize the signs and symptoms of heat illness

### **Symptoms of Heat Cramps**

- Muscle spasms in the arms, legs, and stomach
- Heavy Sweating

### **Symptoms of Heat Exhaustion**

- Headaches, dizziness, light headedness or illness
- Weakness and moist skin
- Mood changes such as irritability or confusion
- Upset stomach or vomiting, nausea
- Thirst

### **Symptoms of Heat Stroke**

- Dry, hot skin with no sweating
- Mental confusion or losing consciousness
- Seizures or convulsions

- VII. Superintendents shall train employees to take these precautions when symptoms are suspected or recognized (in the early stages if possible).

- Move to a cool, shaded area
- Loosen or remove heavy clothing
- Drink cool water
- Fan and moist with water
- Immediately notify Superintendent, (**Name**).

- VIII. **911** is the local emergency number. Should the Superintendent be off site, assistant Superintendents (**names**) will make the necessary emergency contacts.

- IX. Supervision requesting emergency services (**911**) shall instruct emergency services with clear and precise directions to the work site.

The job Superintendent, (**name**) will assign (**names**) in specific locations for directing emergency medical service providers to the location.

## **Site specific directions as stated for ambulance**

The 911 operator will receive the instructions and directions from the job Superintendent, (name) (should they be off site, Assistant Superintendent, (name) will be responsible for this activity).

### **Job Site Location**

### **Address**

Ambulance shall be directed to the (put directions here). Supervisory personnel will be waiting at the (where?) and will escort the emergency medical services to the victim's location on site.

### **Review**

There should be additional supervisory personnel trained and prepared to direct the emergency medical provider with specific directions to the necessary location, should additional shifts, vacations, personnel sickness, or routine business require normal assignments in the plan to change. (Name) will be responsible for designating the qualified personnel should situations occur that leave a void in the emergency plan.

(Name) shall provide each sub-contractor with the requirements of the (Employer Name) Construction Heat Illness Prevention Plan. (Employer Name) shall require that all sub-contractors provide each of their employees the protection such as shade, water dispensers, cups, and materials necessary for the requirement of the Heat Illness Prevention Plan.

## **Procedures for Monitoring the Weather:**

2 weeks in advance (or with as many days in advance as possible), the Employer, Farm Labor Contractor or Superintendent will go on the internet ([www.nws.noaa.gov](http://www.nws.noaa.gov)), call the National Weather Service Phone Numbers (see CA numbers attached) or check the Weather Channel TV Network to view the extended weather forecast in order to plan in advance the work schedule, know whether a heat wave is expected and if additional schedule modifications will be necessary.

This type of advance planning should take place all summer long.

**CALIFORNIA Dial-A-Forecast**  
Eureka 707-443-7062  
Hanford 559-584-8047  
Los Angeles 805-988-6610(#1)  
Sacramento 916-979-3051  
San Diego 858-297-2107(#1)  
San Francisco 831-656-1725(#1)

Prior to each workday, the [ designated person ] will review the forecasted temperature and humidity for the worksite and compare it against the National Weather service Heat Index to evaluate the risk level for heat illness, for instance whether or not workers will be exposed at a temperature and humidity characterized as either "extreme caution" or "extreme danger" for heat illnesses such as heat stroke. It is important to keep in mind that the temperature at which these warnings occur must be lowered as much as 15 degrees if the workers under consideration are in direct sunlight.

Prior to each workday, the [ designated person ] will be responsible for monitoring the weather (using [www.nws.noaa.gov](http://www.nws.noaa.gov) or with the aid of a simple thermometer) at the worksite. This critical weather information will be taken into consideration, to determine when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks).

The [ designated person ] will be responsible for using a thermometer at the jobsite and checking the temperature every [ 60 mins ] to monitor for sudden increases in temperature, to ensure that once the temperature exceeds 85 °F, the shade structures are opened and accessible to the workers and to make certain that once the temperature equals or exceeds 95 °F additional preventive measures such as the High Heat Procedures are implemented.