



## Heat Illness Prevention Program

San José State University

One Washington Square

San José, California

Facilities Development and Operations Department

Environmental Health and Safety

Origination Date

November 11, 2016

### 1) Purpose and Scope

The purpose of this program is to describe the safe work practices and procedures to protect SJSU employees who work outdoors from occupational heat exposure.

### 2) Standards, Regulations and References

- a) California Code of Regulations,  
Title 8, Subchapter 7. General Industry Safety Orders  
Subchapter 7. General Industry Safety Orders  
Group 2. Safe Practices and Personal Protection  
Article 10. Personal Safety Devices and Safeguards  
Section §3395 Heat Illness Prevention in Outdoor Places of Employment.
- b) National Institute for Occupational Safety and Health (NIOSH) Publication Number 2016-106:  
Occupational Exposure to Heat and Hot Environments

### 3) Definitions

*Acclimatization:* The temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to a hot environment over a number of consecutive days. 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:* Refers to 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 (fainting) 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.

*High Heat Conditions:* When temperatures are expected to reach or exceed 95 °f or higher.

*Personal Risk Factors for Heat Illness:* Risk 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.

*Potentially Impacted Employees:* Employees whose job tasks expose them to environmental risk factors for heat illness.

*Preventative Recovery Period:* A period of time to recover from the heat in order to prevent heat illness.

*Shade:* The blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. 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

that 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.

**4) Responsibilities**

- a. Environmental Health and Safety (EH&S):**
  - i.** Establish and update the written Heat Illness Prevention Program.
  - ii.** Provide training for all potentially impacted employees, and their supervisors, working where environmental risk factors for heat illness are present. Training information shall include, but not be limited to, the topics listed in the training section of this written program. All potentially impacted employees and their supervisors must be trained on the risk and prevention of heat illness, including how to recognize symptoms and how to respond should symptoms present.
- b. Department:**
  - i.** Identify all employees, and their supervisors, who are required to work where environmental risk factors for heat illness are present. Identification of potentially impacted employees will be made at the department level.
  - ii.** Ensure all affected employees receive proper training on heat illness prevention and comply with appropriate procedures.
  - iii.** Ensure that adequate water and shade are available at the job site when the environmental risk factors for heat illness are present.
  - iv.** Contact University Police at (x4-2222) from a campus phone or (408) 924-2222 from a mobile phone or 911 to request emergency medical services in the event medical assistance is required.
- c. Employees:**
  - i.** Awareness and compliance with all appropriate heat illness prevention procedures while performing assigned duties.
  - ii.** Employees are ultimately responsible for drinking adequate amounts of hydrating fluids when the environmental risk factors for heat illness are present.
  - iii.** Inform their supervisor if shade and/or water is inadequate.
  - iv.** Identify and report symptoms of heat related illness promptly to their supervisor.
  - v.** Contact University Police at (x4-2222) from a campus phone or (408) 924-2222 from a mobile phone or 911 to request emergency medical services in the event medical assistance is required.
- d. Supervisors:**
  - i.** Ensure access to a shaded area is available when temperatures are expected to reach or exceed 80°f to prevent or recover from heat related symptoms.
  - ii.** Monitor weather information / advisories and respond to High Heat Conditions (temperatures ≥ 95°f).
  - iii.** Supervisors shall remind employees to drink water frequently. One quart per hour of drinking water shall be available at all times, for each employee, for the duration of their shift, while working outdoors in the heat.

**5) Guidelines/Rules**

- a. Provision of Water:
  - i. Employees shall have access to potable drinking water. Where water is not plumbed, or otherwise continuously supplied, it shall be available in sufficient quantity at the beginning of the work shift to provide one (1) quart per employee per hour for drinking for the entire shift. The frequent drinking of water, as described in the training section, shall be encouraged.
- b. Access to Shade/Ventilation:
  - i. Employees shall have access to a shaded area to prevent or recover from heat illness symptoms and where they can take rest breaks at temperatures greater than 80° f
  - ii. Access to an area with shade that is either open to the air or provided with adequate general ventilation or cooling shall be provided for a period of no less than five minutes. Such access to shade / ventilation shall be permitted at all times.
- c. Should an employee feel unusual discomfort from the heat, a preventative recovery period shall be offered to allow employees an opportunity to cool down and prevent the onset of heat illness.
- d. Record Keeping:
  - i. Training records shall be maintained by EH&S for at least three (3) years.

**6) High Heat Procedures**

- a. When temperatures are expected to reach or exceed 95 °f or higher (high-heat conditions):
  - i. Supervisors shall ensure employees have a means of communication (voice, electronic (e.g. cell phones, radios)) to contact a Supervisor,
  - ii. Employees should work in teams to monitor and observe each other for signs or symptoms of heat related illness, and
  - iii. Remind employees to drink throughout the day and to stay hydrated, and
  - iv. Hold pre-shift meetings on heat illness prevention, and
  - v. Designate one or more employees to call for emergency services.

**7) Training**

- a. FD&O employees and supervisors working on job tasks where environmental risk factors for heat illness are present shall receive training. Training shall include the following:
  - i. Environmental and personal risk factors for heat illness.
  - ii. Procedures for identifying, evaluating, and controlling exposure to environmental risk factors for heat illness.
  - iii. The importance of frequent consumption of hydrating fluids, up to 4 cups of water per hour, when environmental risk factors for heat illness are present, particularly when employee is excessively sweating during the exposure.
  - iv. The importance of and procedures for acclimatization.

- v. Different types of heat illness and the common signs and symptoms of heat illness.
- vi. The importance of immediately reporting symptoms or signs of heat illness, in themselves or in co-workers, to their supervisor.
- vii. Understanding the department’s procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by emergency medical service.
- viii. The department’s procedures for ensuring that, in the event of an emergency, clear and precise direction to the work site can and will be provided to emergency responders.
- ix. Procedures the supervisor is to follow to implement the provisions of this program.
- x. Procedures the supervisor shall follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- xi. How to monitor weather information / advisories and respond to High Heat Conditions (temperatures ≥ 95°f).

**8) Program Audit**

Environmental Health and Safety will perform a program audit annually and make improvements to the Heat Illness Prevention Program as conditions change.

**9) Document History and Control**

The San José State University Heat Illness Prevention Program described herein supersedes all prior program documents.

<i>Rev #</i>	<i>Document Revision History</i>	<i>Author</i>	<i>Reviewer</i>	<i>Date</i>
00	Revision No Change Initial Document	Matt Nymeyer Director Environmental Health and Safety		November 11, 2016
01	Added section2, Standards, Regulations and References. Added sections 9 and 10, Program Audit and Document History and Control. Removed redundancy, moved section 5 Procedures into section 4 Responsibilities.		Lisa Torralba	July 17, 2020
03	Formatting and annual review	Matt Nymeyer	Matt Nymeyer	November 1, 2023

