Indoor Heat Illness Prevention Plan

Berkeley Environment, Health & Safety

Site Checklist GILMAN HALL

Indoor work areas are subject to this prevention plan if any of the following conditions apply:

- The temperature equals or exceeds **82°F** in the building
- The temperature or *heat index* equals or exceeds **87°F** when employees are present
- Employees wear clothing that restricts heat removal and the temperature equals or exceeds **82°F** (e.g. Tyvek suits)
- Employees work in a high radiant heat area and the temperature equals or exceeds **82°F** (e.g. kitchen cooklines, mechanical rooms, incubator rooms)

The following environmental risk factors may be present in the building:

Building without sufficient air-conditioning or ventilation to cool workspaces during heatwaves
Periods of HVAC system shutdown or repair

Building Name/Location: Gilman Hall

Building Contact (Name/Title/Phone/Email): Alexei Anderson/Facilities Manager/510-642-5231/alexeianderson@berkeley.edu

Building Contact (Name/Title/Phone/Email): Jill Cunningam/Senior Assistant Dean of Facilities Operations & Research Safety/510-447-0307/jcunningham@berkeley.edu

Departments in the Building: Chemistry

Description of work performed in the building:

Office Administration

Classroom Instruction

Research

All UC Berkeley employees mut complete Heat Illness Prevention training online at ehs.berkeley.edu/safety-subjects/heat-illness-prevention-and-response

The following control measures have been implemented to minimize the risk of heat illness:

Drinking Water Availability: Suitably cool, fresh water is provided as close as practicable to work areas, and in indoor cool-down areas. At least one quart (4 cups) required per employee per hour for the entire shift, i.e., an 8-hour shift requires 2 gallons per employee. Frequent consumption of water shall be encouraged. The following is provided: Drinking Fountains Hydration Stations
Access to Cool-Down Areas: One or more cool-down areas less than 82°F must be provided when employees are present. The area must be large enough to accommodate the number of employees resting, so they can sit in normal posture without physical contact with others. The area must be as close to the work site practicable. Employees shall be encouraged to take preventative rests. **Supervisor** shall monitor employees and ask if they are experiencing symptoms of heat illness. If symptomatic, employees shall not return to work until symptoms have abated and they have remained in the cool-down area for at least 5 minutes. If an employee shows signs of heat illness, first aid or emergency response shall be provided. Cool-down areas, maintained below 82°F, are provided in the following locations (describe location, room number, room capacity):

1. Tan Hall Lobby
2. 180 Tan Hall (if no class in session)
3. Limited quantities of swamp or spot coolers may be deployed to additional areas for cooldown as needed.

Engineering Controls: When indoor temperatures reach or exceed **87°F,** engineering controls are used to reduce and maintain either, or both, the temperature and heat index in the work area to below **87°F** (or lowest possible level) when employees are present, or reduce the temperature to below **82°F** (or lowest possible level) when employees wear clothing that restricts heat removal or work in high radiant heat areas. The following engineering controls have been applied to the work area:

- Air-conditioning or evaporative coolers (portable units)

Administrative Controls: When engineering controls are not possible, the following administrative controls have been applied to the work area by departments and are to be managed by each individual department. The following administrative controls need to be discussed with your direct supervisor:

- Workshift Modification - provide shorter work periods, rotation out of high heat work areas, or work during cooler periods (e.g. early morning or evening)
- Alternate work locations (e.g. work-from-home or other building)
- Work in pairs or groups to monitor each other for signs of heat illness

Personal Protective Equipment (PPE): When engineering and administrative controls are insufficient, it is suggested that cooling devices be worn by employees to protect them.The following devices are used for PPE:

- Water- or air-cooled garments, cooling vests, jackets, and neck wraps. The cooling source can be reusable ice packs or cooled air connected to an external source.
- Other:

Note: other equipment can increase the risk of heat illness such as respirators and head coverings.

Emergency Response Procedures: Supervisors will provide for first aid treatment in the event of employee heat exhaustion, and are prepared to summon Emergency Medical Services (EMS) for severe heat illness, including heat stroke, or other conditions requiring immediate medical care. Means of effective communication have been established between employees and supervisors or emergency personnel when medical services are necessary.

The following methods are used to contact EMS:

- Cell phone service to 9-1-1 operator, or UCPD Dispatch 510-642-3333
- Instructions for what to do in case of a heat-related medical emergency are posted at the worksite, including clear and precise directions to the worksite for emergency responders
- If no cell or radio service is available, describe emergency plan below:

Monitoring Employees with Symptoms: Employees exhibiting symptoms of heat illness shall be monitored by supervisors, and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services. Please see the chart below for a list of symptoms and response procedures.

Temperature Monitoring: When the indoor temperature or heat index reaches or exceeds **87°F** when employees are present, the temperature shall be measured and recorded, making note of time and locations where measurements were made. Measure the temperature again when it is expected to be 10 degrees higher and employees are present. Retain temperature measurement records for 12 months.

Indoor Heat Illness Prevention Plan

Berkeley Environment, Health & Safety

Note: Temperature monitoring is also required if employees wear heat-restrictive clothing and the indoor temperature reaches or exceeds **82°F.**

Personal Risk Factors for Heat Illness: Employees have been advised of the following risk factors in the online training:

- Being overweight (body mass index ≥ 30 kg/m2)
- Diabetes
- High blood pressure
- Heart disease
- Lower level of physical fitness
- Use of certain medications such as diuretics (water pills) and some psychiatric or blood pressure medicines
- Some medications can result in a worker's inability to feel heat conditions and/or the inability to sweat, so symptoms of heat stress may not be evident.
- Alcohol use
- Use of illicit drugs such as opioids, methamphetamine, or cocaine

The above list is not comprehensive. Other medical conditions can also predispose workers to heat-related illnesses.

Required Training: In addition to reviewing this plan, employees and supervisors shall take the online Heat Illness Prevention Training in the Learning Management System.

Indoor Heat Illness Prevention Plan

Berkeley Environment, Health & Safety

First Aid Reference and Emergency Response - Signs and Symptoms of Heat Illness

Signs & Symptoms:	Treatment:	Response Action:
HEAT EXHAUSTION • Dizziness, headache • Rapid heart rate • Pale, cool, clammy or flushed skin • Nausea and/or vomiting • Fatigue, thirst, muscle cramps	1. Stop all exertion 2. Move to a cool location 3. Hydrate with cool water 4. Rest until symptoms resolve 5. Ask employee if they are feeling okay before resuming work or going home	The most common type of heat illness. Initiate treatment. If no improvement, call 911 and seek medical help. Do not return to work in hot areas. Heat exhaustion can progress to heat stroke.
HEAT STROKE • Disoriented, irritable combative, unconscious • Hallucinations, seizures, poor balance • Rapid heart rate • Hot, dry and red skin • Fever, body temperature above 104°F	1. Move (gently) to a cooler location. 2. Loosen clothing and spray clothes and exposed skin with water and fan. 3. Cool by placing ice or cold packs along the neck, chest, armpits and groin. 4. Do not place ice directly on skin.	**Call 911 or seek medical help immediately!** Heat stroke is a life-threatening medical emergency. A victim can die within minutes if not properly treated. Efforts to reduce body temperature must begin immediately!

Other Notes (Attach other documents, maps, etc. as needed)

Related Resources

Emergency Medical Response: 911
Campus Police Emergency Number: 510-642-3333
University Health Services Occupational Health Clinic: www.uhs.berkeley.edu or 510-642-6891
Weather Forecasts: www.wunderground.com or www.weather.gov
Office of Environment, Health & Safety: www.ehs.berkeley.edu or 510-642-3073
UC Berkeley Heat Illness Prevention Program & Training Resources:
www.ehs.berkeley.edu/safety-subjects/heat-illness-prevention-and-response
Cal/OSHA Heat Illness Information and Regulations: https://www.dir.ca.gov/dosh/heatillnessinfo.html