19.0 HEAT & ILLNESS PROGRAM

.1 PURPOSE RESPONSIBILITIES

To provide a safe and healthful working environment and protect *your company name here* employees who are exposed to temperature extremes, radiant heat, humidity, or limited air movement while working. This program applies to the control of the risk of occurrence of heat illnesses. This program provides employee information on required procedures and training for the prevention of work related heat illness.

This program is intended to comply with the California Code of Regulations Title 8, Section 3395, and Heat Illness Prevention and is made available to all employees. The Heat Illness Prevention Standard is applicable to any outdoor workplace, whenever environmental risk factors for heat illness are present.

When employees work in hot conditions, special precautions must be taken 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 workers.

.2 RESPONSIBILITiES

Both supervisory and employee personnel have responsibilities to ensure that heat illnesses are prevented at the work location. These responsibilities include:

- Knowledge and understanding of heat illness prevention measures and their specific application at work locations.
- Reporting requirements related to the early onset of heat illness related to work.
- Understanding and implementing the emergency response procedures.
- Minimizing personal risk factors for heat illness by arriving to work in good mental and physical condition.
- Scheduling work around high heat index time periods whenever possible.

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

.3 TRAINING

Employee training: Training in the following topics shall be provided to all personnel.

- The environmental and personal risk factors for heat illness;
- The employer's procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness;
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme conditions of work and heat;
- The importance of acclimatization;
- The different types of heat illness and the common signs and symptoms of heat illness;

- The importance of immediately reporting to their supervisor, symptoms or signs of heat illness in themselves, or in co-workers;
- Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;

- Procedures for contacting emergency medical services, and for transporting personnel to a point where they can be reached by an emergency medical service provider;
- How to provide emergency personnel with clear and precise directions to the work site.

Supervisor training: Prior to assignment for supervision of employees working in the heat, training on the following topics shall be provided:

- The information required to be provided by Employee Training above.
- The procedures the supervisor is to follow to implement the applicable provisions in this section.
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

.4 DEFINITIONS

Acclimatization

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

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

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, 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.

Preventative Recovery Period

Preventative recovery period means a period of time to recover from the heat in order to prevent heat illness.

Shade

Shade means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight.

.5 PROVISIONS OF WATER

Your company name here Inc. provides access to drinking water at work locations (offices). At jobsite locations, drinking water is available to all *your company name here* personnel. Water is provided in sufficient quantity to all personnel, at the beginning of the work shift and/or throughout the work shift. Water is provided in the amount of one quart per employee per hour for drinking for the entire shift, if needed.

The Company instructs all personnel to consume the appropriate amount of water to ensure proper hydration.

Where drinking (approved potable) water is not plumbed or otherwise continuously supplied (replenished), it shall be provided in sufficient quantity at the beginning of the work shift to provide (1) quart per employee per hour for drinking for the entire shift.

The drinking 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.

- **Fresh and Pure:** Water must be fit to drink (i.e., potable) and free from odors that would discourage workers from drinking the water.

- **Suitably Cool:** During hot weather, the water must be cooler than the ambient temperature but not so cool as to cause discomfort when consumed.

- **As Close as Practicable to Where Employees are Working:** Placing water only in designated shade areas or where toilet facilities are located is not sufficient. When employees are working across large areas, water shall be placed in multiple locations.

- Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used for replenishment, they must be governmentally approved for potable drinking water systems, as shown on the manufacturer's label.

- Water containers will be kept in sanitary condition and labeled "potable drinking water" or similar wording.

- Paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until used.

- As part of the effective Replenishment Procedures, the water level of all containers will be checked frequently when the temperature rises.

- Water containers will be refilled with cool water when the water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried to replace water as needed.

- Water containers will be placed as close as practicable to the workers to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as practicable to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.

- When applicable water containers will be relocated to follow along with the crew, drinking water will remain readily accessible.

- During employee training and tailgate meetings, the importance of frequent drinking of water will be stressed.

.6 ACCESS TO SHADE

All personnel shall have access to shade in the form of air-conditioned buildings, vehicles, trailers, doghouses, and temporary canopies or umbrellas. Any personnel potentially suffering from heat illness or believing a preventative recovery period is needed, is provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period no less than five minutes. Such access to shade is permitted at all times.

Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool.

Shade structures will be opened and placed as close as practicable to the workers, when the temperature **equals or exceeds 80 degrees Fahrenheit**. When the temperature is below 80 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee.

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.*

Enough shade structures will be available at the site 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 arc working.

"Shade" means blockage of direct sunlight. One indicator that block 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. 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 (i.e. obstacles or hazardous or unreasonably unpleasant conditions while moving towards the shade or resting in the shade).

Employees will be allowed and encouraged to take a Preventative 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 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.

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, appropriate first aid or emergency response will be provided.

When applicable shade structures will be relocated to follow along with the crew, they will be placed as close as practical to the employees, so that access to shade is provided at all times.

In situations where trees or other vegetation are used to provide shade, the thickness and shape of the shaded area will be evaluated before assuming that sufficient shadow is being cast to protect employees.

In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide access to shade that provides equivalent protection.

.7 HIGH HEAT PROCEDURES

High Heat Procedures are additional preventive measures that our company will use when the temperature equals or exceeds 95 degrees Fahrenheit:

Effective communication by voice, observation, or electronic means will be maintained at all times so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers to observe them or communicate with them, an electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable.

Employee observation will be made for alertness and signs or symptoms of heat illness through one of the following means:

One or more employee(s) will be designated on each worksite, as authorized, to call for emergency medical services. Other employees have authorization to call for emergency services when no designated employee is available

- **a)** Supervisor or designee observation on jobsites of 20 or fewer employees; or
- **b)** Mandatory buddy system (when there are too many employees to allow direct observation, the company may use the buddy system and pair up employees.); or
- **c)** Regular communication with sole employee such as by radio or cellular phone; or
- **d)** Other effective means of observation.

Employees will be reminded throughout the work shift to drink plenty of water.

Pre-shift tailgate meetings will be held 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.

.8 PROCEDURES FOR EMERGENCY RESPONSE

All foremen and supervisors will carry cell phones or other means of communication to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift. If an electronic device will not furnish reliable communication in the work area, the company will ensure a means of summoning emergency medical services.

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 company will 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
- **d)** Being provided with emergency medical services in accordance with company procedures.

At remote locations such as rural farms, lots, or undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given reflective vests or flashlights in order to direct emergency personnel to the location of the worksite which may not be visible from the road or highway.

Prior to assigning a crew to a particular worksite, workers and the foreman will be provided a map of the site, along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads), to avoid a delay of emergency medical services.

Prior to the start of the shift, a determination will be made of whether or not a language barrier is present at the site and steps will be taken, such as assigning the responsibility to call emergency medical services to the foreman or an English speaking worker, to ensure that emergency medical services can be immediately called in the event of an emergency.

.9 PROCEDURE FOR ACCLIMATIZATION AND HEAT WAVE

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 be significantly more perilous in conditions of high heat and physical stress.

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.**

The weather will be monitored daily. The supervisor will be on the lookout for sudden heat wave(s) or increases in temperatures.

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.

For new employees, the intensity of the work will be lessened during a two-week break- in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.

During a heat wave, all employees will be observed closely (or maintain frequent communication via phone or radio) to be on the lookout for possible symptoms of heat illness.

.10 TREATMENT OF A SICK EMPLOYEE

When an employee displays possible signs or symptoms of heat illness, a trained First Aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice, or if emergency service providers will need to be called. A sick worker will not be left alone in the shade, as he or she can take a turn for the worse.

When an employee displays possible signs or symptoms of heat illness and no trained First Aid worker or supervisor is available at the site, emergency service providers will be called.

Emergency service providers will be called immediately if an employee displays signs or symptoms of severe heat illness

a) High body temperature,
b) Confusion,
c) Loss of coordination,
d) Hot dry skin or profuse sweating,
e) Throbbing headache and/or seizures,
f) Or does not improve after drinking cool water and resting in the shade.

While the ambulance is in route, First Aid will be initiated (cool the worker; place the worker in the shade, remove excess layers of clothing and apply cool water to their body). Do not let a sick worker leave the site, as they may get lost or die before reaching a hospital.

If an employee displays signs or symptoms of severe heat illness (high body temperature, confusion, loss of coordination, hot dry skin or profuse sweating, throbbing headache and seizures), and **the worksite is located more than 20 minutes away from a hospital**, call emergency service providers, communicate the signs and symptoms of the victim, and request Air Ambulance.

.11 PROCEDURE FOR MONITORING THE WEATHER

Supervisors will check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet at (www.nws.noaa.gov), by calling the National Weather Service phone numbers, or by checking the Weather Channel TV Network or app or other available methods. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected.

Prior to each workday and during the workday, the supervisor will monitor the weather at the worksite by one of the methods listed in this section. 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, or increasing the number of water and rest breaks.

The National Weather Service Heat Index may also be utilized to evaluate the risk level for heat illness related to relative humidity (see attachment).