

Aviation	AVN0106-MAT
HEAT ILLNESS & INJURY PREVENTION	Effective Date: 05/01/2026 Revision Date: 4/1/2026

AVIATION DEPARTMENT HEAT ILLNESS & INJURY PREVENTION PROGRAM

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1. OVERVIEW

- A.** The City of Phoenix Aviation Department Heat Illness and Injury Prevention Program is intended to provide for worker safety by establishing requirements, responsibilities, and procedures to prevent or minimize employee exposure to heat hazards that may lead to serious illnesses, injuries, or death. The Aviation Department will follow the components of this Heat Illness and Injury Prevention Plan:
 1. During the heat season from May 1 – September 30
 2. When there is a heat advisory or heat warning issued by the National Weather Service that occurs outside of the heat season time period
 3. When significant heat is generated through equipment, machinery, or processes in indoor or outdoor work settings.
 4. The following workplaces and operations are exempt from the requirements of this HIIPP
 - a. Incidental heat exposures where an employee is not required to perform work activities in heat for more than 15 minutes in any sixty-minute period.
 - b. All emergency operations that are directly involved in the protection of life or property, or the restoration of essential services, such as evacuation, rescue, medical, structural firefighting, law enforcement, utilities, and communications, when employees are engaged in those operations.
 - c. Buildings and structures that have a mechanical ventilation system that keep the heat index below 80 degrees Fahrenheit.
- B.** The Aviation Department Heat Illness and Injury Prevention Program complies with OSHA regulations under the General Duty Clause, section 5(a)(1) of the Occupational Safety and Health Act of 1970, and Arizona Division of Occupational Safety and Health (ADOSH) Heat Stress State Emphasis Program standards. Additionally, this safety program aligns with industry standard best practices. The minimum expectation is for all applicable work performed to comply with the Department's Heat Illness and Injury Prevention Program. Other City of Phoenix Department employees, contractors, and vendors performing work within or for the Department may adhere to their applicable company-specific or internal company policies, provided those policies are, at a minimum, in compliance with OSHA regulations and the ADOSH Heat Stress State Emphasis Program and do not conflict with Aviation Department requirements.
- C.** This program establishes general requirements for:
 1. Worker knowledge and awareness of hazards associated with work in high heat conditions and applicable hazard control measures
 2. Compliance with City Administrative Regulation A.R. 2.31(B)- Heat Illness and Injury Prevention Program
 3. Safe practices that encourage early intervention to prevent heat-related illnesses and injury
 4. Completion of required training in accordance with any work assignment(s) that have potential for exposure to high heat hazards prior to performing the work. (Refer to Training Section if applicable)
 5. Written documentation of applicable safety procedures, including awareness, audits, processes, communication, reporting, training, and recordkeeping.

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6. Questions regarding regulatory requirements and safety controls should be directed to Aviation Safety. Questions regarding operations and program application should be directed to the immediate supervisor and/or department management.

2. DEFINITIONS

- A. **Acclimatization:** the physiological (i.e., physical, mechanical, and biochemical) change that allows the human body to adapt or get used to the effects of a new physical environment or climate. After a period of acclimatization, the same physical activity will produce fewer cardiovascular demands. The person will sweat more efficiently, causing better evaporative cooling, and thus will more easily be able to maintain normal body temperatures.
- B. **Administrative Controls:** Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (i.e., reducing the exposure time frame, rotating duties among a team of employees, policies and procedures prohibiting unsafe actions).
- C. **Engineering Controls:** Controls or physical barriers (i.e., shields, coolers/fans) that isolate or remove the heat hazard from the workplace.
- D. **Heat Stress/Heat-Related Illness:** is a serious medical condition resulting from the body's inability to cope with a particular heat load. It includes heat cramps, heat exhaustion, heat syncope, and heat stroke.
- E. **New Employees:** New, temporary, or existing employees who start new work activities in warm or hot environments, while wearing additional clothing (e.g., chemical protective clothing), or with increased physical activity. New employees include the following:
 1. Employees returning to work environments with potential exposure to heat hazards after an absence of one week or more, for example, returning from any kind of extended leave.
 2. Employees who continue working through seasonal changes when temperatures first begin to increase in the spring or early summer.
 3. Employees who work on days when the weather is significantly warmer than on previous days (i.e., heat wave).
- F. **Personal Protective Equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard (i.e., gloves, N-95 respirator, protective clothing, eye protection, hearing protection, etc.). General work clothes (i.e., uniforms, pants, shirts, or blouses) not intended to function as protection against a hazard are not considered PPE.
- G. **Radiation:** the transfer of heat energy through space. A person whose body temperature is greater than the temperature of the surrounding surfaces radiates heat to these surfaces. Hot surfaces and infrared light sources radiate heat that can increase the body's heat load.
- H. **Sanitized Water:** (This is a term used by the World Health Organization in reference to safe drinking water and the conditions (hygiene and sanitation service levels) of the access location. Safe drinking water is defined as drinking water from an improved source that is accessible at home [or work], available when needed, and free from fecal and priority chemical contamination. Improved source drinking water includes piped building water connection, public standpipe, borehole or tube well, protected dug well, protected spring, rainwater collection, or packaged or delivered water. For the purposes of this written program, this term means potable water designated safe for human consumption.
- I. **Shade:** Any natural or constructed structure that blocks direct sunlight, allowing the body to cool down effectively.

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- J. Strenuous Work:** Examples of strenuous work include but are not limited to intense arm and back/lifting work, carrying, shoveling, manual sawing, pushing and pulling heavy loads, and walking at a fast pace.

3. RESPONSIBILITIES

A. Human Resources Department Safety Team shall:

1. Provide guidance and facilitate compliance with the General Duty Clause, section 5(a)(1) of the Occupational Safety and Health Act of 1970.
2. Facilitate adherence to requirements and safety control measures identified in the Arizona Division of Occupational Safety and Health (ADOSH) Heat Stress State Emphasis Program standards, City of Phoenix A.R. 2.31(B)- Heat Illness and Injury Prevention as well as best-practices in the industry.
3. Review and authorize applicable department Heat Illness and Injury Prevention Programs at least annually.

B. Department Safety Team shall:

1. Maintain, review, and update this Heat Illness and Injury Prevention Program at least annually, and whenever there are changes to operations, equipment, or processes.
2. Develop policies regulating the use of engineering controls, administrative controls, and PPE during potentially hazardous situations.
3. Facilitate or conduct Heat Illness and Injury Prevention training for applicable employees, based on their role.
4. Coordinate exposure assessments to determine employee exposure levels and risks.
5. Conduct periodic inspections/audits at least annually to ensure that applicable safety control measures are being followed and understood. All inspections/audits shall be documented and retained according to required record-keeping standards.
6. Provide assistance to supervisors and employees, or others as necessary, on any questions related to this program.

C. Management shall:

1. Read, understand, and adhere to the requirements of the Department Heat Illness and Injury Prevention Program.
2. Ensure compliance with all elements of the Heat Illness and Injury Prevention Program by managing department execution of the program.
3. Enable all applicable department employees to perform work in compliance with the Department Heat Illness and Injury Prevention Program by providing necessary time, equipment, and resources, and setting the expectation for safety measures to be incorporated into operations.
4. Provide at no cost to employees, items needed to ensure that work is performed in compliance with the Department Heat Illness and Injury Prevention Program, e.g., funding allocated to training, safety controls, PPE, etc.
5. Ensure this written program is posted in English and Spanish on a bulletin board in a breakroom where it is accessible to employees. If a breakroom is not available, this Heat Illness and Injury Prevention Program will be physically placed in a conspicuous location within the workplace where notices to employees are customarily posted.

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6. Ensure employees may not be subjected to retaliation or discrimination in any manner as a result of exercising their employee rights under the Occupational Safety and Health Act of 1970, including reporting an alleged heat safety violation.

D. Supervisor (of applicable employees) shall:

1. Read, understand, and adhere to the requirements of the Department Heat Illness and Injury Prevention Program.
2. Assist with the maintenance, review, and updating of the Department Heat Illness and Injury Prevention Program at least annually and communicate whenever there is a significant change to associated operations, equipment, or processes.
3. Ensure that direct reports (applicable employees) perform work in compliance with the Department Heat Illness and Injury Prevention Program.
4. Allow adequate time for employees to attend training related to the Department Heat Illness and Injury Prevention Program.
5. Respond to operational questions about the Department Heat Illness and Injury Prevention Program that may arise from or direct employees to appropriate resources for response.
6. Conduct periodic inspections/program reviews at least annually to verify that safety control measures are followed in accordance with the Department program and to validate general awareness and understanding of the program expectations.
7. Retain the relevant documentation as per the recordkeeping section of this program (Refer to Recordkeeping Section).
8. Immediately contact the Department Safety Team following an incident and/or if there is any indication that controls are not adequate for the task.
9. Monitor weather conditions at jobsites and adjust work tasks as necessary, encouraging employees to frequently consume water and take periodic rest breaks when working in hot conditions.

E. Employee shall:

1. Read, understand, and adhere to the general requirements established by this written program.
2. Be aware of and understand the hazards when performing work tasks in high heat conditions and the required safety control measures for mitigating those hazards.
3. Shall attend training on Heat Illness and Injury prevention and applicable processes and procedures.
4. Shall utilize appropriate controls to minimize or eliminate exposure to heat stress.
5. Shall report to their supervisor any potential exposure incidents or injuries resulting from working in hot conditions.
6. Shall report any unsafe behaviors or conditions to their supervisor and/or to the Aviation Department Safety Team or HR Safety Team.
7. Shall monitor their own personal risk factors for heat-related illness and take appropriate steps to prevent heat stress.

4. HAZARD IDENTIFICATION

Occupational exposure to heat can result in injuries, disease, reduced productivity, and even death. The Aviation Department is committed to protecting employees from heat hazards and to preventing heat-related illnesses in the workplace resulting from body heat generated by physical

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work that is performed in conditions of high ambient and/or radiant heat, especially when combined with humidity and inadequate cooling.

A. Work-Related Risk Factors

Heat-related illness can affect employees both in indoor and outdoor worksites. Job-related risk factors include:

1. Environmental conditions (such as air temperature, humidity, sunlight, and air speed), especially on sequential days.
2. Presence of heat sources (i.e., vehicle or equipment ambient heat, exhaust, or furnaces) in the work area.
3. Level of physical activity (i.e., the workload leading to body heat production).
4. Low fluid consumption (dehydration)
5. Use of clothing or protective gear that can reduce the body's ability to lose excess heat.
6. Some individuals handle heat stress less effectively than others, depending on personal risk factors.

B. Control Measures

When determining measures to reduce or eliminate employee exposure to heat hazards, the Department should select the highest level of control or combination of controls that are feasible. Control measures are listed in order of preference:

- Elimination and Substitution
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment

If it is apparent or suspected that the use of identified controls is not functioning or sufficient to minimize or eliminate the hazard below the recommended level, the Aviation Department Safety Team must be contacted to discuss alternative control measures.

1. Elimination and Substitution

- A.** Whenever possible, the Aviation Department will make reasonable efforts to identify all practical approaches to eliminate work tasks or to consider alternatives that reduce exposure to heat or require working in hot conditions.
- B.** When substitution is not feasible, the Aviation Department will make efforts to reduce the need, frequency, and/or duration of activities that produce exposures to heat or that are performed in hot conditions.

2. Engineering Controls

The best engineering controls to prevent heat-related illness is to make the work environment cooler and to reduce manual workload with mechanization. A variety of engineering controls can reduce employees' exposure to heat. The Aviation Department utilizes the following engineering controls to prevent heat-related illness and injury:

A. Shade/Cooling

- 1) Employees have access to shade that is:
 - A)** Located as close as practicable and reasonable to where employees are working
 - B)** Adequate enough to prevent shadows from being cast
 - C)** Does not trap heat and is open to the air or mechanically vented
 - D)** Is free of additional hazards

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- E) Large enough for those employees on break to sit in a natural posture
- 2) Shade structures such as pop-up tents, umbrellas, or similar will be utilized where applicable and where feasible to reduce the exposure to direct sun.
 - 1. Portable shade structures are available in the Supply Shop or in the Landscape Maintenance section of Facilities and Services.
- 3) Air conditioning (such as air-conditioned equipment cabs, air conditioning in break rooms) will be accessible to staff where possible for breaks and rehab from the heat.

B. Vehicle Air Conditioning

- 1) All city-operated vehicles with enclosed cabs are required to be equipped with a fully functional in-cab air conditioning system.
- 2) The air conditioning system must be capable of providing adequate cooling during the employee's use of the vehicle to ensure a safe working environment.
- 3) Prior to the use of any City of Phoenix vehicle, a pre-trip inspection will be conducted by the driver to ensure proper vehicle operation and to confirm the air conditioning system is functioning properly and can effectively cool the vehicle cabin.
- 4) In the event that any enclosed cab vehicle is found to be lacking a properly functioning air conditioning system, the vehicle must be immediately reported to department leadership through the supervisory chain of command. The vehicle will be removed from service until appropriate measures are taken to address and resolve the issue.
- 5) All Aviation Department-operated vehicles with enclosed cabs will have air conditioning systems regularly monitored through the Fleet Services Preventative Maintenance service program. The Facilities and Services Division, Fleet Section maintains documentation of service evaluation, maintenance, and air conditioning functionality within the Fleet Management Database (Faster). Air Conditioning is serviced during preventative maintenance checks (PM), which occur every 200 service hours or at least yearly.

C. Mechanization

- 1) Where possible, mechanical equipment will be utilized to reduce manual work.
 - A) Aviation Facilities and Services Division utilizes equipment such as front loaders, forklifts, and other vehicular and operational equipment where possible.

3. Administrative Controls

Some worksites may not be cooled sufficiently by engineering controls. At those locations, administrative controls and work practices will be modified. Administrative controls are those that aim to control or otherwise minimize the exposure to heat using procedures, policies, and work practices, rather than by affecting the actual physical work. At the Aviation Department, these include but are not limited to:

A. Hydration

- 1) Employees have ready access to cool (ideally 59°F), potable drinking water. Water will be located as close as practicable and reasonable to where employees are working.

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- A) All City of Phoenix facilities are equipped with potable water access (i.e., drinking fountains, potable water faucet to fill water jugs/containers, water bottle refill stations).
- B) Employees whose work is performed away from City of Phoenix facilities are provided access to water at no employee cost through portable containers.
 - 1. Employees will be provided enough water at the start of the shift to meet a minimum of one quart per employee per hour for the entire shift (minimum of 2 gallons of water per person for 8 hour shift).
 - 2. When the full supply of water is not provided at the start of shift, employees will be allowed to travel to the nearest City facility with water available to refill as needed to meet this requirement.
 - 3. Employees who utilize large, shared water containers (such as 5-gallon coolers) must ensure proper cleaning and sanitization of equipment daily. (See Appendix B for sanitation training brief.)
- 2) Ice is available for employee usage via Ice Machines and is available at the following locations:
 - A) AVN HQ, Command Center, Facilities, Operations, DCS, and Terminal breakrooms.
 - 1. Facilities that utilize ice making machines must ensure proper cleaning and sanitization of equipment including ice scoops to minimize or prevent the spread of germs. (See Appendix C for the sanitization training brief).
 - 2. Employees working at facilities in which ice is not readily available will be allowed to travel to the nearest facility with ice available to utilize as needed.
- 3) Electrolyte drinks/Add-ins are also available for designated staff usage where applicable.
 - A) Electrolyte drink add-ins (such as Sqwincher, Hydrate, or others) are available from AVN Supply Stores.

B. Break/Rest Periods

- 1) Employees working in hot environments may take breaks as needed to have the opportunity to cool and hydrate, supporting recovery and heat-related illness prevention.
- 2) If an employee requires a break outside or in addition to their regularly allotted break period, they must advise their supervisor. This allows the supervisor to be aware of the situation and to monitor the employee for any potential signs of heat stress.
- 3) Employees should not skip regularly scheduled breaks during times of excessive heat.
- 4) The opportunity for heat relief will be provided in a location that is at a minimum, out of direct sunlight (shaded) and provides air flow (such as a fan, vent, cooler, etc.).
- 5) Wherever possible, breaks should be taken inside an air-conditioned building or vehicle.
- 6) Rest intervals should be adjusted based on temperature, humidity, workload, personal protective equipment (PPE), and acclimatization level.

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C. Shift/Work Adjustment

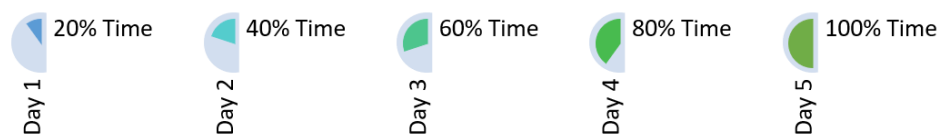
- 1) Wherever possible, based on operational demand, work tasks in a hot environment will be scheduled during the cooler parts of the day, and routine maintenance and repair work in hot areas should be scheduled for the cooler seasons of the year.
- 2) Staffing schedules and any shift time adjustments are determined based on operational need and availability. Seasonal adjustments are determined in agreement with labor representative organizations and department leadership.

D. Acclimatization

- 1) Acclimatization is a process by which a person gradually increases their exposure time to hot environmental conditions, causing beneficial physiological changes by properly regulating body temperature that minimizes heat-related illnesses. It is therefore essential for new or returning employees to gradually increase their workloads, ensuring more frequent breaks as they acclimatize to ambient conditions, and to assign a partner or supervisor to monitor them for signs of heat illness.

A) For **NEW EMPLOYEES** on the job or new to the high-heat work environment:

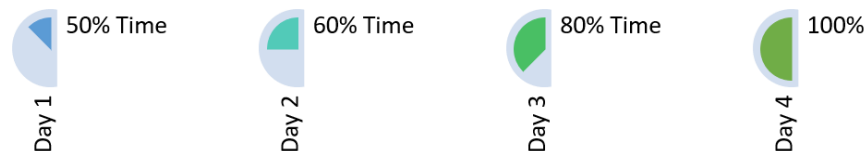
1. The regimen should be 20% of expected high heat activity on exposure day one, with a 20% increase in exposure each day over the course of five days. It is recommended that heat exposure should be at least one consecutive hour to improve the benefits of acclimatization.
2. The new employee should work no more than 20% on their first day in a high-heat environment. The employee should spend the remainder of the workday without heat stress. At least one rest break should be planned during the heat environment working period.
3. As the week continues each day an employee should be able to increase their working time by 20% to where most physically fit employees with no medical conditions should be able to work 100% after five days. Other individuals may require more time to adapt to heat (up to 14 days in some cases). Acclimatizing employees should communicate with their supervisor on how their acclimatization progress is going. The supervisor should extend the acclimatization schedule as needed with each employee.
4. Acclimatizing employees should be assigned longer, more frequent rest periods.



- #### B) For **RETURNING WORKERS**, employees who are returning to the high heat work environment after a one-week (seven calendar days) absence or greater, or, when temperatures first begin to increase each season, or whenever weather is significantly warmer than on previous days:

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1. The regimen should be 50% of expected high heat activity on exposure day one, with a 10% increase to 60% on day two, followed by 20% increase for day three and a 20% increase for day four.
2. The returning employee should work no more than 50% on their first day back in the high heat environment. They should spend the remainder of the workday without heat stress. Frequent breaks should be planned and provided during the hot environment working period.
3. As the week continues the second day should have a 10% increase to 60%. The third and fourth day should increase by 20% to 80% of their scheduled shift for day three and to 100% of the full working on day four. Reacclimatizing employees should communicate with their supervisor on how their acclimatization process is going. The supervisor should extend the acclimatization schedule as needed with each employee.



2) SPECIAL EVENT/NON-ROUTINE TASKS

- A) Where possible, special events and/or non-routine tasks should be planned in a manner to reduce exposure to heat hazards.
- B) Employees whose regular job position and/or work tasks do not require work in high-heat conditions for more than fifteen (15) minutes in any sixty (60) minute period BUT due to responsibilities for a special event or non-routine task, they must perform work in high-heat conditions for greater than fifteen (15) minutes in any sixty (60) minute period, the following controls apply:
 1. Employees should follow acclimatization procedures in the week preceding the event or non-routine work task as described in section 4.B.3.d.1.A. to gradually increase exposure to working in high-heat conditions.
 2. Non-acclimatized employees should either:
 - A) Work no more than two (2) continuous hours in the high-heat environment within a single work shift
 - B) Utilize work rotation to avoid working in a high-heat environment for more than fifteen (15) minutes in a sixty (60) minute period.
 - C) Perform work in an environment which by use of engineering controls, reduces environmental temperatures sufficient to eliminate risk of heat-related illness.

E. Heat Monitoring

- 1) The following monitoring method(s) will be used to monitor the ambient temperature in the work environments and assess the risk of heat stress:
 - A) The Airport Duty Manager (ADM) and Aviation Supervisors will monitor temperature by reviewing National Weather Service (NWS) heat notifications at the start of and during each shift. The ADM conducts two (2) daily shift briefings with Aviation staff. The current temperature and forecast for the upcoming 24 hours are discussed in each briefing. In addition, the ADM receives real-time

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extreme heat-related hazard information from the NWS via e-mail and text. Once a heat hazard is indicated, the ADM will send an ENS message to Aviation staff advising of the extreme conditions.

F. Heat Warning/Alert Notification

- 1) The National Weather Service issues the following notifications:
 - A) **Extreme Heat Warning—Take Action!** An Extreme Heat Warning is issued within 12 hours of the onset of extremely dangerous heat conditions. Multiple factors are considered when determining whether a heat alert will be made, but the general rule of thumb for this Warning is when the maximum heat index temperature is expected to be 105° or higher for at least 2 days, and nighttime air temperatures will not drop below 75°.
 - B) **Extreme Heat Watches—Be Prepared!** Heat watches are issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased, but its occurrence and timing is still uncertain.
 - C) **Heat Advisory—Take Action!** A Heat Advisory is issued for dangerous heat conditions that are not expected to reach warning criteria. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days, and nighttime air temperatures will not drop below 75°.
- 2) When the National Weather Service issues an Extreme Heat Warning during the hotter months, or a Heat Advisory during the cooler months, the Airport Duty Manager (ADM) will provide notification to supervisory groups.
- 3) This will be done via emergency notification systems (ENS)
- 4) This notification is an alert to supervisors to take additional precautions where possible to reduce employee exposure to heat and to ensure that employees are being monitored for heat-related illness symptoms.

G. Check In Procedures

- 1) The Aviation Department does not have staff members that routinely work alone in high-heat environments. Should a task or event arise in which an employee is working alone in high heat conditions, the following check-in procedure will be utilized.
 - A) The immediate supervisor will implement an hourly check-in procedure. Check-in may be completed via phone call, text message, or in person check.
 - B) Any missed check-ins in which the employee cannot be immediately contacted will result in the supervisor or designee checking in with the applicable employee in person to determine their health status and reinforce check-in requirements.
- 2) A buddy system for new employees and for those working in heat-stress environments is in place
 - A) Where operationally possible, Aviation Department employees will not work alone and will at minimum have a partner working within line of sight.
 - B) All employees new to working in the high-heat conditions will have a minimum of one buddy employee until the new employees meet acclimatization requirements.

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4. Personal Protective Equipment

In most cases, heat stress should be reduced by engineering controls or work practice modifications. However, in some situations, special cooling devices can protect employees in hot environments. At the Aviation Department, the following are available to employees:

A. Hydration Supplies

- 1) Water Coolers: Personal 1-gallon water coolers are provided to employees

B. PPE

- 1) Wide-Brim Hats: Hats that provide ample shade to protect the face, neck, and ears from direct sun exposure.
- 2) Sunglasses: UV-protective eyewear to shield eyes from harmful sun rays, enhancing visibility and reducing glare.

C. Skin Protection

- 1) Sunscreen: Broad-spectrum sunscreen with a high SPF rating to prevent sunburn and long-term skin damage from UV radiation. Application is encouraged throughout the day, especially during peak sun hours.

D. Cooling Accessories

- 1) Cooling Bands for Necks: Adjustable cooling bands are designed to provide temperature relief. These can be soaked in water to enhance cooling effects, making them effective tools for maintaining comfort during hot weather.

NOTE: Aviation employees should be aware that use of certain personal protective equipment (e.g., certain types of respirators, impermeable clothing, multiple layers, and head coverings) can increase the risk of heat-related illness.

5. RESPONSE AND REPORTING

A. Response

In the event of heat-related injury or illness, the following emergency procedures are in place and employees have been trained to:

1. For Severe Or Emergent Symptoms:

- a. **CALL THE AIRPORT EMERGENCY LINE AT (602) 273-3311**
- b. Notify a supervisor.
- c. Do not leave the employee alone.
- d. If safe to do so, move the individual to a cooler/shady area (preferably in the air conditioning).
- e. Remove unnecessary clothing, including shoes and socks.
- f. Apply cooling measures:
 - 1) Fan/mist the employee.
 - 2) Provide fluids (*only if conscious and able to safely drink on their own).
 - 3) If available, place ice packs or cool water on the neck, armpits, and groin
- g. Notify the Department Safety Team

2. For Initial Symptoms Of Heat Stress:

- a. Move the individual to a cooler/shady area (preferably in the air conditioning)
- b. Notify a supervisor.
- c. Remove unnecessary clothing, including shoes and socks.
- d. Apply cooling measures:

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- 1) Fan/mist the employee.
- 2) Provide fluids if conscious and able to safely drink.
- e. Notify the Department Safety Team if additional guidance is needed or if the symptoms escalate.

B. Reporting

1. Critical Incident Reporting

- a. A critical incident is defined as the serious injury, or illness of an employee, including amputation, loss of eye, or hospitalization; or death of an employee
- b. In the event of a critical incident, activate the department's critical incident response following the communication map (located on the Human Resources Department SharePoint site at [insidephx/PHXHR/Safety & Workers' Compensation/Critical Incident Response](#))
- c. HR Safety must be notified of critical incidents resulting in employee serious injury as quickly as possible, but no later than 12 hours following the incident
- d. HR Safety must be notified of critical incidents resulting in employee death as quickly as possible, but no later than 1 hour following the incident.

2. Employee Injury and Illness Reporting

- a. The eCHRIS Health & Safety portal is the reporting management system for all City of Phoenix employee work-related injury or illness reports (Exception: Phoenix Fire Department employees utilize a separate department process).
- b. Employee work-related injury or illness is defined as resulting from events or exposures occurring in the work environment, which either caused or contributed to the resulting condition.
- c. City of Phoenix employee work-related injury or illness reports should be promptly reported by the employee within the eCHRIS Health & Safety Portal within 24 hours.
- d. Following submission of the employee incident report, the immediate supervisor should complete the supervisor incident report and initiate the safety investigation within the eCHRIS Manager Self-Service portal within 24 hours of employee report submission.
- e. For assistance, questions, or circumstances in which the employee or supervisor is incapacitated, please contact your Department Safety Team, or HR Safety at hr.safety@Phoenix.gov.

3. Safety Concern/Hazard Reporting

- A. Employees should report any workplace hazards or unsafe conditions immediately. Prompt reporting helps prevent accidents and keeps our workplace safe for all.
- B. Employees may not be subjected to retaliation or discrimination in any manner as a result of exercising their employee rights under the Occupational Safety and Health Act of 1970 including reporting an alleged heat safety violation.
- C. Reporting can be completed by:
 - 1) Notifying your supervisor or chain of command
 - 2) Contacting your Aviation Department Safety Team via: avn.safety@phoenix.gov
 - 3) Submitting a hazard report to the Aviation Department Safety Team via the [SafetyCulture](#) Reporting form.

 - A) This report may also be accessed by scanning the QR code
 - B) Reports may be submitted anonymously if desired

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- 4) Submitting a hazard report to HR Safety via the HR Safety SharePoint site link: [City of Phoenix Employee Safety Concern/Hazard Report](#)
 - A) This report may also be accessed by scanning the QR code
 - B) Reports may be submitted anonymously if desired



6. TRAINING & COMPETENCY

- A. Training shall be provided by competent personnel who are knowledgeable in the subject matter as it relates to the workplace or procedures that the training will address.
- B. Employees (supervisory and non-supervisory) will be provided with training applicable to their job tasks and anticipated exposure to identified workplace hazards.
- C. Training will be provided in a language employees can understand.
- D. Training requirements as identified below will be completed at the time of assignment and/or at a minimum prior to performing work requiring awareness, knowledge, and skill provided by the training.
 1. Employer and Employee responsibilities in avoiding heat stress
 2. Knowledge of the hazards of heat stress
 3. Recognition of predisposing factors, danger signs, and symptoms of heat-related illness
 4. Awareness of first-aid procedures for, and the potential health effects of, heat-related illnesses, including heat stroke (See Appendix A)
 5. Department safety control measures and required procedures
 6. Proper hydration
 7. Use of protective clothing and equipment
 8. Care and usage of PPE
 9. Increased risk factors such as personal medical conditions, the use of prescription therapeutics, and illegal drugs/alcohol use, etc., and recommendation to consult a physician for questions
 10. Heat monitoring and communication measures
 11. Reporting requirements and processes
 12. The Department Heat Illness and Injury Prevention Program
- E. Retraining and/or review of internal procedures will be required:
 1. At least annually
 2. When changes in Department Heat Illness and Injury Prevention Program, work assignments, procedures, and equipment that potentially create a new hazard or increase in risk of injury or harm.
 3. For deficiency identified by the Annual Review of the Department Heat Illness and Injury Prevention Program.
 4. For applicable employee groups based upon determination of root cause analysis following a serious heat-related illness resulting in hospitalization and/or fatality.

7. RECORDKEEPING

- A. Records will be maintained in accordance with OSHA regulatory requirements and in accordance with City of Phoenix records retention policies (A.R.1.61). The following will be retained in a location designated by the Aviation Department for a minimum of one (1) year from the date or as specified below.

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1. Medical records for work-related employee testing and treatment will be maintained for a period of employment plus thirty years. These records are confidential and are maintained by the Human Resources Department.
2. Record of vehicle air conditioning inspection will be maintained in the Fleet Services Fleet Management System according to the City of Phoenix records retention schedule.
(Exception for units and departments outlined in A.R. 6.11 that maintain their own equipment).
 - a. The City of Phoenix Aviation Department maintains its own equipment under A.R. 6.11. All service records are housed in the Fleet Management Database (Faster).
3. Records of employee training will be entered and maintained in the City of Phoenix PHXYou Learning Management System program according to the City of Phoenix records retention schedule.
4. Records of Heat Hazard Reports and Ordinance violations will be maintained by the City of Phoenix Aviation Department within the Safety Culture Application, and will be available for up to 3 years.

8. PROGRAM REVIEW

- A. Aviation Department Safety will perform and document a review of the Department Program at least annually to assess program effectiveness and employee understanding and the correct use of designated safety control measures.
- B. Aviation Department Safety, with input from the Aviation Executive Leadership, is expected to use the program review information to support as applicable updates of the Department Heat Illness and Injury Prevention Program.
- C. Necessary updates will be published and disseminated immediately.
- D. The following is a list of dates in which this written program was reviewed and authorized for continued usage as written.

Date of Review	Description	Authorization
7/26/2023	Submitted to HR-Safety for approval	8/4/2023 – HR-Safety Approval (P. LeCheminant)
4/24/24	Submitted to HR-Safety for approval	4/26/2024 – HR-Safety Approval (P. LeCheminant)
4/28/2025	Submitted to HR-Safety for approval on 5.1.2025	HR Safety Approval- S. Larson
4/13/2026	Submitted to HR Safety for approval	Stefani Larson 

9. APPENDICES

- A. Appendix A: First Aid for Heat Illness
- B. Appendix B: Training Brief: Container Cleaning & Sanitizing
- C. Appendix C: Training Brief: Ice Machine Cleaning & Sanitizing

HEAT STRESS

Heat stress in outdoor environments is a significant hazard, requiring employees to recognize the dangers associated with high temperatures and extended sun exposure. Being informed, aware and following safety protocols, employees can safely mitigate the risks of heat-related incidents in their workplace.

SUMMER TEMPERATURES

Phoenix Average Temps:

Summer temperatures are generally between 90-120 °F. While many locals claim to be accustomed to the heat, it's important to know each summer needs an acclimatization period.

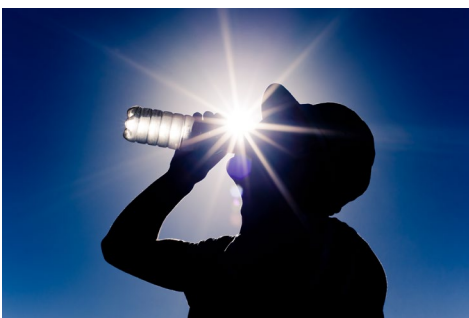
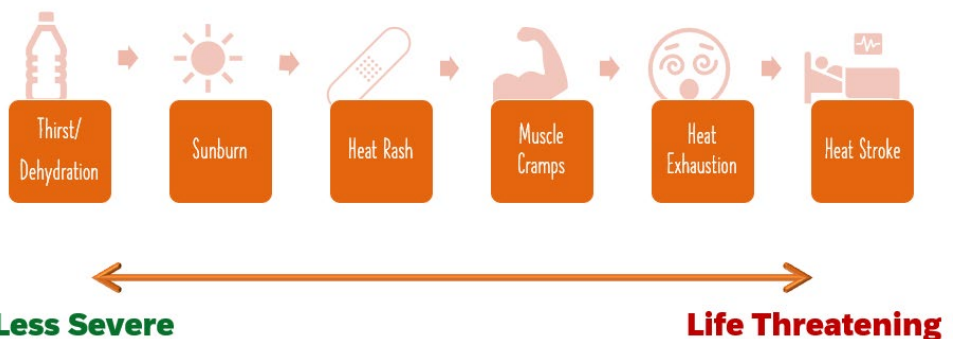
Extreme Heat Warnings: In Arizona, an Extreme Heat warning is issued based on multiple factors, including forecasted temperatures and expected health impacts which indicate dangerously hot conditions that require protective actions. It's Important to stay vigilant and take all the necessary precautions during extreme weather conditions to prevent heat-related illnesses and injuries.

UNDERSTANDING HEAT STRESS

Heat Stress – Heat stress occurs when the body becomes overheated from a combination of internal heat production and external environmental heat. When the body's natural cooling mechanisms can no longer maintain a stable core temperature, the risk of heat-related illnesses increases.

Heat Related Illness – These are conditions that result from the body's inability to cope with excessive heat. They range from more mild conditions like heat cramps to severe issues such as heat stroke.

Heat Exhaustion - Heat exhaustion is a serious heat-related illness that can occur after prolonged exposure to high temperatures. Employees need to be aware of symptoms like heavy sweating, weakness, cool, pale, clammy skin, and a rapid but weak pulse. Immediate intervention is needed in these situations to prevent heat exhaustion from escalating to **heat stroke**, which can be very dangerous, potentially fatal and requires prompt medical treatment.



COMMON SIGNS & SYMPTOMS

Common signs and symptoms of heat-related illnesses include:

- Thirst
- Heavy sweating
- Headache
- Weakness
- *Nausea & Vomiting
- *Dizziness
- *Confusion

*These symptoms indicate the individual's body is struggling to maintain their body temperature and they may be at serious risk of illness or injury. Prompt

action is needed to prevent it from escalating further. As an employee, understanding these indicators is crucial to prompt action and preventing the escalation of these heat related illnesses among employees working in hot environments.

FACTORS THAT INCREASE RISK

Factors that increase the risk of developing heat-related illness include high temperatures and humidity, direct sun exposure, limited breeze or airflow, low liquid intake (dehydration), heavy physical labor, non-breathable clothing or PPE, and no recent exposure to hot work environments. Additionally, personal risk factors may include health conditions such as diabetes, obesity, high blood pressure, and medications like antihistamines or diuretics. Personal behavioral characteristics such as recent alcohol use or low water intake, and physical characteristics including age or levels of physical fitness also contribute to the risk of heat related illness.

PREVENTING HEAT ILLNESS

Awareness & Training – Alongside Annual Heat Stress Training and this department Heat Illness and Injury Prevention Plans (HIIPP), it's important to stay informed about extreme heat warnings and prepare by pre-hydrating, looking out for your coworkers, planning work/activity tasks for cooler temperatures, and wearing appropriate clothing.

Work/Rest Cycle – Follow a work/rest cycle that ensures you take adequate breaks in cool shaded areas or in an air-conditioned area to allow the body sufficient time to cool.

Dehydration Prevention – Stay hydrated by drinking 5-7 oz of fluids every 20 minutes and alternate between water and sport drinks/electrolyte drinks during periods of high heat and physical exertion. Cool, clean drinking water is available from City facilities. Avoid beverages containing alcohol or caffeine as these can dehydrate the body faster.

Cool Areas – Breaks should be taken in a cool, shaded area or in an air-conditioned space. The cooler the environment, the faster employees can return to work, as the body temperature is able to normalize more quickly.

Acclimatization – Is the process in which you gradually expose the body to higher temperatures to build tolerance and reduce the risk of heat related illnesses. Acclimatization generally occurs over a period of 1-2 weeks in which each workday, you gradually increase the amount of time spent working in the high heat environment.

EMERGENCY RESPONSE

Heat Cramp Response

Assist the individual to a shaded or cool area, provide electrolyte drink or juice. Gently stretch, and massage the affected muscles, and monitor for any signs of progression to more severe heat-related conditions. After a Heat Cramp, the person should not return to the activity that caused this response for several hours. Instead recover, hydrate and find work in a cool/shaded area.

Heat Exhaustion Response

Move the person to a cooler, shaded area, or air-conditioned environment, hydrate them with cool water. Remove excessive clothing, especially socks/shoes. Cool with a cold/wet towel, or water on the head, face, and neck, and if unsure, symptoms continue, or worsen, call 911, while ensuring someone stays with the individual until help arrives.

Heat Stroke Response

Immediately call 9-1-1. Promptly move the person to a cool, shaded area or air-conditioned environment, Remove all unnecessary clothing, especially from the head and feet, and cool the individual rapidly with cold water immersion or cold packs placed on the back of the neck, groin, and armpits while awaiting help. Continue monitoring their condition until medical professionals arrive.

TRAINING BRIEF

FOR CONTAINER CLEANING AND SANITIZING



The purpose of this training briefing is to prevent the spread of germs by safely disinfecting water containers and ice chests used by City of Phoenix employees.

GENERAL REQUIREMENTS:

All containers shall be clearly marked as to their contents (e.g., “Drinking Water” or “Non-Potable Water”). If multiple water containers are used, all will be cleaned and sanitized even if they are not used for drinking water.

When ice is broken-up and placed into containers or ice chests, use caution to prevent contact with the ground or other contaminated surfaces. Follow the manufacturer’s recommended cleaning procedure. If not provided, follow generalized procedure below.

RESPONSIBILITIES:

It is the supervisor’s responsibility to ensure the availability of cleaning and sanitizing supplies and that containers are cleaned on a regular basis. Employees conducting cleaning/sanitizing must use protective measures as outlined in chemical product label/SDS for specific PPE needed. Containers used for drinking water or other beverage should be cleaned and disinfected using a food safe cleaner. Below process includes Purell Foodservice Surface Sanitizer, however, other food safe cleaner/sanitizer products are acceptable for use.

CLEANING PROCEDURE:

Containers must be cleaned before each use.

1. Wash your hands before cleaning containers.
2. Clean the interior with a mild detergent solution (one ounce of detergent with one gallon of water for a five gallon container).
3. Shake the container vigorously for at least one minute. For large containers, set the container on a level surface and rock it back-and-forth.
4. Wipe down the exterior and spout; rinse the solution off.
5. Run the cleaning solution through the spout for one minute.
6. Dispose of the solution/rinsate via sanitary sewer.

HOW TO USE THIS TRAINING BRIEF

Distribute among staff for review and discuss as needed to ensure understanding and compliance.

For any questions, please contact your Department Safety Team or HR Safety @hr.safety@phoenix.gov.

SANITIZING PROCEDURE:

Containers must be sanitized after each cleaning.

1. Sanitize the interior using Purell Foodservice Surface Sanitizer spray. Follow use directions on the label. Purell Foodservice Surface Sanitizer-Disinfectant is a ready to use sanitizer that does not require dilution. It is applied directly from the spray bottle. Move the nozzle on the sprayer to obtain a spray with minimal mist, or spray generously directly onto a paper towel. If using other food safe product, follow manufacturer instructions.
2. Using a coarse spray setting, spray slowly and deliberately to wet the entire surface, or spray directly onto a paper towel, making sure to wipe the entire surface. The area must remain wet for at least 1 minute.
3. After one minute, wipe surfaces dry or allow to air dry. Ensure you wipe down the exterior and spout in addition to the interior. There is no need to rinse with water if dried.

TRAINING INFO

TARGET AUDIENCE:

Applicable City of Phoenix employees

RESOURCES:

HR Safety
602-262-7555 or hr.safety@phoenix.gov

TRAINING BRIEF

FOR ICE MACHINE CLEANING AND SANITIZATION



The purpose of this training briefing is to prevent the spread of germs by safely disinfecting ice makers, ice chests, and ice scoops used by City of Phoenix employees.

GENERAL INFORMATION:

The U.S. Food Administration defines ice as food. This requires that ice makers and ice storage containers are held to the same handling and cleanliness standards as all other food preparation and storage surfaces. Regulation requires that ice machines be cleaned "at a frequency specified by the manufacturer", which typically ranges from 2-4 times per year, or "at a frequency necessary to preclude accumulation of soil or mold."

Micro-organisms may be present in ice, ice-storage chests, and ice-making machines. The 2 main sources of microorganisms in ice are the potable water from which it is made and a transferral of organisms from hands or from improper handling or storage of the scoop or other ice dispensing items before contacting the ice.

HOW TO USE THIS TRAINING BRIEF

Where applicable, distribute among staff for review and discuss as needed to ensure understanding and compliance.

Please see the manufacturer's instructions for proper cleaning and equipment maintenance. Where those instructions are not available, then a generic approach to cleaning, disinfecting, and maintaining ice machines and dispensers may be used. The below instructions refer to Purell Foodservice Surface Sanitizer- Disinfectant however other food safe surface disinfectant may be utilized.

GENERAL CLEANING & DISINFECTING PROCEDURE:

1. Disconnect unit from power supply.
2. Remove & discard ice from bin or storage chest.
3. Allow unit to warm to room temperature.
4. Disassemble removeable parts of machine that make contact with water to make ice.
5. Wash your hands before cleaning & sanitizing parts or bins.
6. Thoroughly clean machine and parts with water and detergent. Make sure to include any scoops or ice dispensing items.
7. Dry external surfaces of removable parts before reassembling.
8. Check for any needed repair.
9. Replace feeder lines, as appropriate (i.e. when damaged, old, or difficult to clean.
10. Inspect for rodent or insect infestations under the unit and treat as needed.
11. Clean the interior ice storage chest or bin with a mild detergent solution (one ounce of detergent with one gallon of water for a five gallon container) then rinse with fresh water.
12. Sanitize the interior, doors/lid, and adjoining surfaces and the ice scoop using Purell Foodservice Surface Sanitizer spray. Follow use directions on the label. Purell Foodservice Surface Sanitizer-Disinfectant is a ready to use sanitizer that does not require dilution. It is applied directly from the spray bottle. Move the nozzle on the sprayer to obtain a spray with minimal mist, or spray generously directly onto a paper towel. The area must remain wet for at least 1 minute.
13. After one minute, wipe surfaces dry or allow to air dry. Ensure you wipe down the exterior and scoop storage area. There is no need to rinse with water if dried.

ICE HANDLING PROCEDURES:

ALWAYS WASH HANDS BEFORE HANDLING ICE OR SCOOP

1. Hold the ice scoop by the handle and do not touch other parts of the scoop.
2. Do not handle ice with hands.
3. Do not return unused ice to ice storage chest or ice machine.
4. Keep the access doors or lid to ice storage bin closed except when removing ice.
5. Ice scoops should be smooth and protected against contact with contaminated surfaces such as floors, access door handles, and other non-food contact surfaces.
6. Scoops should be kept on an uncovered stainless steel, impervious plastic, or fiberglass tray when not in use.
7. The tray and scoop should be cleaned and disinfected daily after use. Clean with water and detergent. Sanitize with Purell Foodservice Surface Sanitizer spray.

TARGET AUDIENCE:

Applicable City employees who work at a location with ice making machines

RESOURCES:

HR Safety

Hr.safety@phoenix.gov