

**ADOPTED REGULATION OF THE  
DIVISION OF INDUSTRIAL RELATIONS OF THE  
DEPARTMENT OF BUSINESS AND INDUSTRY**

**LCB File No. R053-20**

EXPLANATION – Matter in *italics* is new; matter in brackets ~~(omitted material)~~ is material to be omitted.

AUTHORITY: §§ 1-11, NRS 618.295 and 618.315.

A REGULATION relating to occupational safety and health; adopting by reference certain standards relating to heat stress and strain; imposing certain duties on employers of employees who are exposed to certain high temperatures; requiring employers to ensure that employees have ready access to potable drinking water; requiring employers to provide employees with access to an area with shade under certain circumstances; requiring an employer to provide employees with training relating to heat illness; imposing certain duties on an employer of an employee who shows signs or symptoms of heat illness; and providing other matters properly relating thereto.

**Legislative Counsel's Digest:**

**Section 6** of this regulation provides that the Division of Industrial Relations of the Department of Business and Industry adopts by reference the “Heat Stress and Strain” portion of the 2020 edition of the *Threshold Limit Values and Biological Exposure Indices* published by the American Conference of Governmental Industrial Hygienists.

Existing law requires certain employers to establish a written safety program. (NRS 618.383) **Section 7** of this regulation: (1) requires an employer of employees who are exposed to certain high temperatures to include a program for the management of heat illness in the written safety program; and (2) sets forth certain items which must be included in such a program for the management of heat illness.

**Section 8** of this regulation requires an employer to ensure that employees have ready access to certain quantities of potable drinking water.

**Section 9** of this regulation requires an employer, under certain circumstances, to provide access to an area of shade to an employee who is suffering from heat illness or believes that he or she needs a period of time to recover from the heat to prevent heat illness.

**Section 10** of this regulation requires an employer to provide certain supervisory and nonsupervisory employees with training relating to heat illness.

**Section 11** of this regulation imposes certain duties on an employer of an employee who shows signs or demonstrates symptoms of heat illness.

**Section 1.** Chapter 618 of NAC is hereby amended by adding thereto the provisions set forth as sections 2 to 11, inclusive, of this regulation.

**Sec. 2.** *As used in sections 2 to 11, inclusive, of this regulation, unless the context otherwise requires, the words and terms defined in sections 3, 4 and 5 of this regulation have the meanings ascribed to them in those sections.*

**Sec. 3.** *“Acclimatization” means the temporary adaptation of a person’s body to work in the heat that occurs gradually when the person is exposed to the heat.*

**Sec. 4.** *“Heat illness” means a medical condition resulting from the body’s inability to cope with a particular heat load and includes, without limitation, heat cramps, heat rash, heat exhaustion, fainting and heat stroke.*

**Sec. 5.** *“Personal risk factors for heat illness” means factors that affect the retention of water by the body and other physiological responses to heat, including, without limitation, a person’s:*

- 1. Age;*
- 2. Degree of acclimatization;*
- 3. Health;*
- 4. Consumption of water;*
- 5. Consumption of alcohol;*
- 6. Consumption of caffeine; and*
- 7. Use of prescription medications.*

**Sec. 6.** *The Division hereby adopts by reference the “Heat Stress and Strain” portion of the Threshold Limit Values and Biological Exposure Indices, 2020 edition, published by the American Conference of Governmental Industrial Hygienists. This publication is available by*

*mail from the American Conference of Governmental Industrial Hygienists, 3640 Park 42 Drive, Cincinnati, Ohio 45241, by telephone at (513) 742-2020 or at the Internet address <https://www.acgih.org>, at a cost of \$41.21.*

**Sec. 7. 1.** *An employer of employees who are exposed to temperatures at or above:*

*(a) A dry-bulb temperature of 80 degrees Fahrenheit; or*

*(b) The applicable Wet-Bulb Globe Temperature in Celsius, as determined pursuant to section 2 and table 2 of the “Heat Stress and Strain” portion of the Threshold Limit Values and Biological Exposure Indices, 2020 edition, adopted by reference in section 6 of this regulation,*

*↪ shall include a program for the management of heat illness in the written safety program required by NRS 618.383.*

*2. A program for the management of heat illness required pursuant to subsection 1 must include:*

*(a) Provision for water, rest and shade;*

*(b) Monitoring of employees for heat illness;*

*(c) Training of employees and management; and*

*(d) Procedures for responding to an emergency.*

**Sec. 8. 1.** *An employer shall ensure that employees have ready access to potable drinking water that is fresh, pure and cool.*

*2. Where potable drinking water is not plumbed or otherwise continuously supplied, an employer must provide potable drinking water in sufficient quantity at the beginning of each work shift to provide one quart of potable drinking water per employee per hour for the entire shift. An employer may provide employees with a smaller quantity of potable drinking water at*

*the beginning of a work shift if employees have effective procedures for replenishment during the shift as needed to allow each employee to drink at least one quart of potable drinking water per hour.*

*3. An employer shall encourage employees to drink water frequently.*

*Sec. 9. 1. Except as otherwise provided by subsection 2, an employer of employees who are exposed to temperatures at or above:*

*(a) A dry-bulb temperature of 80 degrees Fahrenheit; or*

*(b) The applicable Wet-Bulb Globe Temperature in Celsius, as determined pursuant to section 2 and table 2 of the "Heat Stress and Strain" portion of the Threshold Limit Values and Biological Exposure Indices, 2020 edition, adopted by reference in section 6 of this regulation,*

*↪ shall provide access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of not less than 5 minutes to an employee who is suffering from heat illness or believes he or she needs a period of time to recover from the heat to prevent heat illness.*

*2. An employer in an industry other than agriculture may, in lieu of shade, provide an employee described in subsection 1 with a measure for cooling other than shade, including, without limitation, the use of fans or devices which produce water mist, if the employer can demonstrate that the measure is at least as effective as shade in allowing the employee to cool.*

*3. Shade may be provided by a canopy, umbrella or other temporary structure or device. At a minimum, the canopy, umbrella or other temporary structure or device used to provide shade must prevent:*

*(a) Objects within the area of blocked sunlight from casting a shadow; and*

*(b) Heat in the shaded area from defeating the purpose of the shade by preventing the body of an employee from cooling.*

*4. As used in this section, “shade” means a blockage of direct sunlight.*

**Sec. 10. 1.** *An employer shall provide training on the following topics to all supervisory and nonsupervisory employees who may be affected by issues relating to heat illness:*

*(a) Working conditions that create the possibility that heat illness could occur, including:*

*(1) Air temperature;*

*(2) Relative humidity;*

*(3) Radiant heat from the sun and other sources;*

*(4) Conductive heat from the ground and other sources;*

*(5) The movement of air;*

*(6) The severity and duration of workloads; and*

*(7) Protective clothing and personal protective equipment worn by an employee.*

*(b) The personal risk factors for heat illness.*

*(c) The employer’s procedures for complying with the requirements of sections 7, 8 and 9 of this regulation.*

*(d) The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and an employee is likely to be sweating more than usual in the performance of his or her duties.*

*(e) The importance of acclimatization.*

*(f) The different types of heat illness and the common signs and symptoms of heat illness.*

*(g) The importance to an employee of immediately reporting to the employer, directly or through a supervisor for the employer, signs or symptoms of heat illness in the employee or in a coworker.*

*(h) The employer's procedures for:*

*(1) Responding to symptoms of possible heat illness, including how medical services will be provided should they become necessary;*

*(2) Contacting emergency medical services and, if necessary, transporting an employee to a location where the employee can be reached by a provider of emergency medical services; and*

*(3) Ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.*

*2. Before assigning a supervisor to supervise employees working in the heat, an employer shall provide the supervisor with training on the following topics:*

*(a) The information which is required to be provided to the supervisor pursuant to subsection 1.*

*(b) The procedures which the supervisor is to follow:*

*(1) To implement the applicable provisions of subsection 1; and*

*(2) When an employee exhibits symptoms consistent with possible heat illness, including procedures for responding to an emergency.*

**Sec. 11.** *If an employee shows signs of heat illness or demonstrates symptoms of heat illness, his or her employer must:*

*1. Relieve the employee from duty;*

2. *Provide the employee with sufficient means to reduce his or her body temperature to a body temperature of not higher than 100.4 degrees Fahrenheit or 38 degrees Celsius; and*
3. *Monitor the employee to determine whether medical attention is necessary.*