Heat Illness Prevention

1.0 Statement / Purpose

It is the intent of California State University to provide employees with a safe and healthful environment. Consistent with that intent, the purpose of this program is to reduce the risk of employee work related heat illness.

2.0 Scope

This heat illness prevention program applies to all University employees doing outdoor work. This program is not specifically designed for mitigating exposure to excessive heat indoors; prior to work in which indoor heat exposure may be an issue, employees should contact their supervisor or the office of Environmental, Health and Safety.

3.0 Authority / References

Heat Illness Prevention Standard, Title 8 CCR 3395
Injury and Illness Prevention Program, Title 8 CCR 3203

4.0 Responsibilities

The following persons have the authority and responsibility for implementing the provisions of this program.

Office of Environmental, Health and Safety; Director, x-8847
  o  Develop and maintain the written Heat Illness Prevention program

Facilities Services (FS); Associate Directors, x-8464
  o  Provide supplies and equipment as required
  o  Assign supervisors the responsibility for implementing procedures
  o  Periodically check if procedures are being followed

FS Supervisors
  o  Monitor weather
  o  Implement heat illness prevention procedures as described herein
  o  Monitor crew for heat illness

Employees
  o  Observe heat illness prevention procedures
  o  Observe self and other employees for signs and symptoms of heat illness

EHS Safety Coordinator
  o  Periodically check to ensure procedures are followed
5.0 Procedures

5.1 Provision of Water

When water is not otherwise immediately available, drinking water containers (of one to ten gallons each or bottled drinking water) will be brought to the site, so that at least two quarts per employee are available at the start of the shift. All workers whether working individually or in smaller crews, will have access to drinking water.

Disposable cups or other appropriate personal container will be made available to workers and will be kept clean until used.

Water containers will be placed as close as possible to the workers (given the working conditions and layout of the worksite), to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.

Water containers will be relocated to follow along with the crew, so drinking water will remain readily accessible.

Water containers will be kept in sanitary condition.

When the temperature exceeds or is expected to exceed 90 degrees Fahrenheit, brief ‘tailgate’ meetings will be held each day to review with employees the importance of drinking water and the signs and symptoms of heat illness.

When the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, the number of water breaks will be increased, and workers will be reminded throughout the work shift to drink water.

5.2 Access to Shade

The campus has many fixed structures that can provide cool rest areas, and mature landscaping that can provide shade in many areas. Shade structures will be used when ready access to these fixed features is not available.

Enough shade will be available at the work site to accommodate at least 25 percent of the employees on the shift at any one time.

If they are necessary, shade structures will be relocated to follow along with the crew and 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 shade, steps will be taken to provide alternative cooling measures but with equivalent protection as shade.
5.3 Monitoring the Weather

The supervisor will be trained and instructed to check in advance the extended weather forecast. Local weather forecasts can be checked with the aid of the internet:

http://forecast.weather.gov/MapClick.php?lat=34.1902217928623&lon=-119.03274536132812&site=lox&unit=0&lg=en&FcstType=text

or by calling the National Weather Service Los Ángeles (805-988-6610 ; #1).

The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected. This type of advance planning should take place all summer.

Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Heat Index to evaluate the risk level for heat illness. A determination will be made of whether or not workers will be exposed at a temperature and humidity characterized as either “extreme caution” or “extreme danger” for heat illnesses. It is important to note 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 supervisor will monitor the weather as above or with the aid of a thermometer at the worksite. This 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).

5.4 Heat Wave Procedures

During a heat wave, when practical, the work day will be cut short or rescheduled (e.g. reschedule work to be conducted at night or during cooler hours).

During a heat wave, before starting work, tailgate meetings will be held to review the company heat illness prevention procedures, the weather forecast and emergency response. If schedule modifications are not possible, workers will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.

5.5 High Heat Procedures

High Heat Procedures are additional preventive measures applicable when the temperature equals or exceeds 95 degrees Fahrenheit.

Effective communication will be maintained 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), then campus radios will be used for this purpose.

Frequent communication will be maintained with employees working by themselves or in smaller groups to assess possible symptoms of heat illness.

Employees will be observed for alertness and signs and symptoms of heat illness. When the supervisor is not available, an alternate responsible person may be assigned, to look for signs and symptoms of heat illness. Such a designated observer will be trained and know what steps to take if heat illness occurs.

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

Acclimatization is the temporary and gradual physiological change in the body that occurs when a worker is subjected suddenly to a hotter work environment. The body needs time to adapt when temperatures rise suddenly, and employees have a higher risk of heat illness when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee has not yet adjusted. Inadequate acclimatization is also more likely in conditions of physical stress.

Employees and supervisors will be trained on the importance of acclimatization and how it is developed.

The weather will be monitored daily. The supervisor will be on the lookout for a sudden heat wave, or increases in temperatures to which employees haven’t been exposed to for several weeks or longer.

Additional cooling procedures will be provided for un-acclimatized employees to allow them time to adapt to high heat conditions.

During a heat wave, when practical, the hot work will be cut short (e.g. 12 p.m.), will be rescheduled (e.g. conducted at night or during cooler hours) or possibly cease for the day.

The supervisor will be extra-vigilant with new employees and stay alert to the presence of heat related symptoms.

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

5.7 Emergency Response

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 to ensure that emergency medical services can be immediately called in the event of an emergency.

All supervisors will carry radios 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.

When an employee is showing symptoms of heat illness, emergency services will be called immediately and steps will be taken immediately to keep the stricken employee cool and comfortable to reduce the possibility of progression to more serious illness.

If work is taking place in a remote location, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them.

During work in hot conditions workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.

5.8 Handling a Sick Employee

When an employee displays possible signs or symptoms of heat illness, police EMTs will be summoned to 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.
Emergency service providers will be called immediately if an employee displays these signs or symptoms of heat illness: loss of consciousness, incoherent speech, convulsions, red and hot face or does not get better 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, place ice pack in the armpits and joint areas and fan the victim). A worker with heat illness must not be allowed to leave the site alone.

5.9 Employee and Supervisory Training

Supervisors will be trained prior to supervising other workers. Employees will be trained prior to working outside. Training will include these written procedures.

Supervisor training is crucial to the success of this program. Supervisors will be trained on how to monitor the weather at the job site, how weather information will be used to implement the various heat illness prevention procedures, how to monitor employees for signs and symptoms of heat stress, and what to do in an emergency.

Employees will be trained on these procedures with an emphasis on how to take care of themselves, how to monitor themselves and others for signs and symptoms of heat stress, and what to do in an emergency.