

AMENDATORY SECTION (Amending WSR 19-01-094, filed 12/18/18, effective 1/18/19)

WAC 296-62-09510 Scope and purpose. (1) WAC 296-62-095 through 296-62-09560 applies to all employers with employees performing work in an outdoor environment.

(2) The requirements of WAC 296-62-095 through 296-62-09560 apply to outdoor work environments from May 1 through September 30, annually, only when employees are exposed to outdoor heat at or above an applicable temperature listed in Table 1.

Table 1

To determine which temperature applies to each worksite, select the temperature associated with the general type of clothing or personal protective equipment (PPE) each employee is required to wear.

Outdoor Temperature Action Levels

((All other clothing	89°)
<u>Nonbreathable clothes including vapor barrier clothing or PPE such as chemical resistant suits</u>	<u>52° F</u>
Double-layer woven clothes including coveralls, jackets and sweatshirts	77° F
((Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits	52°)
<u>All other clothing</u>	<u>89° F</u>

Note: There is no requirement to maintain temperature records. The temperatures in Table 1 were developed based on Washington state data and are not applicable to other states.

(3) WAC 296-62-095 through 296-62-09560 does not apply to incidental exposure which exists when an employee is not required to perform a work activity outdoors for more than ~~((fifteen))~~ 15 minutes in any ~~((sixty-minute))~~ 60-minute period. This exception may be applied every hour during the work shift.

(4) WAC 296-62-095 through 296-62-09560 supplement all industry-specific standards with related requirements. Where the requirements under these sections provide more specific or greater protection than the industry-specific standards, the employer must comply with the requirements under these sections. Additional related requirements are found in chapter 296-305 WAC, Safety standards for firefighters and chapter 296-307 WAC, Safety standards for agriculture.

AMENDATORY SECTION (Amending WSR 19-01-094, filed 12/18/18, effective 1/18/19)

WAC 296-62-09520 Definitions. Acclimatization. The body's gradual temporary adaptation to work in heat that occurs as a person is exposed to it over ~~((time))~~ a period of seven to 14 days with a substantial amount of adaptation occurring in the first four to five days. Acclimatization is lost after a week away from working in the heat.

Buddy system. A system where individuals are paired or teamed up into work groups so each employee can be observed by at least one other member of the group to monitor and report signs and symptoms of heat-related illness.

Double-layer woven clothing. Clothing worn in two layers allowing air to reach the skin. For example, woven coveralls worn on top of regular work clothes.

Drinking water. Potable water that is suitable to drink and suitably cool in temperature. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.

Engineering controls. The use of devices to reduce exposure and aid cooling (i.e., air conditioning).

Environmental factors for heat-related illness. Working conditions that increase susceptibility for heat-related illness such as air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., ~~((heavy, medium, or low))~~ light, moderate, or heavy) and duration, and personal protective equipment and clothing worn by employees. Measurement of environmental factors is not required by WAC 296-62-095.

Heat-related illness. A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.

Outdoor environment. An environment where work activities are conducted outside. Work environments such as inside vehicle cabs, sheds, and tents or other structures may be considered an outdoor environment if the environmental factors affecting temperature are not managed by engineering controls. Construction activity is considered to be work in an indoor environment when performed inside a structure after the outside walls and roof are erected.

Shade. A blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use.

Vapor barrier clothing. Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of ~~((nonbreathing))~~ nonbreathable clothing.

AMENDATORY SECTION (Amending WSR 08-12-109, filed 6/4/08, effective 7/5/08)

WAC 296-62-09530 Employer and employee responsibility. (1) Employers of employees exposed at or above temperatures listed in WAC 296-62-09510(2) Table 1 must:

(a) Address their outdoor heat exposure safety program in their written accident prevention program (APP); ~~((and))~~

(b) Encourage employees to frequently consume water or other acceptable beverages to ensure hydration; and

(c) Encourage and allow employees to take a preventative cool-down rest period when they feel the need to do so to protect themselves from overheating using sufficient means to reduce body temperature such as shade or other equally or more effective means. The preventative cool-down rest period must be paid unless taken during a meal period. If an employee is showing signs or symptoms of heat-related illness during the cool-down rest period, the employer must comply with requirements under WAC 296-62-09550.

Note: Agricultural workers paid on a piece-rate basis must be separately compensated for rest breaks and piece-rate down time. See *Lopez Demetrio v. Sakuma Brothers Farms Inc.*, 183 Wn.2d 649, 355 P.3d 258 (2015); *Carranza v. Dovex Fruit Company*, 190 Wn.2d 612, 416 P.3d 1205 (2018). For more information, see L&I Employment Standards Administrative Policy ES.C.6.2 at <https://lni.wa.gov/workers-rights/docs/esc6.2.pdf>.

(2) Employees are responsible for monitoring their own personal factors for heat-related illness including consumption of water or other acceptable beverages to ensure hydration.

NEW SECTION

WAC 296-62-09535 Access to shade. (1) The employer must provide and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling, and not adjoining a radiant heat source such as machinery or a concrete structure. The shade must be located as close as practicable to the areas where employees are working.

(2) The employer must ensure the amount of shade present is at least enough to accommodate the number of employees on a meal or rest period, so that they can sit in a normal posture fully in the shade.

(3) In lieu of shade, employers may use other means to reduce body temperature if they can demonstrate such means are equally or more effective than shade.

Note: Some alternatives to shade may include the provision of misting stations, cooling vests, and air-conditioned areas.

AMENDATORY SECTION (Amending WSR 08-12-109, filed 6/4/08, effective 7/5/08)

WAC 296-62-09540 Drinking water. (1) Keeping workers hydrated in a hot outdoor environment requires that more water be provided than at other times of the year. Federal OSHA and research indicate that employers should be prepared to supply at least one quart of drinking water per employee per hour. When employee exposure is at or above an applicable temperature listed in WAC 296-62-09510(2) Table 1:

(a) Employers must ensure that a sufficient quantity of suitably cool drinking water is readily accessible to employees at all times; and

(b) Employers must ensure that all employees have the opportunity to drink at least one quart of drinking water per hour.

(2) Employers are not required to supply the entire quantity of drinking water needed to be supplied for all employees on a full shift at the beginning of the shift. Employers may begin the shift with smaller quantities of drinking water if effective procedures are established for replenishment during the shift.

NEW SECTION

WAC 296-62-09545 Acclimatization. Employers are encouraged to closely observe new employees and employees returning to work in hot conditions after a prolonged absence for signs and symptoms of heat-related illness for 14 days by implementing one or more of the monitoring options under WAC 296-62-09555(3). Close observation of employees is also encouraged during a sudden temperature increase relative to temperatures on previous days.

Note: Employers may also consider additional acclimatization procedures recommended by NIOSH:
- NIOSH Heat Stress: Acclimatization. <https://www.cdc.gov/niosh/mining/userfiles/works/pdfs/2017-124.pdf>
- NIOSH Criteria for a Recommended Standard for Occupational Exposure to Heat and Hot Environments: <https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf?id=10.26616/NIOSH PUB2016106>

NEW SECTION

WAC 296-62-09555 Additional requirements when outdoor temperatures meet or exceed 89 degrees Fahrenheit. (1) The employer must ensure that employees take mandatory cool-down rest periods of at least 10 minutes every two hours. The mandatory cool-down rest period may be provided concurrently with any meal or rest period required under WAC 296-126-092 and must be paid unless taken during a meal period.

(2) Ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the work site and their supervisor can contact each other when necessary. An electronic device, such as a cellular phone or text messaging device, may be used for this purpose only if reception in the area is reliable.

(3) Effectively observe employees for signs and symptoms of heat-related illness by implementing one or more of the following:

- (a) Regular communication with employees working alone such as by radio or cellular phone; or
- (b) A mandatory buddy system; or
- (c) Other effective means of observation.

AMENDATORY SECTION (Amending WSR 08-12-109, filed 6/4/08, effective 7/5/08)

WAC 296-62-09560 Information and training. All training must be provided to employees and supervisors, in a language the employee or supervisor understands, prior to outdoor work which exceeds a temperature listed in WAC 296-62-09510(2) Table 1, and at least annually thereafter.

(1) Employee training. Training on the following topics must be provided to all employees who may be exposed to outdoor heat at or above the temperatures listed in WAC 296-62-09510(2) Table 1:

- (a) The environmental factors that contribute to the risk of heat-related illness;
- (b) General awareness of personal factors that may increase susceptibility to heat-related illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use,

and use of medications that affect the body's responses to heat. This information is for the employee's personal use;

(c) The importance of removing heat-retaining personal protective equipment and clothing such as nonbreathable chemical resistant clothing during all breaks;

(d) The importance of frequent consumption of small quantities of drinking water or other acceptable beverages;

(e) The importance of acclimatization;

(f) The importance of taking preventative cool-down rest periods when employees feel the need to do so in order to protect themselves from overheating;

(g) The mandatory cool-down rest periods under WAC 296-62-09555 when the outdoor temperature reaches or exceeds 89 degrees Fahrenheit;

(h) The employer's procedures for providing shade or other sufficient means to reduce body temperature, including the location of such means and how employees can access them;

(i) The different types of heat-related illness, the common signs and symptoms of heat-related illness; ~~((and~~

~~(g))~~ (j) The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures; and

(k) The employer's procedures for ensuring effective observation and communication with employees for signs and symptoms of heat-related illness.

(2) Supervisor training. Prior to supervising employees working in outdoor environments with heat exposure at or above the temperature levels listed in WAC 296-62-09510(2) Table 1, supervisors must have training on the following topics:

(a) The information required to be provided to employees listed in subsection (1) of this section;

(b) The procedures the supervisor must follow to implement the applicable provisions of WAC 296-62-095 through 296-62-09560;

(c) The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures; and

(d) Procedures for moving or transporting an employee(s) to a place where the employee(s) can be reached by an emergency medical service provider, if necessary.

AMENDATORY SECTION (Amending WSR 20-21-091, filed 10/20/20, effective 11/20/20)

WAC 296-307-09710 Scope and purpose. (1) WAC 296-307-097 through 296-307-09760 applies to all employers with employees performing work in an outdoor environment.

(2) The requirements of WAC 296-307-097 through 296-307-09760 apply to outdoor work environments from May 1 through September 30, annually, only when employees are exposed to outdoor heat at or above an applicable temperature listed in Table 1.

Table 1

To determine which temperature applies to each worksite, select the temperature associated with the general type of clothing or personal protective equipment (PPE) each employee is required to wear.

Outdoor Temperature Action Levels

((All other clothing	89°))
<u>Nonbreathable clothes including vapor barrier clothing or PPE such as chemical resistant suits</u>	<u>52° F</u>
Double-layer woven clothes including coveralls, jackets and sweatshirts	77° F
((Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits	52°))
<u>All other clothing</u>	<u>89° F</u>

Note: There is no requirement to maintain temperature records. The temperatures in Table 1 were developed based on Washington state data and are not applicable to other states.

(3) WAC 296-307-097 through 296-307-09760 does not apply to incidental exposure which exists when an employee is not required to perform a work activity outdoors for more than ~~((fifteen))~~ 15 minutes in any ~~((sixty-minute))~~ 60-minute period. This exception may be applied every hour during the work shift.

(4) WAC 296-307-097 through 296-307-09760 supplement all industry-specific standards with related requirements. Where the requirements under these sections provide more specific or greater protection than the industry-specific standards, the employer must comply with the requirements under these sections. Additional related requirements are found in chapter 296-305 WAC, Safety standards for firefighters and chapter 296-307 WAC, Safety standards for agriculture.

AMENDATORY SECTION (Amending WSR 20-21-091, filed 10/20/20, effective 11/20/20)

WAC 296-307-09720 Definitions. Acclimatization. The body's gradual temporary adaptation to work in heat that occurs as a person is exposed to it over ~~((time))~~ a period of seven to 14 days with a substantial amount of adaptation occurring in the first four to five days. Acclimatization is lost after a week away from working in the heat.

Buddy system. A system where individuals are paired or teamed up into work groups so each employee can be observed by at least one oth-

er member of the group to monitor and report signs and symptoms of heat-related illness.

Double-layer woven clothing. Clothing worn in two layers allowing air to reach the skin. For example, woven coveralls worn on top of regular work clothes.

Drinking water. Potable water that is suitable to drink and suitably cool in temperature. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.

Engineering controls. The use of devices to reduce exposure and aid cooling (i.e., air conditioning).

Environmental factors for heat-related illness. Working conditions that increase susceptibility for heat-related illness such as air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., ~~((heavy, medium, or low))~~ light, moderate, or heavy) and duration, and personal protective equipment and clothing worn by employees. Measurement of environmental factors is not required by WAC 296-307-097.

Heat-related illness. A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.

Outdoor environment. An environment where work activities are conducted outside. Work environments such as inside vehicle cabs, sheds, and tents or other structures may be considered an outdoor environment if the environmental factors affecting temperature are not managed by engineering controls. Construction activity is considered to be work in an indoor environment when performed inside a structure after the outside walls and roof are erected.

Shade. A blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use.

Vapor barrier clothing. Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of ~~((nonbreathing))~~ nonbreathable clothing.

AMENDATORY SECTION (Amending WSR 09-07-098, filed 3/18/09, effective 5/1/09)

WAC 296-307-09730 Employer and employee responsibility. (1) Employers of employees exposed at or above temperatures listed in WAC 296-307-09710(2) Table 1 must:

(a) Address their outdoor heat exposure safety program in their written accident prevention program (APP); ~~((and))~~

(b) Encourage employees to frequently consume water or other acceptable beverages to ensure hydration; and

(c) Encourage and allow employees to take a preventative cool-down rest period when they feel the need to do so to protect themselves from overheating using sufficient means to reduce body temperature such as shade or other equally or more effective means. The preventative cool-down rest period must be paid unless taken during a meal period. If an employee is showing signs or symptoms of heat-related illness during the cool-down rest period, the employer must comply with requirements under WAC 296-307-09750.

Note: Agricultural workers paid on a piece-rate basis must be separately compensated for rest breaks and piece-rate down time. See *Lopez Demetrio v. Sakuma Brothers Farms Inc.*, 183 Wn.2d 649, 355 P.3d 258 (2015); *Carranza v. Dovex Fruit Company*, 190 Wn.2d 612, 416 P.3d 1205 (2018). For more information, see L&I Employment Standards Administrative Policy ES.C.6.2 at <https://lni.wa.gov/workers-rights/docs/esc6.2.pdf>.

(2) Employees are responsible for monitoring their own personal factors for heat-related illness including consumption of water or other acceptable beverages to ensure hydration.

NEW SECTION

WAC 296-307-09735 Access to shade. (1) The employer must provide and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling, and not adjoining a radiant heat source such as machinery or a concrete structure. The shade must be located as close as practicable to the areas where employees are working.

(2) The employer must ensure the amount of shade present is at least enough to accommodate the number of employees on a meal or rest period, so that they can sit in a normal posture fully in the shade.

(3) In lieu of shade, employers may use other means to reduce body temperature if they can demonstrate such means are equally or more effective than shade.

Note: Some alternatives to shade may include the provision of misting stations, cooling vests, and air-conditioned areas.

AMENDATORY SECTION (Amending WSR 09-07-098, filed 3/18/09, effective 5/1/09)

WAC 296-307-09740 Drinking water. (1) Keeping workers hydrated in a hot outdoor environment requires that more water be provided than at other times of the year. Federal OSHA and research indicate that employers should be prepared to supply at least one quart of drinking water per employee per hour. When employee exposure is at or above an applicable temperature listed in WAC 296-307-09710(2) Table 1:

(a) Employers must ensure that a sufficient quantity of suitably cool drinking water is readily accessible to employees at all times; and

(b) Employers must ensure that all employees have the opportunity to drink at least one quart of drinking water per hour.

(2) Employers are not required to supply the entire quantity of drinking water needed to be supplied for all employees on a full shift at the beginning of the shift. Employers may begin the shift with

smaller quantities of drinking water if effective procedures are established for replenishment during the shift.

NEW SECTION

WAC 296-307-09745 Acclimatization. Employers are encouraged to closely observe new employees and employees returning to work in hot conditions after a prolonged absence for signs and symptoms of heat-related illness for 14 days by implementing one or more of the monitoring options under WAC 296-307-09755(3). Close observation of employees is also encouraged during a sudden temperature increase relative to temperatures on previous days.

Note: Employers may also consider additional acclimatization procedures recommended by NIOSH:
- NIOSH Heat Stress: Acclimatization. <https://www.cdc.gov/niosh/mining/userfiles/works/pdfs/2017-124.pdf>
- NIOSH Criteria for a Recommended Standard for Occupational Exposure to Heat and Hot Environments: <https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf?id=10.26616/NIOSH PUB2016106>

NEW SECTION

WAC 296-307-09755 Additional requirements when outdoor temperatures meet or exceed 89 degrees Fahrenheit. (1) The employer must ensure that employees take mandatory cool-down rest periods of at least 10 minutes every two hours. The mandatory cool-down rest period may be provided concurrently with any meal or rest period required under WAC 296-126-092 and must be paid unless taken during a meal period.

(2) Ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the work site and their supervisor can contact each other when necessary. An electronic device, such as a cellular phone or text messaging device, may be used for this purpose only if the reception in the area is reliable.

(3) Effectively observe employees for signs and symptoms of heat-related illness by implementing one or more of the following:

- (a) Regular communication with employees working alone such as by radio or cellular phone; or
- (b) A mandatory buddy system; or
- (c) Other effective means of observation.

AMENDATORY SECTION (Amending WSR 09-07-098, filed 3/18/09, effective 5/1/09)

WAC 296-307-09760 Information and training. All training must be provided to employees and supervisors, in a language the employee or supervisor understands, prior to outdoor work which exceeds a temperature listed in WAC 296-307-09710(2) Table 1, and at least annually thereafter.

(1) Employee training. Training on the following topics must be provided to all employees who may be exposed to outdoor heat at or above the temperatures listed in WAC 296-307-09710(2) Table 1:

(a) The environmental factors that contribute to the risk of heat-related illness;

(b) General awareness of personal factors that may increase susceptibility to heat-related illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's responses to heat. This information is for the employee's personal use;

(c) The importance of removing heat-retaining personal protective equipment and clothing such as nonbreathable chemical resistant clothing during all breaks;

(d) The importance of frequent consumption of small quantities of drinking water or other acceptable beverages;

(e) The importance of acclimatization;

(f) The importance of taking preventative cool-down rest periods when employees feel the need to do so in order to protect themselves from overheating;

(g) The mandatory cool-down rest periods under WAC 296-307-09755 when the outdoor temperature reaches or exceeds 89 degrees Fahrenheit;

(h) The employer's procedures for providing shade or other sufficient means to reduce body temperature, including the location of such means and how employees can access them;

(i) The different types of heat-related illness, the common signs and symptoms of heat-related illness; ~~((and~~

~~(g))~~ (j) The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures; and

(k) The employer's procedures for ensuring effective observation and communication with employees for signs and symptoms of heat-related illness.

(2) Supervisor training. Prior to supervising employees working in outdoor environments with heat exposure at or above the temperature levels listed in WAC 296-307-09710(2) Table 1, supervisors must have training on the following topics:

(a) The information required to be provided to employees listed in subsection (1) of this section;

(b) The procedures the supervisor must follow to implement the applicable provisions of WAC 296-307-097 through 296-307-09760;

(c) The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures; and

(d) Procedures for moving or transporting an employee(s) to a place where the employee(s) can be reached by an emergency medical service provider, if necessary.