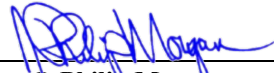
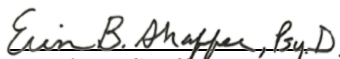







DEPARTMENT DIRECTIVE


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Title: Prevention of Heat-Related Illness and Injury During Exposure to Heat and Hot Environments	Directive Number: DPSCS.055.0013
Related MD Statute/Regulations: 29 USC 654, OSHA 29 CFR 1910 COMAR 09.12.32 - Heat Stress Standards	Supersedes: N/A Approved By: <div style="text-align: center;">  Jessica Dempsey, PhD, MSN, RN Director of Nursing Occupational Health and Safety </div>
Related Standards: ACA: 5-ACI-2D-10; 5-ACI-5D-02 1-CORE-1A-01;1-CORE-1A-05 NIOSH Publication No. 2016-106 https://www.cdc.gov/niosh/docs/2016-106/ NIOSH Publication No.86 113 https://www.cdc.gov/niosh/docket/archive/dockert266.html https://www.cdc.gov/niosh/heat-stress/about/illnesses.html	
Related Directives: DPDS.100.0007 – Heat Stratification Clinical Services & Inmate Health Medical Evaluations Manual OPS.110.0024 - Emergency Operations Plan	Issued Date: June 16, 2025 Effective Date: July 1, 2025
Variance: Each facility shall develop a Heat Illness Prevention Plan under the facility Directive number XXXX.055.0013	Number of Pages: 18

.01 Purpose.

The purpose is to establish minimum requirements for the Department of Public Safety and Correctional Services (Department) to protect employees from heat-related illness or injury caused by heat stress in the workplace in accordance with [COMAR 09.12.32](#).

.02 Scope.

This directive applies to all Departmental employees subject to working conditions in an environment with a heat index of 80 degrees Fahrenheit or higher.

.03 Policy.

- A. The Department is committed to providing all individuals conducting business at the Department facilities and grounds with a safe and hazard-free environment.
- B. The Department shall take steps to prevent and respond to occupational exposure of heat and hot environments by providing:
 - (1) Educational training to the Department's employees;
 - (2) Adequate hydration, shade, and rest periods to cool down from exposure to high-heat; and
 - (3) Access to medical care in response to heat induced medical situations.
- C. If a correctional facility's Heating, Ventilation, and Air Conditioning (HVAC) system is not able to maintain a work area at a heat index below 80 degrees, the *Heat Illness/Injury Prevention Plan* (HIIPP) (Appendix A) shall be put into effect.
- D. All Department correctional facilities and Department offices shall have a written HIIPP which shall be available to employees.
 - (1) The HIIPP shall include procedures for managing heat hazards including monitoring control measures and emergency response.
 - (2) The Department shall require each correctional facility to initiate and maintain a HIIPP utilizing Appendix A of this directive.

.04 Definitions.

- A. In this directive, the following terms have the meanings indicated.
- B. Terms Defined.
 - (1) "Acclimatization" means the body's temporary adaptation to work in heat that occurs as a person is exposed over time.
 - (2) "Cooling sources" are devices, equipment, or environmental controls used to reduce body temperature and prevent heat-related illnesses among workers exposed to high-heat environments. According to OSHA and CDC guidelines, these sources may include, but are not limited to:
 - (a) Air-conditioned and climate-controlled rest areas;

- (b) Shaded areas and cooling shelters;
 - (c) Cooling fans and ventilation systems;
 - (d) Misting stations and cooling showers;
 - (e) Cold packs, cold towels, cooling vests, and other personal cooling devices; and
 - (f) Access to cool drinking water and electrolyte-replenishing beverages.
- (3) “Correctional facility” has the meaning stated in Correctional Services Article, §1-101, Annotated Code of Maryland: ‘Correctional facility’ means a facility that is operated for the purpose of detaining or confining adults who are charged with or found guilty of a crime.
- (4) “Corrective action plan” means a documented strategy used to:
- (a) Identify and define the issues that needs to be addressed with the HIIPP or the plan’s implementation;
 - (b) Address and resolve issues of non-compliance with or failure of a HIIPP; and
 - (c) Establish a continuous improvement process for the HIIPP.
- (5) “Director” means the Director of Parole and Probation.
- (6) “Drinking Water” means potable water at no cost to the employee, that is safe to drink and cool in temperature.
- (7) “Employee” means an individual employed by the Department, including an intern or paid worker, whose work within the Department is controlled by the Department, including but not limited to:
- (a) When, where, and how the individual performs a job;
 - (b) What resources, tools, materials, and equipment are made available; and
 - (c) Whether compensation or a benefit is conferred based on job performance (e.g. academic credit, stipend, future employment).
- (8) Environmental Monitoring.
- (a) “Environmental monitoring” means a systematic process of observing, assessing, and collecting data about the environment to track changes and potential impacts of human activities.

- (b) “Environmental monitoring” involves analyzing factors that contribute to heat stress, such as temperature, humidity, wind speed, and radiant heat.
- (9) “Heat illness/injury” means a symptom or medical condition that results from heat stress and high-heat exposure.
- (10) “Heat Illness/Injury Prevention Plan (HIIPP)” means a written and published plan, based on a Department approved template that outlines a correctional facility’s implementation of Occupational Safety and Health Association’s (OSHA’s) core heat safety prevention measures, which emphasize water, rest, and shade as fundamental elements of protection.
- (11) “Heat index” means a measure of how hot it feels when relative humidity is taken into account along with the actual air temperature, which can be extrapolated from temperature and relative humidity using the National Weather Service Heat Index Calculator.
- (12) “Heat stress” means physiological stress experienced as a result of excessive heat exposure.
- (13) “Heat stress index” means the relation of the amount of evaporation (or perspiration) required as related to the maximum ability of the average person to perspire.
- (14) “Heat stress prevention practices” means appropriate precautionary and preventative measures that quickly remedy heat stress issues such as cramps, dizziness, confusion, headache, as well as other signs and symptoms when or before they arise.
- (15) Hot environment.
 - (a) “Hot environment” means a physical work location where an individual’s rate of "heat gain" is more than the individual’s rate of "heat loss" and the individual’s body temperature begins to rise above normal.
 - (b) “Hot environment” includes locations inside a building or outdoors where rising temperatures in combination with rising humidity can increase the likelihood of heat stress or a heat related illness/injury.
- (16) “Hydration” means the replacement of body fluids lost through sweating, exhaling, and eliminating waste.
- (17) “Managing Official” has the meaning stated in the Correctional Services Article, §1-101, Annotated Code of Maryland, which includes an administrator, a director, a

warden, a superintendent, or other individual responsible for the management of a correctional or detention facility.

(18) “Office” means any property owned and maintained by the State of Maryland where Department employees report to work.

(19) Rest.

(a) “Rest” means a dedicated period of time spent in a work area where an employee has access to cooling sources and recover from heat exposure.

(b) “Rest” may include performing work in a shaded or climate-controlled area.

(20) Shade.

(a) “Shade” means blockage of direct sunlight, provided in areas safe for the employee to perform assigned duties.

(b) “Shade” must also:

(i) Be outside, open, and exposed to air on at least three sides;

(ii) Prevent contributing heat sources from reducing effectiveness;

(iii) Be sufficiently sized for the number of employees utilizing the shaded area;

(iv) Be arranged in a configuration that allows employees to sit in normal posture; and

(v) Accommodate the removal and storage of personal protective equipment during periods of use.

.05 Responsibilities.

A. DPSCS Exposure Prevention to Heat and Hot Environments Committee.

(1) The Department shall maintain a Heat and Hot Environment Committee (HHEC) to address the unique requirements of the Department’s employees who are required to work in hot environments. The HHEC shall be chaired by the Director of Occupational Health and Safety, who shall appoint and/or assign the appropriate committee members.

(2) The committee consists of, at a minimum, the following individuals:

(a) Director of Occupational Health and Safety Unit or designee;

- (b) Director of Capital Construction and Facility Maintenance or designee;
 - (c) Director of Security Operations or designee; and
 - (d) Highest ranking Environmental Compliance and Safety Officer (ECSO) Program representative.
- (3) The HHEC shall be responsible for:
- (a) Development and maintenance of Department Directive DPSCS.055.0013; and
 - (b) Annual review and updates to DPSCS.055.0013 prior to the first exposure of heat.

B. Occupational Health and Safety Unit (OHSU).

- (1) The OHSU shall be responsible for:
- (a) Providing consultation to the Environmental, Compliance, and Safety Officer Program;
 - (b) Aligning CDC, OSHA, MDL, MOSH, and NIOSH updates and related educational materials among occupational health procedures and practices across the Department and in all correctional facilities; and
 - (c) Consulting with the facility based ECSO regarding post-exposure reports within the work related injury/illness claim process.

C. Division of Capital Construction and Facility Maintenance Coordinator (DCCFM).

- (1) The Director of the DCCFM or the Director's designee shall be responsible for:
- (a) Preventing and responding to occupational exposure of heat and hot environments through the effective and efficient management of:
 - (i) Regular maintenance, to include but not limited to, flushing, filter maintenance, plumbing services, and repair of existing infrastructure and equipment;
 - (ii) Emergency maintenance and repair of existing infrastructure and equipment;
 - (iii) Preventative incidental inspection of equipment and infrastructure;
 - (iv) Construction and installation of any new infrastructure and equipment to include design-build construction; and

- (v) Regular testing of each facility's water supply by a certified Maryland Department of the Environment vendor, to include testing the potability of water at water fountains; and
- (b) Providing regular and ongoing updates to the HHEC regarding their responsibilities within this directive.

D. Director of Security Operations.

- (1) The Director of Security Operations, in coordination with their Emergency Operations Coordinator (EOC) and other designated employees within the Security Operations Unit shall work cooperatively with the OSHU and DCCFM to ensure heat illness/injury prevention measures are appropriately planned for and implemented.
- (2) The EOC or designated employee within the Security Operations Unit shall be responsible for:
 - (a) Department-based communications/alerts regarding initiating the HIIPP; and
 - (b) Emergency management and mobilization of necessary supplies to include but not be limited to:
 - (i) Drinking water, and
 - (ii) Shade providing structures, and
 - (iii) Cooling sources.

E. Environmental Compliance and Safety Officer Program Coordinator (ECSO).

- (1) The ECSO Program Coordinator or highest ranking employee within the ECSO Program shall be responsible for:
 - (a) Conducting an annual review of each DPSCS office's and correctional facility's HIIPP;
 - (b) Identifying areas for improvement and communicating those recommendations to the HHEC; and
 - (c) Advising the Managing Official to make the requested recommendations to ensure compliance with DPSCS.055.0013.
- (2) The ECSO Program Coordinator shall:

- (a) Distribute educational materials before first exposure to heat to the facility-based ECSO; and
- (b) Monitor and evaluate facility compliance with preventative measures that avert heat stress and heat-related illness/injury by:
 - (i) Reviewing post-exposure employee reports requiring medical treatment through injury/illness claims; and
 - (ii) Reviewing corrective action plans related to heat stress and heat-related illness/injury.

F. Appointing Authority.

- (1) An appointing authority or a designee, is responsible for:
 - (a) Development, implementation, and maintenance of a facility/office HIIPP; and
 - (b) Ensuring that the HIIPP addresses, at minimum, the following topics:
 - (i) Heat acclimatization;
 - (ii) Environmental monitoring;
 - (iii) Providing drinking water;
 - (iv) Providing shade access;
 - (v) High-heat procedures;
 - (vi) Emergency response procedures; and
 - (vii) Training.
- (2) An appointing authority or designee, is responsible for:
 - (a) Ensuring a facility's overall compliance with the prevention and response to heat stress, heat-related illness/injury, and hot environment requirements; and
 - (b) Developing and implementing any required corrective action plan.
- (3) If an appointing authority is not able to maintain compliance with the facility's/office's HIIPP when the heat index is at or above 80 degrees, the Appointing Authority shall initiate emergency operations.

.06 Procedures.

A. Heat Acclimatization.

- (1) Heat Acclimatization Schedule.
 - (a) A facility's acclimatization schedule shall be in writing, readily available to employees, and consider the following elements:
 - (i) Acclimated and unacclimated employees;
 - (ii) Environmental conditions and anticipated workload;
 - (iii) The impact and heat burden on employees who are required to wear personal protective equipment, and clothing that is heavy, multi-layered, non-breathable, and/or impermeable;
 - (iv) Personal and health risk factor that put an employee at a higher risk of heat-related illness/injury;
 - (v) Use of environmental cooling controls during the acclimatization process; and
 - (vi) Re-acclimatizing employees as necessary, in accordance with §.06A(2) of this directive.
 - (b) A facility's heat acclimatization schedule shall comply with one of the following:
 - (i) A schedule that gradually increases exposure time over a 5—14-day period, with a maximum 20 percent increase each day;
 - (ii) A schedule that uses the current National Institute for Occupational Safety and Health's recommendations for acclimatization; or
 - (iii) A schedule that uses a combination of gradual introduction and alternative cooling and control measures that acclimate an employee to the heat.
- (2) A supervisor of an employee assigned to work in a hot environment shall:
 - (a) Ensure that heat acclimatization or reacclimatization procedures are obeyed for a period of up to 14 days including when an employee:
 - (i) Is newly exposed to heat in the workplace; or

- (ii) Returns to work after 7 or more consecutive days of absence from the workplace;
- (b) Monitor employees during the acclimatization period for signs of heat-related illness/injury through regular communication via:
 - (i) Phone or radio;
 - (ii) Buddy System; or
 - (iii) Other effective means of observation.

B. Environmental Controls and Facility Maintenance.

- (1) Each facility shall collaborate with the Division of Capital Construction and Facility Maintenance (DCCFM) to:
 - (a) Implement engineering controls (e.g. cooling sources, shade creating mechanism, water dispenser, etc.) and;
 - (b) Ensure that the implemented engineering controls produce intended results (e.g. cooler environments, shaded area, and adequate amounts of drinking water).
- (2) A facility-based ECSO shall collaborate with the appointing authority, or the appointing authority's designee, and DCCFM to:
 - (a) Develop and implement the facility's HIIPP;
 - (b) Distribute educational materials to facility supervisors before first exposure to heat;
 - (c) Ensure facility supervisors are providing employees with educational materials at:
 - (i) Roll call; or
 - (ii) Unit staff meetings;
 - (d) Identify hot environment locations within the facility where heat stressors could occur;
 - (e) Allocate appropriate supplies to those employees in the identified hot environment locations; and
 - (f) Monitor the facility's HIIPP compliance by:

- (i) Reviewing post-exposure employee reports requiring medical treatment through IWIF injury/illness claims; and
- (ii) Creating a corrective action plan related to incidents of employee heat-related illness/injury.

C. Environmental Monitoring.

- (1) The Heat Stress Index (Appendix B) indicates when prevention practices are needed.
- (2) The individual(s) designated on the HIIPP shall:
 - (a) Monitor the heat index to determine if the HIIPP practices need to be implemented; and
 - (b) When appropriate, implement HIIPP practices at designated locations.
- (3) Heat Index Calculation and Monitoring.
 - (a) The heat index can be measured in one of three ways:
 - (i) The direct measurement of temperature and humidity at the same time and location in the areas where employees perform work;
 - (ii) Use of local weather data reported by the National Weather Service or other recognized source to determine heat index; or
 - (iii) Use of the National Institute for Occupational Safety and Health's Heat Safety (NIOSH) Tool application to determine the heat index.
 - (b) When the heat index is equal to or greater than 80° F, designated staff shall:
 - (i) Implement the "Heat Illness/Injury Prevention Plan" procedures identified in the facility's HIIPP;
 - (ii) Continue monitoring the index throughout the work shift using one of the measurement methods identified in §.06C(4)(a);
 - (c) When the heat index reaches or exceeds 90 °F in an area work is being performed, designated staff shall:
 - (i) Implement the subsequent "High-Heat" procedures identified in the HIIPP; and

- (ii) Continue monitoring the index throughout the work shift using one of the measurement methods identified in §.06C(4)(a).

D. Heat-Related Illness/Injury Prevention Procedures.

- (1) The supervisor of an employee assigned to work in a hot environment shall ensure that HIIPP practices have been implemented.
- (2) In accordance with the facility's HIIPP, heat-related illness/injury prevention measures shall include, but are not limited to the provisioning of:
 - (a) Cool drinking water;
 - (b) Access to shade if working outside; and
 - (c) Scheduled work and rest cycles.
- (3) **Water.** A supervisor shall provide at least 32 ounces of drinking water per hour to each exposed employee per work day, at no cost to the employee, as close to the work areas as practicable, and available at all times when work is being performed.
- (4) **Shade.** A supervisor shall encourage utilization of shade. If a shaded area is not feasible in the work space, the employer can implement alternative cooling and control measures that provide equivalent protection to shade.
- (5) **Rest.** A supervisor shall schedule rest cycles, to provide employees with adequate recovery time when the heat index is at or above 90 degrees.
- (6) When an employee demonstrates signs and/or symptoms of heat-related illness/injury the supervisor shall require the employee to rest and encourage the employee to drink water.

E. High-Heat Procedures.

- (1) In order to protect employees from heat-related illness/injury, a supervisor shall implement a work and rest schedule that is adjusted for environmental conditions, workload, and the impact of required clothing or personal protective equipment.
- (2) A supervisor may not discourage employees from taking rest periods as needed to prevent heat-related illness/injury.
- (3) A "high-heat" work and rest schedule shall provide relief to employees exposed to high heat conditions, including:

- (a) A minimum rest period of:
 - (i) 10 minutes for every 2 hours worked where employees are exposed to a heat index above 90 and below 100 degrees Fahrenheit; and
 - (ii) 15 minutes for every hour worked where employees are exposed to a heat index at or above 100 degrees Fahrenheit; or
 - (b) A rest period as provided for in the current National Institute for Occupational Safety and Health recommendations for work and rest schedules to manage heat exposures (Appendix C).
- (4) A “high-heat” rest schedule may:
- (a) Coincide with a scheduled break or meal period; and
 - (b) Include a rotation to a post that has access to cooling sources.
- (5) While high heat procedures are in place, all employees shall monitor themselves and others for signs and symptoms of heat-related illness/injury (Appendix D) with regular communication via:
- (i) Phone or radio;
 - (ii) Buddy system; or
 - (iii) Other effective means of observation.
- (6) A supervisor shall be informed of and recognize the signs and symptoms of heat-related illness or injury to include:
- (a) Early symptoms:
 - (i) Fatigue;
 - (ii) Heavy sweating;
 - (iii) Headache;
 - (iv) Cramps;
 - (v) Dizziness;
 - (vi) High pulse rate; and/or

- (vii) Nausea/vomiting; and
- (b) Critical symptoms:
 - (i) High body temperature;
 - (ii) Red, hot, or dry skin;
 - (iii) Confusion;
 - (iv) Convulsions; and/or
 - (v) Fainting.
- (7) The supervisor shall:
 - (a) Ensure that an employee affected by an early symptom of a heat-related illness or injury is provided with:
 - (i) Water and rest with a cessation of work; and
 - (ii) Other interventions (Appendix E) as the supervisor's training and experience deems necessary; and
 - (b) Direct the employee to:
 - (i) Return to work upon recovery; or
 - (ii) Be medically evaluated if the employee is not able to return to the employee's assigned post.
- (8) The supervisor shall ensure that an employee affected by critical symptoms of heat-related illness or injury shall be:
 - (a) Medically evaluated;
 - (b) Other interventions (Appendix E) as the supervisors training and experience deems necessary; and
 - (c) Cleared to return to work by a medical professional.
- (9) The supervisor shall complete Injury/Illness Reporting forms for Risk Management and Injured Workers Compensation (IWIF) for any employee reported with critical symptoms and any employee with early symptoms even if they are declining all medical care.

F. Employees with Occupational Exposure to Heat.

- (1) Employees who are at risk of an exposure to heat are identified as employees working in areas where heat index is equal to or greater than 80° F.
- (2) Employees who are at risk of an exposure to high-heat shall:
 - (a) Be trained to recognize the signs and symptoms of heat stress or heat-related illness/injury, by In-service training, Academy training, or facility-based training;
 - (b) Adhere to work and rest cycles;
 - (c) Be encouraged to hydrate; and
 - (d) Be encouraged to access cooling sources and/or shaded locations.
- (3) Employees with signs and symptoms of heat stress or heat-related illness/injury shall:
 - (a) Immediately notify a supervisor and the supervisor shall make arrangements for the affected employee to be removed from the heat;
 - (b) Implement heat stress interventions, such as drinking water, ice packs, and air conditioning; and
 - (c) Seek medical care if needed.
- (4) If an employee seeks medical attention, the employee and supervisor shall complete the IWIF Injury/Illness reporting forms.

G. Corrective Action Plan.

- (1) An appointing authority or designee shall create and implement a corrective action plan when notified that:
 - (a) An employee develops a heat-related injury/illness; or
 - (b) A HIIPP implementation is incomplete, not initiated, not maintained, or fails.
- (2) If HIIPP practices have not been implemented in a specific hot environment or post, the supervisor shall immediately notify the Shift Commander.
 - (a) The Shift Commander shall immediately notify the Managing Official that implementation of the HIIPP:

- (i) Was not initiated;
 - (ii) Has not been maintained; or
 - (iii) Failed due to a structural or system failure (e.g., HVAC system failure, water fountain corrosion).
- (b) The Managing Official shall:
 - (i) Initiate emergency procedures and direct resources within the facility to enact the HIIPP; and
 - (ii) Develop and document a strategy in the form of a corrective action plan to ensure that HIIPP practices are properly implemented and/or maintained in the future.
- (3) A Managing Official's corrective action plan shall, at minimum:
 - (a) Be completed within 72 hours of notification of the event.
 - (b) Identify the problem. A corrective action plan starts by clearly defining the specific issue that needs to be addressed within the HIIPP. This could be anything from a lack of sufficient access to shade and water, to an inadequate training program on heat-related illness/injury recognition and first aid.
 - (c) Determine the root cause. It goes beyond simply fixing the symptom and focuses on finding the underlying cause of the problem to prevent it from happening again.
 - (d) Outlines steps for resolution. The plan specifies the exact steps that will be taken to correct the issue, including responsible parties, timelines, and resources needed.
 - (e) Ensures compliance and continuous improvement. It helps the Department meet safety regulations and demonstrate a commitment to worker well-being, leading to ongoing improvements in heat-related illness/injury prevention measures.
 - (f) Maintain a record of the corrective action plan for 6 months from the date of the event, unless another departmental record retention schedule requires a longer duration.

H. Training Requirements.

- (1) The Public Safety Education and Training Center (PSETC) shall provide the following training to Department employees:

- (a) Initial heat stress training to employees and supervisors covered by this directive prior to an employee's first exposure to heat;
 - (b) Re-train employees and supervisors at least:
 - (i) Annually prior to exposure (In-service training); and
 - (ii) Immediately following any incident with affected staff at the worksite involving a suspected or confirmed heat-related illness/injury;
 - (c) PSETC shall ensure that training includes at least:
 - (d) Information about the work and environmental conditions that affect heat-related illness/injury;
 - (e) The personal risk factors that affect heat-related illness/injury;
 - (f) The concept, importance, and methods of acclimatization;
 - (g) The importance of frequent consumption of water and rest periods in preventing heat-related illness/injury;
 - (h) The types of heat-related illness, signs and symptoms of heat-related illness/injury, and the appropriate first aid and emergency response measures;
 - (i) The importance of and procedures for employees immediately reporting to the employer signs and symptoms of heat-related illness/injury; and
 - (j) The Department's procedures and the requirements for complying with this directive.
- (2) PSETC shall maintain training records for three years or per departmental standards whichever is greater from the date on which the training occurred.
 - (3) The training records required by this directive include:
 - (a) The names of the persons trained;
 - (b) The dates of the training sessions; and
 - (c) A summary or outline of the content of the training sessions.
 - (4) PSETC shall make the training records available to MOSH upon request.

.07 Appendix.

- A. DPSCS HIIPP Template
- B. NWS Heat Stress Index
- C. NIOSH Work Schedules Fact Sheet, Work/Rest Schedules
- D. CDC - Signs and Symptoms of Heat Illness and Injury
- E. First Aid for Heat Illness – CDC/NIOSH

.08 Revision History.

- A. This directive shall supersede any other Department policy with which it is in conflict.

.09 Distribution.

A, C, D