

# Frequently Asked Questions about the Proposed Outdoor Heat Exposure Rule Changes

**March 22, 2023**

On March 21, 2023, the Department of Labor & Industries' (L&I) filed proposed rules to update the Outdoor Heat Exposure rules under WAC 296-62-094 and 296-307-097. The proposed changes address minimum requirements to prevent heat-related illness and reduce traumatic injuries for outdoor workers associated with heat exposure.

**For information on how to comment on the rule, see <https://Lni.wa.gov/HeatSmart>.**

## Background on Proposed Rules

### Proposed changes address the need for more preventative measures in the rules

Working in heat increases the risk for heat-related illness, including heat exhaustion and life-threatening heat stroke. Heat exposure can also make workers more susceptible to falls, equipment-related injuries, and other on-the-job safety hazards. Heat exposure is also associated with acute kidney injury.

The current Outdoor Heat Exposure rules, adopted in 2008, include provisions focusing on responding to workers once they are experiencing signs and symptoms of heat-related illness but do not affirmatively address preventative measures to avoid overheating other than access to drinking water.

During the significant and unprecedented 2021 heat wave, L&I received a petition requesting the department adopt emergency rules and amend the permanent rules to address preventative measures and extreme high heat. L&I accepted the petition, recognizing the need to reexamine the current Outdoor Heat Exposure rules.

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.*”

The proposed rules focus on preventing heat-related illness and traumatic injuries from heat exposure by adding specific preventative measures for shade, rest, and acclimatization, as well as lowering the temperature action level for when some preventive measures, including the existing requirement for drinking water..

### Proposed rule development

L&I reviewed the best available evidence, including heat-related injury and illness data both in Washington and nationally, other published research, standards and guidelines from the American Conference of Governmental Industrial Hygienists, and the National Institute for Occupational Safety and Health. The agency also considered regulations from other state

agencies, and guidance, summaries of case investigations, and enforcement polices from federal OSHA.

Emergency rules were filed in July 2021 to address preventative measures for extreme high heat and the permanent rulemaking process was initiated in August 2021. While work was ongoing on the developing the proposed permanent rule, a second emergency rule was filed in June 2022, with a focus on preventative measures for high heat.

## **Stakeholder involvement**

L&I worked with stakeholders in developing the proposed rules. Input was solicited through an outdoor heat exposure scoping survey. Four stakeholder meetings were held virtually and stakeholders were able to participate online or by phone. Draft language was shared for comment prior to the 2022 emergency rule and draft proposed rules were also shared for stakeholder feedback.

## **FAQs**

### **Scope**

#### **Do the proposed rules address indoor heat exposure from ambient temperatures?**

Both the current rules and the proposed rules address employees performing work in an outdoor environment. Work 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. However, the permanent rulemaking efforts initiated in August 2021 was for high ambient temperatures in all industries, including outdoor and indoor exposures. The rulemaking has been split into phases. This first phase focused on updates to the current requirements for -outdoor heat exposure. The second phase, once initiated, will focus on ambient heat exposure in indoor workplaces.

#### **Why was the scope of the rule changed from being in place from May through September to being in place year round?**

The current rules are in place from May 1 through September 30. However, the temperature action level of 52°F for workers wearing non-breathable clothes occurs at other times of the year. While not common, there the 80°F action level can occur outside of May through September. As such, changing the scope to apply year-round provides appropriate protection for workers.

#### **The current rules exempt incidental exposures. Is that being changed?**

No, there is no change to the exemption for incidental exposures. Incidental exposures exists when an employee is not required to perform a work activity outdoors for more than 15 minutes in any 60-minute period. This exception may be applied every hour during the work shift.

As discussed when the 2008 rule was adopted, it was not intended to include workers that only went outside for short durations during their work shift, such as individuals collecting shopping carts at stores or forklift drivers that occasionally go outside to unload a truck. The 15-minute-per-hour exemption, which can be accumulated through the hour, was based on the amount of time employees could be expected to conduct very heavy work in the heat without ill effects.

## Definitions

**The proposed rules amend the definition for acclimatization, indicating it can depend on personal risk factors like medications an employee may be taking that is personal information not required to be shared with an employer.**

Employers do not have to determine each employee's personal risk factors. L&I is providing a definition to help employers and employees understand the concept of acclimatization and that personal risk factors influence someone's ability to acclimatize.

**Looking at the definition for risk factors for heat-related illness, do employers need to ask employees for medical information and personal factors?**

No. Individual/personal risk factors are included in the definitions in order for employers and employees to understand what those risk factors are. Employers are required to inform employees of those risk factors as required in the existing requirements under the training and information section.

**In the definition of shade, it states that a car sitting in the sun does not provide acceptable shade to a person sitting in it, unless the car is running with air-conditioning. How is this different than a pop-up canopy?** The example of sitting in a car, even with the windows rolled down, is not acceptable shade as the inside of the car in the sun will have significantly higher temperatures than outside, even if the windows are open. The definition of shade is that it is not adequate when heat in the area of shade defeats the purpose of shade which is to allow the body to cool. A popup canopy blocks direct sunlight and allows for air movement, so it is adequate shade per the definition.

## Temperature Action Levels

**What was the basis for reducing the Outdoor Temperature Action Level for most situations from 89°F to 80°F?**

In determining the action level, L&I reviewed Information on heat-related illness and injuries, including Washington state workers' compensation heat-related illness and injury claims data, and national heat-related injury and illness data. L&I reviewed peer-reviewed research to understand the current best evidence on heat exposure hazards and controls, including studies regarding the relationship between outdoor heat exposure and traumatic injuries, such as falls from ladders. L&I also reviewed standards and recommendations from the American Conference of Governmental Industrial Hygienist and the National Institute for Occupational Safety and Health, regulations from other state agencies, and guidance and enforcement polices from federal OSHA.

The information reviewed overwhelming supported lowering the temperature action level from 89°F to 80°F. By lowering the temperature action level to 80°F, it not only reduces the risk of heat-related illness that can occur at temperatures below 89°F, but requirements for water and shade at 80°F reduce the impact of heat exposures at higher temperatures. These preventative efforts also reduce the risk of traumatic injuries, such as falls from ladders that are associated with heat exposure. It is also important that workers are monitored for symptoms of heat-related illness when temperatures are at or above 80°F as well as addressing acclimatization. However, not all provisions of the proposed rule kick at 80°F, additional preventative measures kick in at 90°F and 100°F.

### **Why do the proposed rules not use the Web Bulb Globe Temperature (WBGT) for the temperature action levels rather than using ambient temperature?**

The Web Bulb Globe Temperature (WBGT) is a way to assess heat exposure that takes into account air temperature, humidity, wind, and solar radiation (e.g., sun). The initial temperature action levels in the 2008 rule were derived using the WBGT in consultation with a national expert in heat stress. As part of that determination, a review of humidity for Washington state, as assessed by dew point temperatures, identified little variability in humidity and a dew point of 50°F was assumed. Dew point observations were not expected to change substantially since the prior assessment and more recent dew point data from across Washington state indicated that a dew point of 50° F remains a reasonable assumption. As such, L&I decided to continue using these assumptions to develop ambient temperature triggers for the rule. In addition, maintaining the use of ambient air makes it is easier for employers and employees to monitor temperatures and it removes the burden of employers having to use specialized equipment (WBGT), separately consider humidity levels, and conduct complex calculations.

### **Why do the proposed rules not use the Heat Index instead of ambient temperature?**

The Heat Index is a measurement that considers both ambient temperature and humidity or how hot it feels to the body. As discussed above, humidity was considered in setting the ambient temperature actions levels in the 2008. As there is little variability in humidity levels in Washington state, humidity could be factored into the determination of the ambient temperature actions levels and use of ambient temperature makes it easier for both employers and workers.

## **Drinking Water**

### **What was the basis for the requirement that drinking water to be “suitably cool”?**

This amendment clarifies the existing requirement and explicitly states drinking water needs to be suitably cool in temperature such that it will not discourage employees to drink water. This is consistent with DOSH’s long standing application of the existing requirement as “drinking water” is defined as potable water or other appropriate beverages that are “suitable to drink.” As discussed in DOSH Directive 10.15, “suitable” includes ensuring that water is cool enough to be readily drinkable. In addition, the general requirement for drinking water in under WAC 296-307-09512(7) specifically addresses the need to provide suitably cool potable drinking water.

### **Why isn’t there a specific temperature as to what is “suitably cool”?**

In drafting the proposed rule, we want to avoid the burden of employers having to measure the temperature of the water and instead focus on the intent, which is to avoid providing warm/hot water such that it will discourage employees from drinking it. Based on guidance from NIOSH and OSHA, a temperature of 50–60°F is recommended for drinking water.

### **Are there any changes to the quantities of drinking water required to be provided under the rule?**

No. The current requirements are maintained. Under the current rules, employers must provide and make readily accessible a sufficient amount of drinking water to allow workers to drink at least one quart each per hour.

## Employer Requirements

### When do preventative cool-down periods apply?

They apply at the applicable Outdoor Temperature Action Levels, either 52° F for non-breathable clothing or 80° F for all other clothing.

### **Under the proposed rules, employees are allowed to take preventative cool-down rest periods when they feel they needed to cool down. Why is this needed if mandatory cool-down rest periods are added in the high heat procedures?**

To prevent heat-related illnesses, workers should not wait until they feel sick to cool down. While the proposed rules include provisions for mandatory cool-down rest periods when there is high heat (over 90°F), these may not account for the variability in risk factors for heat related-illness. For example, environmental factors, workload or work duration, can vary across worksites and across activities at an individual worksite. Personal factors, such a physical fitness or acclimatization, similarly vary across employees at different worksites and at individual worksites. Preventative rest helps address this variability and can be taken anytime the temperature is at or above the applicable action level. This could include new workers still getting acclimatized. Ensuring employees understand their right to take preventative cool-down rests periods when needed and that the preventative cool-down rest periods are paid unless taken during a meal period will help in situations where employees may be motivated to skip breaks or otherwise adjust the pace of their work such as piece rate or where the employees fear of retaliation and discrimination.

### **Do the proposed rules allow workers to take unlimited preventative cool-down periods at will?**

Preventative cool-down rest periods are for workers when they feel they need to cool down to prevent overheating. Preventative rest periods may happen concurrently with the existing requirement to provide workers an opportunity to drink at least one quart of water each per hour. The current rule already requires employers to monitor employees for signs and symptoms of heat-related illness and if a worker is showing signs or symptoms of heat-related illness, the existing rule already requires workers to be relieved of duty and provided sufficient means to reduce body temperature. As such, it is expected that an employer is monitoring workers who are taking excessive cool-down breaks to ensure they are not experiencing symptoms. If an employer is monitoring as required by the rules, it does not prevent employers from addressing misuse of preventative cool-down rest in the same manner the employer addresses other misuse of authorized breaks or safety issues.

## Acclimatization

### **Why acclimatization is needed at 80°F and why require close observation?**

Employees are most vulnerable to experiencing heat illness when they are new or returning to working in the heat, or during a heat wave when there hasn't been time to acclimatize. An employee's ability to acclimatize depends on multiple factors including the amount of work performed in the heat and individual characteristics such as age, physical fitness, medications taken, and level of hydration. Close observation is intended to ensure rapid response to signs and symptoms of heat-related illness during these vulnerable times.

**The proposed rule requires close observation for new employees for 14 consecutive days. What about new employees who move between employers or who recently came from being a hot climate?**

NIOSH and other sources recommend that unacclimatized workers follow a schedule starting with shorter durations of work in the heat that gradually increase over a one to two week period. However, this was determined to be too burdensome, so the proposed rule requires close observation for workers newly assigned to working in the heat. As close observation can be done by having workers not work alone or, if working alone, to have regular communication, any new employee will fall under the close observation requirements.

**When the 14 day period starts for new and returning workers and temperature drops below 80°F, does it start it over?**

No, if the temperature drops below 80°F, the 14-day period does not start over.

## High Heat Procedures

**Are preventative cool-down rest periods the same as mandatory cool-down rest periods?**

No. Preventative cool-down rest periods are as needed any time the temperature is at or above the applicable temperature action levels, no matter how high the temperature gets. Mandatory cool-down rest periods are in addition to preventative, only during high heat at and above 90°F and 100°F. Employees do not have the option to skip mandatory cool-down rest periods.

**For the mandatory cool-down periods, does the worker need to be relieved of all duties? Can they do work during the cool-down period if in shade or in air conditioning?**

The key with the cool-down periods is the opportunity to give the body an actual rest, both from the work activity level and temperature. The assumption in setting the rest breaks was that workers would be in a cool area doing very little to no physical activity so the body can cool and rest. Examples of work with very little to no physical activity are reading or writing while sitting in the shade or in an indoor environment with air conditioning.

**On days that the temperature is forecasted to be at or above 100°F, do I need to provide 15-minute breaks for every hour of the work day?**

No. The 15 minutes per hour mandatory rest breaks only apply for the times when the temperature reaches or exceeds 100°F. Typically, in Washington these temperatures are reached on very hot days for only a few hours in the afternoon.

**What about if the work area is on a covered deck or patio, are the mandatory cool-down rest period still required?**

Under the proposed rules, the high heat procedure requirements apply when the temperature is at or above 90°F *“unless engineering or administrative controls, such as air-conditioning or scheduling work at cooler times of the day, are used to lower employees’ exposure below 90°F”*. If engineering or administrative controls bring the temperatures in the work area below the high heat levels, then the mandatory rest periods are not required.

## Training and Information

**Can the training requirement be transferrable?**

Employers need to demonstrate that the worker is trained. Some training elements may be transferrable except for employer and site-specific information.

**Under the current rules, training is required before a worker is exposed to temperatures at the applicable actions levels. Under the proposed rules, which are in effect year round, it would require training workers before they work outdoors and are exposed to outdoor heat. Why was this changed?**

Because of the variability of some of personal risk factors, having training and knowledge is important when there could be risk of heat-related illness, which can occur at temperatures below the temperature action levels. This training requirement change is also consistent with the proposed rule being applicable year-round for outdoor work when employees might be exposed to outdoor heat.