

HEAT ILLNESS PREVENTION PROGRAM (4-1-2015)

This program is intended to comply with the California Code of Regulations Title 8, Section 3395, Heat Illness Prevention and is made available to all employees. The Heat Illness Prevention Standard is applicable to any outdoor workplace, whenever environmental risk factors for heat illness are present.

When employees work in hot conditions, special precautions must be taken in order to prevent heat illness. Heat illness can progress to heat stroke and be fatal, especially when emergency treatment is delayed. An effective approach to heat illness is vital to protecting the lives of workers.

Company Safety Director: _____

The following designated person or persons (Safety Coordinator/Supervisor/Foreman/Field Supervisor/Crew Leader) have the authority and responsibility for implementing the provisions of this program at this worksite:

Name	Title	Phone Number

Procedures for Provision of Water (include but are not limited to the following):

- Where drinking (approved potable) water is not plumbed or otherwise continuously supplied (replenished), it shall be provided in sufficient quantity at the beginning of the work shift to provide (1) quart per employee per hour for drinking for the entire shift.
- The drinking water shall be **fresh, pure, suitably cool**, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working.
 - **Fresh and Pure:** Water must be fit to drink (i.e., potable) and free from odors that would discourage workers from drinking the water.
 - **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:** Placing water only in designated shade areas or where toilet facilities are located is not sufficient. When employees are working across large areas, water shall be placed in multiple locations.

- Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable. If hoses or connections are used for replenishment, they must be governmentally approved for potable drinking water systems, as shown on the manufacturer's label.
- Water containers will be kept in sanitary condition and labeled "potable drinking water" or something a similar wording.
- 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.
- As part of the effective Replenishment Procedures (see page 10), the water level of all containers will be checked every hour and more frequently when the temperature rises. Water containers will be refilled with cool water when the water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried to replace water as needed.
- Water containers will be placed as close as practicable to the workers to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as practicable to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.
- When applicable water containers will be relocated to follow along with the crew, drinking water will remain readily accessible.
- During employee training and tailgate meetings, the importance of frequent drinking of water will be stressed.

Note: The attached "Water Replenishment/Shade Procedures Form" will be filled out for each worksite.

Procedures for Access to Shade (include but are not limited to the following):

- **Shade structures** will be opened and placed as close as practicable to the workers, when the temperature equals or exceeds **80 degrees Fahrenheit**. When the temperature is below 80 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee. **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.
- **Enough shade structures** will be available at the site to accommodate the **number of employees on 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. The shade shall be located as close as practicable to the areas where employees are working. During meal periods there will be enough shade for all of the employees who choose to remain in the general area of work or in areas designated for recovery and rest periods.
- "Shade" means blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. 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 (i.e. obstacles or hazardous or unreasonably unpleasant conditions while moving towards the shade or resting in the shade)**.

- Employees will be allowed and encouraged to take a **Preventative Cool-Down Rest** in the shade, for a period of no less than five minutes at a time, when they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times.

An individual employee who takes a preventative cool-down rest:

- (a) Shall be monitored and asked if he or she is experiencing symptoms of heat illness;
 - (b) Shall be encouraged to remain in the shade; and
 - (c) 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, appropriate first aid or emergency response will be provided in accordance with page 5 of this program.
 - When applicable shade structures will be relocated to follow along with the crew, they will be placed as close as practical to the employees, so that access to shade is provided at all times.
 - In situations where trees or other vegetation are used to provide shade, the thickness and shape of the shaded area will be evaluated 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 (e.g., during high winds)**, a note will be made of these unsafe or unfeasible conditions, and of the steps that will be taken to provide access to shade that provides equivalent protection.

Note: The attached “Water Replenishment/Shade Procedures Form” will be filled out for each worksite.

High Heat Procedures (include but are not limited to):

High Heat Procedures are additional preventive measures that our company will use when the temperature equals or exceeds 95 degrees Fahrenheit:

- **Effective communication** by voice, observation, or electronic means will be maintained at all times so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers to observe them or communicate with them, 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.
- **Employee observation** will be made for alertness and signs or symptoms of heat illness through one of the following means:
 - (a) Supervisor or designee observation on jobsites of 20 or fewer employees; or
 - (b) Mandatory buddy system (when there are too many employees to allow direct observation, the company may use the buddy system and pair up employees.); or
 - (c) Regular communication with sole employee such as by radio or cellular phone; or
 - (d) Other effective means of observation.
- **One or more employee(s) will be designated** on each worksite, as authorized, to call for emergency medical services. Other employees have authorization to call for emergency services when no designated employee is available (see Water Replenishment/Shade Procedures Form).
- Employees will be reminded throughout the work shift to **drink plenty of water**.
- **Pre-shift tailgate meetings** will be held 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.

Procedures for Emergency Response (include but are not limited to):

- All foremen and supervisors will carry cell phones or other means of communication to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift. If an electronic device will not furnish reliable communication in the work area, the company will ensure a means of summoning emergency medical services.
- 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:
 - (a) If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness.
 - (b) 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 company will implement emergency response procedures.
 - (c) 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 company procedures.
- At remote locations such as rural farms, lots, or undeveloped areas, the supervisor 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 reflective vests or flashlights in order to direct emergency personnel to the location of the worksite which may not be visible from the road or highway.
- Prior to assigning a crew to a particular worksite, workers and the foreman will be provided 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 the start of the shift, a determination will be made of whether or not a language barrier is present at the site and steps will be taken, such as assigning the responsibility to call emergency medical services to the foreman or an English speaking worker, to ensure that emergency medical services can be immediately called in the event of an emergency.
- Employee and supervisor training will include every detail of these written emergency procedures.

Procedures for Acclimatization and Heat Wave (include but are not limited to):

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load, to which the body is accustomed, is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress.

- 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 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days.
- The weather will be monitored daily. The supervisor will be on the lookout for sudden heat wave(s) or increases in temperatures.
- 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.
- For new employees, 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.
- During a heat wave, all employees will be observed closely (or maintain frequent communication via phone or radio) to be on the lookout for possible symptoms of heat illness.
- Employees and supervisors will be trained on the importance of acclimatization, how it is developed, and how these company procedures address it.

Procedures for Employee Training-Supervisory & Non-Supervisory (include but are not limited to):

- Training in the following topics will be provided to each supervisory and non-supervisory employee before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness.
- (a) 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.
 - (b) The company's procedures for complying with the requirements of the Cal/OSHA Regulation, including, but not limited to, the company's responsibility to provide 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.
 - (c) 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 be sweating more than usual in the performance of their duties.
 - (d) The concept, importance, and methods of acclimatization.
 - (e) 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, and in addition, that heat illness may progress quickly from mild symptoms and signs to serious and life threatening illness.
 - (f) The importance to employees of immediately reporting to the company, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.
 - (g) The company's procedures for responding to signs or symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
 - (h) The company's 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.
 - (i) The company's procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided, as needed, to emergency responders. These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate.
- **Supervisor Training:** Prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness, effective training on the following topics will be provided to the supervisor:
- (a) The company's 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.
 - (b) The procedures the supervisor is to follow to implement the applicable provisions in this section.
 - (c) The procedures the supervisor is to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures (including first aid and immediate medical treatment).
 - (d) How to monitor weather reports and how to respond to hot weather advisories.

Treatment of a Sick Employee (includes but is not limited to):

- 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 will not be left alone in the shade, as he or she 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.
- Emergency service providers will be called immediately if an employee displays signs or symptoms of severe heat illness (high body temperature, confusion, loss of coordination, hot dry skin or profuse sweating, throbbing headache and/or seizures), or does not improve after drinking cool water and resting in the shade. While the ambulance is in route, First Aid will be initiated (cool the worker; place the worker in the shade, remove excess layers of clothing and apply cool water to their body). Do not let a sick worker leave the site, as they may get lost or die before reaching a hospital.
- If an employee displays signs or symptoms of severe heat illness (high body temperature, confusion, loss of coordination, hot dry skin or profuse sweating, throbbing headache and seizures), 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.
- See attached “Protecting Yourself from Heat Stress” Department of Health and Human Services Handout for additional symptoms and First Aid related to Heat Illness.

Procedures for Monitoring the Weather (include but are not limited to):

- Supervisors will check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet at (www.nws.noaa.gov), by calling the National Weather Service phone numbers (see CA numbers below), or by checking the Weather Channel TV Network or other available methods. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected.

CALIFORNIA Dial-A-Forecast

**Eureka 707-443-7062
Hanford 559-584-8047
Los Angeles 805-988-6610 (#1)
Sacramento 916-979-3051
San Diego 619-297-2107 (#1)
San Francisco 831-656-1725 (#1)**

- Prior to each workday and during the workday, the supervisor will monitor the weather at the worksite by one of the methods listed in this section. This critical 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, or increasing the number of water and rest breaks.
- The National Weather Service Heat Index may also be utilized to evaluate the risk level for heat illness related to relative humidity (see attachment).

WATER REPLENISHMENT / SHADE PROCEDURES FORM (4-1-2015)
ABASTECIMIENTO DE AGUA/PROCEDIMIENTOS DE SOMBRA

Company / Compañía: _____

Jobsite Name / Nombre de sitio de trabajo: _____

Jobsite Location and Cross Streets / La Ubicación del lugar de trabajo y Cruza las Calles: _____

Person(s) in Charge of Replenishment / El dirigente de abastecimiento: _____

Person(s) in Charge of Shade / El dirigente de Sombra: _____

Person(s) in Charge of Program /El dirigente de Programa: _____

Person(s) in Charge of Calling 911/ El dirigente de llamar al 911: _____

Number and location of water containers / Numere y la ubicación de contenedores de agua.

**What indicators will be used to determine if the water supply requires replenishment? /
¿ Cuales indicadores seran utilizados para determinar se el abastecimiento de agua requiere
rellenar?**

**How will the water supply be replenished? / ¿Cómo suministrará el agua es abastecida de
nuevo?**

**Type of Shade to be provided and locations / El tipo de Sombra para ser proporcionado y la
ubicacións:**

**How will the jobsite temperature be monitored?/ ¿Cómo será la temperatura se puede
controlar?**

Special Notes and Conditions / Notas y Condiciones especiales:

Heat Illness Prevention

Protecting Yourself from

Heat Stress

Heat stress, from exertion or hot environments, places workers at risk for illnesses such as heat stroke, heat exhaustion, or heat cramps.

Heat Stroke

A condition that occurs when the body becomes unable to control its temperature and can cause death or permanent disability.

Symptoms

- High body temperature
- Confusion
- Loss of coordination
- Hot, dry skin or profuse sweating
- Throbbing headache
- Seizures, coma

First Aid

- Request immediate medical assistance.
- Move the worker to a cool, shaded area.
- Remove excess clothing and apply cool water to their body.

Heat Exhaustion

The body's response to an excessive loss of water and salt, usually through sweating.

Symptoms

- Rapid heart beat
- Heavy sweating
- Extreme weakness or fatigue
- Dizziness
- Nausea, vomiting
- Irritability
- Fast, shallow breathing
- Slightly elevated body temperature

First Aid

- Rest in a cool area.
- Drink plenty of water or other cool beverages.
- Take a cool shower, bath, or sponge bath.

Heat Cramps

Affect workers who sweat a lot during strenuous activity. Sweating depletes the body's salt and moisture levels.

Symptoms

- Muscle cramps, pain, or spasms in the abdomen, arms or legs

First Aid

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage, or drink water with food.
 - Avoid salt tablets.
- Do not return to strenuous work for a few hours after the cramps subside.
- Seek medical attention if you have the following: heart problems, are on a low-sodium diet, or if the cramps do not subside within one hour.

Protect Yourself

Avoid heavy exertion, extreme heat, sun exposure, and high humidity when possible. When these cannot be avoided, take the following preventative steps:

- Monitor your physical condition and that of your coworkers for signs or symptoms of heat illnesses.
- Wear light-colored, loose-fitting, breathable clothing such as cotton.
 - Avoid non-breathable synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of day.
- Take more breaks when doing heavier work, and in high heat and humidity.
 - Take breaks in the shade or a cool area.
- Drink water frequently. Drink enough water that you never become thirsty.
- Be aware that protective clothing or personal protective equipment may increase the risk of heat-related illnesses.

**DEPARTMENT OF HEALTH AND
HUMAN SERVICES**

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

Heat Illness Prevention - Prevención de la Enfermedad Calor

Protéjase del Estrés por calor

El estrés por calor, originado por esfuerzos intensos o ambientes calientes, puede ser para los trabajadores un riesgo de enfermarse por golpe de calor, agotamiento por calor y calambres por calor.

Golpe de calor

Es un trastorno que ocurre cuando el cuerpo ya no puede controlar su temperatura, y puede causar la muerte o discapacidad permanente.

Síntomas

- Temperatura corporal alta
- Desorientación
- Pérdida de la coordinación
- Piel caliente, seca o mucho sudor
- Dolor de cabeza palpitante
- Convulsiones, coma

Primeros auxilios

- Pida ayuda médica de inmediato.
- Lleve al trabajador enfermo a un área fresca y a la sombra.
- Quítele el exceso de ropa y póngale agua fría en el cuerpo.

Agotamiento por calor

La reacción del cuerpo a una pérdida excesiva de agua y sal se manifiesta, por lo general, con el sudor.

Síntomas

- Palpitaciones rápidas
- Sudor copioso
- Debilidad o cansancio extremo
- Mareos
- Náuseas/vómitos
- Irritabilidad
- Respiración rápida y superficial
- Temperatura corporal ligeramente elevada

Primeros auxilios

- Descanse en un área fresca.
- Tome mucha agua o cualquier otra bebida fresca.
- Dése un baño frío en regadera, bañera o con esponja.

Calambres por calor

Afectan a los trabajadores que sudan mucho al realizar actividades físicas intensas. El sudor reduce la sal y la humedad del cuerpo.

Síntomas

- Dolores o espasmos musculares por lo general en abdomen, brazos o piernas.

Primeros auxilios

- Suspnda todo tipo de actividad y siéntese en un lugar fresco.
- Tome un jugo liviano o una bebida deportiva, o tome agua con los alimentos.
 - Evite las tabletas de sal.
- Espere unas cuantas horas para reanudar el trabajo intenso, después de que se alivien los calambres.
- Busque atención médica si: presenta problemas cardíacos, está siguiendo una dieta baja en sal o tiene calambres que no mejoren en una hora.

Protéjase

Los trabajadores deben evitar en lo posible la exposición al calor extremo, al sol y a los altos niveles de humedad. Cuando esto no se pueda evitar, tome las medidas preventivas siguientes:

- Vigile su condición física y la de sus compañeros de trabajo por si hay signos o síntomas de trastornos por calor.
- Utilice ropa ligera de colores claros y materiales transpirables como el algodón.
 - Evite usar ropa sintética no transpirable.
- Incremente de manera gradual el trabajo que requiere mucho esfuerzo.
- Programe los trabajos que demandan mucho esfuerzo físico para las horas más frescas del día.
- Tómese más descansos cuando realice trabajos más pesados y haya mucho calor y humedad.
 - Haga sus descansos en la sombra o en un lugar fresco.
- Tome agua con frecuencia. Beba mucha agua para que nunca tenga sed.
- Tenga en cuenta que la ropa de protección o el equipo de protección individual puede aumentar el riesgo de trastornos por calor.



National Weather Service Heat Index Chart



Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

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

Caution
 Extreme Caution
 Danger
 Extreme Danger