

## Key requirements: Oregon OSHA's permanent rules for heat illness prevention

On May 9, 2022, Oregon adopted two permanent rules – 437-002-0156 and 437-004-1131 – following direction from Oregon Gov. Kate Brown to protect workers from heat-related illnesses.

The rules' key requirements are identical and apply to any workplace where extreme heat caused by weather can expose workers to heat-related illnesses – medical conditions resulting from the body's inability to cope with a particular heat load; 437-004-1131 applies to agricultural workplaces and 437-002-0156 applies to all other workplaces. The rules do not apply to buildings and structures that have mechanical ventilation that keep the indoor heat index less than 80 degrees Fahrenheit.

The key requirements are based on a set of numbers called the heat index – sometimes called the apparent temperature – published by the National Oceanic and Atmospheric Administration's National Weather Service. There is a direct relationship between air temperature and relative humidity; the heat index indicates what the temperature feels like to the human body when relative humidity and the air temperature are combined.

Oregon OSHA's rules for preventing heat illnesses apply to workplaces whenever an employee is working and the heat index equals or exceeds 80 degrees Fahrenheit. More requirements apply (see High heat



practices, below) when the heat index exceeds 90 degrees Fahrenheit.

### Exemptions – There are both full and partial exemptions in the rules

**Full exemptions:** Incidental heat exposures, exposures to heat generated from the work process, emergency operations, and buildings and structures that have a mechanical ventilation system that keeps the heat index below 80 degrees Fahrenheit.

**Partial exemptions:** Employers whose employees perform either “rest” or “light” workloads, associated support activities for wildland firefighters, and employees who work from home.

## KEY REQUIREMENTS

### Access to shade

Establish one or more shade areas when the heat index equals or exceeds 80 degrees Fahrenheit. Shade may be provided by natural or artificial means that do not expose employees to unsafe or unhealthy conditions and that do not discourage access or use.

Those performing “rest” or light” work, as defined by the rules, are exempt from the provisions for shade when the heat index is less than 90 degrees Fahrenheit. Shade must:

- Be open to the air or have mechanical ventilation for cooling.
- Be located as close as practical to the areas where employees are working.
- Accommodate at least the number of employees on recovery, rest, or meal periods so they have room to sit.

When an employee’s access to shade is not possible in a particular situation – during high winds or when an

employee is walking through range land, for example – the employer must identify and implement cooling measures that provide equivalent protection to shade.

### Drinking water

Other rules require water to be provided at all times, but the specific requirements for these rules are described below.

- Enough drinking water must be available so that each employee can consume 32 ounces per hour.
- Drinking water must be cool (66 to 77 degrees Fahrenheit) or cold (35 to 65 degrees Fahrenheit).
- Drinking water packaged as a consumer product and electrolyte-replenishing drinks that do not contain caffeine – sports drinks, for example – are acceptable substitutes, but should not completely replace the required water.

Employers are not required to supply the entire quantity of drinking water for employees at the beginning of a shift; employers may begin the shift with smaller quantities of water if they have a procedure that ensures any water consumed during the shift will be replaced.

Those performing “rest” or light” work, as defined by the rules, are exempt from the specific quantities of water when the heat index is less than 90 degrees Fahrenheit - but still required in other Oregon OSHA provisions.

### Supervisor and employee annual training

Employers must ensure that all employees – including new, supervisory, and nonsupervisory employees – are trained **annually** in the following topics, in a language they can readily understand, before they begin work at sites where the heat index will be 80 degrees Fahrenheit or higher:

- The environmental and personal risk factors for heat illness, including the extra burden of heat caused by exertion, clothing, and personal protective equipment.
- The procedures for complying with the requirements of this standard, including the employer's responsibility to provide water, daily heat index information, shade, cool-down rests, how to report symptoms of heat-related illness, and access to first aid, as well as the employees' right to exercise their rights under this standard without fear of retaliation.
- How to adapt to working in a hot environment.



- The importance of employees immediately reporting symptoms or signs of heat illness – in co-workers or themselves.
- The effects of nonjob factors – such as medications, alcohol, and obesity – on tolerance to heat stress.
- The main types of heat-related illnesses – heat cramps, heat exhaustion, heat syncope, and heat stroke – and their signs and symptoms.
- The importance of frequent consumption of small quantities of water, up to 32 ounces per hour.

Those performing “rest” or light” work, as defined by the rules, are exempt from the training requirements when the heat index is less than 90 degrees Fahrenheit.

## High heat practices

When the heat index exceeds 90 degrees Fahrenheit, employers must implement the following additional high heat practices:

- Ensure that effective communication by voice, observation, or electronic means is maintained so that employees working at the site can contact a supervisor when necessary. Cellphones and text messaging may be used for this purpose only if reception in the area is reliable.
- Ensure that employees are monitored for signs of heat illness, and whether medical attention is necessary, using one or more of the following:
  - Regular communication with employees working alone – by radio, cellphone, or other alternative means.
  - A mandatory buddy system.
  - Other equally effective means of observation or communication
- Designate and equip one or more employees at each site who can call for emergency medical



services and allow other employees to call for emergency services when designated employees are not immediately available.

- Ensure that each employee takes heat illness prevention rest breaks, based upon one of the three options in the rules, regardless of the length of the shift.
  - The rest break can take place with any other meal or rest period required by policy, rule, or law if the timing of the break coincides with the required meal or rest period.
  - The preventive cool-down rest break is a work assignment.

## Emergency medical plan

When the ambient temperature at a site exceeds the heat index of 80 degrees Fahrenheit, employers must implement an emergency medical plan that complies with 437-002-0161, Medical and first aid (agricultural

employers must implement, per [437-004-1305\(4\)](#)), and includes procedures for:

- Responding to employees' signs and symptoms of possible heat illness, including the use of first aid and how emergency medical services will be provided. If a supervisor observes or an employee reports signs or symptoms of heat illness, the supervisor must take immediate action appropriate to the severity of the illness.
  - If a supervisor observes signs or an employee reports symptoms of heat illness, the employee must be relieved from duty and provided with a means to reduce body temperature.
  - If the signs or symptoms indicate severe heat illness – such as decreased consciousness, staggering, vomiting, disorientation, irrational behavior, or convulsions – immediately implement the emergency response procedures.



- An employee exhibiting signs or symptoms of heat illness must be monitored and must not be left alone or sent home without being offered on-site first aid or provided with emergency medical services.
- Contacting emergency medical services and, if instructed to do so by medical professionals, transporting employees to a place where they can be reached by an emergency medical provider.
- Ensuring that clear and precise directions to the site are provided to emergency responders so they can quickly find the affected employee.

### Acclimatization

Employers must develop effective acclimatization practices that allow employees to gradually adapt to working at sites where the ambient temperature heat exceeds the heat index of 80 degrees Fahrenheit. Employers may either develop their own acclimatization plan or follow guidance from the National Institute for Occupational Safety and Health (NIOSH).

More heat-related illness resources can be found at [osha.oregon.gov/pages/topics/heat-stress.aspx](https://osha.oregon.gov/pages/topics/heat-stress.aspx)



Visit [Oregon OSHA](https://osha.oregon.gov)

### WORKERS

Your employer cannot retaliate against you for reporting any workplace health or safety concern or violation, for more information on your rights visit Oregon OSHA.

