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## **HOUSE BILL NO. 1610**

Offered January 16, 2020

A BILL to amend the Code of Virginia by adding a section numbered 40.1-44.2, relating to the protection of employees; standards for heat illness prevention.

## Patron—Mugler

Referred to Committee on Labor and Commerce

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 40.1-44.2 as follows: § 40.1-44.2. Standards for heat illness prevention.

A. As used in this section:

"Acclimatization" means the gradual, temporary adaptation of the body to work in the heat when a person is exposed to heat.

"Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing, and personal protective equipment worn by employees.

"Heat illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load and includes heat cramps, heat exhaustion, heat syncope, and heat stroke.

"Heat wave" means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least 10 degrees Fahrenheit higher than the average high daily temperature in the preceding five days.

"Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

"Shade" means 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. 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.

"Temperature" means the dry bulb temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the bulb or sensor of the thermometer should be shielded from direct contact by sunlight, for example, with the hand or some other object, while taking the measurement.

- B. The Safety and Health Codes Board shall adopt regulations establishing reasonable standards designed to protect employees from heat illness while engaged in outdoor work. Such standards shall require each employer:
  - 1. When the temperature equals or exceeds 80 degrees Fahrenheit, to:
- a. Provide employees with access to potable drinking water that is fresh, pure, suitably cool, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water shall be encouraged; and
- b. While employees are present, maintain one or more areas with shade at all times that are either open to the air or provided with ventilation or cooling. The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shade shall be located as close as practicable to the areas where employees are working. Subject to the same specifications, the amount of shade present during meal periods shall be at least enough to accommodate the number of employees on the meal period who remain onsite. Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times while employees are present. An individual employee who takes a preventative cool-down rest (i) shall be

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monitored and asked if he is experiencing symptoms of heat illness; (ii) shall be encouraged to remain in the shade; and (iii) shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than five minutes in addition to the time needed to access the shade. If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool-down rest or during a preventative cool-down rest period, the employer shall provide appropriate first aid or emergency response. If an employer can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, the employer may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection. Except for employers in the agricultural industry, cooling measures other than shade, such as the use of misting machines, may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool;

2. When the temperature equals or exceeds 95 degrees Fahrenheit, to:

a. Ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the worksite can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable. The employer shall ensure effective employee observation or monitoring by implementing one or more of the following:

- (1) Observation by a supervisor or his designee of 20 or fewer employees;
- (2) Mandatory buddy system;

- (3) Regular communication with sole employee such as by radio or cellular phone; or
- (4) Other effective means of observation;
- b. Designate one or more employees on each worksite as authorized to call for emergency medical services and allow other employees to call for emergency services when no designated employee is available;
  - c. Remind employees throughout the work shift to drink plenty of water;
- d. Conduct pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary; and
- e. Ensure that the employee takes a minimum paid 10-minute net preventative cool-down rest period every two hours. The preventative cool-down rest period may be provided concurrently with any other meal or rest period provided by the employer if the timing of the preventative cool-down rest period coincides with a required meal or rest period, thus requiring no additional preventative cool-down rest period in an eight-hour workday. If the workday will extend beyond eight hours, then an additional preventative cool-down rest period will be required at the conclusion of the eighth hour of work, and if the workday extends beyond 10 hours, then another preventative cool-down rest period will be required at the conclusion of the tenth hour;
- 3. To implement effective emergency response procedures that (i) ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the worksite can contact a supervisor or emergency medical services when necessary and (ii) respond to signs and symptoms of possible heat illness, including first aid measures and how emergency medical services will be provided;
- 4. During a heat wave, to ensure that its employees are closely observed by a supervisor or his designee;
- 5. To provide its employees with effective training in the following topics before the employee begins work that should reasonably be anticipated to result in exposure to the risk of heat illness:
- a. The environmental and personal risk factors for heat illness, as well as the added burden of heat load on the body caused by exertion, clothing, and personal protective equipment;
- b. The employer's procedures for complying with the requirements of this standard, including, but not limited to, the employer's responsibility to provide water, shade, cool-down rests, and access to first aid;
- c. The importance of frequent consumption of small quantities of water, up to four cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties;
  - d. The concept, importance, and methods of acclimatization;
- e. The different types of heat illness, the common signs and symptoms of heat illness, appropriate first aid and emergency responses to the different types of heat illness, and the potentially rapid progress of heat illness from mild symptoms and signs to serious and life-threatening illness;
- f. The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in coworkers;
- g. The employer's procedures for responding to signs or symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
- h. The employer's procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider; and

- i. The employer's procedures for ensuring that, in the event of an emergency, clear and precise directions to the worksite can and will be provided as needed to emergency responders. These procedures shall include designating a person to be available to ensure that emergency procedures are invoked when appropriate;
- 6. To provide to supervisors, prior to supervising employees performing work that should reasonably be anticipated to result in exposure to the risk of heat illness, effective training on the following topics:
  - a. The information required to be provided by subdivision 5;
  - b. The procedures the supervisor is to follow to implement the applicable provisions of this section;
- c. The procedures the supervisor is to follow when an employee exhibits signs or reports symptoms consistent with possible heat illness, including emergency response procedures; and
  - d. How to monitor weather reports and how to respond to hot weather advisories; and
- 7. To establish, implement, and maintain an effective heat illness prevention plan. The plan shall be in writing in both English and the language other understood by the majority of the employees and shall be made available at the worksite to employees and to representatives of the Division upon request. The heat illness prevention plan shall, at a minimum, contain:
  - a. Procedures for the provision of water and access to shade;
  - b. The high heat procedures;

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- c. Emergency response procedures; and
- d. Acclimatization methods and procedures.
- C. The rules and regulations adopted by the Safety and Health Codes Board pursuant to this section shall be enforced as specified in §§ 40.1-49.3 through 40.1-49.7.