

**Suggested policy format and content. RTPA specific policies should be developed in consultation with RTPA Legal Counsel, Board of Directors and appropriate regulatory agencies.**

## **8. Heat Illness Prevention**

It is the policy of RTPA to provide a safe working environment that reduces the risk of heat illness for employees who routinely, or from time-to-time, perform their job duties in an outdoor location, whenever environmental or personal risk factors for heat illness are present. For the purposes of this policy, examples of “outdoor work locations” include, but are not limited to, roadways and associated facilities, construction sites, fields and parkland areas, beaches and lagoons, yards, outdoor areas adjacent to buildings, such as loading docks, and sites where outdoor public outreach activities occur.

Typically, temperatures above 85° Fahrenheit (F), when heavy physical work activities are being performed, represent conditions where there is a risk of heat illness. Other factors, such as high humidity or work activities that restrict the body’s ability to cool itself, such as protective clothing, could result in a risk of heat illness at lower temperatures.

RTPA will establish procedures for employees working in outdoor settings designed to reduce the incidence of heat-related illnesses. Additional protective measures and caution will be exercised when the risk for heat illness is higher, such as during a heat wave or in other severe working or environmental conditions.

### **Responsibilities**

The Executive Director is responsible for ensuring that this policy and associated procedures are implemented and that the necessary resources for the program are made available to supervisors, and employees.

Managers and supervisors are responsible for:

- identifying all employees who are required to work outdoors or in other environments where potential heat illness could occur as well as the supervisors of these employees;
- ensuring that adequate water, shade, and necessary rest breaks are available when the environmental risk factors for heat stress are present and encouraging employees to drink sufficient amounts of water;
- evaluating work conditions before sending employees to perform outdoor work in hot conditions (CalOSHA defines a trigger temperature and “shade up” provisions when temperatures reach 85°F, and “high heat” procedures at 95°F; and
- ensuring that all affected employees are trained on heat illness prevention procedures for both hot and high heat conditions.

Affected employees are responsible for:

- complying with the provisions of the Heat Illness Prevention Policy, as described in this document and in the training sessions they attend;
- requesting that appropriate amount of drinking water is available at all times when the environmental risk factors for heat illness are present;
- requesting access to a shaded area to prevent or recover from heat related symptoms; and
- promptly reporting heat related illness symptoms to their supervisor.

## Definitions

The following definitions apply to this policy:

- **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 and nearby equipment, air movement, workload severity and duration, and protective clothing and personal protective equipment worn by employees.
- **Personal risk factors for heat illness** means factors that affect the body's water retention or other physiological responses to heat such as an individual's age, degree of acclimatization, overall health, and water consumption. Caffeine, certain drugs, and alcohol also can have an effect on the body's ability to respond to heat.
- **Preventative recovery period** means a period of time to recover from the heat in order to prevent heat illness.
- **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. 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.

## Procedures

RTPA heat illness prevention procedures include:

### **Access to Drinking Water and Water Replenishment**

- RTPA will provide at no cost to employees, readily accessible, clean, fresh, and cool potable, drinking water at all times. In high heat conditions, ice also will be provided to cool the drinking water.
- Where unlimited drinking water is not immediately available through plumbing or another source, a sufficient quantity of water, equivalent to one quart, or four 8-ounce cups, per hour per employee, will be provided via water containers. If containers are used:
  - The supervisor will ensure that water containers are located as close as practicable to employees. If employees move from one area to another, the water container will be moved with the employees.
  - If water containers cannot easily be located close to the employee's work area, an alternate supply of water will be available via bottled water, personal water containers, or similar.
  - Single-use drinking cups will be provided for use with the water container if the water is not provided in personal water bottles.
  - The water level in the containers will be checked by the supervisor at least every two hours.
  - The water in the container will be replenished with cool water when the level drops below 50 percent.
  - All water containers will be filled and refilled directly from a potable water supply and care will be taken to prevent contamination.
- Employees will be reminded about the available sources of water, and encouraged to frequently drink small quantities of water throughout the day, especially during periods of high heat.

### **Employee Access to Shade**

- When the outdoor temperature at the work location exceeds 85°F, RTPA will maintain one or more areas with shade while employees are present.
- The shaded area will be open to the air or ventilated and cooled, will be large enough to accommodate 25 percent of the employees working on a shift at one time, and will allow employees to sit comfortably and fully in the shade in a normal posture without having physical contact with another employee.
- The shaded area will be located as close as possible to the area where employees are working and access will be permitted at all times.
- Employees who may be suffering from a heat related illness or needing a preventative recovery period will be encouraged to remain in the shaded area for at least five minutes whenever they feel the need to do so to avoid overheating.
- If it is unsafe or infeasible to provide shade at an outdoor work location, equivalent protection will be identified and provided to employees.

### **Personal Protective Equipment/Clothing**

- Employees will be encouraged to wear clothing that is lightweight, loose fitting, and made of "breathable" fabric to allow airflow and air movement aiding in cooling the body. Employees will be restricted from wearing loose fitting clothes when working near moving machinery because of the danger of entanglement.
- Employees will be encouraged to wear light-colored clothing that reflects heat better than dark-colored clothes which absorb heat.

- Employees will be encouraged to wear shirts with long sleeves to cover the body and avoid sunburn. Sunburn affects the body's ability to cool itself and increases the loss of body fluids.

### **Weather Monitoring and Acclimatization**

- The supervisor will monitor weather conditions, particularly for approaching heat waves, and will use a thermometer to keep track of the temperature at outdoor work locations.
- The supervisor will pay particular attention to signs and symptoms of heat illness due to inadequate acclimatization for current and new employees.

### **High Heat and Heat Wave Protocols**

In addition to the above requirements, the following procedures will be followed when the outdoor temperature at the work location is at or above 95°F:

- The supervisor will hold short, frequent meetings (before and during work) with employees to review the heat illness prevention procedures, the weather forecast, emergency response procedures, and additional safety measures.
- The supervisor will maintain communication with the employees by voice, observation, or reliable electronic means (e.g., cell phone); employees at the work site will be able to contact the supervisor if necessary.
- The supervisor will observe employees for alertness and signs or symptoms of heat illness.
- The supervisor will actively remind employees to drink water frequently throughout the work day.
- The supervisor will closely monitor new employees for acclimatization during the first 14 days of employment, unless the new employee indicates at the 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.

### **Employee and Supervisor Training**

RTPA will provide training to employees who hold positions where their job duties are routinely performed in an outdoor location or other work environment that has an elevated risk for heat illness. This training will occur prior to the time the employee commences their outdoor job duties, and at other times as deemed necessary, and will include:

- 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
- the different types of heat illness, including common signs and symptoms
- the importance of acclimatization, how it is developed, and how RTPA procedures address it
- the importance of frequent consumption of small quantities of water
- the importance of immediately reporting signs or symptoms of heat illness in themselves, or in co-workers, to a supervisor
- procedures for responding to symptoms of possible heat illness, including contacting emergency medical services and transporting employees if necessary
- the RTPA Heat Illness Prevention Policy and related procedures

RTPA will provide training to supervisors responsible for overseeing the work of employees who hold positions where there is an elevated risk for heat illness. This training will occur prior to the time the

supervisor commences job duties involving supervision of outdoor work, and at other times as deemed necessary, and will include:

- the RTPA Heat Illness Prevention Policy and related procedures, as well as CalOSHA's Heat Illness Prevention Standard T8 CCR 3395 procedures
- procedures to be followed to implement the applicable Heat Illness Prevention Policy requirements
- procedures to be followed when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures and first aid
- how to monitor weather reports and respond to hot weather advisories

### **Emergency Response**

- All supervisors will carry cell phones or other means of communication during outdoor work, 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 possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).
- During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms of heat illness they are experiencing.
- Training for both employees and supervisors will include information about emergency procedures.

### **Procedures for Handling a Sick Employee**

- Emergency service providers will be called immediately if an employee displays signs or symptoms of heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), does not look OK 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 groin area, and fan the victim).

### **Written Procedures**

In addition to being included in the RTPA Employee Handbook, this policy and related procedures will be maintained on site and will be made available to employees upon request.

### **Complaint Procedures**

Employees who have questions, concerns, or suggestions regarding workplace health and safety, are encouraged to contact their supervisor, Director of Finance and Administrative Services or the Executive Director.