



City of El Monte

Heat Illness Prevention Program

October 2016

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Purpose

The Heat Illness Prevention Program (HIPP) is in place to protect all employees from heat hazards posed by working in the outdoor environment, as required by the heat illness prevention regulation (Title 8 CCR 3395). Our program has been updated to reflect the new requirements adopted in 2015.

We are committed to preventing heat-related illnesses that can occur to employees working outdoors by implementing the following key steps:

- Identifying outdoor work environments and conditions
- Monitoring weather conditions
- Monitoring employee acclimatization for working outdoors in heat
- Providing clean drinking water
- Providing adequate shade
- Addressing high-heat procedures
- Handling an ill employee and initiating emergency procedures
- Providing supervisor and employee training

Outdoor Work Environments and Conditions

The following positions have been identified as working in outdoor environments that could potentially expose employees to illnesses associated with high heat:

- Aquatics Coordinator
- Beautification Project Leader
- Cement Mason
- Community Wellness & Service Coordinator
- Electrician's Helper
- Equipment Service Worker
- Graffiti Abatement Worker
- Heavy Equipment Mechanic
- Identification Technician
- Instructor Guard
- Landscape Technician
- Maintenance Lead Worker
- Maintenance Worker
- Managing Swim Teach Coach
- Neighborhood Services Officer
- Parking Technician
- Plumber
- Police Officer
- Pool Manager
- Public Works Inspector
- Recreation Coordinator
- Recreation Leader
- School Resource Officer
- Shift Operator
- Traffic Signal Technician

Weather Monitoring

Weather Forecast

When environmental risk factors create the possibility for heat illness, the supervisor will monitor the two-week forecast for the work area. The supervisor 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. It is important to keep in mind that the temperature at which these warnings occur must be lowered as much as fifteen (15) degrees if the workers under consideration are in direct sunlight.

Weather information will be obtained by accessing the National Weather Service at www.weather.gov, calling the local National Weather Service office, watching the Weather Channel TV network, utilizing weather application software, etc. Work schedules will be planned in advance, based on the forecast. Modifications will be made accordingly, especially if a heat wave is expected. This monitoring will take place all summer long.

Weather Monitoring Prior to Workday during Times of Risk

Prior to each workday, the supervisor will be responsible for monitoring the weather using www.weather.gov or www.nws.noaa.gov or with the aid of a simple thermometer at the worksite. This 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).

If schedule modifications are not possible and workers have to work during a heat wave, the supervisor will provide a tailgate meeting to reinforce heat illness prevention with emergency response procedures and review the weather forecast with the workers. In addition, the supervisor will provide workers with an increased number of water and rest breaks. The supervisor will ensure workers stop and take these breaks and closely observe all workers for signs of heat illness. The supervisor will also assign each employee a buddy to watch for signs of heat illness and ensure emergency procedures are initiated when someone displays signs of heat illness.

The supervisor will be responsible for periodically checking the temperature to monitor for sudden increases. Once the temperature exceeds **80°F**, access to shade will be made available to employees. Once the temperature **equals or exceeds 95°F**, additional preventive measures such as the high-heat procedures are implemented.

Employee Acclimatization

The supervisor will watch for sudden heat waves early in the season or increases in temperatures to which employees are unaccustomed for several weeks or longer. *Cal/OSHA* defines a heat wave as “any day in which the predicted high temperature will be at least 80°F AND at least 10°F higher than the average daily high in the preceding five (5) days.”

When necessary, the workday will be cut short or rescheduled for another day. In addition, during the summer months, the work shift may start earlier in the day or later in the evening to reduce exposure. During any heat wave, we will observe all employees closely (or maintain frequent communication via phone or radio) and watch for possible signs of heat illness.

For new employees, the supervisor will try to find ways to lessen the intensity of work during a two-week break-in period. The supervisor will:

- Stay alert to the presence of heat-related symptoms
- Assign new employees an experienced coworker to watch for discomfort or signs of heat illness

Providing Water

The supervisor will provide access to suitably cool (below ambient but not ice cold) potable drinking water at the beginning of each work shift so each employee can remain hydrated throughout the workday. The supervisor will encourage employees to drink sufficient amounts of water, at least one quart (4 cups) per hour, when the work environment is hot, and employees are likely to be sweating more than usual in the course of their duties. Water will be placed as close as practical or as it is feasible to the areas to where employees are working.

When employees do not have access to plumbed or otherwise continuously supplied water, and we cannot readily replenish the water during the shift, the supervisor will provide enough water at the start of the shift, in containers that keep the water suitably cool, so each employee has access to one quart of water or more per hour.

Access to Shade

When the outdoor temperature in the work area **exceeds 80°F**, we will provide and maintain one or more areas with shade at all times while employees are present. These areas will either be open to the air or provided with ventilation or cooling. We will also provide shade when an employee specifically requests it, even when the temperature does not exceed 80°F. Employees will be allowed and encouraged to take a cool-down rest in the shade for a period of no less than five (5) minutes anytime they feel the need to protect themselves from overheating.

Depending on the worksite, shade may be provided by trees or buildings. When natural shade is not available, we will provide other acceptable means of shade such as umbrellas, tents, canopies, etc., to block the sunlight. In these instances, we will provide chairs, benches, sheets, towels, or any other items to allow employees to sit and rest without contacting the bare ground. We will also relocate the shade structure as the work environment or location changes.

The amount of shade present for recovery, rest, and meal periods will be enough to accommodate all employees who are on such a break at any point in time. There will be enough room so employees can sit in a normal posture, fully in the shade without having to be in physical contact with each other. The shaded area will be located as close as practicable to the areas where employees are working. Water will be available in the rest area so that employees are encouraged to drink more water.

In instances where natural shade is not available, supervisors will:

- Bring sufficient shade structures to the site
- Ensure sufficient shade structures are opened and placed as close as practical to the workers

- Point out the daily location of the shade structures to the workers, as well as allow and encourage employees to take a 5-minute (5) cool-down rest in the shade when they feel the need to do so to protect themselves from overheating
- Ensure the shade structures are relocated to follow along with the crew and double-check they are as close as practical to the employees so access to shade is provided at all times

If it is infeasible or unsafe to have shade structures, or to have shade present on a continuous basis, we will provide alternative procedures with equivalent protection.

In instances where natural shade such as a tree is available, supervisors will evaluate the thickness and shape of the shaded area in orchards or other areas of vegetation (given the changing angles of the sun during the entire shift), before assuming that sufficient shadow is being cast to protect employees.

In situations where it is not safe to provide shade (example winds of more than 40 mph), we will document how the determination was made and identify what steps will be taken if someone requests shade, or we will identify other cooling measures with equivalent protection. Cooling measures other than shade may be used if they are as effective as shade in allowing employees to cool.

Employees may opt to take a “preventive cool-down rest” in the shade to help the body relieve excess heat. The employee will be monitored during this rest and asked if they are experiencing any symptoms of heat illness. If any signs or symptoms of heat illness are observed or reported, the employee will not be ordered back to work and will be continuously observed until the signs or symptoms have stopped.

If employees work in small groups the supervisor will establish a buddy system for monitoring. If an employee works alone, the supervisor will establish a communication system by ensuring the employee has a cell phone or radio so the employee can make immediate contact when needed.

The importance of prevention is critical. Employees who wait until symptoms appear before seeking shade and recovery are at significant risk of developing heat illness.

High-Heat Procedures (95°F)

During periods of high heat, when the outdoor temperature **equals or exceeds 95°F**, it is crucial that employees be monitored for early signs and symptoms of heat illness. Supervisors will be available so employees at the work site can contact them. If a cell phone or two-way radio is used, reception must be validated.

Supervisors will remind employees to drink plenty of water throughout the work shift and take rest/recovery breaks when needed. In addition, the supervisor will make sure employees are monitored by implementing one or more of the following:

- Direct supervision and monitoring of employees
- Assign a buddy system where employees are paired up and stay in contact with each other throughout the day and directed to immediately report any signs or symptoms of heat illness to the supervisor
- Contact employees who work alone on a frequent basis to ensure the employee is ok.

Emergency Response Procedures

When an employee displays possible signs of heat illness (refer to appendix A for a list of heat illness symptoms) a supervisor will:

- Immediately call 911
- Move the employee to a cooler/shaded area
- Remove excess layers of clothing
- Fan and mist the worker with water
- Apply ice (ice bags or ice towels)
- Provide cool drinking water, if able to drink

A supervisor will remain with the sick employee until emergency help arrives. If the area is remote, the supervisor will have a map along with clear and precise directions (such as streets or road names, distinguishing features, and distances to major roads) of the site to clearly communicate the location to emergency medical services. The supervisor will designate someone to physically go to the nearest road or highway where emergency responders can see them.

Prior to assigning a crew to a particular worksite, the supervisor will:

- Provide workers and the foreman a map along with clear and precise directions (such as streets or road names, distinguishing features, and distances to major roads) of the site to avoid a delay of emergency medical services;
- Ensure a qualified, appropriately trained, and equipped person will be available at the site to render first aid if necessary;
- Ensure responsibility for calling emergency medical service is assigned to an English-speaking worker at the site;
- Verify all foremen and supervisors carry cell phones or other means of communication to ensure emergency medical services can be called; and
- Ensure all communication devices are functional at the worksite prior to each shift.

Supervisor and Employee Training

Employees

All employees are required to attend a safety training session prior to beginning work that should be reasonably anticipated to result in exposure to the risk of heat illness. The following information will be provided:

- 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 City's procedures for complying with the requirements of the heat illness prevention regulation;
- The importance of frequent consumption of small quantities of water;
- The importance of acclimatization;

- The different types of heat illness and the common signs and symptoms of heat illness;
- The importance of employees immediately reporting symptoms or signs of heat illness for themselves and co-workers;
- The City's specific procedures for responding to possible heat illness, including how emergency medical services will be provided should they become necessary;
- The City's specific 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;
- The City's procedures for designating a person to be available to ensure emergency procedures are invoked when appropriate; and
- The City's specific procedures for ensuring clear and precise directions to the work site will be provided as needed to emergency responders.

Supervisors

In addition to obtaining the training required for employees listed above, supervisors will be trained before performing work that could be reasonably anticipated to result in exposure to heat illness. Training will include:

- All information provided during employee training;
- Procedures for preventing heat illness, including monitoring weather reports and how to respond to hot weather advisories;
- Information about how to identify heat illness, and
- Steps to take for emergency response to heat illness.

Heat Illness Employee Training Handout

We, the City, have developed a training program to increase employee awareness of the occurrence of exposures to heat illnesses when working outdoors and to motivate employees to protect themselves.

Overview of Heat Illness Prevention Regulation

The heat illness prevention regulation is intended to ensure both employers and employees understand the dangers associated with working in heat in outdoor workplaces. The following information is a review of the specific requirements of a heat illness prevention program, including water, shade, high-heat procedures, and training.

Written Heat Illness Prevention Program

We have a written program that outlines how we provide information on and control exposures that can result in heat illness while performing outdoor work in the heat. This program is available to you during our training or during your work shift from your supervisor.

Work Environment and Conditions in Our Workplace

Our written program includes the identification of work that is performed outdoors when the weather is hot. This list is not all inclusive and when other types of work or conditions are identified, we will update our program and our training. The most important element is to realize that when it is hot outside and you are working, take precautions to protect yourself.

Water

We will provide enough fresh drinking water so you have access to at least one quart of water per hour and actively encourage you to drink it. Refrain from alcoholic beverages or beverages that contain caffeine, such as soft drinks, coffee, and tea. Alcoholic beverages are prohibited in the work place.

Shade

Our goal is to provide reasonable shade so everyone who needs it has access to it to cool off when the weather is hot. If infeasible or unsafe to provide shade, we will provide other means to help keep you cool.

High-Heat Procedures

When the outside temperature reaches or exceeds 95° F, additional precautions, to the extent they are feasible, will be taken to ensure your safety and health. This includes good communication, close supervision if you have not recently worked outdoors in the heat for four or more hours per day, observing you, and reminding you to drink plenty of water.

Training

All employees and supervisors who have potential heat exposures receive the same training so everyone understands our policy and procedures for keeping everyone safe when working outdoors. Training addresses how to acclimate to the heat, how much water to drink, the signs and symptoms of heat illness, the importance of reporting symptoms to your supervisor, and how to get help in an emergency.

Appendix A: HIPP

Heat Illness Employee Training Handout

Types of Heat Illness

Heat illness is 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.

Heat Stroke

The most life-threatening heat-related illness, heat stroke, happens when the body can no longer control its temperature. The body's temperature rises fast. The body cannot sweat and is unable to cool itself. Warning signs include red, hot, dry skin; very high body temperature; dizziness; nausea; confusion; strange behavior or unconsciousness; rapid pulse or throbbing headache. Heat stroke can cause death or disability if treatment is not given.

Heat Exhaustion

Heat exhaustion is a milder illness that happens when the body has lost too much water and salt in sweat. Warning signs include heavy sweating, cramps, headache, nausea or vomiting, paleness, tiredness, weakness, dizziness, and fainting. If heat exhaustion is not treated, it can turn into heat stroke. Get medical assistance if the symptoms are severe or if the victim has heart problems or high blood pressure.

Heat Syncope

Heat syncope is a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization. Symptoms of heat syncope include light-headedness, dizziness, and fainting.

Heat Cramps

Heat cramps are muscle pains and spasms due to heavy activity. They usually involve the stomach muscles or the legs. It is generally thought that the loss of water and salt from heavy sweating causes the cramps. If you have heart problems or are on a low-sodium diet, get medical attention for heat cramps.

Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. Symptoms include red cluster of pimples or small blisters. Heat rash is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

Sunburn

Sunburn is when skin becomes red, painful, and unusually warm after being in the sun. Sunburn should be avoided because it damages the skin and could lead to more serious illness.

Appendix B: HIPP

Worker Training and Instruction Record

WORKER TRAINING AND INSTRUCTION RECORD



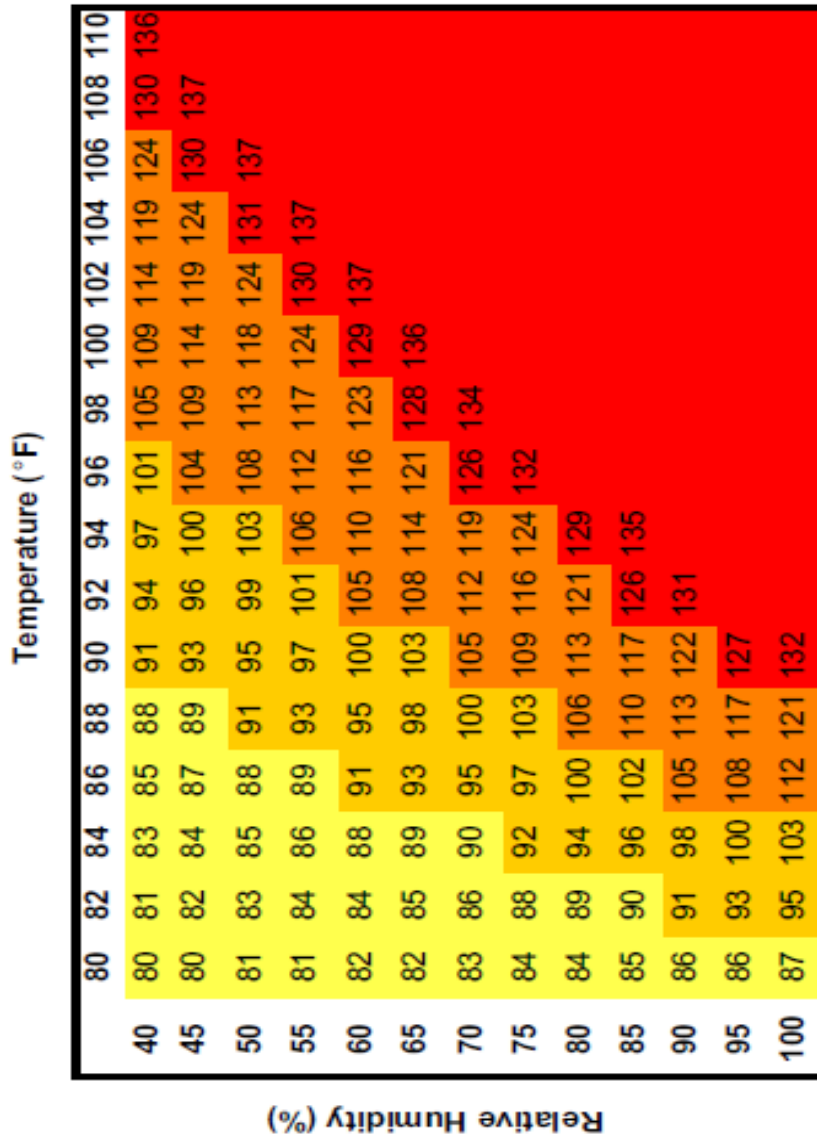
Date		Location	
Trainer(s)*			
Subject of Training*	Heat Illness Prevention		
Method of Training (check all that apply)	☐ Verbal ☐ Video ☐ Audio ☐ Other _____		

[illegible]

* Mandatory fields: employee name (or other identification), training date, type of training, and training providers



National Weather Service Heat Index Chart



Likelihood of Heat Disorders with Prolonged Exposure and/or Strenuous Activity

Caution
 Extreme Caution
 Danger
 Extreme Danger

Additional Training Resources

Cal/OSHA

<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>

http://www.dir.ca.gov/dosh/etools/08-006/EWP_water.htm

http://osha.gov/SLTC/heatillness/heat_index/

<https://www.osha.gov/Publications/osha3154.pdf>

http://www.osha.gov/dts/osta/otm/otm_iii/otm_iii_4.html

National Weather Service

(Current temperature and humidity level depending location.)

<http://www.weather.gov/current>

Centers for Disease Control and Prevention

<http://www.cdc.gov/niosh/topics/heatstress/>

<http://www.cdc.gov/disasters/extremeheat/>