

**WSR 22-12-095**  
**EMERGENCY RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed June 1, 2022, 11:06 a.m., effective June 15, 2022]

Effective Date of Rule: June 15, 2022.

Purpose: The department of labor and industries (L&I) is adopting emergency rules to amend the current outdoor heat exposure rules under chapter 296-62 WAC, General occupational health standards, and chapter 296-307 WAC, Safety standards for agriculture, to protect outdoor workers from heat-related illnesses due to outdoor heat exposure.

When the temperatures are at or exceed one of the three trigger temperatures in the rule, employers must:

- Have and maintain one or more areas with shade at all times while employees are present sufficient to accommodate the number of employees on a meal or rest period so they can sit in a normal posture fully in the shade. The shade shall be located as close as practicable to the areas where employees are working and not adjoining a radiant heat source. In lieu of shade, employers may use other sufficient means to reduce body temperature provided by the employer under the existing requirement to have sufficient means to reduce body temperature when employees show symptoms of heat-related illness.

When the temperatures are at or exceed 89°F, employers 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 other meal or rest period.
- 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.
- Closely observe employees for signs and symptoms of heat-related illness by: Regular communication with employees such as by radio or cellular phone; a mandatory buddy system; or other effective means of observation.

In addition, the emergency rules:

- Specify that employees must be allowed and encouraged to take a preventative cool-down rest in the shade or using another means provided by the employer to reduce body temperature when they feel the need to do so to protect themselves from overheating.
- Update the training requirements for employers and supervisors to include preventative cool-down rest periods and mandatory cool-down rest periods under the high temperature procedures.
- Define the term "shade."
- Further define the term "acclimatization" and encourage acclimatization procedures for all employees.
- Clarify that environmental factors for heat-related illness include clothing worn by employees.
- Clarify that drinking water be suitably cool in temperature.

- Clarify that time during preventative cool-down rest and mandatory cool-down rest periods must be paid unless taken during an unpaid meal break

Citation of Rules Affected by this Order: New WAC 296-62-09535, 296-62-09545, 296-62-09555, 296-307-09735, 296-307-09745 and 296-307-09755; and amending WAC 296-62-09510, 296-62-09520, 296-62-09530, 296-62-09540, 296-62-09560, 296-307-09710, 296-307-09720, 296-307-09730, 296-307-09740, and 296-307-09760.

Statutory Authority for Adoption: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: RCW 49.17.050(4) directs L&I to "provide for the promulgation of health and safety standards and the control of conditions in all work places concerning ... harmful physical agents which shall set a standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity L&I to adopt feasible and necessary rules to protect the health and lives of Washington workers." Heat-related illness ranges from relatively harmless conditions such as heat edema (swelling) and heat cramps to more serious illness such as heat syncope (fainting), rhabdomyolysis (breakdown of damaged muscles which can cause kidney damage) and heat exhaustion. The most serious and often fatal form of heat-related illness is heat stroke. However, heat exhaustion can make workers more susceptible to falls, equipment-related injuries, and other on-the-job safety hazards.

During the significant and unprecedented 2021 heatwave, L&I received a petition requesting the department adopt emergency rules to address preventative measures when there is extreme high heat. The heat-wave highlighted the dangers of extreme heat, and made it clear that this was an urgent issue as the current rules only require employers to respond once a worker shows symptoms of heat-related illness, but do not affirmatively address preventative measures to avoid overheating other than access to drinking water. The hazards of heat are well documented, as is the increase in risk associated with the increase in temperature. L&I accepted the petition for emergency rules to address requirements for employers to engage in key preventative steps when the temperature increases to higher levels of risk. Emergency rules were adopted on July 9, 2021 (WSR 21-15-017), with the primary focus on extreme high heat exposures at or above 100° [F]. In August 2021 (WSR 21-17-135), L&I initiated the permanent rule-making process in recognition of the need to reexamine the current rules, especially in light of information suggesting the occurrence of heat illnesses below the current trigger temperatures and the increasing temperatures experienced in our state since the rule was first established.

As part of the permanent rule development, L&I reviewed peer reviewed research to understand the current best evidence on heat exposures and hazard, as well as information on heat-related illness, including Washington workers' compensation claims. Since the initial adoption of the outdoor heat exposure rules in 2008, research has

evaluated the relationship between occupational heat exposure and: Traumatic injuries (example: Fall from ladder); acute kidney injury; absorption of chemicals; pregnancy/birth outcomes; and mental health outcomes. Review of research on workers' compensation claims showed 918 confirmed claims between 2006 and 2017, with 654 claims accepted. From 2018 through 2021, there were 203 accepted claims, with a spike in claims associated with the 2021 heat dome. Over half of the accepted workers' compensation accepted claims occurred at temperatures at or above 89°F, with a spike following the 2021 heatwave. The workers' compensation data also shows that years with higher temperatures compared to the historical norms tend to have greater number of claims.

Given the research on underreporting of claims, the burden of heat exposure is likely higher. Underreporting of heat-related illness claims is also impacted due to high percentages of vulnerable workers in industries with occupational heat exposure such as agriculture and construction. Vulnerable work characteristics such as race, ethnicity, immigration status, language, class, or contingent work or other insecure or precarious employment, can lead to underreporting by workers due to a lack of understanding of their rights and fear of retaliation and discrimination.

While work on the development of the permanent rules is still ongoing, L&I determined emergency rules are needed to ensure adequate protections are in place to address gaps in the current rules to more adequately prevent heat-related illness. In addition, L&I was again petitioned to adopt emergency rules for 2022 while the permanent rule-making was ongoing to include more preventative requirements to reduce the risk of heat-related illness.

The current rules, in effect annually from May 1 through September, apply when the temperature is at or above 89°F with lower temperature thresholds for work in double-layer clothes or nonbreathing clothes. The current outdoor heat exposure rules require employers with employees working outdoors to have a written outdoor heat exposure safety program; ensure sufficient quantity of drinking water is readily accessible to employees at all times, and that employees have the opportunity to drink at least one quart of drinking water per hour; and train workers and supervisors on heat-related illness. The current rules, in effect annually from May 1 through September, apply when the temperature is at or above 89°F with lower temperature thresholds for work in double-layer clothes or nonbreathing clothes. The rules also require employees showing signs or demonstrating symptoms of heat-related illness be relieved from duty, provided with a sufficient means to reduce body temperature and must be monitored to determine whether medical attention is necessary. L&I advises that sufficient means to reduce body temperature includes shade, misting stations, or temperature controlled environments such as air-conditioned trailers. However, there are not specific requirements as to how much shade or other cooling methods are required.

The emergency rules now require access to shade or the other cooling methods sufficient to accommodate all workers on a meal or rest break at any of the three trigger temperatures under the rule. At any trigger temperature, employees must be allowed and encouraged to take a preventative cool-down rest in the shade or using another means provided by the employer to reduce body temperature when they feel the need to do so to protect themselves from overheating. At the trigger temperature of 89°F, the emergency rules include requirements for: Paid mandatory cool-down rest periods of at least 10 minutes every two hours and effective communication by voice, observation, or electronic

means. The emergency rules also require employers closely observe employees for signs and symptoms of heat-related illness. The current rules require employers respond to workers showing signs and symptoms of heat-related illness and this requirement provides clarity on the expectation that employers affirmatively monitor employees to identify those showing signs and symptoms. These provisions aimed at preventing overheating will help to prevent heat-related illness.

In addition, the current rules require drinking water be "suitable to drink" and L&I has long interpreted that water suitable to drink does not include water so hot that employees do not wish to drink it.

As such, L&I has determined the requirements of the emergency rules are both feasible and necessary to protect workers. Given the heatwave and increase temperatures in the summer of 2021 due to climate change, immediate adoption of emergency rules is necessary for the preservation of the public health and safety and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest. Efforts to develop the permanent rules will continue in order to provide permanent rules by the summer of 2023.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Nongovernmental Entity: New 6, Amended 10, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: June 1, 2022.

Joel Sacks  
Director

### OTS-3780.3

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

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

**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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 19-01-094, § 296-62-09510, filed 12/18/18, effective 1/18/19; WSR 08-12-109, § 296-62-09510, filed 6/4/08, effective 7/5/08.]

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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 19-01-094, § 296-62-09520, filed 12/18/18, effective 1/18/19; WSR 08-12-109, § 296-62-09520, filed 6/4/08, effective 7/5/08.]

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 pre-

ventative 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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 08-12-109, § 296-62-09530, filed 6/4/08, effective 7/5/08.]

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.

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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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 08-12-109, § 296-62-09540, filed 6/4/08, effective 7/5/08.]

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>

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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.

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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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 08-12-109, § 296-62-09560, filed 6/4/08, effective 7/5/08.]

OTS-3779.3

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

<del>((All other clothing</del>	<del>89°))</del>
<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
<del>((Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits</del>	<del>52°))</del>
<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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 20-21-091, § 296-307-09710, filed 10/20/20, effective 11/20/20; WSR 09-07-098, § 296-307-09710, filed 3/18/09, effective 5/1/09.]

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 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 296-307-097.

**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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 20-21-091, § 296-307-09720, filed 10/20/20, effective 11/20/20; WSR 09-07-098, § 296-307-09720, filed 3/18/09, effective 5/1/09.]

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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 09-07-098, § 296-307-09730, filed 3/18/09, effective 5/1/09.]

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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 09-07-098, § 296-307-09740, filed 3/18/09, effective 5/1/09.]

#### 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.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 09-07-098, § 296-307-09760, filed 3/18/09, effective 5/1/09.]