



## **HEAT ILLNESS PREVENTION PLAN**

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## **SCOPE**

This Heat Illness Prevention Plan and emergency regulations apply to any and all outdoor places of employment, at the times when environmental risk factors for heat illness are present.

## **PURPOSE**

The Woodville Union School District has developed this Heat Illness Prevention Plan to control the risk of occurrences of heat illness and to comply with the California Code of Regulations Proposed State Standard, Title 8, Chapter 4, Section 3395. The plan is designed to educate employees and their supervisors on the symptoms of heat illness, causes of these symptoms, ways to prevent heat illness, and what to do if they or a fellow employee experience symptoms of heat illness. Employees that fall under this regulation could include, but are not limited to, maintenance, grounds, and transportation workers, custodians, security personnel, physical education teachers, and playground supervisors.

## **POLICY**

It is the policy of the Woodville Union School District that all employees and supervisors of those employees who perform job functions in areas where the environmental risk factors for heat illness are present shall comply with the procedures set forth in this plan.

## **STATUTORY AUTHORITY**

- California Code of Regulations Proposed State Standard, Title 8, Chapter 4, Section 3395

## **DEFINITIONS**

The California Occupational Safety and Health Standards Board propose definitions of key terminology, as they relate to the standard, as follows:

- Acclimatization means the temporary, gradual adaptation of the body to work in the heat when a person is exposed to it. Usual acclimatization time while working in the heat for at least two hours per day ranges from four to fourteen days.
- Environmental risk factors for heat illness mean the working conditions that create the possibility for a heat illness to occur. Risk factors include air temperature, air movement, relative humidity, workload, work severity, work duration, radiant heat, conductive heat, and personal protective equipment (PPE) worn by an employee.
- Heat Illness means a serious medical illness, which results from the body's inability to cope with a heat load. Heat illnesses include heat cramps, heat exhaustion, heat stroke and heat syncope (fainting).

- High-Heat Procedure is now required for five industries when temperatures reach 95 degrees or above. These procedures include observing and being in constant contact with employees, closely supervising new employees and reminding all workers to drink water. The industries specified under this modification are: 1) Agriculture, 2) Construction, 3) Landscaping, 4) Oil and Gas extraction, 5) Transportation or Delivery of agricultural products, construction material or other heavy materials
- Personal risk factors for heat illness includes factors such as an employee's age, level of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, overall health, and use of prescription medications which may alter the body's ability to retain water or otherwise effect its physiological response to heat. The District shall not request any of the above personal information from an employee.
- Preventative Recovery Period means a period of time for an employee to recover from a heat illness or signs of a heat illness. The amount of time for a recovery period shall be no shorter than five minutes and shall be taken in a shaded area.
- Shade means the blockage of direct sunlight. Sufficient blockage is when an object does not cast a shadow in the area of the blockage. Shade is not acceptable if heat in the shaded area prevents the body from cooling. Shade shall be open to the air or otherwise provided with ventilation and/or climate controlled. Access to shade shall be made available at all times.
- Shade Requirements must be adequate to accommodate 25% of the employees on the shift at any time when temperatures exceed 85 degrees, and located as close as practicable to the areas where employees are working. When temperatures are below 85 degrees, employers shall provide timely access to shade upon an employee's request.

## **RESPONSIBILITY**

The ultimate responsibility for establishing and maintaining the policies of the Heat Illness Prevention Plan specific to District facilities and operations rests with the District Superintendent.

General policies, which govern the activities and responsibilities of the Heat Illness Prevention Plan, are established under his/her final authority.

It is the responsibility of the District Superintendent to develop procedures, which ensure effective compliance with the Heat Illness Prevention Plan.

It is the responsibility of District Superintendent to identify all employees required to work outdoors where the environmental risk factors for heat illness are present.

Supervisors, including site Leads, are responsible for enforcement of this Plan among the employees under their direction by carrying out the various duties outlined herein, setting acceptable safety policies and procedures for each employee to follow and ensuring that employees receive the required Heat Illness Prevention training. Supervisors must also ensure

that appropriate job specific safety training is received, and that safety responsibilities are clearly outlined in the job descriptions, which govern the employees under their direction.

Supervising others also carries with it the responsibility for knowing how to safely accomplish the tasks assigned to each employee, for providing appropriate preventative controls (water, shade, PPE, etc.), and for evaluating employee compliance.

Supervising new employees or new employees to the job site must take into account the importance of acclimatization. These employees must be closely monitored for the first 14 days.

Immediate responsibility for workplace heat illness prevention and safety rests with each individual employee. Employees are responsible for following the established work procedures and safety guidelines in their area, as well as those identified in this Plan. Employees are also responsible for using the personal protective equipment issued to protect them from identified hazards, ensuring that they have adequate amounts of drinking water, access to shade, and for reporting any unsafe conditions to their supervisors.

## **PROCEDURES**

### **1. Provisions of Water**

- a. At the beginning of each shift, all employees who work outside when environmental risk factors for heat illness are present shall have sufficient quantities and immediate access to at least one (1) quart of potable drinking water per hour for the entire shift (at least two (2) gallons of potable water per person per eight-hour shift).
- b. Smaller quantities may be provided if the District has an effective procedure for replenishment that meets the above quantity and time requirements.
- c. The importance of frequently drinking water shall be conveyed and encouraged as described in the training section.

### **2. Access to Shade**

- a. When temperature does not exceed 85 degrees F, provide shade or timely access to shade upon request.
- b. Access to shade shall be made available at all times to any employee experiencing heat illness, symptoms of heat illness, or believing a preventative recovery period is needed.
- c. The preventative recovery period shall be at least five (5) minutes.
- d. Water shall be made available in the shade/preventative recovery period area.
- e. Where temperatures equal or exceed 85 degrees F or during a heat wave, adequate shade must be provided for no less than 25% of the work force, at any one time.

### **3. Identifying, Evaluating and Controlling Environmental Risk Factors for Heat Illness**

- a. To identify if environmental risk factors are present, the District shall obtain temperature and humidity measurements for the work areas, either by direct measurements or by weather forecasts that are adjusted to match worksite conditions.

- b. To evaluate if an environmental risk factor is present, the District shall obtain the Heat Index, calculated by the National Weather Service, to rate the risk of heat illness depending on air temperature and humidity. The District shall assume there is a significant risk of heat illness when the Heat Index for an employee working in the sun is 80 or above, and 90 or above when employees are working in the shade. If workers are wearing more than “light” clothing, the risk of heat illness shall be considered significant at a lower Heat Index.
- c. To control and reduce the exposure to environmental risk factors, the District shall utilize the following control measures:
  - Provide shade near work areas
  - Schedule outdoor and/or vigorous work in the cooler hours of the day
  - Schedule more breaks during the day, if necessary
  - Other actions as necessary

#### **4. Identifying, Evaluating and Controlling Personal Risk Factors for Heat Illness**

- a. The District shall train employees on the factors that can affect their vulnerability to heat illness. These factors include an employee’s age, level of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, overall health, and use of prescription medications that may alter the body’s ability to retain water or otherwise affect its physiological response to heat. The District shall convey the importance of acclimatization, and shall take steps to aid employees in becoming acclimatized. An employer shall not request any of the above personal information from an employee.

#### **5. Reporting Symptoms or Signs of Heat Illness to the District**

- a. Employees exhibiting signs or symptoms of heat illness, or who observe a coworker with signs or symptoms, shall report these symptoms to their supervisor, lead or site administrator immediately.

### **Heat Illness Signs/Symptoms/Treatment**

**Heat Cramps:** Strong, involuntary muscle spasms usually in calves, thighs, shoulders or back.

**Treatment** - rest in cool place, drink water/electrolytes.

**Heat Syncope:** Faint or lightheaded feeling; actual fainting spell.

**Treatment** - rest in cool/shaded place, drink water/electrolytes.

**Heat Exhaustion:** Dehydration, fatigue, dizziness/nausea, pale moist skin, possible temperature elevation

**Treatment** - rest in cool/shaded place, drink water/electrolytes/non-caffeinated fluids.

**Heat Stroke:** Mental confusion, fainting, seizures, hot/dry/red skin (sweating has stopped).

**Treatment - Call 911 immediately,** soak clothing with cool water, move victim to cool/shaded area.

## **6. Responding to Symptoms of Possible Heat Illness**

- a. It shall be the responsibility of the employee's immediate supervisor, or when that person is unavailable, the Business Manager to respond to all reports and/or observations of heat illness symptoms and signs.

## **7. Contacting Emergency Medical Services**

- a. When a sick employee is unable to communicate, it shall be the responsibility of the employee's immediate supervisor, or when that person is unavailable, the Business Manager to contact emergency services when required, and to provide accurate and precise directions to the employee's location. This individual shall be immediately available to perform this function.

## **8. Communication**

- a. The District shall account for the whereabouts of all employees at appropriate intervals during and at the end of the work shift by radio, cellular phone or in person. This procedure shall be followed whenever the outdoor work environment creates a heat hazard that could result in the collapse of an employee due to heat illness.
- b. Communication between the Supervisor and their crew is of the utmost importance.

## **9. Training**

Training shall be administered to all employees and their supervisors who fall under the scope of this plan. The District shall ensure the effectiveness of the training by one of the following methods:

- Tailgate meetings before a shift begins
- Test employees/supervisors after training
- Conduct the training on a regular basis

- a. Supervisory and non-supervisory employees shall be trained on:
  - i. Environmental and personal risk factors for heat illness.
  - ii. District procedures for identifying, evaluating and controlling the exposure to environmental and personal risk factors for heat illness.
  - iii. Importance of frequent consumption of small amounts of water under extreme conditions.
  - iv. Acclimatization and its importance.
  - v. Types of heat illness and their symptoms, signs, and differences.
  - vi. Procedure of immediately reporting the signs and symptoms of heat illness in themselves or in a co-worker, to their employer, and its importance.
  - vii. Procedures for the District to respond to symptoms of heat illness, which shall include how emergency medical services will be provided, if needed.

- viii. Procedures for contacting emergency medical services and transporting employees to a readily accessible location for emergency medical services to reach them.
  - ix. Procedures on and how to provide clear and precise directions to emergency medical services.
- b. Supervisors shall be trained on:
- i. All information included in subsection (3)(a) above.
  - ii. Procedures a supervisor shall follow when implementing this Heat Illness Prevention Plan.
  - iii. The procedures a supervisor shall follow when an employee exhibits symptoms of a possible heat illness, which includes emergency response procedures.

### **DOCUMENTATION**

Documentation of all aspects of this Heat Illness Prevention Plan shall be managed in accordance with the District's Injury and Illness Prevention Plan.

### **SUPPORTING DOCUMENTS**

**<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>**



**APPENDIX A**  
**HEAT INDEX CHART**

# Heat Index

## Using Apparent Temperature Chart

The chart below lists the apparent temperatures (heat index) in degrees Fahrenheit (F). The chart is read by finding the air temperature on the left vertical column and the Relative Humidity (RH) across the top horizontal row and reading where these values intersect. If the ambient temperature is 90 degrees and the RH is 60 percent, then the apparent temperature is 100 degrees.

### NOAA's National Weather Service

#### Heat Index

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	126	130					
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 or Strenuous Activity

Caution
  Extreme Caution
  Danger
  Extreme Danger

Effects of Heat	
Heat Index	Possible Heat Disorder
80-90 F	Fatigue possible
90-105 F	Sunstroke, heat cramps, heat exhaustion possible
105-130 F	Sunstroke, heat cramps, heat exhaustion likely - Heat stroke possible
130 F or greater	Heat stroke/Sun stroke highly likely

<http://www.wrh.noaa.gov/sto/heatindex.php>