**Chapter 15**

**OUTDOOR HEAT Exposure**

1. **References**
2. [WAC 296-62-09510 Outdoor Heat Exposure](https://app.leg.wa.gov/WAC/default.aspx?cite=296-62-09510)

1. **Purpose and Scope:** This Chapter promotes the reduction and elimination of employee heat related illness and applies to all employees working in hot environments as outlined in the following sections. Specifically, WAC 296-62-09510 requirements apply to employees working outdoors for more than 15-minutes in any 60-minute period.
2. **Responsibilities:** When outdoor temperatures reach the following action levels, Supervisors are responsible for the following requirements:

|  |  |
| --- | --- |
| **Temperature Fo** | **Requirements** |
| **52o** Wearing non-breathable clothing, e.g. Tyvek™  **80o** All other clothing | * Provide at minimum 1 quart of suitably cool drinking water per hour. * Encourage preventative cool down breaks to prevent overheating. * Provide an air-conditioned location or shade1, for cool down breaks near the work area. |
| **90o** | * Provide at minimum 1 quart of suitably cool drinking water per hour. * Encourage preventative cool down breaks to prevent overheating. * Provide an air-conditioned location or shade1, for cool down breaks near the work area. * Mandatory 10-minute cool down breaks every 2-hours – may be incorporated into lunch break.2 * Closely observe employees for signs and symptoms of heat related illness (see next section). |
| **100o** | * Provide at minimum 1 quart of suitably cool drinking water per hour. * Encourage preventative cool down breaks to prevent overheating. * Provide an air-conditioned location or shade1, for cool down breaks near the work area. * Mandatory 15-minute cool down breaks every hour – may be incorporated into lunch break.2 * Closely observe employees for signs and symptoms of heat related illness (see next section). |

Note 1. Shade is defined as a location where objects won’t cast a shadow and must be located away from other heat sources such as radiant heat from hot objects.

Note 2. Cool down breaks must be paid, unless incorporated into unpaid meal break.

Supervisors must closely observe employees for signs of heat related illness under the following conditions:

* When temperatures reach 90o,
* When new employees start work, or when employees return from an absence of 7-days or more, and for 14 days thereafter,
* During heat waves.3

Note 3. Heat waves are defined as any day when temperatures meet or exceed 80o and are 10o Fahrenheit higher than the previous 5 day’s average high temperature.

Supervisors implement one or more of the following methods to closely observe employees for signs of heat related illness:

* Regular cell phone or radio communication, or
* Implement a buddy system, or
* Some other means of effective observation.

When assigned to outdoor work alone, employees shall check in with their supervisor on an hourly basis by telephone, text, or electronic mail whenever temperatures reach 90o, during heat waves, and when employees return to work after an absence of 7 days or more.

Supervisors must inform employees of the following:

* The means of observation during acclimatization periods,
* Where to cool down during encouraged or required breaks (such as a nearby air-conditioned building),
* Where to cool down or take a coworker to cool down when suffering from symptoms of heat related illness.

When possible, Supervisors should schedule outdoor work during the cooler hours of the day.

Supervisors shall also ensure employees complete Heat Exposure training annually, each spring or at time of hire.

Employees are responsible for the following:

* Monitoring their own personal factors for heat related illness and consuming water or other acceptable beverages.
* Attending and participating in heat stress training.
* Immediately reporting their own symptoms of heat related illness or the observed symptoms of coworkers to their supervisor.
* Contacting their supervisor on an hourly basis when assigned to work outdoors and working alone whenever temperatures reach 90o, during heat waves, and when employees return to work after an absence of 7 days or more.

1. **Procedures for Responding to Heat Related Illness:** 
   * + 1. Supervisors must promptly respond to heat-related illness. The following table summarizes the types of heat-related illnesses, signs and symptoms and specific first aid and emergency procedures. The information must be understood at all work sites where high heat related work activities are conducted.
       2. Employees experiencing signs and symptoms of a heat-related illness are to cease work and report their condition to their supervisor. Employees showing signs or demonstrating symptoms of heat-related illness are to be relieved from duty and provided means to reduce body temperature. Employees experiencing sunburn, heat rash or heat cramps will be monitored to determine whether medical attention is necessary. Emergency Medical Services will be called (911) when employees experience signs or symptoms of heat exhaustion or heat stroke.

Note: In remote areas specific procedures might be required to move or transport employees to a place where they can be reached by emergency services.

| **Heat-Related Illness First Aid and Emergency Response Procedures** | | |
| --- | --- | --- |
| **Heat-Related Illness** | **Signs and Symptoms** | **First Aid and Emergency Response Procedures** |
| Sunburn | * Red, hot skin * Possibly blisters | * Move to shade, loosen clothes * Apply cool compress or water to burn * Get medical evaluation if severe |
| Heat Rash | * Red, itchy skin * Bumpy skin * Skin infection | * Apply cool water or compress to rash * Keep affected area dry |
| Heat Cramps | * Muscle cramps or spasms * Grasping the affected area * Abnormal body posture | * Drink water to hydrate body * Rest in a cool, shaded area * Massage affected muscles * Get medical attention if cramps persist |
| Heat Exhaustion | * High pulse rate * Extreme sweating * Pale face * Insecure gait * Headache * Clammy and moist skin * Weakness * Fatigue * Dizziness | * **CALL 911** * **Provide EMS with directions to worksite** * Move to shade and loosen clothing * Start rapid cooling with fan, water mister or ice packs * Lay flat and elevate feet * Drink small amounts of water to hydrate and cool body |
| Heat Stroke | * Any of the above, but more severe * Hot, dry skin (25-50% of cases) * Altered mental status with confusion and agitation * Can progress to loss of consciousness and seizures | * **CALL 911** * **Provide EMS with directions to worksite** * Immediately remove from work area Start rapid cooling with fan, water mister or ice packs * Lay flat and elevate feet * If conscious give sips of water * Monitor airway and breathing, administer CPR if needed |

Reviewed by:

Assistant Director Occupational Health and Safety