

Heat Illness Prevention Plan



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Introduction, Authority and Scope

Panama-Buena Vista Union School District (the District) is committed to providing a safe and healthy workplace for all our employees. The District has developed the following Heat Illness Prevention Plan, which includes policies and procedures to minimize the risk of heat related illness. Employees working in outdoor areas or in other facilities where environmental risk factors for heat illness may be present are encouraged to be mindful of the following heat illness symptoms, methods to prevent illness, and procedures if heat related symptoms occur.

Authority and Scope:

Authority: California Code of Regulation, [Title 8, Section 3395](#)

Scope: The Heat Illness Prevention Plan applies to all Panama-Buena Vista Union School District employees that may be at risk of heat illness and applies to all indoor and outdoor places of employment where environmental risk factors for heat illness are present. Affected employees may include Maintenance, Grounds, Operations, Landscaping, Warehouse, Transportation, and others.

Definitions

Acclimatization - The 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.

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, including 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, 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 and/or the construction (i.e., 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 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. 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. Canopies, umbrellas and other temporary structures or devices may be used to provide shade.

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 while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

Preventative recovery period - A period of time, at least five minutes, used to recover from the heat in order to prevent further heat illness.

Responsibility

Site Administrators and Managers – It is the responsibility of the site administrator or department managers to provide information and direction to managers, supervisors and staff to prevent heat illness. This may include daily heat alerts and instructions when temperatures are believed to be in excess of 95 degrees Fahrenheit.

Managers and Supervisors – It is the responsibility of managers and supervisors to ensure that all elements of this policy are implemented.

- Affected managers and supervisors shall attend heat training and implement heat prevention methods as required.
- Managers and supervisors are responsible for encouraging affected employees to drink water frequently and for reminding the employees of the steps to prevent heat illness.
- In the event of an employee's heat illness, supervisors and/or managers must report the incident and get medical assistance for the employee, and complete all necessary forms for incidents or Workers Compensation.

Health, Safety & Wellness (HSW) - It is the responsibility of HSW to provide training through the District's Learning Management System (LMS), send alert emails, post information on the HSW website, and provide department and school site information flyers.

Employees – It is the responsibility of ALL employees to follow the established procedures to ensure their safety and prevent heat illness. Employees shall report any incident of heat illness immediately to their supervisors. Employees shall attend annual training as required.

Training

Employee Training: Training in the following topics shall be provided to all supervisory and non-supervisory employees:

- 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;
- The employer's procedures for complying with the requirements of this standard, including, but not limited to, the employer'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;
- 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;
- The concept, importance, and methods of acclimatization and the importance of close supervision of workers in their first 14 days of employment to ensure acclimatization;
- The different types of heat illness and 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;
- The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers;
- The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
- The employer'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;
- The employer'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.

Manager and Supervisor Training: Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

- Information required to be provided in the "Training" section (see Employee Training above);
- Procedures the supervisor is to follow to implement the applicable provisions in this section;
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures;

- A supervisor or designee shall closely observe all employees 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;
- 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.
- A supervisor or designee shall monitor weather reports and respond to hot weather advisories.

Heat Illness Prevention Elements

The elements reflected within this Heat Illness Prevention Plan are those contained in Title 8 of the California Code of Regulations, and consist of the following:

- Provision of Water
- Access to Shade/Rest Periods
- Written Procedures
- Training

Provision of Water - To ensure access to sufficient quantities of potable drinking water, the following steps will be taken:

- Water shall be provided in sufficient quantity:
 - Transportation Department:
 - Filtered, potable water is available in the Transportation Lounge.
 - Ice is also provided in the Transportation Lounge via one large industrial ice maker and two small ice makers.
 - Maintenance/Operations/Grounds/Landscaping Department:
 - Filtered drinking water is available at sites and workplace locations
 - Ice Machine is located in the shop area of the DOE
 - Large and small portable water coolers are made available for staff
 - Electrolyte powders are available for use.
 - Supervisors will provide frequent reminders to employees to drink frequently, and additional water breaks will be provided and encouraged.
 - Periodically, there will be reminders to workers regarding the importance of frequent consumption of water throughout the workday.
 - Employees shall have access to potable drinking water including but not limited to the requirements that it 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.
 - Warehouse Department:
 - Bottled water is available at all warehouse locations.
 - Ice is available in the staff lounge located at Warehouse 1.

- Electrolyte drinks are available at all warehouse locations.
- Supervisors will provide frequent reminders to employees to drink frequently, and additional water breaks will be provided and encouraged.
- Periodically, there will be reminders to workers about the importance of frequent consumption of water throughout the workday.
- Employees shall have access to potable drinking water including but not limited to the requirements that it 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.

To encourage frequent drinking of potable water, the following steps will be taken in the Transportation, Maintenance/Operations/Grounds/Landscaping, and Warehouse Departments:

- Supervisors will provide frequent reminders to employees to drink frequently, and additional water breaks will be provided.
- Periodically, there will be reminders to workers about the importance of frequent consumption of water throughout the workday.
- Employees shall have access to potable drinking water including but not limited to the requirements that it 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.

Access to Shade/Rest Periods - To ensure access to shade at all times, the following steps will be taken:

- Shade shall be present or provided when temperature exceeds 80 degrees Fahrenheit. When the outdoor temperature exceeds 80 degrees Fahrenheit, the employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling.
- The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods so they can sit in 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.
- Employees may have access to offices or other buildings with air conditioning.
- If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool down rest or during a preventative cool-down rest period, the employer shall provide appropriate first aid or emergency response.
- Transportation
 - Shade is provided in the following areas: The Transportation Lounge, the Wash Bay, and also in the Key Room at the main Transportation Yard.
 - Expanded Services have access to designated shade areas at their

assigned school sites.

- All employees have access to shade as needed. All 8 hour employees have two 15 minute breaks and either an hour or half an hour for lunch.
- During excessive heat, employees are encouraged to take shade and water breaks as needed throughout the day.
- Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade 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:
 - shall be monitored and asked if he or she is experiencing symptoms of heat illness;
 - shall be encouraged to remain in the shade; and 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.
- Maintenance/Operations/Grounds/Landscaping
 - All employees have access to shade as needed. All 8-hour employees have two 15-minute breaks and either an hour or half an hour for lunch.
 - During excessive heat, employees are encouraged to take shade and water breaks as needed throughout the day.
 - Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade 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:
 - shall be monitored and asked if he or she is experiencing symptoms of heat illness;
 - shall be encouraged to remain in the shade; and 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 other means of shade are not available, supervisors/designated person(s) shall set up an adequate number of umbrellas, canopies, or other portable devices. These devices shall be placed in close proximity to the work activity.
- Warehouse
 - Employees shall be allowed and encouraged to take a preventative cool-down rest when they feel the need to do so to protect themselves from overheating. An individual employee who takes a preventative cool-down rest:
 - shall be monitored and asked if he or she is experiencing symptoms of heat illness;
 - shall be encouraged to remain at rest; and 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 a safe area.

- If a safe resting area is not available, supervisors/designated person(s) will set up an adequate area to include umbrellas, canopies or other portable devices. These devices shall be placed in close proximity to the work activity.
- Department teams shall meet for short tailgate meetings (in a language readily understandable to the employees) to remind workers about the importance of rest breaks and the location of shade areas.

Written Procedures - To reduce the risk of heat-related illness (HI) and to respond to possible symptoms of HI, the following steps will be taken:

- All employees will be trained prior to working outdoors.
- Water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.
- Shade shall be present when the temperature exceeds 80 degrees Fahrenheit.
- Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating.
- Working hours will be modified to work during the cooler hours of the day, when possible.
- When a modified or shorter work shift is not possible, more water and rest breaks will be provided.

To ensure that emergency medical services are provided without delay, the following steps will be taken:

- Supervisors will continuously check in with all employees, and stay alert to the presence of heat-related symptoms.
- Supervisors will carry cell phones or other means of communication, such as district handheld radios, to ensure that emergency services can be called, and check that these are functional at the work site prior to each shift.
- Workers will be reminded about addresses, directions to the worksite and emergency procedures.

Training - To ensure **employees** are trained, the following steps are taken:

- All employees will receive Heat Illness Prevention training via the District's learning management system prior to working outdoors, including all newly hired employees.
- The employer's responsibility is 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.
- The concept, importance, and methods of acclimatization, pursuant to the employer's procedures.
- The different types of heat illness and, 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.
- Training will be provided in a language readily understandable to the employee.
- On hot days and during a heat wave:
 - Maintenance/Operations/Grounds/Landscaping
 - Supervisors will communicate this important information with all workers via short tailgate meetings, email or posting information in employee lounge areas.
 - Warehouse
 - Supervisors will communicate this important information with all workers via short tailgate meetings, email or posting information in employee lounge areas.
 - Transportation
 - Supervisors will communicate this important information with all workers via radio, email, district social media or posting information in employee lounge areas.
 - All newly hired workers will be assigned a buddy or experienced coworker to ensure that they understood the training and follow district procedures.
- Records of attendance will be kept for each employee at the HSW office.
- Employees are given the opportunity to ask questions by email or phone call to HSW.
- Training records will be provided to OSHA representatives upon request.
- To ensure **supervisors** are provided training, the following steps should be taken:
 - Supervisors will be trained prior to being assigned to supervise outdoor workers.
 - How to monitor weather reports and how to respond to hot weather advisories.
 - Upon promotion to a supervisory position new supervisors will be trained in the requirements stated above.
 - The procedures the supervisor is to follow when an employee exhibits signs or reports consistent with possible heat illness, including emergency response procedures.

Emergency Response Procedures

Emergency medical services will be provided as quickly as possible if an employee suffers from heat illness.

To ensure that emergency medical services are provided without delay, the following steps will be taken:

- Supervisors and co-workers are encouraged never to discount any signs or symptoms they are observing or experiencing and will immediately report them.
- In the event of an emergency, the supervisor or designee will call 911 and give clear and precise directions to the work site.

Response - 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.

- If a supervisor observes, or any employee reports, signs or symptoms of heat illness in another employee, the supervisor shall take immediate action commensurate with the severity of the illness.
- If the signs or symptoms are indicators of severe heat illness (such as, but not limited to, decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior or convulsions), the employer must implement emergency response procedures.
- An employee exhibiting signs or symptoms of heat illness shall be monitored and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer's procedures.

Communication

- Maintenance/Operations/Grounds/Landscaping and Warehouse Departments:
 - Effective communication by voice, observation, or electronic means shall be maintained so that employees at the worksite can contact a supervisor or emergency medical services when necessary.
 - An electronic device, such as a cell phone or text-messaging device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services.
- Transportation Department:
 - Effective communication by voice, observation, or electronic means shall be maintained so that employees driving Transportation Department vehicles or those working at designated district schools/sites can contact a supervisor or emergency medical services when necessary.
 - Transportation Department vehicles are equipped with a two-way radio system which is connected to the Transportation Dispatch Office.
 - Transportation staff are able to use the two-way radio system to communicate needs and/or concerns directly with Dispatch.

- An electronic device, such as a cell phone or text-messaging device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services.

Emergency Medical Services - contacting EMS and, if necessary, transporting employees to a place where they can be reached by an emergency medical provider. In addition, clear and precise directions to the work site can and will be provided as needed 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. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

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.

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.

To ensure that employees can acclimatize to the conditions, the following steps will be taken:

- Employees are encouraged to take it easy when a heat wave strikes or when starting a job that newly exposes them to heat.
- Supervisors or designees will closely observe employees during a heat wave, as defined above.
- Supervisors will strive to find tasks that lessen the intensity of employee's work during the heatwave and during the 2-week break-in period of new employees.

High Heat Procedures

The employer shall implement high-heat procedures when the temperature equals or exceeds 95 degrees Fahrenheit. These procedures shall include the following to the extent practicable:

- Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text-messaging device may be used for this purpose only if reception in the area is reliable.
- Observing employees for alertness and signs or symptoms of heat illness. The employer shall ensure effective employee observation/monitoring by implementing one or more of the following:
 - Supervisor or designee observation of 20 or fewer employees, or

- Mandatory buddy system, or
- Regular communication with sole employee such as by radio or cellular phone, or
- Other effective means of observation.
- Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.
- Reminding employees throughout the work shift to drink plenty of water.
- Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool down rest when necessary.

First Aid for Heat Related Illnesses

Heat Cramps: Heat cramps are muscular pains and spasms due to heavy exertion. They usually involve the abdominal muscles or the legs. It is generally thought that the loss of water and salt from heavy sweating causes the cramps.

- **First Aid for Heat Cramps:**
 - Have him/her stop activity and rest in a cool shady area.
 - If he/she is fully awake and alert, have him/her drink small amounts of cool water or a commercial sports drink (water is best).
 - Gently stretch the cramped muscle and hold for about 20 seconds, then gently massage the muscle. Repeat if necessary. If the employee has no other signals of heat-related illness, he/she may resume activity after the cramps stop.

Heat Exhaustion: Heat exhaustion is the next, more serious stage of heat-related illness. It is signaled by:

- Cool, moist, pale skin. (The skin may be red right after physical activity)
- Headache
- Dizziness and weakness or exhaustion.
- Nausea
- The skin may or may not feel hot.
- **First Aid for heat exhaustion:**
 - **Call 911** for medical assistance if the employee refuses water, vomits or loses consciousness.
 - Assist the employee to a cooler shady area and have him/her rest in a comfortable position.
 - If fully awake and alert, give a half glass of cool water every 15 minutes, do not let him/her drink too quickly. **Do not** give liquids with alcohol or caffeine in them, as they can make conditions worse.

Heat Stroke: Heat stroke is the late stage of heat-related illness and is **life threatening**. Symptoms include:

- Vomiting
- Decreased alertness, confusion, or complete loss of consciousness
- High body temperature (above 103 degrees F, sometimes as high as 105 degrees F)
- Skin may still be moist or the employee may stop sweating and the skin may be red, hot and dry.
- Rapid weak pulse.
- Rapid shallow breathing. This stage of heat-related illness is serious and **life threatening**. **Call 911 immediately**.
- **First Aid for heat stroke:**
 - **Help is needed fast. Call 911 for help immediately.**
 - Move the employee to a cooler shady area.
 - Quickly cool the body. Wrap sheets around the employee's body and fan. If you have access to ice packs or cold packs, wrap them in a cloth and place them on each of the employee's wrists and ankles, in the armpits and on the neck to cool the large blood vessels. (Do not use rubbing alcohol because it closes the skin's pores and prevents heat loss.) Watch for signals of breathing problems and make sure the airway is clear. Keep the employee lying down. Stay with him/her until medical help arrives and takes over.

Access to Medical Facilities

Employees working in the field should know where the nearest emergency medical facilities, including fire stations are located. Likewise, when a field employee changes locations, he or she should know the address of the sites or landmarks nearby the work location in the event emergency medical assistance is required. If medical assistance is necessary, provide clear and precise directions to the worksite.

If emergency medical assistance is required, follow these steps:

- Call 911
- Notify your supervisor
- Notify the Assistant Superintendent of Educational Services at 661-831-8331 ext. 6132
- Notify the Health, Safety and Wellness Department at 661-831-8331 ext. 6286

Panama-Buena Vista Union School District

HEAT SAFETY

Supervisor's Daily Checklist

WATER

- Is there plenty of fresh, cool drinking water located as close as possible to employees?
- Is there a plan for refilling water coolers throughout the day?

SHADE AND REST

- Is a shade structure available at all times (regardless of the weather) for workers to rest and cool down?
- Is the shade structure up and ready when the weather forecast is 95°F or higher?
- Is there a plan in place for checking the weather forecast?

TRAINING

- Have all employees, including substitutes, been trained to recognize and prevent heat illness BEFORE they start working outdoors?
- Can employees identify symptoms of heat stress?
- Is there a special plan in place to allow employees to acclimate to the heat?

EMERGENCY PLAN

- Does everyone know who to notify if there is an emergency?
- Can employees explain their location if they need to call an ambulance?
- Does everyone on the site team or work crew know who will provide first aid?

WORKER REMINDERS

Have employees been reminded to:

- Drink water frequently?
- Rest in the shade for at least 5-minutes as needed?
- Look out for one another and immediately report any symptoms?

