

Management Alert



Cool it! Avoiding OSHA Heat Illness Liability

By Mark A. Lies, II and Patrick D. Joyce

Seyfarth Synopsis: OSHA's "Work.Rest.Shade." campaign provides little usable guidance for employers when it comes to protecting employees from heat illness. However, Seyfarth's real-world experience supplies employers in the tower industry several concrete steps to take to ensure their employees are equipped with tools to mitigate hazards presented by heat.

Introduction

The arrival of summer means beaches, BBQs, and baseball. It also means hot weather, humidity, and the potential danger presented by heat illness. Whether you work climbing towers, at a construction site, or inside a warehouse, you may be at risk of experiencing the effects of heat on the human body.

Since 2012, the Occupational Safety and Health Administration ("OSHA") has aggressively utilized the General Duty Clause, Section 5(a)(1) of the Occupational Safety and Health Act, based on injuries and illnesses due to heat illness. In doing so, OSHA has focused its efforts on employers in the tower industry, construction industry, foundry operators, chemical producers, and employers in warm climates. Unfortunately, because OSHA does not have a heat illness standard, employers are left in the cold as to what they should do to mitigate risk and safeguard employees from the effects of heat. This article discusses the issue of heat illness, OSHA's guidance on heat illness, and how to prepare and protect employees from the hazard of heat.

A recent landmark decision from the Occupational Safety and Health Review Commission in *Secretary of Labor v. Aldridge Electric Company*, Docket No. 13-2119, is a must-read for all employers who have potential employee heat exposure in their workplaces. After an eighteen day trial, the Administrative Law Judge issued a 54 page opinion vacating one OSHA General Duty Clause citation involving a national electrical contractor arising from a workplace accident.

What is "Heat"?

The term "heat" is comprised of two main components: (1) environmental or ambient heat; and (2) metabolic heat.

Environmental or ambient heat is the heat that we all experience due to the natural environment. Factors impacting environmental or ambient heat include ambient temperature, wind, humidity, solar irradiance, and cloud coverage.

Metabolic heat is heat generated internally within the human body. The harder a person works, the more metabolic heat is generated. An individual's body mass, weight, age, sex, and medical history can all impact the amount of metabolic heat generated during any particular task.

What is Heat Illness?

We need heat to survive, particularly during winter. As a result, heat is not always a hazard. Rather, heat becomes a hazard when it is “excessive” and the human body is unable to dissipate heat quickly enough.

Heat illness is complex, largely because of personal variability, as well as a number of external parameters that affect the individual and his or her response to the environment they are in. There are several types of heat illness: (1) heat rash; (2) heat cramps; (3) heat syncope; (4) heat exhaustion; and (5) heat stroke.

Heat Rash

Heat rash occurs when an individual sweats in areas of restrictive clothing. Its symptoms usually involve prickly, itchy, and sometimes painful red bumps.

Heat Cramps

Heat cramps are muscle cramps usually caused by performing hard physical labor in a hot environment, and have been attributed to an electrolyte imbalance caused by sweating: excessive sweating depletes the body’s salt and moisture levels. Heat cramps often occur in the back and leg muscles. Treatment for heat cramps includes having an individual rest in a cool and/or shaded area and providing water and electrolytes.

Heat Syncope

Heat syncope occurs when an individual faints or experiences episodes of dizziness due to prolonged standing or sudden rising from a sitting or lying position during hot weather. Dehydration may contribute to heat syncope.

Heat Exhaustion

Heat exhaustion is an illness that occurs when a body overheats, but the core body temperature does not rise above 101°F. The signs and symptoms of heat exhaustion are heavy sweating, headache, nausea, fatigue, vomiting, vertigo, weakness, thirst, and giddiness. Workers suffering from heat exhaustion should be removed from the hot environment and placed in a cool and shaded area, given fluid replacement, and encouraged to get adequate rest.

Heat Stroke

Heat stroke, the most severe form of heat illness, occurs when the body’s temperature regulation system fails and body temperature rises to critical levels above 101°F. Heat stroke is caused by a combination of highly variable factors, and its occurrence is difficult to predict. The primary signs and symptoms of heat stroke are confusion, irrational behavior, loss of consciousness, convulsions, a lack of sweating (usually), hot and/or dry skin, and an abnormally high body temperature. Workers experiencing heat stroke require *immediate advanced medical attention*.

What Does OSHA Say About Heat Illness?

OSHA Has No Heat Illness Standard

Because Federal OSHA does not have a heat illness standard, it relies on the General Duty Clause to cite employers in cases related to heat illness. To prove a Section 5(a)(1) violation, OSHA must establish: (1) a condition or activity in the workplace created a hazard; (2) the employer or its industry recognized the hazard; (3) the hazard was likely to cause death or serious physical harm; and (4) feasible means existed to eliminate or materially reduce the hazard. A hazard under Section 5(a)(1) cannot be established based on a “freakish or unforeseeable death.”

State Heat Illness Programs

Currently, only two OSHA state-plan states have heat illness standards: California and Washington.

Federal OSHA’s Guidance On Heat Illness

In 2012, OSHA implemented its Campaign to Prevent Heat Illness in Outdoor Workers, through its “Water.Rest.Shade.” program. Based largely upon California OSHA’s heat illness regulation, “Water.Rest.Shade.” focuses on the heat index to advise employers on suggested precautions. As guidance, OSHA has provided employers “Using the Heat Index: A Guide for Employers,” (“Heat Index Guide”) informing employers on how to use the heat index to determine “when extra precautions are needed at a worksite to protect workers from environmental contributions to heat related illness.”

The Heat Index Guide is “advisory in nature and informational in content,” and, as such, is not a law or regulation that employers are required to follow.

The Heat Index Guide’s Four Risk Levels.

OSHA’s Heat Index Guide is based on four different heat index levels:

HEAT INDEX	RISK LEVEL	PRECAUTIONS
Less than 91°F	Lower (Caution)	Basic heat safety and planning
91° to 103°F	Moderate	Implement precautions and heighten awareness
103° to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressively protective measures

In evaluating the heat index, OSHA recommends that employers use the National Oceanic and Atmospheric Administration (“NOAA”) heat index chart, taking into account the relative temperature and humidity levels to determine where it falls on the chart.

Heat index values were designed for shady, light wind conditions, and exposure to full sunshine can increase heat index values by up to 15° Fahrenheit. Though the Heat Index Guide states that full sunshine can increase the heat index values, OSHA has not provided any scientific basis for such a conclusion. Moreover, OSHA does not provide any definition as to what “direct” or “full sunshine” means, how employers should add “up to 15° Fahrenheit” based on the sunshine, or when it should be applied. OSHA also does not provide any definition for “shady” or “light wind conditions.”

What does OSHA Want Employers to Do?

OSHA’s Heat Index Guide provides what would seem to be relatively straightforward directions as to what employers should do at any particular heat index. Unfortunately, OSHA has shown a tendency to claim that suggested protections at higher temperatures should be used at lower temperatures based on vague and undefined conditions of “strenuous work,” “full sunshine,” and “light wind.” Despite OSHA’s inconsistency on these issues, the Heat Index Guide provides the following suggestions for employers:

- Develop a heat illness prevention program;
- Provide employees training on the heat illness prevention program, including how to recognize, prevent, and treat heat illness;
- Develop a system to monitor weather conditions on, at least, a daily basis, and, preferably, multiple times per day;
- Provide water, shaded areas, and cooling stations for employees;
- Develop an emergency response plan in the event an employee suffers from heat illness;
- Acclimatize new and returning workers;
- Develop work/rest regimens for when the heat index is elevated;

- Actively supervise employees to evaluate for signs and symptoms of heat illness; and
- Perform physiological monitoring.

What Is Acclimatization?

The Heat Index Guide states that, under certain temperature conditions, new workers, or workers returning from time away from work, should be acclimatized to the level of work. Acclimatization is the process by which individuals physiologically adjust to warmer or colder temperatures. For instance, you may notice that when you travel to a warm location for vacation, you tend to sweat more at the beginning of the vacation than you do at the end of the vacation.

Unfortunately, what is considered the correct pace to acclimatize workers remains unclear. The Heat Index Guide suggests 50% work per hour for the first day, 60% the second day, and so on until you reach 100%. However, some of OSHA's compliance officers and experts have asserted that acclimatization should begin at 20% work per hour (or 12 minutes per hour) and gradually increase from there.

Another issue that remains unclear is at what temperature employers should implement an acclimatization program. Under the current Heat Index Guide, OSHA inconsistently states that acclimatization may be required even if the heat index is below 91°F. In fact, some OSHA compliance officers and experts have asserted that acclimatization should occur no matter what the ambient temperature is.

Yet another issue for employers occurs where employees return to work from an extended absence, whether due to injury, the holidays, or vacation. The Heat Index Guide states that acclimatization may be necessary if an existing employee is returning from an absence of two weeks or more. On the other hand, some of OSHA's compliance officers and experts have asserted acclimatization should occur if an employee has been gone for **three or more** days. In other words, any time an employee has an extended weekend, (s)he would need to be re-acclimatized.

What Are Regimented Work/Rest Regimens?

Similar to, but distinct from, acclimatization, is a structured work/rest regimen, a defined process requiring employees to rest a certain amount of time per hour. For instance, depending on the conditions, an employer should establish work/rest regimens where an employee works 45, 30, or 15 minutes per hour, and then takes a break for 15, 30, or 45 minutes per hour.

Although it may seem like telling employees to take a break during a hot day, whenever they experience a need to temporarily rest would be sufficient, OSHA has taken the stance that employers need to take affirmative action to ensure that employees take *mandatory* breaks. This involves requiring employees to sign sheets identifying when their breaks start and stop, supervisors actively monitoring the sheets to ensure the appropriate amount of breaks of sufficient duration are taken, and disciplining employees who fail to take the required amount of break.

How Can Active Supervision Occur?

The Heat Index Guide does not specifically indicate how employers should actively supervise their employees. Nonetheless, it is advisable for employers to implement a "buddy system," where employees are not left alone so a co-worker(s) can identify if someone is suffering from heat illness and bring it to the attention of a supervisor. Also, employers have used, with great success, programs to identify new or recently returned employees, such as colored hard hats, colored vests, and other markers to easily identify employees who may need closer observation and acclimatization.

What is Physiological Monitoring?

The Heat Index Guide recommends that employers perform physiological monitoring of employees at "hot worksites." Specifically, OSHA recommends employers conduct heat exposure history evaluations, monitor employee heart rates, perform oral temperature readings, conduct body weight and body water loss measurements, perform blood pressure readings, and perform respiratory rate analyses. In other words, OSHA has asked employers to medically evaluate employees on a daily basis

to determine which employees have “risk factors” that may make them more susceptible to heat illness.

Conclusion

Because OSHA has decided to rely on the General Duty Clause to enforce cases related to heat illness, there is no answer for all circumstances as to what employers should do to ensure they remain fully compliant. In fact, as the recent *Aldridge Electric Co.* decision shows, no matter how thorough an employer’s heat illness prevention program is, OSHA will still issue a citation, even if an unavoidable incident occurs.

Employers must take proactive steps in the face of OSHA’s use of the General Duty Clause for heat-related illness enforcement. Taking such steps now may allow the employer to avoid costly enforcement and litigation in the future.

If you would like further information, please contact [Mark A. Lies, II](mailto:mlies@seyfarth.com) at mlies@seyfarth.com, or [Patrick D. Joyce](mailto:pjoyce@seyfarth.com) at pjoyce@seyfarth.com.

www.seyfarth.com

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