Heat Illness Prevention Program

BLAZONA CONCRETE CONSTRUCTION INC.

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HEAT ILLNESS PREVENTION PROGRAM

Provision of Water

Potable water shall be provided at no cost to all employees. Water must be fresh, pure, and suitably cool, and must be available at locations as close as possible to the areas where employees are working. All workers, whether working individually or in smaller crews, will have access to drinking water. Blazona Concrete Construction will provide water fit to drink, or potable, and free from odors that would discourage our employees from drinking the water.

Water is a key preventive measure to minimize the risk of heat related illnesses. Blazona Concrete Construction has identified the following steps/procedures that the designated person(s) must follow when providing water.

- ☒ Blazona company vehicles will bring water in 5- or 10-gallon water jugs with ice, providing drinking water throughout the day per employee for drinking during the entire shift. Providing a total of 2 gallons per employee for an 8-hour shift.
- ☒ Supervisor or Crew Leader will make sure paper cone rims or bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until used.
- ☒ Supervisor or Crew Leader will check the water level of all containers throughout the day, and employees are encouraged to report to the Supervisor or Crew Leader when there are low levels or dirty water. Water containers will be refilled with cool water when needed. Additional water will be purchased or delivered at no cost to the employee, to replace water as needed.
- ☒ Water will be fresh, pure, suitably cool, and provided to employees free of charge. To make sure our employees are receiving suitably cool water, The Supervisor or Crew leader will make sure fresh ice is placed in water coolers before each workday, and add when necessary.
- ☒ The Supervisor or Crew Leader will ensure that water containers are placed as close as possible to the workers, not away from them. When employees are working across large areas, water will be placed in multiple locations. (Example) If employees are working across 5 or more slabs, water will be placed across the slabs close to the employees and not in one central location. (Example 2) at the start of the workday as the employees complete their work from one foundation to another, water will follow the employees along the way.
- ☒ The Supervisor or Crew leader will make sure all water containers are kept in sanitary condition. Cleaning or rinsing out containers at the end of each work week.
- ☒ When the temperature equals or exceeds 95 degrees, or during a heat wave, pre-shift meetings before the commencement of work to encourage employees to drink plenty of water, and to remind employees of their right to take a cool-down break when necessary, will be conducted by The Supervisor or Crew leader. Additionally, the number of water breaks will be increased. Supervisors will lead by example, and workers will be reminded throughout the work shift to drink water.

Best Industry Practices

- ☒ The supervisor or Crew will visually examine the water and pour some on their skin to ensure water is suitably cool. During hot weather, the water must be cooler than the ambient temperature, but not so cool as to cause discomfort.

☒ Workers will be reminded daily of the location of water coolers, and of the importance of drinking water frequently. When the temperature exceeds (or is expected to exceed) 80 degrees, brief "tailgate" meetings will be held each morning to review with employees the importance of drinking water, the number and frequency of water and rest breaks, and the signs and symptoms of heat illness.

☒ Any employee showing signs or symptoms of heat exhaustion will not be allowed to return to work and will be monitored until signs or symptoms have improved. The employee will not be able to return to work.

Access to Shade

The amount of shade present shall be enough to accommodate the number of employees on recovery or rest periods, so they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shade shall be located as close as practicable to the areas where employees are working. Subject to the same specifications, the amount of shade present during meal periods shall be enough to accommodate the number of employees on the meal period who remain onsite.

Access to rest and shade or other cooling measures are important preventive steps to minimize the risk of heat-related illnesses. Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air conditioned, and the air conditioner is on.

- ☒ Shade structures will be opened and placed as close as practical to the workers when the temperature equals or exceeds 80 degrees, by The Supervisor or Crew leader. When the temperature is below 80 degrees, access to shade will be provided promptly, when requested by an employee.
- ☒ The Supervisor or Crew leader will make sure enough shade structures will be available at the site, to accommodate all employees who are on such a break at any point in time. During meal periods there will be enough shade for all employees who choose to remain in the general area of work or in areas designated for recovery and rest periods.
- ☒ The Supervisor or Crew Leader will inform workers daily of the location of the shade structures, and they will be encouraged to take a five-minute cool-down rest in the shade. An employee who takes a preventative cool-down rest break will be monitored and asked if they are experiencing symptoms of heat illness. The employee shall never be ordered back to work even if signs or symptoms of heat illness have abated.
- ☒ The Supervisor or Crew Leader will ensure shade structures are relocated to follow the crew, and to make sure they are placed as close as practicable to the employees, so that access to shade is provided at all times. All employees on a recovery, rest break, or meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with another employee.

Best Industry Practices

- ☒ The Supervisor or Crew Leader will evaluate situations where trees or other vegetation are used to provide shade (such as in orchards). The thickness and shape of the shaded area will be evaluated by The Supervisor or Crew Leader before assuming that sufficient shadow is being cast to protect employees.
- ☒ In situations where it is not safe or feasible to provide access to shade (ex. during high winds), The Supervisor or Crew Leader will document these unsafe or unfeasible conditions and steps that will be taken to provide shade upon request.
- ☒ For non-agricultural employers, in situations where it is not safe or feasible to provide shade, The Supervisor or Crew Leader will document these unsafe or unfeasible conditions and steps that will be taken to provide alternative cooling measures with equivalent protection to shade.

Acclimatization

Your body needs time to adapt when temperatures rise suddenly. You risk heat illness by not taking it easy when a heat wave strikes, or when starting a new job that exposes you to heat to which your body is not yet accustomed. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress.

- ☒ New employees or those employees who have been newly assigned to a high-heat area will be closely observed by the supervisor or designee for the first 14 days. The intensity of the work will be lessened during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day, and the heaviest work activities during the cooler parts of the day (early morning or evening)). Steps taken to lessen the intensity of the workload for new employees will be documented.
- ☒ All Blazona Concrete Construction employees shall be closely observed by The Supervisor or Crew Leader 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, and at least 10 degrees higher than the average daily high temperature of the preceding five days.
- ☒ Employees and supervisors will be trained on the importance of acclimatization, how it is developed, and how these company procedures address it.

Best Industry Practices

- ☒ The Supervisor or Crew Leader will monitor the weather daily. Management will be on the lookout for sudden heat wave(s) or increases in temperatures to which employees have not been exposed to for several weeks or longer.
- ☒ During a heat wave or heat spike, The Supervisor or Crew Leader will determine if the workday will be cut short (ex. 12 p.m.), will be rescheduled (ex. conducted at night or during cooler hours), or if possible, cease for the day.
- ☒ The Supervisor or Crew Leader will be extra vigilant with new employees and stay alert to the presence of heat-related symptoms.
- ☒ The Supervisor or Crew Leader will assign new employees a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.
- ☒ During a heat wave, the Supervisor or Crew Leader will observe all employees closely (or maintain frequent communication via cell phone) to be on the lookout for possible symptoms of heat illness.

High Heat Procedures

High Heat Procedures are additional preventive measures that Blazona Concrete Construction will use when the temperature equals or exceeds 95 degrees.

- ☒ The Supervisor or Crew Leader will ensure effective communication by voice, direct observation (applicable for work crews of 20 or fewer), mandatory buddy system, or electronic means will be maintained, so that employees at the worksite can contact a supervisor when necessary. If The Supervisor or Crew leader is unable to be near the workers (to observe them or communicate with them), then an electronic device, such as a cell phone or text messaging device, may be used for this purpose if reception in the area is reliable.
- ☒ The Supervisor will maintain frequent communication with employees working by themselves or in smaller groups via company cell phone, to be on the lookout for possible symptoms of heat illness. The employee(s) will be contacted regularly and as frequently as possible throughout the day since an employee in distress may not be able to summon help on their own.
- ☒ Effective communication and direct observation for alertness and/or signs and symptoms of heat illness will be conducted frequently. When the supervisor is not available, The Crew leader must be assigned, to look for signs and symptoms of heat illness and call for emergency medical services if necessary. If a supervisor, designated observer, or any employee reports any signs or symptoms of heat illness in any employee, the supervisor or designated person will take immediate action notifying a Supervisor, Safety, and or 911 if necessary.
- ☒ The Supervisor or Crew Leader will constantly throughout the work shift remind employees to drink plenty of water and take preventative cool-down rest breaks when needed.
- ☒ During a heat wave or heat spike, and before starting work, tailgate meetings will be held by The Supervisor or Crew Leader to review the company Heat Illness Prevention procedures, the weather forecast, and emergency response. In addition, 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.

Best Industry Practices

- ☒ During a heat wave or heat spike, Blazona Concrete Construction Management will decide if the workday will be cut short, start earlier, or rescheduled (ex. conducted at night or during cooler hours).
- ☒ In addition, if schedule modifications are not possible, Management will provide workers with an increased number of water and rest breaks. Supervisors and Crew Leaders will also observe workers closely for signs and symptoms of heat illness.

Emergency Response

Blazona Concrete Construction has identified the following person(s) responsible for responding to signs and symptoms of possible heat illness, including but not limited to first aid measures and how emergency medical services will be provided.

- ☒ Prior to assigning a crew to a particular worksite, the Front end scheduler will provide workers and the supervisor a map of the site, along with clear and precise directions (such as streets or road names, distinguishing features, and distances to major roads), to avoid a delay of emergency medical services.
- ☒ Prior to assigning a crew to a particular worksite, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.
- ☒ Prior to the start of the shift, Management will determine whether a language barrier is present at the site. They will take any necessary steps (such as assigning the responsibility to call emergency medical services to the supervisor or an English-speaking worker), to ensure that emergency medical services can be immediately called in the event of an emergency.
- ☒ All Supervisors and Crew Leaders will carry cell phones to ensure that emergency medical services can be called. Checks will be made to ensure that effective communication by voice, observation, and these electronic devices are functional prior to each shift.
- ☒ When an employee is showing symptoms of possible heat illness, The Supervisor or Crew Leader will take the necessary steps immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness). If necessary, they will transport the employee to a place where an emergency medical provider can reach them. Under no circumstances will the affected employee be left unattended.

Best Industry Practices

- ☒ At remote locations, such as Colusa, Sutter, Yolo, Placer, and El Dorado Counties the Supervisor or Crew leader will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given a reflective vest to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.
- ☒ During a heat wave or hot temperatures, workers will be reminded by Management and Safety, and encouraged to immediately report to their supervisor if they are experiencing any signs or symptoms.
- ☒ Blazona Concrete Construction will ensure employee and supervisor training will include every detail of these written emergency procedures.

Handling a Sick Employee

Best Industry Practices

- ☒ When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and 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 shall not be left alone in the shade, as they can take a turn for the worse!*
- ☒ When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be called.
- ☒ The Supervisor or Crew Leader will ensure emergency service providers have been called immediately if an employee: 1. displays signs or symptoms of heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face); 2. appears unwell; or 3. does not get better after drinking cool water and resting in the shade.

  While the ambulance is en 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). *Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital!*
- ☒ If an employee appears unwell and displays signs or symptoms of severe heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 minutes away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim, and request Air Ambulance.
- ☒ If an employee is showing the signs and symptoms above, it is best to place them in cool water, ice, or wet an article of clothing in cool water and place all around the employee to cool them off. Do not allow them to drink a lot of water.

Employee and Supervisor Training

Blazona Concrete Construction will provide training in the following topics to supervisory and non-supervisory employees before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness.

The Safety Manager will be responsible for providing the following trainings and guidance in the following steps/procedures:

- ☒ 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.
- ☒ Blazona Concrete Construction procedures for providing water, shade, cool-down rests, and access to first aid, as well as the employees' right to exercise their rights under this standard without retaliation.
- ☒ The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot, and employees are likely to sweat more than usual in the performance of their duties.
- ☒ The concept, importance, and methods of acclimatization.
- ☒ The different types of heat illness, the common signs, and symptoms of heat illness, and appropriate first aid and/or emergency responses to the different types of heat illness. Additionally, that heat illness may progress quickly from mild symptoms to a serious, life-threatening illness.
- ☒ The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, signs, or symptoms of heat illness in themselves or coworkers.
- ☒ Blazona Concrete Construction procedures when responding to signs or symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
- ☒ Blazona Concrete Construction procedures when contacting emergency medical services, and if necessary, for transporting employees to a point where an emergency medical service provider can reach them.
- ☒ Blazona Concrete Construction procedures when ensuring that, in the event of an emergency, clear and precise directions to the worksite can and will be provided as needed to emergency responders. Blazona Concrete Construction has designated It's Supervisors and Managers to be available to ensure emergency procedures are invoked when appropriate.

The Safety Manager or Officer will be responsible for providing the following trainings to all supervisors. Such trainings shall be provided prior to supervisors supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness.

- ☒ The training topics for supervisory and non-supervisory employees highlighted above.
- ☒ The procedures the supervisor is to follow to implement the applicable provisions highlighted above.
- ☒ The procedures the supervisor is to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures.
- ☒ How to monitor weather reports and how to respond to hot weather advisories.
- ☒ Blazona Concrete Construction trains every Job foreman and Crew Leader in First aid and CPR so that every crew has someone trained to recognize and abate the above stated risks.

Best Industry Practices

- ☒ When the temperature exceeds 80 degrees, each crew will hold a short “tailgate” meeting to review the weather report, reinforce heat illness prevention with all workers, provide reminders to drink water frequently, inform them that shade can be made available upon request, and remind them to be on the lookout for signs and symptoms of heat illness.
- ☒ The Supervisor or Crew Leader will ensure all new employees are assigned a “buddy” or experienced coworker to ensure they understand the training and follow company procedures.

Monitoring Weather

As temperatures increase and other environmental factors change throughout the workday, employees' physical and mental state can also rapidly change into a serious medical condition. Therefore, it is important to stay alert to the weather. Blazona Concrete Construction will monitor predicted weather temperatures in advance (by television, radio, or Internet) to know when the temperature will probably exceed 80 degrees.

- ☒ The Safety Manager and Officer has been trained and instructed to check in advance the extended weather forecast at the specific locations where work activities are occurring. Some sources to monitor the weather include cell phones, internet, radio.
- ☒ Blazona Concrete Construction will plan the work schedule in advance, taking this critical weather information 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). This type of advance planning will take place anytime the weather will exceed 90 degrees.

Best Industry Practices

- ☒ The Supervisor or Crew leader will use a company cell phone at the jobsite to monitor for sudden increases in temperature, and to ensure that once the temperature exceeds 80 degrees, shade structures will be opened and made available to the workers. In addition, when the temperature equals or exceeds 95 degrees, additional preventive measures such as the High Heat Procedures will be implemented.
- ☒ Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed by Management. Management will determine whether workers will be exposed to 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*.

Daily Inspection

Provisions of Water

- ☐ There is enough fresh, pure, and suitably cool drinking water to provide one quart per employee per hour for drinking during the entire shift; totaling 2 gallons per employee per 8-hour shift.
- ☐ Water has been placed as close as possible to the workers.
- ☐ There are disposable paper cones and/or employees were issued their own cups.
- ☐ Supervisor or Crew Leader will check the water supply throughout the day, and is instructed to refill it at 50%.
- ☐ The Supervisor or Crew Leader will make sure all water containers are kept in sanitary condition.

Provisions of Shade

- ☐ Is the temperature equal or above 80 degrees? ☐ Yes ☐ No
  If Yes, ensure shade structures are up and ready before the shift begins.
- ☐ Shade structures have been placed as close as possible to the workers.
- ☐ There are enough shade structures to accommodate ALL employees on a recovery, rest, or meal break.
- ☐ Employees know that they can take a 5-minute cool-down rest in the shade without reprimand.

Acclimatization

- ☐ Do you have new employees, or veteran employees who have been newly assigned to you? ☐ Yes ☐ No
  If Yes, observe such employee(s) for the first 14 days.
- ☐ Assign new employee(s) a "buddy" or experienced coworker.

High Heat Procedures

- ☐ Is the temperature equal to or above 95 degrees? ☐ Yes ☐ No
  - ☐ If Yes, what are your effective communication systems for those remote employees?
    ☐ Cell Phone ☐ Walkie-Talkie ☐ Other: _____
  - ☐ If Yes, you have reminded workers to drink plenty of water and take preventative cool-down rest breaks when needed.
  - ☐ If Yes, you have conducted a brief tailgate to review heat illness prevention procedures, the weather forecast, and emergency response procedures.
  - ☐ If Yes, you are observing employees for alertness and/or signs and symptoms of heat illness frequently.

Emergency Response Procedures

- ☐ The supervisor received a map of the site, along with clear and precise directions to the jobsite.
- ☐ All workers have been instructed who on shift is first aid qualified.
- ☐ The supervisor or an English-speaking worker has been assigned to call emergency medical services.
- ☐ Employees know the different signs and symptoms of heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face).

MANAGEMENT'S GUIDE TO UNDERSTANDING AND IMPLEMENTING A HEAT ILLNESS PREVENTION PROGRAM

California Employers with any outdoor places of employment must comply with the Heat Illness Prevention Standard T8 CCR 3395. These procedures have been created to assist the employer in crafting their heat illness prevention procedures, and to reduce the risk of work-related heat illnesses among their employees.

The employer shall establish, implement, and maintain an effective Heat Illness Prevention Plan. The plan shall be in writing in both English and the language understood by the majority of employees. It shall also be made available at the worksite to employees and to representatives of the Division upon request.

These procedures are not intended to supersede or replace the application of any other Title 8 regulation, particularly T8 3203, Injury and Illness Prevention Program (IIPP). Title 8 CCR 3203 requires an employer to establish, implement, and maintain an effective IIPP. The measures listed here may be integrated into the Employer's Injury and Illness Prevention Program. The employer must also be aware that other standards apply to Heat Illness Prevention, such as the requirement to provide for drinking water, first aid, and emergency response.

Please Note: These procedures provide the minimal steps applicable to most outdoor work settings and are essential to reducing the incidence of heat-related illnesses. In working environments with a higher risk for heat illness (ex. during a heat wave, or other severe working or environmental conditions), it is the employer's duty to exercise greater caution and additional protective measures beyond what is listed in this document, as needed to protect their employees.

To effectively establish your company procedures, carefully review the key elements listed on this document, as well as the examples provided, then select and complete the procedures applicable to your workplace. Please use additional paper when necessary. Next, implement and train employees and supervisors on your company procedures. Furthermore, to successfully tailor these procedures to your work activities, evaluate and consider the individual conditions present at your site (such as, but not limited to):

1. Size of crew
2. Length of work shift
3. Ambient temperature (which can be taken either with the aid of a simple thermometer, or by monitoring the weather)
4. Presence of personal protective equipment or additional sources of heat.

Again, these sample procedures do not include every workplace scenario, so it is crucial that your company evaluate and consider conditions found in your individual workplace that are likely to cause a heat illness.

Your written procedures should also:

1. Identify the designated person(s) that has been assigned the applicable task(s) (ex. supervisor, safety coordinator, crew leader).
2. Provide specific details required to carry out the task and ensure that the task is accomplished successfully (ex. how many water containers/shade structures, of what size, distance to placement, frequency of water-level replenishment/weather-tracking/water breaks/reminders, etc.)
3. Specify how these procedures will be communicated to your employees and in particular to ascertain that these company instructions and procedures are followed.

For additional information and training materials on preventing Heat-Related Illnesses, see the resource links on page 20 of this document.

The elements reflected within this Heat Illness Prevention guide are those contained in Title 8 of the California Code of Regulations, Section 3395 (T8 CCR 3395), and applies to all outdoor places of employment.

Industries subject to ALL provisions of this standard include:

- Agriculture
- Construction
- Landscaping
- Oil and Gas Extraction
- Transportation or delivery of agricultural products, construction materials or other heavy materials (ex. furniture, lumber, freight, cargo, cabinets, industrial or commercial materials), except for employment that consists of operating an air-conditioned vehicle and does not include loading or unloading

Outdoor places of employment that do not fall under the above industries do not have to comply with high heat procedures.

DEFINITIONS

Acclimatization – 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 14 days of regular work for at least two hours per day in the heat.

Heat Illness – 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 – Working conditions that create the possibility that heat illness could occur. These include air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, and protective clothing and personal protective equipment worn by employees.

Landscaping – Providing landscape care and maintenance services and/or installing trees, shrubs, plants, lawns, or gardens; or providing these services in conjunction with the design of landscape plans. This can also include the construction/installation of walkways, retaining walls, decks, fences, ponds, and similar structures, except for employment by an employer who operates a fixed establishment where the work is to be performed and where drinking water is plumbed.

Personal Risk Factors for Heat Illness – Factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

Shade – Blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in blocked sunlight. Shade is not adequate when heat is so high the 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. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions, and that does not deter or discourage access or use.

Temperature – The dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the bulb or sensor of the thermometer should be shielded from direct contact by sunlight while taking the measurement, ex. with the hand or some other object.

HEAT ILLNESS PREVENTION PROGRAM RESOURCES

Department of Industrial Relations & Cal/OSHA Heat Illness Links

- Cal/OSHA Consultation Services Heat Illness Prevention eTool
- http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html
- http://www.dir.ca.gov/title8/3395.html
- https://www.dir.ca.gov/dosh/documents/Heat-Illness-Prevention-Regulation-Amendments.pdf
- http://www.99calor.org/english.html

Additional Heat Illness Links

- National Weather Service—Northern California
- http://www.wrh.noaa.gov/sto/
- http://www.osha.gov/Publications/osha3154.pdf
- http://www.osha.gov/Publications/osha3155.pdf
- http://www.cdc.gov/niosh/topics/heatstress/
- http://www.cdc.gov/niosh/homepage.html
- http://www.redcross.org/services/hss/tips/heat.html
- http://www.bt.cdc.gov/disasters/extremeheat/heatti

Heat Illness Videos

- Heat Illness Prevention – English http://www.youtube.com/watch?v=cR6FA5w8A1o&feature=relmfu
- Heat Illness Prevention – Spanish http://www.youtube.com/watch?v=n7Wb1jmKA6I&feature=relmfu
- Heat Illness Prevention – Hmong http://www.youtube.com/watch?v=GniKxVoYFiI&feature=relmfu
- Heat Illness Prevention – Punjabi http://www.youtube.com/watch?v=GmASE-FVh9w&feature=relmfu
- Heat Illness Prevention – Mixteco http://www.youtube.com/watch?v=P8816VR3Vew&feature=relmfu

ADDITIONAL CONSIDERATIONS FOR CAL/OSHA'S HEAT STRESS REQUIREMENTS

Water

The purpose of requiring that water be "fresh, pure, suitably cool, and provided to employees free of charge" and "located as close as practicable to the areas where employees are working" is to encourage workers to drink water often and to avoid making workers interrupt their work to do so. To ensure that water is fresh, pure, and suitably cool, Cal/OSHA advises supervisors visually examine the water and pour some on their skin.

Fresh and Pure

Water must be fit to drink (i.e., potable) and free from odors that would discourage workers from drinking the water. If individual water containers are supplied, the containers must be clean, and a source of potable water must be readily available (ex. a municipal water source). Water from non-approved or non-tested water sources (ex. untested wells) is not acceptable. If hoses or connections are used, they must be governmentally approved for potable drinking water systems as shown on the manufacturer's label.

Suitably Cool

During hot weather, the water must be cooler than the ambient temperature, but not so cool as to cause discomfort.

As Close as Practicable to Where Employees Are Working

During a Cal/OSHA inspection, the inspector may ask the supervisor to describe the factors the employer considered in deciding where to place water. For example, although it may be impossible or prohibited by law to place water stations within rows of crops where employees are working, it may be possible to place the water stations at the end of rows. Because water containers are smaller than shade structures, they can be placed closer to employees than shade structures can be. Placing water only in designated shade areas or where toilet facilities are located is not sufficient. When employees are working across large areas, water should be placed in multiple locations. For example, on a multi-story construction site, water should be placed in a safely accessible location on every floor where employees are working.

Shade

The trigger temperature for shade being present is 80 degrees. When temperatures exceed 80 degrees, shade structures must be erected if no other shade is readily available.

Even if temperatures do not exceed 80 degrees, shade must still be available. It is helpful to have the structures erected if the weather is hot enough that the shade can help employees cool off.

Supervisors should monitor predicted weather temperatures in advance (ex. by television, radio, or the Internet) to know when the temperature will probably exceed 80 degrees. Supervisors are expected to know if the temperature is in fact exceeding 80 degrees at the worksite.

"Recovery and rest period" refers to the normal breaks required to be offered under Industrial Welfare Commission wage orders. The new rules require that enough shade be provided to accommodate all employees

who are on such a break at any point in time. This does not mean that employers are required to provide enough shade to accommodate all employees on the shift at the same time. Employers may, rotate the breaks among employees. They may also erect additional structures on an as-needed basis.

During meal periods, the employer must provide enough shade for all employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. Employers may rotate employees in and out of meal periods, as with recovery and rest periods. Employers are not required to provide shade for employees who choose to spend meal periods in their own air-conditioned vehicles. However, employers may not require or pressure employees to eat their lunch in their own vehicles or go off site to eat.

An employee may opt to take a "preventative cool-down rest" in the shade to help their body relieve excess heat. It is crucial that workers not be rushed while taking the cool-down rest.

Water should be available in the rest area so that employees are encouraged to drink more water.

The importance of prevention cannot be overstated. Employees who wait until symptoms appear before seeking shade and recovery are at significant risk of developing heat illness.

The employee must be monitored during the cool-down rest and asked if they are experiencing any symptoms of heat illness including simple fatigue. If any signs or symptoms of heat illness are observed or reported, the employer must not order the employee back to work and must continuously observe the employee until the signs or symptoms have abated. Common early signs and symptoms of heat illness may include, For example, pale skin, heavy sweating, headache, muscle cramps, and fatigue. If no sign or symptom of heat illness is observed or reported, monitoring may be periodic, not continuous.

The terms "preventative cool-down rest" and "preventative cool-down rest period" refer to two different sets of requirements. The requirements for "preventative cool-down rest periods" are set forth in the agriculture-specific section below.

If an employee exhibits or complains of any sign or symptom of heat illness, first aid procedures should be initiated without delay.

Progression to more serious illness can be rapid, and can include altered coordination and speech, mental confusion, unusual behavior, nausea, vomiting, hot dry skin, unusually profuse sweating, loss of consciousness, and seizures. The affected employee may be unable to self-diagnose these problems.

If heat illness is suspected, emergency medical personnel should be contacted immediately. No employee with signs or symptoms of heat illness should be left unattended or sent home without being offered on-site first aid or provided emergency medical services.

High Heat

During periods of high heat, it is crucial that employees be monitored for early signs and symptoms of heat illness. This helps ensure that sick employees receive treatment immediately and serious illness does not develop. If an employee suffers syncope (fainting), disorientation, loss of consciousness, or other symptoms of heat illness while working unobserved, initial medical treatment may be delayed, with serious or fatal consequences.

Because each worksite is unique, the new provisions give employers options and flexibility in observing and monitoring employees. When employees work in small groups of no more than 20 workers, direct observation by a supervisor or designee may be sufficient. When there are too many employees to allow direct observation, the employer may use the buddy system and pair up employees. With the buddy system, the employer must

train the employees to stay in contact, observe each other throughout the day, and immediately report any signs or symptoms of heat illness. For employees who are required to work alone, the employer may communicate with the employee by radio or cell phone in locations where there is adequate coverage. The employee must be contacted regularly, and as frequently as possible throughout the day, since an employee in distress may not be able to summon help on their own.

The new provisions allow employers to use different methods to monitor for heat illness. Whichever method is used, the employer must be able to ascertain the condition of employees at regular intervals and provide emergency services when an employee reports symptoms of heat illness or is unable to respond.

All employees must be trained to recognize the signs and symptoms of heat illness and must be allowed to call for emergency medical services when necessary. However, if all employees in a crew are designated to call for emergency medical services, many will be reluctant to do so. Therefore, employers must specifically assign one or a small number of employees per crew to call for emergency medical services. A designated employee may be either supervisory or non-supervisory.

Pre-shift meetings are meant to briefly remind supervisors and employees to review high-heat procedures. They are not meant to review every element previously covered in regular training or in orientation.

The employer may determine whether the training is required based on the predicted temperature in the area.

Topics that should be covered in pre-shift meetings include staying hydrated and taking preventative cool-down rests, identifying the employees who should call for emergency medical services when needed, and how employees will be observed. For employees working remotely, the employer may conduct pre-shift meetings by cell phone or radio.

Emergency Response

Emergency medical services must be provided as quickly as possible if an employee suffers heat illness. Establishing emergency response procedures is particularly important at non-fixed or remote worksites, or at worksites where access is difficult.

If employees cannot reach emergency medical services directly (ex. because cell phone coverage is inadequate), the employer must designate a person who can immediately contact emergency services on behalf of the employees. The employees must be able to reach this person quickly (such as by radio) to request that emergency medical services be summoned.

If, however, employees are able to contact emergency medical services directly, they must be allowed to do so in an emergency and not be required to contact a supervisor first.

Employers must ensure that supervisors and employees are trained to recognize the signs and symptoms of heat illness, take steps immediately to prevent the progression of heat illness, provide basic first aid (such as cooling towels and shade), obtain emergency medical services, and not allow an employee with signs or symptoms of heat illness to be left alone or sent home without being offered onsite first aid, or provided with emergency medical services.

Employers, however, are not required to provide medical personnel on site, and supervisors and employees are not expected to have medical expertise to diagnose heat illness.

The employer's procedures must include contacting emergency medical services when necessary. The procedures must include immediate steps to keep a stricken employee cool and comfortable once emergency

service responders have been called. The goal is to stop the rapid progression to more serious illness, which can include mental confusion, loss of consciousness, and seizures.

When necessary, employers must be prepared to transport employees safely to a place where an emergency medical provider can reach them. Mobile crews must be provided with a map of their location or detailed directions that can be given to emergency responders.

Acclimatization

Acclimatization is a process by which the body adjusts to increased heat exposure. The body needs time to adapt when working in hotter environments. Employees are more likely to develop heat illness if not allowed or encouraged to take it easy when a heat wave strikes or when starting a job that newly exposes them to heat. Acclimatization is fully achieved in most people within 4 to 14 days of regular work involving at least 2 hours per day in the heat.

During heat waves and with new employees, employers must be extra-vigilant. A supervisor or designee must closely observe employees. Best practices include finding ways to lessen the intensity of employees' work during a heat wave and during 2-week break-in periods of new employees.

Training

Employers must train all employees, both supervisory and non-supervisory, on the policies and procedures established to comply with this regulation.

Training must be provided before the beginning of work involving a risk of heat illness. The training should be provided when an employee is hired, with refresher training as needed. Training that is given close in time to the hot season is more effective than training given during colder seasons without follow-up refresher training.

The changes in this subsection include new elements of the content of required training. Cal/OSHA evaluates compliance by examining both content and how it is presented. To be effective, training must be understood by employees and given in a language the employees understand. The test of compliance is whether training has occurred, whether the required content has been provided, and whether the training has been effective in communicating the essentials to employees.

To evaluate compliance, Cal/OSHA personnel ask supervisory and non-supervisory employees about required training elements. The questions are designed to determine whether employees received training through methods generally recognized as effective, and whether they understood its content. Inspectors will not expect all answers to be correct but will look for indicators that the employer has made a good-faith effort to communicate all essential information.

Employers must ensure that their work procedures are consistent with the information provided in the training.

Cal/OSHA requires employers to maintain records of the training required in this subsection, as specified in the California Code of Regulations, Title 8, Section 3203 (Injury and Illness Prevention Program).

The employer must develop, put in writing, and implement effective procedures for complying with the requirements of this standard. A compliant Heat Illness Prevention Plan includes the following:

- Procedures for providing sufficient water, as described in subsection (c)

- Procedures for providing access to shade, as described in subsection (d)
- High-heat procedures in accordance with subsection (e)
- Emergency response procedures, outlined in subsection (f)
- Acclimatization methods and procedures in accordance with subsection (g)

Employees and supervisors must be trained in these procedures so they understand and can implement the employer's plan. The most successful employers teach and make their system work using a teamwork approach.

The Heat Illness Prevention Plan must be written both in English and in the language understood by the majority of employees. It must be available to employees at the worksite, as well as to representatives of Cal/OSHA upon request. The plan will be considered available at the worksite if, for example, it can be displayed for employees on a cell phone or other electronic device upon request.

The Heat Illness Prevention Plan may be integrated into the employer's Injury and Illness Prevention Program required under the California Code of Regulations, Title 8, Section 3203.