City of Clovis

Heat Illness Prevention Program for Indoor and Outdoor Places of Employment

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Purpose

This program is in place to protect all employees from heat hazards in the workplace, as required by the outdoor heat illness prevention regulation (Title 8 CCR 3395) and indoor heat illness prevention regulation (Title 8 CCR 3396).

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

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

Outdoor Work Environments and Conditions

Each department will be responsible for identifying positions working in environments that could potentially expose employees to illnesses associated with high heat.

Weather Monitoring (Outdoor)

Weather Forecast
When environmental risk factors create the possibility for heat illness, the supervisor or designated staff will monitor the forecast for the work area. 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 can 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, or utilizing weather apps via mobile devices, etc.

Prior to each workday, the supervisor or designated staff will monitor the weather at the worksite by the method described above. This critical weather information will be taken into consideration to evaluate the risk level for heat illness and when it will be necessary to make modifications to work operations or schedule (e.g., 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).

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.

Temperature and Heat Index Monitoring (Indoor)

Indoor control measures will be implemented when either of the following occurs:

- Indoor temperature or heat index is 87 degree Fahrenheit or higher.
- Indoor temperature is 82 degree Fahrenheit or higher and workers are either:
    - Wearing clothing that restricts heat removal or
    - Working in area with high radiant heat.

Departments will assess working areas which may be susceptible to indoor heat procedures. Operations will be reviewed to mitigate, reduce or eliminate exposure to potential indoor heat concerns.

Should staff be required to work in indoor areas where temperatures or heat index trigger indoor heat control measures, feasible engineering controls will be implemented first to reduce the temperature and heat index to below 87 degree Fahrenheit (or temperature to below 82 degree Fahrenheit) for workers working in clothing that restricts heat removal or working in high radiant heat areas. Administrative controls will be added if feasible engineering controls are not enough to comply with the standard. If both feasible engineering and administrative controls are not enough to decrease the temperature and minimize the risk of heat illness, then personal heat-protective equipment will be provided.

The following engineering controls will be implemented to lower the indoor temperature, heat index, or both to the lowest possible level. These controls help make the work environment cooler or create a barrier between the workspace and the heat.

- Cooling fans or air conditioning
- Increased natural ventilation, such as open windows and doors when the outdoor temperature or heat index is lower than the indoor temperature and heat index
- Local exhaust ventilation at points of high heat production or moisture
- Reflective shields to block radiant heat
- Insulating/isolating heat sources from employees, or isolating employees from heat source
- Cooled seats or benches
- Evaporative coolers
- Dehumidifiers

Employee Acclimatization

Acclimatization is the temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. The body needs time to adapt when temperatures rise suddenly, and a worker risks heat illness by not taking it easy when a heat wave or heat spike strikes, or when starting a new job that exposes the worker to heat to which the worker's body hasn't yet adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. The following are additional protective procedures that will be implemented when conditions result in sudden exposure to heat that workers are not accustomed to.

All employees will be closely observed by a supervisor during a heat wave or when working in a high heat area. New employees who have been assigned to high heat areas will be closely

observed within the first 14 days of the employee's employment to ensure proper acclimatization to high heat areas. *Cal/OSHA* defines a heat wave as “any day in which the predicted outdoor high temperature will be at least 80°F AND at least 10°F higher than the average daily high in the preceding five 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 establish a practicable method of monitoring employees subject to High Heat Procedures.

For new employees, the supervisor will try to find ways to allow the employee to acclimate to weather in the heat. The supervisor will:

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

For indoor work areas, this 14-day observation period applies when the temperature or heat index equals or exceeds 87 degrees Fahrenheit, or when the temperature or heat index equals or exceeds 82 degree Fahrenheit when a worker wears clothing that restricts heat removal or when a worker works in a high radiant heat area.

Providing Water

The supervisor will provide access to fresh, pure, suitably cool (below ambient but not ice cold) potable drinking water at the beginning of each work shift or will establish a plan for replenishing the water supply mid-shift so each employee can remain hydrated throughout the workday free of charge.

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 per employee. The water shall be located as close as practicable to the areas where employees are working and be readily available without any obstructions or impediments that could discourage frequent consumption of water.

- Supervisors are responsible for ensuring employees have an adequate supply of drinking water.
- Supervisors shall encourage the frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- Drinking water will be provided in sufficient quantities to provide 1 quart per employee per hour for the entire shift (at least 2 gallons per employee for an 8-hour shift).
- Where effective procedures for replenishing the water supply during the shift exists, a minimum of 2 quarts of water per employee may be provided at the beginning of the shift.
- All water containers will be kept in a sanitary condition. Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used, they must be approved for potable drinking water systems, as shown on the manufacturer’s label.

Access to Shade (Outdoors)

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 minutes anytime they feel they need to protect themselves from overheating. Such access to shade shall be permitted at all times.

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 in a timely manner.

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.

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 five-minute 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 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, the employee shall be encouraged to remain in the shade. If any signs or symptoms of heat illness are observed or reported, the employee shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the shade. If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool-down rest or

during a preventative cool-down rest period, the City shall provide appropriate first aid or emergency response.

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 for Outdoor Places of Employment (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 in the area is reliable. Additionally, when temperatures reach 95 degrees or above, the supervisor shall ensure that the employee takes a minimum ten-minute net preventative cool-down rest period every two hours.

Supervisors will remind employees to drink plenty of water throughout the work shift and take rest/recovery breaks when needed. Supervisors will also conduct pre-meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary. In addition, the supervisor will make sure employees are monitored by implementing one or more of the following:

- Supervisor or designee observation of 20 or fewer employees, or
- Mandatory buddy system, or
- Regular communication with sole employee such as by radio or cellular phone, or
- Other effective means of observation.

As per Title 8 of CCR section 3395, subdivision (a)(2), this section is not applicable to the following departments: City Clerk, Fire, General Services, Planning and Development Services, Police, and portions of Public Utilities. However, it is recommended that similar procedures be implemented for non-required departments to reduce the risk of heat related illness whenever possible.

Emergency Response Procedures

Effective communication by voice, observation, or electronic means is maintained with all employees so that employees at each work site can contact a supervisor or emergency medical services when necessary. An electronic device, such as a cell phone or text message device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services.

Employees are trained to assist co-workers who are experiencing heat rash or heat cramps to a cooler place and encourage them to rehydrate and rest. If an employee is exhibiting any signs of heat illness more extreme than heat rash or heat cramps, employees and supervisors are instructed and empowered to offer to provide first aid measures, call **9-1-1** and follow directions provided by the dispatcher until first responders arrive to assume care of the employee.

If a supervisor or manager observes, or any employee reports any signs or symptoms of heat illness in an employee, the supervisor or manager shall take immediate action commensurate with the severity of the illness.

If the signs or symptoms are indicators of severe heat illness (such as, but not limited to, decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, or convulsions), the employee, supervisor, or manager will contact **9-1-1**.

An employee exhibiting signs or symptoms of heat illness shall be monitored and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the Emergency Response Procedures.

In the event of an emergency that requires emergency medical personnel to be contacted, City employees are to transport (if necessary) the injured or ill employees to a place where they can be reached by emergency medical personnel, and shall provide clear and precise directions to emergency medical personnel of how to reach the work site.

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
- Our 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
- Our specific procedures for responding to possible heat illness, including how emergency medical services are contacted should they become necessary
- Our 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
- Employees will receive annual training that is provided in a language and vocabulary that is understood by the employee.

Our specific procedures for ensuring clear and precise directions to the work site will be provided as needed to emergency responders.

Supervisors (as recognized within your respective division)
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
- Tracking the weather at the job site (by monitoring predicted temperatures or heat index highs). Instructions will be provided on how weather information will be used to modify work schedules, increase the number of water and rest

breaks, or cease work early, if necessary.

- Information about how to identify heat illness
- Employees will be trained in appropriate first aid and/or emergency response to different types of heat illness and made aware that heat illness may progress quickly from mild signs and symptoms to a serious, life-threatening illness.
- Steps to take for emergency response to heat illness

Program Compliance

Compliance is critical for an effective Heat Illness Prevention Program and associated safety programs. Managers and supervisors serve as role models for working safely and provide resources necessary to ensure a safe work environment for employees. All employees are required to follow safety policies and operating procedures. Employees will be provided with safety training and information to complete all assigned duties safely. When needed, employees will be provided with additional training and information, or re-training to maintain their knowledge of City safety policies and procedures.

Employees who demonstrate safe work practices may be rewarded using performance evaluations or incentive programs. Any employee who demonstrates repeated unsafe or unhealthy work practices will be subject to corrective action and/or disciplinary action. Disciplinary action will be in conformance with the City's policies and/or collective bargaining agreements. If the offense is egregious or willful, the action may result in immediate disciplinary action. The Personnel Division will be advised on any disciplinary matter as it relates to compliance with this program.

Appendix A
Heat Illness Employee Training Handout

We have developed a training program to increase employee awareness of the occurrence of exposures to heat illnesses when working 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 workplaces. The following information is a review of the specific requirements of a heat illness prevention program, including water, shade, monitoring, high-heat procedures, and training.

Written Heat Illness Prevention Program
We have a written program that outlines how we provide information regarding heat illness prevention as well as control exposures that can result in heat illness while performing outdoor or indoor 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 or indoors when the weather and temperature 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 or inside, 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 beverages that contain caffeine, such as soft drinks, coffee, and tea.

Shade
Our goal is to provide 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 exposure receives training so everyone understands our policy and procedures for keeping everyone safe when working outdoors or indoors. Training addresses how to acclimate to the heat, how much water to drink, the signs and symptoms of heat illness, monitoring temperatures, the importance or reporting symptoms to your supervisor, and how to get help in an emergency.

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 rash, heat cramps (fainting), 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 (fainting)
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.

Additional training resources are available at *http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html*

Worksite Specific Heat Illness Prevention Plan

Supervisors shall develop and implement a Worksite Specific Heat Illness Prevention Plan for outdoor or indoor worksites not adequately covered by the Heat Illness Prevention Plan. Employees covered by this plan shall review it and be trained on its specific procedures prior to commencing outdoor or indoor work.

Worksite Description/Location:

Completed by: _____ **Date:** _____

Access to Water
EXAMPLE - Fresh, pure, suitably cool drinking water is readily available to employees (free of charge) in (name location) building near the (name location). If plumbed drinking water is not available at a worksite, supervisors shall develop written procedures and ensure they are implemented, so that water is provided in sufficient quantity (at least one quart per employee per hour for the entire shift).
Access to Shade
EXAMPLE - Shade provided by building structures and trees is readily available to employees in most locations. If shade is not available at a worksite, supervisors shall develop written procedures for providing adequate shade and ensure they are implemented when temperatures exceed 80F. Enough shade shall be provided to accommodate all employees during recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. Shade shall be located as close as practicable to the areas where employees are working.
Acclimatization Methods and Procedures
EXAMPLE - All employees shall be closely observed by a supervisor or designee during a heat wave. A "heat wave" means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit, and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days. Employees who have 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.
First Aid and Emergency Medical Response Procedures
EXAMPLE - If any signs or symptoms of heat illness are observed or reported, immediate action commensurate with the severity of the illness shall be taken (such as, but not limited to; notifying a supervisor, providing first aid, initiating emergency response). If the signs or symptoms are indicators of severe heat illness (such as, but not limited to; decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior or convulsions), emergency response procedures shall be implemented. An employee exhibiting signs or symptoms of heat illness shall be monitored, and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services.
High Heat Procedures (only required for when temperatures exceed 95F)
Worksite Specific Heat Illness Prevention Plan Review and Training Documentation (to be completed by employees covered by the plan)
I certify that I have reviewed the above Heat Illness Prevention Plan for my worksite and have received adequate training on its implementation.

Employee Name: _____ Employees Signature: _____ Date: _____