City of Ripon

Heat Illness Program

This Heat Illness Prevention Program has been approved by

Kevin Werner
City Administrator

Approval Date: November 2013
Amended: May 2015

General

This program is in place to protect all employees from heat hazards posed by working in the outdoor environment, as required by California laws related to the heat illness prevention (8 California Code of Regulations § 3395). The City of Ripon is 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
- Implementing acclimatization methods and procedures for working outdoors in heat
- Providing clean drinking water
- Providing access to adequate shade
- Implementing high-heat procedures
- Tending to an ill employee and initiating emergency response procedures
- Providing supervisor and employee training

Identifying Outdoor Work Environments and Conditions

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

Public Works Maintenance Workers	Police Officers
Engineering Technicians	Community Service Officers
Building Inspectors	Animal Control Officers
Alterative Work Program (AWP) Volunteers	Volunteers In Police Services (VIPS)
Recreation Workers	

Monitoring the Weather

Weather forecast

When environmental risk factors create the possibility for heat illness, the Supervisor (including foreman, sergeants, field training officers, and any other position responsible for the actions of employees) 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 15 degrees if the workers under consideration are in direct sunlight.

Weather information will be obtained through the internet or local television stations 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. 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 be responsible for using a thermometer at the jobsite and periodically checking the temperature to monitor for sudden increases. Once the temperature exceeds 80° Fahrenheit (F), Supervisors shall ensure shade is available to employees working outdoors for an extended period of time. Once the temperature equals or exceeds 95° F, additional preventive measures such as the high-heat procedures are implemented.

Defining "Heat Wave"
For purposes of this Program, a heat wave is defined as any day in which the predicted high temperature for the day will be at least 80° F and at least 10° F higher than the average high daily temperature for the preceding five days.

Implementing Employee Acclimatization Methods and Procedures for Working Outdoors in Heat

Acclimatization is the process by which the body adjusts to increased heat exposure. Supervisors will watch for sudden heat waves early in the season or increases in temperatures to which employees are unaccustomed for several weeks or longer. Supervisors shall allow employees to take sufficient time to cool down and rest in the shade and/or to reduce the intensity of employee's work until they are acclimated to the heat. During any heat wave, employees are responsible to maintain regular communication via phone or radio with Supervisors to provide updates regarding acclimatization.

Providing Clean Drinking Water

Adequate water will be available, at no cost to employees, at all times, regardless of the outdoor temperature.

The Supervisor will provide access to potable, fresh, pure, and suitably cool drinking water during each work shift so each employee can remain hydrated throughout the workday. Water will be located as close as is feasible to the areas where employees are working. The Supervisor will encourage employees to frequently 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.

Providing Access to Adequate Shade

When the outdoor temperature in the work area exceeds 80° F, Supervisors shall ensure shade is available to employees working outdoors and will allow and encourage employees to take a cool-down rest in the shade for a period of no less than 5 minutes at a time when the employees feel the need to do so to protect themselves from overheating. During cool-down rest periods, employees will be monitored and asked if they are experiencing any symptoms of heat illness, including fatigue. If any signs or symptoms of heat illness are observed or reported, employees will be continuously observed and will not be ordered back to work until the signs or symptoms have been abated.

Under most circumstances, natural shade is provided by trees, air conditioning vehicles 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.

Implementing High-Heat Procedures

When the outdoor temperature equals or exceeds **95° F**, Supervisors will:

- Be available so employees at the work site can contact them when necessary
- Be extra vigilant with observing employees for alertness and signs of heat illness
- Remind employees to drink plenty of water throughout the work shift
- To the extent practicable, hold pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, identify the employees who should call for emergency services when needed, notify employees of how they will be observed for signs of heat illness, and remind employees of their right to take a cool-down rest when necessary.

Tending to an Ill Employee and Initiating Emergency Response Procedures

When an employee displays possible signs of heat illness (refer to Attachment B for a detailed list of heat illnesses) the following steps will be taken:

- Immediately call 911 (all foremen and supervisors shall carry cell phones or other means of communication to ensure emergency medical services can be called)
- 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, if ice is available)
- Provide cool drinking water, if able to drink
- Remain with the sick employee until emergency help arrives

Acclimatization Methods and Procedures

Acclimatization is the process by which the body adjusts to increased heat exposure. During a heat wave and during two-week break in periods of new employees, Supervisors are encouraged to find ways to lessen the intensity of employees' work.

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° F and at least 10° F higher than the average high daily temperature in the preceding five days.

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 or transfer.

Providing Supervisor and Employee Training

Employees

All employees are required to attend a health and 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
- Procedures for complying with the requirements of the heat illness prevention regulation
- The importance of frequent consumption of small quantities of water (up to 4 cups per hour)
- The concept, importance and methods of acclimatization
- The different types of heat illness and the common signs and symptoms of heat illness
- The importance of appropriate first aid and/or emergency responses to different types of heat illness
- The importance of understanding that heat illness may progress quickly from mild symptoms and signs to serious and life threatening illnesses
- The importance of employees immediately reporting symptoms or signs of heat illness for themselves and co-workers
- Procedures for responding to possible heat illness, including how emergency medical services will be provided should they become necessary
- 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
- Procedures for designating a person to be available to ensure emergency procedures are invoked when appropriate
- 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:

- Procedures for Supervisors to follow to implement this Program
- Procedures for preventing heat illness, including monitoring weather reports and how to respond to hot weather advisories
- How to identify heat illness
- Procedures to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures

Attachment A
Heat Illness Employee Training Handout

ORGANIZATION: City of Ripon DATE:

DEPARTMENT:

We 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 on the City of Ripon's Intranet Website and in each City Departmental Office.

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 (4 cups) of water per hour and actively encourage you to drink it. To prevent dehydration, you should refrain from consuming alcoholic beverages or beverages that contain caffeine, such as soft drinks, coffee, and tea.

Shade
We will ensure shade is available so everyone who needs it has access to it to cool off when the weather is hot and we will encourage you to take cool-down rest periods. If infeasible or unsafe to provide shade, we will provide other means to help keep you cool.

Acclimatization
While employees are becoming acclimated to increased heat exposure, Supervisors are encouraged to find ways to lessen the intensity of employees' work. All employees shall be closely observed by a Supervisor or designee during a heat wave.

High-Heat Procedures
When the outside temperature reaches or exceed 95° F, additional precautions, to the extent they are feasible, will be taken to ensure your safety and health. This includes good communication, pre-shift meetings, close supervision while you are on duty, and reminding you to drink plenty of water.

Tending to an Ill Employee and Initiating Emergency Response Procedures

When an employee displays possible signs of heat illness, appropriate responsive action will be taken to call 911 and begin to treat the employee.

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 or reporting symptoms to your supervisor, and how to get help in an emergency.

You can read the California heat illness prevention regulation for additional information on any specific program element at http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html.

Attachment B
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.