## 1.0 Heat Illness Prevention Plan

**Heat Illness can be very serious and in many cases cause death. As the state gathers more data it appears that it may be the cause of many more deaths than was previously thought.** There are three areas which need to be addressed: Prevention, Recognition, and Treatment / Medical Aid

### 1.1 Prevention

Prevention is the easiest, cheapest, and least disruptive path to take. These steps are to be taken whenever the temperature is forecast to be over 80 degrees Fahrenheit, or where work conditions require lots of physical effort which might cause "over heating". This may include time when the weather is cold and workers are wearing heavy coats or layered clothing.

**Note: 2015 change to regulations: All aspects of this program must be in effect at the start of the shift whenever the weather is forecast to be more than 80 degrees.**

All jobs sites are to comply with the following:

**Water Supplies:**
Provide adequate potable water for the workers that is fresh, pure and suitably cool. Each worker should have 2 gallons available to them during the day. This may also be accomplished by either by maintaining water jugs, having access to potable water or by having an effective method of replenishment during the shift. At no time is the water supply allowed to be depleted. These sources of water need to be close to where the workers are working. Where water jugs are used, single use cups and trash receptacles shall be provided as required by regulation.

Workers are to be encouraged to drink lots of water

Use buddy system to ensure everyone is consuming enough fluids. (Approximately 1quart per hour or 4 ounces every 15 minutes)

**NOTE: For conditions above 95° degrees, the following also applies:**

1) 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) Observe employees for alertness and signs or symptoms of heat illness.
3) Remind 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 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.

**1.2 Training**

All workers shall receive specific training on Heat Illness. This is to include:

- Prevention
- The importance of frequently drinking water
- The importance of acclimatization
- Types and causes of heat stress and heat illness
- The common signs and symptoms of heat illness
- The importance to employees of immediately reporting to the employer, any symptoms or signs of heat illness in themselves, or in co-workers
- Knowledge that mild forms of heat stress may progress rapidly to serious and life threatening
- Sunbelt's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary. (See site specific safety plan)

**Shade**

Shade shall be provided when temperatures exceed 80 degrees, for workers to use for "preventive cool down" rests. Portable canopies, more permanent structures, or building shade can be used. This shade needs to be near where the work is being performed.

**Rest Periods**

Regulations require two rest periods of 10 minutes each in addition to a 30 minutes lunch period. If the conditions dictate other rest periods will be necessary to ensure prevention. Employees taking a "preventative cool-down rest" must 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 must be provided appropriate first aid or emergency response.

**High Heat**

High-heat procedures (which will remain triggered at 95 degrees) shall ensure "effective" observation and monitoring, including a mandatory buddy system and regular communication with employees working by themselves. During high heat, employees must be provided with a minimum 10-minute cool-down period every two hours.

**Acclimatization**

Workers new to the heat - defined as at least 80 degrees will need time to acclimate to the heat. This would include all workers if the weather shifts from cool to hot suddenly, new workers and other which are not accustomed to working in the heat. New employees to the site must be closely observed by their supervisor, for their first two weeks on the job to ensure that the new employees are making the transition to working in the heat. It is also helpful to rotate workers in and out of high heat areas, so that no one worker is in the heat all day.

**Medications**

Workers are to be cautioned against the use of medication, drugs, alcohol, caffeinated or carbonated drinks. All these can accelerate the onset of Heat Illness. We cannot tell a worker not to take their prescription medication. Instead we ask them to talk to

their personal doctors and/or pharmacist about the affect their medicine might have with the heat and let us know.

**Clothing:**
The wearing of appropriate clothing can be very important to preventing Heat Illness. Light colored clothing will absorb less heat from the sun than dark colored clothing. Long sleeved shirts will retain sweat giving it time to evaporate and help cool the body. Workers are to be encouraged to wear light colored clothing with long sleeves.

**Personal Protective Equipment**
The use of PPE (Personal Protective Equipment) can also accelerate the onset of heat illness. If workers are required to wear PPE which might retain body heat they will need to be watched closely and need more breaks to recover.

**1.3 Heat Stress Recognition**
Supervision and workers MUST be able to recognize Heat Illness. The earlier in the process that it is recognized, the easier it is treat and recover. Workers can go from one stage to the next very quickly.

**Contact Onsite Health & Safety (866) 998-2750 if needed for advice**

Types of Heat Illness (listed from minor to most severe):

**Heat Rash** – A Skin irritation caused by excessive sweating. Not significant, but a good indicator of things to come.

**Heat Cramps** – Heat Cramps are painful, brief muscular cramps or spasms that occur when the body loses electrolytes during profuse sweating or when inadequate electrolytes are taken into the body. The most common time this will happen is when the body is exercising in a hot environment. Heat cramps usually begin in the arms, legs or abdomen, and often precede heat exhaustion. Cramping may be delayed and occur hours after the workout. If caught at this stage treatment is simple and can be done on the job. Rest in a cool location and water will normally take care of the situation within 15 to 30 minutes. Any other Heat Illness will require professional medical attention.

**Heat Syncope (Fainting)** – (pronounced SIN-ko-pee) Employees who stand for long periods or suddenly get up from a sitting of lying position when working in the heat, may experience sudden dizziness, light-headedness and fainting.

**Heat Exhaustion** – This is the point where the body temperature starts to lose its' cooling capacity. The list of symptoms is long. Heavy sweating, Painful muscle cramps, extreme weakness, Nausea, dizziness, headache. Body temperature may be high, but not always. Fainting, fast or weak pulse, fast and shallow breathing are symptoms. You will observe some and possibly all of the above symptoms.

**Heat Stroke** – Can be fatal, unless medical treatment is provided promptly. The body has stopped sweating; the worker may be confused, delirious, having convulsions. The skin is likely to be hot and dry. The heart r ate is rapid and weak.

His/her muscle may twitch, have a throbbing headache. They maybe unconscious or have an elevated body temperature.

### 1.4 Treatment / Medical Aid

**Worksite First Aid – Heat Rash**

- Provide a cooler, less humid environment.
- Have the worker keep the affected area dry
- Dusting powder may be used to increase comfort, but avoid using creams or ointment- they can make the conditions worse.

**Worksite First Aid – Heat Cramps**

- Worker is to stop all activity, and sit quietly in a cool/shaded place.
- Have them drink clear juice or sports drinks
- Do not allow the worker to return to strenuous activity for a couple of hours after the cramps subside as further exertion may lead to heat exhaustion or heat stroke

**Activate Emergency Response Systems (911) if:**

- Symptoms do not subside within 1 hour
- The person has a history of heart problems or is on a Low-sodium diet.

**Worksite First Aid – Heat Exhaustion**

- Encourage worker to drink water
- Rest in shade or better in a air conditioned environment
- Spray worker with cool water

**Contact Onsite Health & Safety (866) 998-2750 for advice**

**Worksite First Aid – Heat Syncope (Fainting)**

- Have worker lay down with his/her feet elevated
- Check for injuries from the fall
- Once conscious have worker drink adequate amount of water
- Once recovered have the worker sit and move his/her legs to prevent blood pooling in the lower limbs.

**Activate Emergency Response Systems Immediately (911)**

**Worksite First Aid – Heat Stroke**

- Get worker to shady area
- Use what ever methods available to cool work down immediately. Spray with cool water, immerse in cool water
- Wet and fan worker vigorously

**Activate Emergency Response Systems Immediately (911)**

## 2.0 References

CAL/OSHA T8 CCR 3395