SONOMA STATE UNIVERSITY | ENVIRONMENTAL HEALTH & SAFETY

Heat Illness Prevention Program

Department of Environmental Health & Safety

Version 3.0 | Revised June 2026

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Record of Revisions

Revision	By	Date	Description of Revision
1.0	RL	June 2019	New program, supersedes previous versions
2.0	CG	August 2020	Program reviewed, no change to procedural content. Updated document format for standardization.
3.0	MB	June 2026	Full update to include updated regulations and indoor requirements.

Legend:

RL: Ruth LeBlanc

CG: Christy Gorman

MB: Missy Brunetta

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.

Heat Event: Any indoor or outdoor condition that triggers heat illness prevention requirements or creates an increased risk of heat illness due to elevated temperature, humidity, radiant heat, workload, clothing, PPE, or other environmental factors. Heat events include outdoor temperatures of 80°F or greater, high-heat conditions of 95°F or greater, heat waves, and indoor temperatures meeting applicable Cal/OSHA heat illness prevention thresholds.

Heat Wave: Any day in which the predicted high temperature for the day will be at least 80°F and at least 10°F higher than the average high daily temperature in the preceding five days.

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.

Introduction

This program describes the safe work practices and procedures to protect Sonoma State University employees from occupational heat exposure, both in indoor and outdoor settings.

Purpose & Scope

The program complies with California Code of Regulations, Title 8, §3396 and §3395. These laws require the university to take active steps to protect workers from heat illness in both indoor and outdoor workplaces. The program applies to all employees and volunteers of Sonoma State University.

While this program does not have authority over students or student activities, the principles applied to employees should be considered for students and student activities.

Responsibilities

Environmental Health and Safety (EH&S)

- Establish and update the written Heat Illness Prevention Program.
- Provide consultation/training to departments who fall within the program.
- Assist departments in determining when, where, and how shade is provided.
- Assist departments in identifying indoor worksites that may be prone to high temperatures and identifying mitigation strategies.

Department

- Identify tasks/employees who are required to work outdoors where potential heat illness could occur.
- Identify indoor worksites that may be prone to high temperatures and implement mitigation strategies and heat event plans.
- Ensure management and supervisory employees have proper training on heat illness prevention and understand their responsibilities in supporting employees during heat events.
- Ensure all affected employees receive proper training on heat illness prevention and comply with appropriate procedures.
- Maintain training records for three (3) years.
- Ensure that adequate water and shade are available at the job site when the environmental risk factors for heat illness are present.

Supervisors/Managers

- Ensure access to a shaded area is available when temperatures are expected to reach or exceed 82° F to prevent or recover from heat related symptoms.

- Monitor weather information / advisories and respond to High Heat Conditions (temperatures ≥ 95°F).
- Monitor employee condition during heat events, encourage extra breaks, and water consumption.
- Report all heat related illness to Worker's Compensation and EH&S.
- Contact Police Services at 911 or (4-4444) from a campus to request emergency medical services in the event medical assistance is required.

Employees

- Awareness and compliance with all appropriate heat illness prevention procedures while performing assigned duties.
- Employees are ultimately responsible for drinking adequate amounts of hydrating fluids when the environmental risk factors for heat illness are present.
- Inform their supervisor if shade and/or water is inadequate.
- Identify and report symptoms of heat related illness promptly to their supervisor.
- Employees exhibiting or reporting signs or symptoms of heat illness shall be monitored and not left alone.
- Contact University Police at 911 or (4-4444) from a campus phone to request emergency medical services in the event medical assistance is required

Understanding Heat Illness

Heat illness occurs when the body's cooling mechanisms are unable to effectively remove excess heat. As body temperature rises, normal physical and mental functioning become impaired.

Heat illness can occur in any environment where temperatures are high. Common contributing factors leading to heat illnesses include:

- High temperatures
- Direct sun exposure
- High humidity
- Heavy physical exertion
- Inadequate hydration
- Lack of acclimatization
- Certain medications or medical conditions
- Heavy clothing or PPE

Heat illness exists on a spectrum ranging from mild symptoms to life-threatening heat stroke.

Heat Rash

Heat rash occurs when sweat is trapped in the skin. Symptoms can range from small blisters to deep, inflamed lumps. Some forms of heat rash are very itchy. Not all persons may be affected

by heat rash and absence of rash does not mean a worker may not experience other types of heat illness.

Signs and Symptoms:

- Red, itchy skin irritation
- Small clusters of bumps
- Often occurs under clothing or PPE

Treatment:

- Move to a cooler area.
- Keep skin dry.
- Change into dry clothing if necessary.

Heat Cramps

Heat cramps are painful muscle spasms that happen when the body overheats. They are caused by excessive sweating, which depletes the body of vital fluids and electrolytes like sodium and potassium. Heat cramps are a mild form of heat illness that can escalate to more serious illness if there is no intervention. Employees experiencing persistent cramps (through multiple heat events) should seek medical evaluation.

Signs and Symptoms:

- Painful muscle spasms
- Usually affects legs, arms, abdomen, or back
- Heavy sweating

Treatment:

- Stop work activity.
- Rest in a cool or shaded area.
- Drink water or electrolyte-replacement beverages.
- Stretch and gently massage affected muscles.

Heat Exhaustion

Heat exhaustion is a serious condition that can quickly progress to heat stroke if untreated.

Signs and Symptoms:

- Heavy sweating
- Weakness or fatigue
- Dizziness
- Headache
- Nausea or vomiting
- Pale or clammy skin
- Rapid heartbeat
- Fainting or near-fainting

Treatment:

- Move the employee to a cool or shaded location.
- Remove unnecessary clothing and PPE.
- Provide cool drinking water if the employee is conscious and alert.

- Apply cool wet towels or ice packs to the neck, armpits, and groin.

- Monitor the employee continuously.
- Seek medical attention if symptoms worsen or do not improve rapidly.

Employees exhibiting heat exhaustion symptoms should never be left alone and should not be released to go home until symptoms improve. All heat exhaustion cases must be reported to EH&S and Worker's Compensation.

Heat Stroke (Medical Emergency)

Heat stroke is the most severe form of heat illness and is a life-threatening medical emergency. Heat stroke occurs when the body's temperature regulation system fails and core body temperature rises to dangerous levels, typically above 104°F (40°C).

Without immediate treatment, heat stroke can result in:

- Permanent organ damage
- Brain injury
- Disability
- Death

Signs and Symptoms:

- Mental status changes
- Confusion
- Disorientation
- Irrational behavior
- Slurred speech
- Inability to follow instructions
- Loss of consciousness
- Physical Symptoms
- Extremely high body temperature
- Hot skin (may be dry or sweaty)
- Rapid pulse
- Severe headache
- Seizures
- Collapse
- Unresponsiveness

A change in mental status is one of the most important indicators of heat stroke. Treat every suspected heat stroke case as a medical emergency.

Treatment/Response:

- Call 9-1-1
- Move the employee to a cooler location
- Provide shade, move the employee to an air-conditioned building or vehicle
- Remove excess clothing and PPE
- Apply ice packs to neck, armpits, groin
- Use cool wet towels to cover other areas of employee's skin
- Continuously monitor breathing and responsiveness.

- Do not force fluids

If the employee is confused, unconscious, or unable to swallow safely, do not provide water. Continue cooling until emergency responders arrive. Never leave the employee alone.

Acclimation

Acclimatization is the temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. The body needs time to adapt when temperatures rise suddenly, and a worker risks heat illness by not taking it easy when a heat wave or heat spike strikes, or when starting a new job that exposes the worker to heat to which the worker's body hasn't yet adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress.

The following are additional protective procedures that will be implemented when conditions result in sudden exposure to heat that workers are not accustomed to.

- Supervisors shall monitor weather daily for potential heat waves, heat spikes or temperatures to which workers haven't been exposed for several weeks or longer.
- New workers and those who have been newly assigned to a high-heat area will be closely observed by the supervisor for the first 14 days on the job.
- During this 14 day 'breaking-in' period, the intensity of the work will be lessened. Work will be scheduled at a slower pace and be less physically demanding. The less physically demanding work will be scheduled during the hot parts of the day and the heaviest work activities scheduled for the cooler part of the day (e.g. early morning or evening). The steps taken to lessen the intensity of the workload must be documented.
- For indoor work areas, the 14-day observation applies when the temperature or heat index equals or exceeds 87 degrees Fahrenheit, or when the temperature or heat index equals or exceeds 82 degrees Fahrenheit when a worker wears clothing that restricts heat removal or when a worker works in a high radiant heat areas (e.g. near boilers or ovens).

Assessing Heat Hazards

Environmental Health & Safety regularly monitors weather conditions for high heat events and will endeavor to remind managers of hazardous conditions that warrant response measures. However, this does not release managers from their responsibility to monitor conditions on campus or in any other locations where workers may be exposed to high heat events.

In addition to monitoring weather conditions and forecasts, managers/supervisors are responsible for assessing worksites for additional hazards. To determine if a worksite may trigger heat illness prevention standards, managers/supervisors shall consider the following:

- Temperature
- Heat index
- Humidity
- Direct sunlight
- Radiant heat
- Physical exertion

- Clothing/PPE requirements
- Acclimatization status

Environmental Health & Safety is available to consult on worksite conditions and possible mitigations and safety measures.

Employer Requirements - Outdoor Worksites

An outdoor heat event occurs when temperatures outdoors exceed 80°F. Managers and supervisors must monitor weather forecasts and prepare for heat events in advance. When temperatures are forecast to reach heat event levels, the university is required to provide:

- Cool drinking water
- Access to shade and cool-down areas
- Cool-down rest periods
- Additional measures during high-heat events (temperature exceeds 95°F)

Further descriptions of the measures described above are detailed in the Response Measures section.

High-Heat Events

A high-heat event is one where outdoor temperatures exceed 95°F. When this occurs, state law requires the university to implement additional procedures to protect workers:

- Conduct documented pre-shift heat briefings
- Review forecasted temperatures
- Review emergency procedures
- Verify water supplies
- Verify shade availability
- Verify communication systems

In addition, employees are required to:

- Maintain effective communication with management
- Use buddy systems where practical
- Report symptoms and take precautions immediately

During high-heat events, manager should:

- Reschedule outdoor strenuous work or work in locations with limited shade or cooling opportunities
- Adjust shifts to times when lower temperatures are forecast, generally earlier in the morning (pursuant to collective bargaining agreements, consult with Human Resources)
- Increase rest and cooling opportunities
- Rotate employees when feasible

Employer Requirements - Indoor Worksites

An indoor heat event occurs when temperatures indoors exceed 82°F. Virtually all non-residential university facilities have air handling systems that reliably provide cooled air and

maintain indoor temperatures between 65°F and 74°F, which are acceptable from a workplace safety standpoint.[1]

In the event that indoor temperatures exceed 82°F due to systems failure or underperformance, managers/supervisors must provide the following:

- Cool drinking water
- Access cool-down areas
- Cool-down rest periods

Further descriptions of the measures described above are detailed in the Response Measures section.

Please note that employees working in clothing that restricts heat removal or high-radiant-heat areas must provide the measures above as well as the measures described in the indoor high heat environment measures.

High-Heat Conditions

Indoor high-heat conditions exist when the temperature or heat index equals or exceeds 87°F, or when the temperature or heat index equals or exceeds 82°F and employees wear clothing that restricts heat removal or work in areas of high radiant heat.

Clothing that restricts heat removal may include Tyvek suits, waterproof clothing, FR clothing, arc flash suits, or enclosed costumes (such as mascot costumes). Generally, laboratory coats or chef-style jackets are not considered in this categorization, however, employees may also be working in high-radiant-heat areas.

High-radiant-heat areas are those that expose employees to heat from hot surfaces, equipment, or processes that significantly increase the body's heat load, regardless of the measured ambient air temperature. These environments may include greenhouses, areas of the central plant, boiler/mechanical rooms, and kitchens.

Managers/supervisors of workers subject to indoor high-heat conditions are required to implement:

- Engineering controls (air conditioning, fans, ventilation, cooling systems, etc.) where feasible
- Administrative controls (work/rest schedules, reducing exposure time, modifying work practices)
- More active monitoring and management of employee heat exposure

Due to the potential complexity of implementing engineering controls, managers/supervisors should consult with EH&S and Facilities Management prior to introducing such measures to ensure they are effective and do not impact other systems.

Response Measures

When a heat event occurs that triggers the provision of water, shade, cooling areas, or other actions, the following section further details the manner in which the measures should be implemented.

[1] Facilities without air conditioning: Facilities shops, residential units, storage warehouses/units.

Drinking Water

Employees shall have access to cool, fresh, potable drinking water. Water shall be maintained as close as practicable to work areas and replenished as necessary throughout the work shift. Water containers should be protected from direct sunlight whenever feasible to maintain a temperature that encourages frequent consumption.

If employees are provided or provide a reusable water bottle, they shall be permitted to refill from a nearby bottle filling station or other potable water source as frequently as necessary.

The frequent drinking of water, as described in the training section, shall be encouraged by management and supervisors.

Access to Shade/Cooling

When the temperature exceeds 80°F, the manager/supervisor shall ensure shade is available or that employees may retreat to an air-conditioned building or vehicle for rest periods. Refer to the definition of “shade” in the definitions section to ensure shade is adequate.

The amount of shade or cooled space present shall be at least enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a 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. This location(s) shall be communicated to employees.

Rest/Cooling Periods

Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade or cooled area when they feel the need to do so to protect themselves from overheating. **Such access to shade shall be permitted at all times during a heat event or when an employee feels they are suffering from a heat-related illness.**

An individual employee who takes a preventative cool-down rest:

- shall be monitored and asked if they are experiencing symptoms of heat illness;
- shall be encouraged to remain in the shade
- 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, the employer shall provide appropriate first aid or emergency response.

Reporting High Heat Conditions

Managers are responsible for monitoring heat conditions at all worksites where employees are present.

Although Facilities Management has the ability to remotely monitor building conditions in some buildings, there should never be an assumption that Facilities is aware of building temperatures that have not been reported.

If a manager becomes aware of an outdoor heat event, they are expected to implement the requirements of this plan without being specifically notified. Employees are also expected to notify management of high heat concerns or suspected/known heat illness.

Indoor heat conditions should be reported to Facilities through the placement of a work order. Any heat conditions that warrant the implementation of response measures should be reported to EH&S through email (safety@sonoma.edu, if immediate assistance is not required) or by phone to (707) 664-3100.

Facilities Management will prioritize indoor high heat conditions caused by equipment failure, to the extent possible. Please endeavor to notify them prior to a heat emergency .

Both Facilities Management and EH&S can visit indoor sites to assess conditions and measure temperatures to confirm the need to implement measures in this plan.

Training

Employees working on job tasks where environmental risk factors for heat illness are present shall receive training. Managers/supervisors whose employees perform said job tasks shall also receive training. General training will be assigned and available through CSU Learn. Position and environment-specific training shall be provided by the manager/supervisor.

Employees

Training shall be provided for all employees working on job tasks where environmental factors for heat illness are present prior to being assigned to work tasks. Training shall include the following:

- Environmental and personal risk factors for heat illness.
- Procedures for identifying, evaluating, and controlling exposure to environmental risk factors for heat illness.
- 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 an employee is excessively sweating during the exposure.
- The importance of and procedures for acclimatization.
- Different types of heat illness and the common signs and symptoms of heat illness.
- The importance of immediately reporting symptoms or signs of heat illness, in themselves or in co-workers, to their supervisor.
- 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.
- 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.

Managers/Supervisors

Supervisors shall receive training on the following topics prior to being assigned to supervise outdoor employees:

- The training information required of the employees, detailed above.
- Procedures the supervisor is to follow to implement the provisions of this program.
- Procedures the supervisor shall follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- How to monitor weather information / advisories and respond to High Heat Conditions (temperatures ≥ 95°F).

References

California Code of Regulations, Title 8, Article 10, Section 3395

California Code of Regulations, Title 8, Article 10, Section 3396