



DEPARTMENT OF BUSINESS AND INDUSTRY
DIVISION OF INDUSTRIAL RELATIONS
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

R053-20 Heat Illness Regulation

Frequently Asked Questions

December 29, 2021

General Questions

Q1. Does the regulation apply to all employers or specific industries?

The regulation generally applies to all employers, but many of the provisions of the regulation are only required when employees are determined to be exposed to temperatures at or above: (1) 80 degrees Fahrenheit using a dry-bulb thermometer; or (2) the applicable wet-bulb 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.

See Sections 7 and 9 of the regulation.

Q2. Will the regulation require the employer to incur additional costs?

Employers will not be required to incur additional costs where they elect to utilize dry-bulb thermometers. However, where employers elect to utilize wet-bulb thermometers, the thermometers start at approximately \$125, plus tax. Additionally, for employers who elect to utilize wet-bulb thermometers, employers would need to obtain a copy of 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, at a cost of \$41.21.

See Section 6 of the regulation.

Q3. Does every employer need to have a Heat Illness Program?

The regulation does not require every employer to have a Heat Illness Program. Instead, only those employers with employees who are determined to be exposed to temperatures at or above 80 degrees Fahrenheit using a dry-bulb thermometer or the applicable wet-bulb 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 are required to have a Heat Illness Program.

As to the employers who must have a Heat Illness Program, they will have the discretion to tailor their program to manage heat illness, but the program must cover: (1) provisions for

water, rest, and shade; (2) monitoring of employees for heat illness; (3) training of employees and management; and (4) procedures for responding to an emergency.

See Section 7 of the regulation.

Q4. Does the Heat Illness Program need to address both prolonged exposure to heat as well as incidental exposure (e.g., walking from a car to a worksite)?

The program must address the exposure employees will experience while actively performing their job duties. Incidental exposure, such as transiting from a car to the worksite, need not be factored.

Q5. Can employers employ heightened procedures during particularly high temperatures?

Yes. Employers may employ heightened procedures when they determine that employees are exposed to particularly high temperatures. The regulation does not require heightened procedures during particularly high temperatures. Nevada OSHA, however, would consider such heightened procedures a showing of good faith effort to protect employees. Such proactive efforts would be evaluated prior to making any enforcement decisions.

Q6. How does the proposed regulation impact rest periods?

The proposed regulation does not create new rest period requirements aside from instances where the employee is demonstrating heat illness symptoms and needs to be relieved of duty to ensure their health and safety. The employer's Heat Illness Program must identify how rest periods are provided.

Q7. Are employers responsible for ensuring that employees consume water or do employers just need to provide water?

The regulation does not make the employer responsible for ensuring that employees consume water. Rather, the regulation simply requires that the employer ensure the availability of potable drinking water that is fresh, pure, and of a suitably cold temperature. The employer should also encourage employees to drink water to mitigate heat related illnesses.

See Section 8 of the regulation.

Q8. What are employers required to do if the jobsite does not have plumbed or an otherwise continuously supplied source of potable water?

The employer would be required to provide potable drinking water in sufficient quantity for each employee, specifically, one quart per employee per hour.

See Section 8 of the regulation.

Q9. When are employers required to provide shade?

The regulation does not require every employer to provide shade for its employees. Rather, only those employers with employees who are determined to be exposed to temperatures at or above 80 degrees Fahrenheit using a dry-bulb thermometer or the applicable wet-bulb 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 are required to provide shade.

As to the employers who must provide shade, they will have the discretion regarding the type of structure or device utilized to provide shade.

See Section 8 of the regulation.

Q10. Does an agricultural employer need to provide portable shade that moves with employees?

No, the employer is not required to provide portable shade structures that move with employees. However, an agricultural employer must provide a shaded area for employees to rest. The location or mobility of that shaded area is not prescribed in the proposed regulation.

Nevada OSHA would consider mobile shade structures a best practice and encourages the use of such structures where possible.

See Section 8 of the regulation.

Temperature-Specific Questions

Q11. Are employers required to use a wet-bulb thermometer?

No, the regulation does not require that employers use a wet-bulb thermometer. Employers may utilize a dry-bulb temperature reading with a trigger temperature of 80 degrees Fahrenheit. Dry-bulb temperature is measured using a regular thermometer that measures ambient air temperature.

See Sections 7 and 9 of the regulation.

Q12. If an employer chooses to measure dry-bulb temperature, is there a requirement for what type of measurement device can be used?

No, the employer has discretion to select the most appropriate means of measuring dry-bulb temperature based on the needs of the workplace or jobsite. The method that the employer selects, however, should be addressed in the employer's Heat Illness Program.

See Section 7 of the regulation.

Q13. Can employers utilize digital weather apps or weather forecasts to comply with the regulation?

The employer can utilize digital weather apps or weather forecasts to comply with the dry-bulb temperature requirement when workers are determined to be exposed to weather-related ambient air temperature. This method would not be acceptable for workers exposed to heat created by equipment or industrial processes. Employers are responsible for specifying which method of determination they are utilizing as part of their initial assessment when creating their Heat Illness Program for compliance with the regulation.

Q14. Are employers required to purchase the Threshold Limit Values and Biological Exposure Indices publication referenced in the regulation?

No, not every employer is required to purchase the Threshold Limit Values and Biological Exposure Indices publication referenced in the regulation. Purchase of the publication is required only if the employer intends to comply with the regulation by utilizing a wet-bulb thermometer. However, purchase of the publication is not necessary where employers utilize the dry-bulb temperature to comply with the regulation.

Q15. Why was 80 degrees chosen as a threshold for comfortable air temperature?

Generally speaking, 71.6 degrees to 77.9 degrees Fahrenheit is considered to be comfortable for most people. This regulation takes into account that as work intensity is increased, the threshold for comfort air temperature drops thereby increasing heat stress and heat strain on the body. (Source: Criteria for Recommended Standard: Occupational Exposure to Heat and Hot Environments, 2016, published by Department of Health and Human Services, Centers for Disease Control and Prevention, and National Institute for Occupational Safety and Health)

Q16. How often does temperature need to be monitored?

The regulation does not mandate how often an employer is required to monitor temperature on an ongoing basis. The employer has discretion to evaluate monitoring needs based on the jobsite or workplace conditions. How often any temperature monitoring is performed should be addressed in the employer's Heat Illness Program.

Q17. Does the employer need to monitor temperature at each location that employees work?

The employer is required to assess each location and determine what temperatures employees are exposed to during the performance of their duties for the shift. How the assessment is performed needs to be included in the employer's Heat Illness Program.

Enforcement Questions

Q18. What will an OSHA inspector evaluate?

During an inspection related to heat illness or during a comprehensive inspection of a workplace/jobsite where heat is recognized as a potential hazard, an OSHA inspector will evaluate the workplace/jobsite for the following:

- What is the temperature at the workplace/jobsite at the time of the inspection?
- Is water available in sufficient quantity and where is it located in relation to the work being performed?
- Are employees afforded a means to take rest periods in a shaded area when working outside?
- PPE worn that may impact heat stress.
 - Certain types of PPE mitigate the body's ability to dissipate heat.
- Job duties that may impact heat stress.
 - Are employees performing strenuous physical labor?
- Jobsite/workplace environmental conditions.

- Are employees working in direct sunlight or in close proximity to heat-producing equipment?

Q19. What would an OSHA inspector potentially discuss with employees and management?

During an inspection related to heat illness or during a comprehensive inspection of a workplace/jobsite where heat is recognized as a potential hazard, an OSHA inspector may discuss the following:

- Are staff afforded opportunities to take breaks from the heat?
- Where do you [the employee] obtain drinking water from?
- Have you [the employee/supervisor] been provided training related to heat illness? What did it consist of?
 - Line employees should be able to effectively articulate basic heat illness topics covered under Section 10 of the proposed regulation, including, but not limited to:
 - Understanding how the employer’s Heat Illness Program protects them;
 - Where they can access water and why it’s important;
 - Where they can take their rest periods in a shaded area; and
 - How they may be exposed to heat illness while performing their work.
 - The inspector is not evaluating the line employee’s ability to speak to specific components of the employer’s policies related to heat illness.
 - The inspector will be evaluating the supervisor’s ability to effectively discuss the employer’s policy related to heat illness and how the employer expects the supervisor to respond to incidents and emergencies.
- Have there been any heat illness incidents at this jobsite/workplace? How was that managed?

See Section 10 of the regulation.

Q20. What documentation would an OSHA inspector request to review?

During an inspection related to heat illness or during a comprehensive inspection of a workplace/jobsite where heat is recognized as a potential hazard, an OSHA inspector may request to review the following:

- Training records for employees observed working on-site.
 - Supervisors should have training documentation supporting their understanding of the general requirements and their duties to their staff.
- Any assessments, job hazard analysis documents, or daily pre-job checklists to identify if heat was evaluated as a potential hazard for the jobsite/workplace.
- OSHA Form 300/301 Logs to evaluate past heat illness incidents.
- The employer’s Heat Illness Program (separate or incorporated into the employer’s Written Safety Program).

See Section 10 of the regulation.