



**HEAT ILLNESS PREVENTION PLAN**

**FOR**

**ALVORD UNIFIED SCHOOL DISTRICT**

**REVISED JUNE 2021**

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## **INTRODUCTION**

On August 22, 2005, the Office of Administrative Law approved the California Occupational Safety and Health Standards Board's adoption of the California Code of Regulations Proposed State Standard, Title 8, Chapter 4, Section 3395. The Office of Administrative Law formally adopted the revised, permanent regulation on July 27, 2006, making the regulation effective immediately. These new regulations were meant to significantly reduce the severity and frequency of occupational heat-related illness in all outdoor places of employment.

Since then, Cal/OSHA implemented updated safety standards for employees working in outdoor heat. The revisions to the Heat Illness Prevention Standard, approved by the Occupational Safety and Health Standards Board on August 19, 2010, became effective November 4, 2010. The revised standards provide clarification of the shade requirement, including temperature triggers, and address high-heat requirements. On February 19, 2015, in a 5 to 1 vote, the Department of Occupational Safety and Health (Cal/OSHA) Standards Board approved changes to the existing Heat Illness Standard. The Standards Board recommended the effective date as April 1, 2015, for implementation.

## **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 Alvord Unified 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 workers, transportation workers, custodians, security personnel, physical education teachers, and playground supervisors.

## **POLICY**

It is the policy of Alvord Unified 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. Acclimation procedures include close observation of all employees during a heat wave – defined as at least 80 degrees. New employees must be closely observed for their first two weeks on the job.
- Emergency response procedures include effective communication, response to signs and symptoms of heat illness, and procedures for contacting emergency responders to help stricken employees.
- 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 procedures are 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 high heat procedures shall ensure "effective" observation and monitoring, including a mandatory buddy system and regular communication with employees working by themselves. During high heat, employees must be provided with a minimum 10-minute cool-down period every two hours. 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 affect the body's physiological response to heat.

- 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.

Employees taking a preventative cool-down rest must be monitored for symptoms of heat illness, encouraged to remain in the shade, and not ordered back to work until symptoms are gone. Employees with symptoms must be provided appropriate first aid or emergency response.

- 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 all employees on recovery or rest periods, and those onsite taking meal periods when temperatures reach 80 degrees, and located as close as practicable to the areas where employees are working. When temperatures are below 80 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 Administrative Services.

General policies, which govern the activities and responsibilities of the Heat Illness Prevention Plan, are established under Administrative Services.

It is the responsibility of all supervisors, managers and directors to develop procedures which ensure effective compliance with the Heat Illness Prevention Plan.

It is the responsibility of all supervisors, managers and directors to ensure that all employee work assignments both indoors and outdoors are evaluated and the components of this plan are implemented when the established temperature/relative humidity thresholds are met or exceeded.

Supervisors - Supervisors 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. The supervising others also carries 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.

Employees - 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 responsible to take steps to mitigate any personal risk factors that may exist prior to working in a regulated hot environment. Employees are responsible to immediately report unsafe conditions to their supervisor. Observe their fellow employees for signs of heat related illness, and take quick action to ensure that rapid assistance is provided if applicable. Employees are 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 unsafe conditions to their supervisors.

## **COMPLIANCE & 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). Water containers cannot be refilled from non-potable water sources (i.e. sprinkler or firefighting systems), or connections that allow for potentially harmful contamination of public water systems (i.e. water house) or from non-approved or non-tested water sources (i.e. untested-wells).
- b. Smaller quantities may be provided if the District has an effective procedure for replenishment that meets the above quantity and time requirements.
- c. Water must be fresh, pure, suitably cool and located as close as practicable to where employees are working, with exceptions made only when infeasibility can be demonstrated by the employer.
- d. The importance of frequently drinking water shall be conveyed and encouraged as described in the training section.
- e. Employees are advised to avoid the use of caffeine during periods of high heat. Caffeine dehydrates the body.

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

- a. Shade shall be present when the temperature exceeds 80 degrees. When the outdoor temperature in the work area exceeds 80 degrees, there shall be 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.
- b. The amount of shade present shall be at least enough to accommodate the number of employees of recovery, rest or meal periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other.
- c. Employees will be advised repeatedly to about the importance of rest breaks and the location of shade.
- d. 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 employee who takes a preventative cool-down rest shall be monitored and asked if he or she is experiencing symptoms of heat illness; they shall be encouraged to remain in the shade; and shall not be ordered back to work until all 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.
- e. Water shall be made available in the shade/preventative recovery period area.

### **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. Managers and supervisors may consult the following web page for accurate information regarding weather within the local work area;

[www.nws.noaa.gov](http://www.nws.noaa.gov)

- 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 (mark all that apply):
  - x Provide shade for work areas
  - x Schedule outdoor and/or vigorous work in the cooler hours of the day
  - x Schedule more breaks during the day
  - x Provide misters or other cooling devices

#### **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.

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

- a. Employees exhibiting signs or symptoms of heat illness, or who observe a co-worker with signs or symptoms, shall report these symptoms to a supervisor immediately.

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

- a. It shall be the responsibility of all supervisors, managers and directors 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 any other employee to contact emergency services when required, and to provide accurate and precise directions to the employee’s location.
- b. When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency services has been called.

- c. Each employee should be provided with a radio and/or cell phone to report and contact emergency medical services in the event of a heat-related illness.
- d. A designated employee that has been trained on first-aid and emergency procedures will remain with sick employee until emergency medical services have arrived.

**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 supervisors, managers and directors. 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:

- x Tailgate meetings before a shift begins
  - x 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 for 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

### ***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 light headed 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

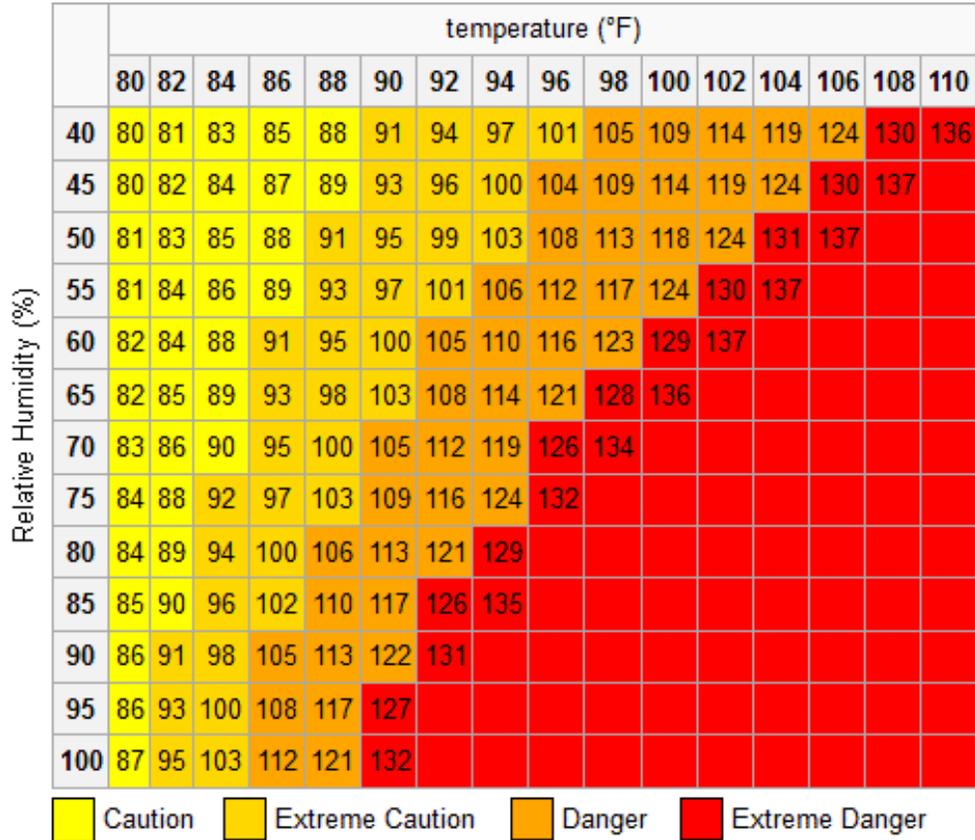
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<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>

# APPENDIX A

## HEAT INDEX CHART

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



Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91°F to 103°F	Moderate	Implement precautions and heighten awareness
103°F to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures