BAY CITY BOILER HEAT ILLNESS PREVENTION PROGRAM INDOOR (2024)

This program is intended to comply with the California Code of Regulations Title 8, Section 3396, Heat Illness Prevention, and is made available to all employees in indoor work environments. The Heat Illness Prevention Standard applies to indoor workplaces when one or more of the following conditions exist:

- **The temperature equals or exceeds 87 degrees Fahrenheit when workers are present.**
- **The heat index equals or exceeds 87 degrees Fahrenheit when workers are present.**
- **Workers wear clothing that restricts heat removal, and the temperature equals or exceeds 82 degrees Fahrenheit.**
- **Workers work in a high radiant heat area, and the temperature equals or exceeds 82 degrees Fahrenheit.**

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. Taking a proactive and effective approach to heat illness is vital to protecting the lives of workers.

Company Safety Director: Scott Bruland Director of Business Operations

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
Jon Bruland	General Manager Hayward	5309412957
Mike Hawkins	General Manager Fresno	5599173292
Mike Kaczmarczyk	General Manager Stockton	2095353477
Kevin South	Service Manager Hayward	5104617813
Tomas Lopez	Service Manager Fresno	5103039628
Travis Pendleton	Service Manager Stockton	5103052744

This regulation does not apply to incidental heat exposures where an employee is exposed to temperatures at or above 82 degrees Fahrenheit and below 95 degrees Fahrenheit for less than 15 minutes in any 60-minute period. This exception does not apply to the following:

1. **Vehicles without effective and functioning air conditioning, or**
2. **Shipping or intermodal containers during loading, unloading, or related work.**

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

→ **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. Sufficient quantity refers to at least (1) quart of water 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 of odors that could 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 insufficient. When employees are working across large areas, water must 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 linked to governmentally approved potable drinking water systems, as shown on the manufacturer's label.**

→ **Water containers will be kept in sanitary condition and labeled as "potable drinking water" or with similar wording.**

→ **Paper cone rims or bags of disposable cups and their associated cup dispensers will be made available to workers and will be kept clean until used.**

→ **As part of ensuring Replenishment Procedures (see page 11) are effectively carried out, 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.**

→ **Water containers will be placed as close as practicable to the workers to encourage frequent water consumption. If the workplace environment 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 readily accessible drinking water.**

→ **During employee training, the importance of frequent drinking of water will be stressed.**

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

Procedures for Access to Cool-Down Area for Indoor Workplaces (include but not limited to):

"Cool-down area" means an indoor or outdoor area that is blocked from direct sunlight and shielded from other high radiant heat sources to the extent feasible and is either open to the air or provided with ventilation or cooling. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight.

- → **Cool-down area(s) will be located as practicable as possible in work areas. The temperature in the cool-down area(s) will be maintained at less than 82 degrees Fahrenheit.**

- → **Cool-down area(s) will be available at the worksite to accommodate the number of employees on recovery or rest periods so that they can sit down fully in a normal posture without having to be in physical contact with each other. During meal periods, there will be sufficient cool-down areas for all employees who choose to remain in the general area of work or in areas designated for recovery and rest periods.**

- → **Employees will be informed of the cool-down locations and allowed and encouraged to take a Preventative Cool-Down Rest in the cool-down area for no less than five minutes at a time when they feel the need to do so to protect themselves from overheating. Access to the cool-down area(s) for a Preventative Cool-Down Rest 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 7 of this program.**

Procedures for Temperature Assessment for Indoor Workplaces (include but not limited to):

The company will assess and measure heat by monitoring the temperature and heat index and recording whichever is greater whenever the temperature or heat index reaches 87 degrees Fahrenheit (or temperature reaches 82 degrees Fahrenheit for employees working in clothing that restricts heat removal or high radiant heat areas). This is an important step to know when to implement control measures to keep employees safe.

The following method(s) will be used to measure the temperature or heat index:

Thermometer

(a thermometer, Kestrel, weather station, wet-bulb globe thermometer, hygrometer for measuring humidity, etc.)

Instruments used to measure the temperature or heat index shall be used and maintained according to the manufacturer's recommendations. Instruments used to measure the heat index must be capable of providing the same results as those in the National Weather Service heat index chart in Appendix A of Section 3396.

The measurements for temperature and/or heat index will be taken according to the following guidelines:

1. **Initial measurements will be taken at times during the work shift when it is reasonable to suspect that employee exposures are expected to be the greatest and when it is suspected to equal or exceed 82 degrees Fahrenheit.**

2. **Measurements will be taken again when the temperature is expected to be 10 degrees or more above the previous measurements where employees work and at times during the work shift when employee exposures are expected to be the greatest.**

Records of these measurements will be retained for 12 months or until the next measurements are taken, whichever is later. The records shall be made available to employees, designated representatives, and representatives of Cal/OSHA at the worksite and upon request. The records will include the date, time, and specific location of all measurements.

Workers and union representatives (if applicable) will be actively involved in the following processes through their participation in safety meetings and risk evaluations:

- **Planning, conducting, and recording the measurements of temperature or heat index, whichever is greater; and**
- **Identifying and evaluating all other environmental risk factors for heat illness that may exist in our workplace.**

Procedures for Control Measures for Indoor Workplaces (include, but are not limited to):

Control measures will be implemented to minimize the risk of heat illness in indoor workplaces when either of the following occurs:

- **Indoor temperature or heat index is 87 degrees Fahrenheit or higher.**

- **Indoor temperature is 82 degrees Fahrenheit or higher, and workers are either:**
  - **Wearing clothing that restricts heat removal or**
  - **Working in an area with high radiant heat.**

When feasible, engineering controls will be implemented first to reduce the temperature and heat index to below 87 degrees Fahrenheit (or temperature below 82 degrees 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 regulation. If both engineering and administrative controls are not feasible 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 reduce and maintain the indoor temperature, heat index, or both to the lowest possible level (*check methods used*):

- □ **Cooling fans or air conditioning**
- □ **Increased natural ventilation, such as opening 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 (such as exhaust hoods in laundry rooms)**
- □ **Reflective shields to block radiant heat**
- □ **Insulating or isolating heat sources from workers, or isolating workers from heat sources**
- □ **Elimination of steam leaks**
- □ **Cooled seats or benches**
- □ **Evaporative coolers**
- □ **Dehumidifiers**
- □ **Other:** _____

The following administrative controls will be implemented when feasible engineering controls have been implemented but have not sufficiently lowered temperatures or heat index. These controls are modified work practices that can reduce heat exposure by adjusting work procedures, practices, or schedules (*check methods used*):

- □ **Modify work schedules and activities to times of the day when the temperature is cooler or schedule shorter shifts, especially during heat waves.**
- □ **For newly hired workers and unacclimatized existing workers, gradually increase shift length over the first one to two weeks.**
- □ **Require mandatory rest breaks in a cooler environment, such as a shady location or an air-conditioned building. The duration of the rest breaks should increase as heat stress rises.**
- □ **Rotate job functions among workers to help minimize exertion and heat exposure. If workers must be in proximity to heat sources, clearly mark them so workers are aware of the hazards.**

- □ **Require workers to work in pairs or groups during extreme heat so they can monitor each other for signs of heat illness.**
- □ **Other: _____**

The following <u>personal heat-protective equipment</u> will be provided if feasible engineering controls do not decrease the temperature enough and administrative controls do not minimize the risk of heat illness. This personal heat-protective equipment consists of special cooling devices that the worker wears on their body and can protect them in hot environments (*check methods used*):

- □ **Water and/or air-cooled garments, cooling vests, jackets, and neck wraps. The cooling source can be reusable ice packs or cooled air connected to an external source.**
- □ **Supplied air personal cooling systems**
- □ **Insulated suits**
- □ **Heat-reflective clothing**
- □ **Infrared-reflecting face shields**
- □ **Other: _____**

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

- → **Supervisors will carry cell phones or have other means of communication to ensure that emergency medical services can be called. Prior to each shift, checks will be made to ensure that these electronic devices are functional. If an electronic device does 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 work site, which may not be visible from the road or highway.**

- → **If necessary, supervisors will transport the employee to a place where they can be reached by an emergency medical provider.**

- → **Workers and supervisors will be provided with a map of the work site and clear and precise directions (such as street or road names, distinguishing features, and distances to major roads) to avoid a delay in accessing 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.**

<u>Procedures for Acclimatization for Indoor Workplaces (include but are not limited to)</u>:

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 human body needs time to adapt when temperatures rise suddenly, and employees risk heat illness by not giving themselves time to adjust when a heat wave strikes or when starting a new job that exposes them to high heat. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress.

- → **The weather shall be monitored daily. The supervisor will monitor for sudden heat wave(s) or increases in temperatures.**

- → **<u>A supervisor or designee shall closely observe an employee who has been newly assigned to a high-heat area for the first 14 days of the employee's employment</u>.**

- → **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.**

- → **The 14-day observation period applies when the temperature or heat index meets either of the following conditions: 1) it equals or exceeds 87 degrees Fahrenheit or 2) it equals or exceeds 82 degrees Fahrenheit when a worker wears clothing that restricts heat removal or works in a high radiant heat area.**

- → **Employees and supervisors will receive training 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):

→ **Each supervisory and non-supervisory employee will receive training in the following topics before beginning 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 Regulations, including but not limited to the company's responsibility to provide water, 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. In addition, heat illness may progress quickly from mild symptoms and signs to serious and life-threatening illness.
(f) It is important for employees to immediately report to the company, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves or coworkers.
(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) Where the workplace is affected by outdoor temperatures, 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 cool-down area and drinking cool water is appropriate or if emergency service providers will need to be called. A sick worker will not be left alone in the cool-down area, 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 cool-down area. While the ambulance is en route, first aid will be initiated (cool the worker, place the worker in the cool-down area, remove excess layers of clothing, and apply cool water to their body). Do not let sick workers leave the site, as they may get lost or die before reaching a hospital.**

- → **See the attached handout "Protecting Yourself from Heat Stress" developed and provided by the Department of Health and Human Services. The handout offers additional information regarding the symptoms and necessary first aid provisions related to heat illness.**

WATER REPLENISHMENT (2024)
ABASTECIMIENTO DE AGUA

Company / Compañía: _____

Company Location and Cross Streets / Ubicación del Compañía y Cruza las Calles:

_____

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

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?

_____

_____

Special Notes and Conditions / Notas y Condiciones especiales:

_____

_____

_____

§3396. Heat Illness Prevention in Indoor Places of Employment.

(b) **Definitions**.

(1) **"Acclimatization"** means 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 fourteen days of regular work for at least two hours per day in the heat.

(2) **"Administrative control"** means a method to limit exposure to a hazard by adjustment of work procedures, practices, or schedules. Examples of administrative controls that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: acclimatizing employees, rotating employees, scheduling work earlier or later in the day, using work/rest schedules, reducing work intensity or speed, reducing work hours, changing required work clothing, and using relief workers.

(3) **"Clothing that restricts heat removal"** means full-body clothing covering the arms, legs, and torso that is any of the following:

(A) Waterproof; or

(B) Designed to protect the wearer from a chemical, biological, physical, radiological, or fire hazard; or

(C) Designed to protect the wearer or the work process from contamination.

EXCEPTION to subsection (b)(3): "Clothing that restricts heat removal" does not include clothing with flame or arc-flash resistant properties demonstrated by the employer to be all of the following:

(1) Constructed only of knit or woven fibers; and

(2) Worn in lieu of the employee's street clothing; and

(3) Worn without a full-body thermal or moisture barrier.

(4) **"Cool-down area"** means an indoor or outdoor area that is blocked from direct sunlight and shielded from other high radiant heat sources and is either open to the air or provided with ventilation or cooling. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. A cool-down area does not include a location where:

(A) Environmental risk factors defeat the purpose of allowing the body to cool; or

(B) Employees are exposed to unsafe or unhealthy conditions; or

(C) Employees are deterred or discouraged from accessing or using the cool-down area.

(5) **"Engineering control"** means a method of control or a device that removes or reduces hazardous conditions or creates a barrier between the employee and the hazard. Examples of engineering controls that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: isolation of hot processes, isolation of employees from sources of heat, air conditioning, cooling fans, cooling mist fans, evaporative coolers (also called swamp coolers), natural ventilation where the outdoor temperature or heat index is lower than the indoor temperature or heat index, local exhaust ventilation, shielding from a radiant heat source, and insulation of hot surfaces.

(6) **"Environmental risk factors for heat illness"** means working conditions that create the possibility that heat illness could occur, including: air temperature, air movement, relative humidity, radiant heat from the sun and other sources; conductive heat sources such as the ground, workload severity and duration, protective clothing, and personal protective equipment worn by employees.

(7) **"Globe temperature"** means the temperature measured by a globe thermometer, which consists of a thermometer sensor in the center of a six-inch diameter hollow copper sphere painted on the outside with a matte black finish, or equivalent. The globe thermometer may not be shielded from direct exposure to radiant heat while the globe temperature is being measured.

(8) **"Heat illness"** means 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.

(9) **"Heat index"** means a measure of heat stress developed by the National Weather Service (NWS) for outdoor environments that takes into account the dry bulb temperature and the relative humidity. For purposes of this section, heat index refers to conditions in indoor work areas. Radiant heat is not included in the heat index.

(10) **"Heat wave"** means any day in which the predicted high outdoor temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit greater than the average high daily outdoor temperature for the preceding five days.

(11) **"High radiant heat area"** means a work area where the globe temperature is at least five degrees Fahrenheit greater than the temperature, as defined in subsection (b)(19).

(12) **"Indoor"** refers to a space that is under a ceiling or overhead covering that restricts airflow and is enclosed along its entire perimeter by walls, doors, windows, dividers, or other physical barriers that restrict airflow, whether open or closed. All work areas that are not indoor are considered outdoor and covered by section 3395.

EXCEPTION: Indoor does not refer to a shaded area that meets the requirements of subsection 3395(d) and is used exclusively as a source of shade for employees covered by section 3395.

(13) **"Personal heat-protective equipment"** means equipment worn to protect the user against heat illness. Examples of personal heat-protective equipment that may be effective at minimizing the risk of heat illness in a particular work area include, but are not limited to: water-cooled garments, air-cooled garments, cooling vests, wetted over-garments, heat-reflective clothing, and supplied-air personal cooling systems.

(14) **"Personal risk factors for heat illness"** means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of medications that affect the body's water retention or other physiological responses to heat.

(15) **"Preventative cool-down rest"** means a rest taken in a cool-down area to prevent overheating.

(16) **"Radiant heat"** means heat transmitted by electromagnetic waves and not transmitted by conduction or convection. Sources of radiant heat include the sun, hot objects, hot liquids, hot surfaces, and fire.

(17) **"Relative humidity"** means the amount of moisture in the air relative to the amount that would be present if the air were saturated.

(18) **"Shielding"** means a physical barrier between radiant heat sources and employees that reduces the transmission of radiant heat.

(19) **"Temperature"** means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer freely exposed to the air without considering humidity or radiant heat, to measure the temperature in the immediate area where employees are located.

(20) **"Union representative"** means a recognized or certified collective bargaining agent representing the employees.

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, debido al esfuerzo o a ambientes calurosos, pone a los trabajadores en riesgo de sufrir enfermedades como insolación, agotamiento por calor o 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 des 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

- Suspenda 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 cardiacos, 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.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

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

Temperature Assessment for Indoor Workplaces

Establishment name _____

Date	Person Taking Measurement	Time (AM/PM)	Physical Location	Temperature	Heat Index	Method(s)

The company will assess and measure heat by monitoring the temperature and heat index and recording whichever is greater whenever the temperature or heat index reaches 87 degrees Fahrenheit (or temperature reaches 82 degrees Fahrenheit for employees working in clothing that restricts heat removal or high radiant heat areas).

Initial measurements will be taken at times during the work shift when it is reasonable to suspect that employee exposures are expected to be the greatest and when it is suspected to equal or exceed 82 degrees Fahrenheit.

Measurements will be taken again when the temperature is expected to be 10 degrees or more above the previous measurements where employees work and at times during the work shift when employee exposures are expected to be the greatest.