Allegany College of Maryland

HEAT SAFETY PLAN

Board Approval Date: June 16, 2025

BACKGROUND AND PURPOSE

The Maryland Department of Labor released new safety standards for employees who work in high heat conditions. This plan and the related ACM policy seeks to address these new standards and bring ACM's procedures into compliance with this new State regulation.

I. SCOPE OF THE PLAN

The Heat Safety Plan applies to all employees of Allegany College of Maryland (faculty, staff and students) whose activities, conducted indoors and outdoors, exposes them to a heat index in the work area that equals or exceeds 80 °F for more than 15 consecutive minutes per hour. This program is not applicable to buildings, structures, and vehicles that have a mechanical ventilation system or fan that maintains the heat index below 80 °F.

Visitors, student athletes, and any individual not employed by the College are not covered under this policy. Contractors shall be responsible for their own heat safety program.

II. PURPOSE OF THE HEAT SAFETY PLAN

Allegany College of Maryland seeks to protect its workers from heat related illnesses which can be caused by high heat working environments. As such, we will follow all provisions of the law and seek to be in compliance with all state regulations on this topic.

III. PLAN DESIGN

The Allegany College of Maryland Heat Safety Plan is designed to prevent detrimental health effects from exposure to high heat levels. This program follows the recommendations of the Maryland Occupational Safety and Health (MOSH) Criteria for a Recommended Standard — *Maryland Heat Illness Prevention Standard.*

Some work environments have a higher risk for heat-related illness and some workers at Allegany College of Maryland may be involved in activities that include exposure to occupational heat. This program is designed to ensure the health and safety of those workers.

Allegany College of Maryland will evaluate and consider the specific conditions present at the campus, and off-site course locations, to identify the following:

1. The size of the employee work crew
2. The length of the work shifts including designation of break times during work shifts
3. The ambient temperature and heat index, including peak periods of heat exposure from previous history (can be obtained from the National Weather Service)
4. Additional sources of heat, or the use of personal protective equipment, that may increase the body's heat burden

Note: These procedures might not include every workplace scenario, so it is crucial to take into account and evaluate conditions found in job duties or situations possible to cause a heat-related illness.

IV. INITIAL STEPS BEFORE PLAN IMPLEMENTATION

A. Identify the person(s) responsible for the overall program implementation

B. Clarify the role of managers and workers in the program – particular job site task(s) for the supervisors and workers in implementing the program

C. Identify work activities that could potentially expose our workers to these hazards, including in the following areas:

1. Groundskeeping
2. Exterior Maintenance
3. Public Safety
4. Outdoor Course Instructing
5. Any work either outdoors or indoors which causes an employee to be exposed to a heat index at or above 80° F.

D. Create a description of the steps required to carry out each work task to ensure the task can be accomplished safely and successfully, including:

1. Procedures allowing workers time to adapt to the environment
2. Availability nearby of potable drinking water
3. Work/rest regimen
4. Controlled temperature environments for cooling
5. Consideration of outdoor environments where workers perform tasks
    a. Number and size of water containers and shade structures
    b. Distance to their placement
    c. Frequency of water replenishment, water breaks/reminders, weather tracking, etc.

E. The following designated persons have the authority and responsibility for implementing the provisions of the Allegany College of Maryland Heat Safety Plan:

a. Campus Special Police Director
b. Physical Plant Director
c. Direct Area Supervisors

V. THE HEAT SAFETY PLAN

Step 1: Identify Workplace and Personal Risk Factors

The following are **Workplace Risk Factors** for heat-related illness:

- Air temperature above 80°F
- Relative humidity above 40%
- Radiant heat from the sun and other sources, including equipment
- Conductive heat sources, such as dark-colored work surfaces
- Lack of air movement
- Physical effort needed for the work
- Use of nonbreathable protective clothing and other personal protective equipment

The following are **Personal Risk Factors** for heat-related illness:

- Lack of acclimatization to warmer temperatures
- Poor general health
- Dehydration
- Alcohol consumption
- Caffeine consumption
- Previous heat-related illness
- Use of prescription medications that affect the body's water retention or other physiological responses to heat, such as beta-blockers, diuretics, antihistamines, tranquilizers and antipsychotics

Note: Workers are responsible for knowing and educating themselves about their own personal risk factors that may increase their chance of suffering a heat-related illness.

Step 2: Establish Procedures for Monitoring the Heat Index

The National Weather Service (NWS) uses a **Heat Index** (HI) to classify environmental heat into four categories: Caution (80°F – 90°F HI), Extreme Caution (91°F – 103°F HI), Danger (103°F – 124°F HI) and Extreme Danger (126°F or higher HI), issued by the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS). See the NWS webpage.

When the Heat Index is 80°F or higher, the potential for serious occupational heat-related illnesses and injuries become more frequent, especially in workplaces where:

- Unacclimatized workers perform strenuous work (e.g., intense arm and back/lifting work, carrying, shoveling, manual sawing, pushing and pulling heavy loads, and walking at a fast pace)
- Workers do not have easy access to cool water
- Workers do not have easy access to cool/shaded areas when working in direct sunlight or areas where other radiant heat sources are present

The Campus Special Police or their designee will be trained and instructed to check, in advance, the extended weather forecast. Weather forecasts can be checked through the NWS webpage or with the aid of the OSHA – NIOSH Heat Safety Tool (https://www.osha.gov/heat/heat-app) or by visiting the National Weather Service (http://www.nws.noaa.gov/). The work schedule shall be planned in advance, taking into consideration whether high temperatures are expected. This type of advanced planning should take place whenever the temperature is expected to reach 80°F or higher.

- Before each workday, the forecasted temperature and humidity for Cumberland, MD will be reviewed and compared against the National Weather Service **Heat Index** (Appendix A) to evaluate the risk level for heat-related illness.
    - Determination will be made of whether or not workers will be exposed to a temperature and humidity characterized as either "extreme caution" or "extreme danger" for heat-related illnesses. Additional steps, such as those listed below, will be taken to address these hazards.

- Before each workday, the Campus Special Police or their designee will monitor the weather (using the OSHA-NIOSH Heat Safety Tool App, visiting http://www.nws.noaa.gov/ or using a simple thermometer) at the worksite.
    - This critical weather information will be taken into consideration to determine when it will be necessary to make modifications to the work schedule (e.g., rescheduling the job, increasing the number of water and rest breaks).

- A thermometer will be used at the college to monitor for a sudden increase in temperature and to ensure that once the temperature exceeds a Heat Index of 80°F, cooling areas or shade structures will be made available to the workers.
    - **When the Heat Index equals or exceeds 90°F**, high-heat procedures, will be implemented.

In addition to the procedures above, the employer will ensure Heat Index monitoring using the following procedures:

1. A morning email will be sent from the Campus Special Police to applicable managers on days where the heat index is expected to reach 80° or higher

Step 3: Procedures for the Provision of Water

- Potable (drinking) water will be available on site so that at least 32 oz/hour per worker are available at the start of the shift.
    - All workers shall have access to drinking water at all times
    - Water will be fresh, pure, suitably cool and provided to workers free of charge
    - Supervisors will enter a work order for any dispenser not making cool water

- Water bottle refilling stations are located in all buildings on campus, as such, these will be utilized by all workers covered under this Heat Safety Plan to fulfill the water requirements by all employees located at the Cumberland Campus.

- The use of personal refillable water bottles should be highly encouraged. One insulated cup can be provided by the college annually to all employees who are expected to work within a high heat environment at no expense to the employee. These cups are to further facilitate and enable employees to be able to take advantage of the water bottle refilling stations located around campus. The washing of these bottles is the sole responsibility of the employee.

- In the case of the forestry department, when they are located off Campus a water dispenser shall be located as close as practicable to the areas where workers are working to encourage the frequent drinking of water
    - The dispensers will be checked periodically for coolness and working order
    - If worksite factors prevent the water from being placed within a reasonable distance from the workers, bottled water will be made available so workers can have drinking water readily accessible near their work area
        - Individual water containers or bottled water provided to workers will be adequately identified to eliminate the possibility of drinking from a coworker's container or bottle

    - All water dispensers will be kept in a sanitary condition
    - Water from non-approved or non-tested water sources (e.g., untested wells) is not acceptable
    - If hoses or connections are used, they must be approved for potable drinking water systems, as shown on the manufacturer's label
    - The use of personal refillable water bottles should be highly encouraged. All positions which are expected to work outdoors in high heat conditions will be provided with an insulated reusable water bottle (see above).

- If working outdoors, workers will be informed of the location of the water and of the importance of drinking water frequently

- When the Heat Index exceeds, or is expected to exceed, 90°F, a brief "toolbox" meeting from the supervisor will be held with workers daily to review the importance of drinking water, the number and schedule of water and rest breaks, and the signs and symptoms of heat-related illness

- Supervisors will lead by example and remind workers throughout their shifts to drink water

Note: Workers shall be reminded to utilize the "buddy system" knowing the signs and symptoms of heat-related illness and keeping a watch on coworkers. Any worker noticed to be showing any signs of heat-related illness shall be reported immediately to the supervisor.

Step 4: Procedures for Access to Cooling Areas or Shade

- Workers located on the Cumberland Campus are never far from buildings which are equipped with functioning AC equipment. Cool down breaks in these air-conditioned areas will be available at any time that an employee should need to take a break.

- When the Heat Index is below 80°F, access to air-conditioned areas will be provided, when requested by any worker

- Workers will be informed of the location of the cooling areas or shade structures and will be encouraged to take a five-minute cool-down rest as needed
    - A worker who takes a preventative cool-down rest break will be monitored and asked if they are experiencing symptoms of heat-related illness
    - In no case will the worker be ordered back to work until signs or symptoms of heat-related illness have abated (see the section on Emergency Response for additional information)

- As outdoor crews move, on the Cumberland Campus they are never far from a building which has air conditioning and can be used for cool down rest breaks. The Forestry Department has readily available access to shaded areas as they are working in forested areas. These shaded areas can be utilized for cool down rest breaks

- All workers on a recovery or rest break, or a meal period, will have full access to shade or air conditioning so they can sit in a normal posture without having to be in physical contact with each other

In addition to the procedures above, the employer will ensure access to cooling areas or shade using the following procedures:

2. If access to shade or a cooling area is demonstrably infeasible or unsafe, the college will implement alternative cooling methods (i.e., water cooled towels, misting equipment)

Note: The interior of a vehicle may not be used to provide cooling areas or shade unless the vehicle is air-conditioned, and the air conditioner is on.

Step 5: High Heat Procedures

High Heat Procedures, which are additional preventive measures the college will use when the Heat Index equals or exceeds 90°F, include:

- Effective communication by voice, direct observation, mandatory buddy system, or electronic means will be maintained so workers at the worksite can contact a supervisor when necessary

- Frequent communication will be maintained with workers working by themselves or in smaller groups (via phone or two-way radio), to be on the lookout for possible symptoms of heat-related illness
    - The worker(s) will be contacted regularly and as frequently as possible throughout the day since a worker in distress may not be able to summon help on their own

- Effective communication and direct observation for alertness and signs and symptoms of heat-related illness will be conducted frequently
    - When the supervisor is not available, a designated alternate responsible person must be assigned to look out for signs and symptoms of heat-related illness
    - If a supervisor, designated observer or any worker reports any signs or symptoms of heat-related illness in any worker, the supervisor or designated person will take immediate action commensurate with the severity of the illness (see Emergency Response Procedures)

- Workers will be reminded constantly throughout the work shift to drink plenty of water and take preventative cool-down rest breaks when needed

- Pre-shift meetings will be held before the commencement of work to review the high heat procedures, encourage workers to drink plenty of water and remind workers of their right to take a cool-down rest when necessary – the number of water breaks will be increased

In addition to the High Heat Procedures listed above, the following High Heat Procedures apply to outdoor work sites and landscaping:

- Employees exposed to a heat index in the work area above 90 and below 100 degrees Fahrenheit during work activities shall receive a cooldown rest period of at least 10 minutes every 2 hours
    - Once the temperature equals or exceeds the 90°F Heat Index, records should be kept documenting the fact that mandatory cool-down rest periods have been provided and taken
    - All workers will be **required** to take the cool-down rest periods – merely offering the opportunity for a break is not enough

- Employees exposed to a heat index in the work area above 100 degrees Fahrenheit during work activities shall receive a cooldown rest period of at least 15 minutes for every hour worked

Step 6: Procedures for Acclimatization

Acclimatization is the temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. In more common terms, the worker's body needs time to adapt when:

- Starting a new job that exposes the worker to heat which the worker's body hasn't yet adjusted
- Temperatures rise suddenly
- A worker works at the same level when a heat wave or heat spike strikes

Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. Employers are responsible for the working conditions of their workers, and they must implement additional protective measures when conditions result in sudden exposure to heat that their workers are not accustomed to.

- The Heat Index will be monitored daily – the supervisor will be on the lookout for heat waves, heat spikes or temperatures to which workers haven't been exposed to for several weeks or longer

- New workers and those who return to work after 7 or more consecutive days of absence to a high-heat area will be closely observed by the supervisor or designee **for the first 14 days**
    - The intensity of the work will be lessened during a two-week acclimatization period by using procedures, such as scheduling slower-paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early morning or evening)
    - Steps taken to lessen the intensity of the workload for new workers should be documented

- The supervisor or designee will be extra vigilant with new workers and stay alert to the presence of heat-related symptoms

- New workers will be assigned a "buddy," or experienced coworker, so they can watch each other closely for discomfort or symptoms of heat-related illness

- All workers will be observed closely (or maintain frequent communication via phone or radio) for possible symptoms of heat-related illness

- Workers and supervisors will be trained on the importance of acclimatization, how it is developed and how these company procedures address it

In addition to the procedures above, the employer will ensure worker acclimatization is accomplished with the following procedures:

1. Begin acclimatization employees at 50% of their work load, increase by 10% each day until 100% is reached
2. Evaluate the need of personal protective equipment, if excess heat burden is expected reschedule activities to a cooler part of the day

Step 7: Procedures for Emergency Response

- Resources need to be onsite to provide first aid, i.e., cool or ice packs to the distressed awaiting arrival of EMS

- At remote locations, the supervisor will designate a competent person to implement this plan and summon emergency services

- When workers are working outdoors or at a location other than their primary work address, the workers will be provided the address of the site allowing them to give clear and precise directions to the worksite to avoid a delay of emergency medical services

- All supervisors will carry cell phones or other means of communication to ensure emergency medical services can be called

- When any worker shows symptom(s) of possible heat-related illness, emergency medical services will be called, and steps will immediately be taken to keep the stricken worker cool and comfortable to prevent the progression to a more serious illness – under no circumstances will the affected worker be left unattended

- During a heat wave, heat spike or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing

- Workers and supervisors will be trained on every detail of these written Procedures for Emergency Response

In addition to the procedures above, the employer will ensure emergency response with the following procedures:

1. If on campus after notifying 911 immediately notify Campus Security with the location at 301-784-5555 or extension 5555 if calling from a campus phone
2. Contact the immediate supervisor via radio or cell phone
3. The effected employee should be moved into a shaded or cooled area if possible

Step 8: Procedures for Handling a Sick Worker

- When a worker displays possible signs or symptoms of early heat-related illness, they will be moved into the shade and given cool water to drink. A supervisor will be contacted immediately via phone or radio.
    - A sick worker will not be left alone in the shade, as they could take a turn for the worse

- Emergency service providers will be called immediately if a worker displays signs or symptoms of severe heat-related illness – signs or symptoms of severe heat-related illness could include (but are not limited to):
    - Confusion, disorientation or decreased level of consciousness
    - Excess sweating, and a red and hot face
    - Staggering, irrational behavior or incoherent speech
    - Convulsions, vomiting
    - Does not look okay, or does not get better after drinking cool water and resting in the shade

- While the ambulance is in route, first aid will be initiated (i.e., cool the worker by placing the worker in the shade, removing excess layers of clothing, placing ice packs in the armpits and groin area, and fan the victim)

- **Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital**

In addition to the procedures above, the employer will ensure sick workers are attended to with the following procedures:

1. Use of air-conditioned area to rest
2. Call 911

Step 9: Procedures for Worker and Supervisor Training

To be effective, training must be understood by workers. It must be given in a language and vocabulary the workers understand. Training records will be maintained and include the date of the training, who performed the training, who attended the training and the subject(s) covered.

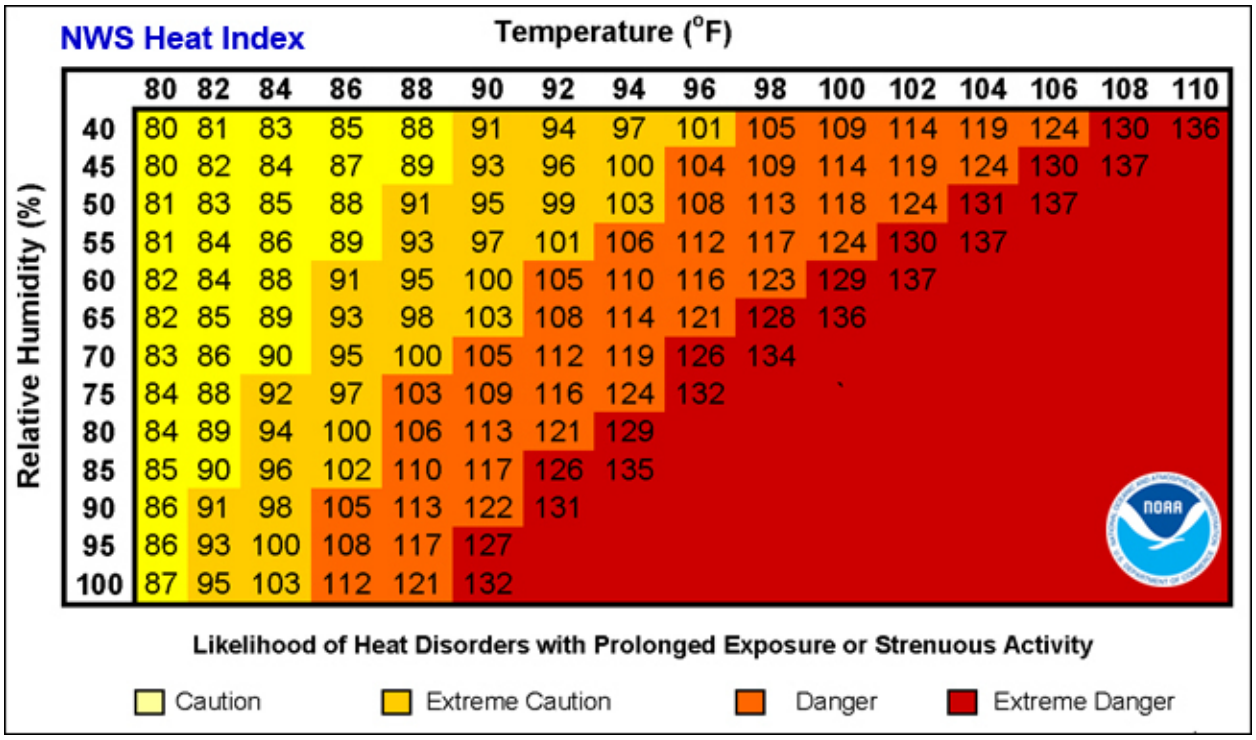
- **All workers and supervisors will be trained before working outside –** training will include all aspects of implementing an effective Heat-Related Illness Prevention Plan, including providing sufficient water, providing access to shade, high-heat procedures, emergency response procedures and acclimatization procedures contained in the company's written plan
    - Workers and supervisors will also be trained on the environmental and personal risk factors of heat-related illness and the importance of immediately reporting signs and symptoms of heat-related illness

- In addition to initial training, workers will be retrained annually

- Workers will be trained on the steps for contacting emergency medical services, including:
    - How clear and precise directions to the site will be provided
    - The importance of making visual contact with emergency responders at the nearest road or landmark to direct them to the affected employee

- Reminders:
    - When the temperature is expected to exceed 80°F, short meetings will be held to review the weather report, reinforce heat-related illness prevention with all workers, provide reminders to drink water frequently, inform them that cooling areas/shade will be available, and remind them to be on the lookout for the signs and symptoms of heat-related illness
    - New workers will be assigned a "buddy," or experienced coworker, to ensure they understand the training and follow company procedures

Appendix A – Heat Index Chart



Appendix B — Description of Serious Heat-Related Illnesses and Common Symptoms

The table below describes serious heat-related illnesses and common signs and symptoms. Please note this list is not exhaustive.

Illness Type	Symptoms and Signs
Heat stroke	• Confusion • Slurred speech • Unconsciousness • Seizures • Heavy sweating or hot, dry skin • Very high body temperature • Rapid heart rate
Heat exhaustion	• Fatigue • Irritability • Thirst • Nausea or vomiting • Dizziness or lightheadedness • Heavy sweating • Elevated body temperature or fast heart rate
Heat cramps	• Muscle spasms or pain • Usually in legs, arms or trunk
Heat syncope	• Fainting • Dizziness
Heat rash	• Clusters of red bumps on the skin • Often appears on the neck, upper chest and skin folds
Rhabdomyolysis (muscle breakdown)	• Muscle pain • Dark urine or reduced urine output • Weakness
Acute kidney injury (AKI)	• Kidneys become damaged due to inadequate blood flow or a second mechanism is rhabdomyolysis of kidney muscle tissue • Diagnosed by elevated blood creatinine levels, urine output is also reduced • May lead to kidney failure