Safety

When Water's Not Enough: ANSI Sets Higher Workplace Hydration Standard

James Langford | Oct 03, 2024

When you're working in sweltering conditions and trying to protect yourself by staying hydrated, what you drink matters.

Water helps, a fact long recognized by workplace safety experts, but it's not enough by itself, according to a new guideline from the American National Standards Institute, or ANSI, whose consensus recommendations are often referenced in regulations enforced by the U.S. Occupational Safety and Health Administration.

The new ANSI policy, ***A10.50-2024***, says employers should provide free beverages that replenish electrolytes to people working in temperatures of 80 degrees Fahrenheit or higher for more than two hours. Electrolytes are minerals such as potassium and sodium that help with the body's fluid regulation and nerve and muscle function.

The voluntary standard may provide useful guidance to employers grappling with record temperatures—after the U.S. government reported that 2023 was the ***warmest year***, on average, since 1850—and preparing for new heat safety regulations from OSHA, which can impose penalties for failure to comply.

While OSHA has traditionally regulated heat safety issues under the general provision of a federal law requiring businesses to provide hazard-free workplaces, it has prioritized heat safety in recent years and begun work on a rule setting specific requirements to protect workers from the risks of heat exhaustion, heat stroke and death.

OSHA Heat Safety Regulation

The agency published its proposed regulation, which would require employers to develop a comprehensive heat and injury illness protection plan for workers exposed to a heat index of 90 degrees Fahrenheit or higher for more than 15 minutes an hour, in the Federal Register in August, a significant step toward finalizing it. Officials set a ***Dec. 30 deadline*** for public feedback.

Plans would have to include providing workers exposed to high heat easy access to at least a quart of cool drinking water per hour as well as shaded outdoor or air-conditioned indoor break areas for employees in the sun, according to the proposal. Employers would have to provide a paid 15-minute break every two hours.

Additionally, the rule would require high-temperature indoor work areas to be equipped with either fans, air-conditioning or barriers to shield employees from hot equipment. Employers would have to help new and returning workers gradually adjust to high temperatures, a tactic proven to help curb adverse health effects.

The ANSI standard's biggest variation from the hydration recommendations that OSHA made before its rule is finalized is the specification about electrolytes, says Shawn Stasko, who worked with the panel drafting the ANSI rule. Stasko is the co-founder and chief scientific officer of ***Sword Performance***, a maker of performance hydration beverages.

"Providing your workforce with water is good," he says, but electrolyte replacement is crucial. Sodium is particularly important, he says, because it's not only the primary electrolyte depleted by sweat but also the one that helps bodies regulate fluid distribution, which is disturbed when workers overheat.

Overheating: Pay Attention to Your Body

Additionally, the ANSI standard recommends avoiding beverages with caffeine or high amounts of sugar because they can speed up dehydration.

"In general, being more aware of what goes into your body, especially in a workplace environment where your paycheck is dependent on your performance, is important," Stasko says. "You have to take care of the machine."

Workers can help safeguard their own health by paying attention to their bodies, he adds.

"You need to be cognizant of yourself," Stasko explains. "'Do I feel good? Am I sweating differently? Do I feel tired when I wake up?' There are different factors that we all can sense from our own bodies, and when you begin to feel different that can be a major indicator to change your behavior."

While people working in different conditions may feel some changes as they adapt, the body's overall functions should remain normal, and Stasko says hydration helps with that.

Not only does the ANSI standard offer techniques for workers to challenge themselves safely in new environments, he says, but its requirements may also help inform OSHA's final regulation.

Acting Labor Secretary Julie Su ***told Congress in May*** that input gathered once the proposed rule was published would be used to craft a final, enforceable regulation.

Heat Safety Inspections

"Although several governmental and non-governmental organizations have published regulations and

guidance to help protect workers from heat hazards, OSHA believes that a mandatory federal standard specific to heat-related injury and illness prevention is necessary," the agency said in a summary of its rulemaking initiative. "Workers may experience greater heat stress than non-workers, particularly when they are required to work through shifts with prolonged heat exposure, complete tasks that require physical exertion and/or their employers do not take adequate steps to protect them."

Thousands of people become sick from occupational heat exposure each year, according to OSHA, and extreme heat was among the ***highest*** weather-related causes of death in 2022, with 383 fatalities.

"What people often complain about is how long the rulemaking process takes," Su told the House Committee on Education and the Workforce. "Part of the reason it takes a long time is that we do have to be thoughtful. We have to engage with all the stakeholders. There are a lot of pieces to making sure a rule is thoughtful, is consistent with our authority and is going to have the impact that we want to have."

Until the new rule takes effect, OSHA says, it will continue using existing tools to protect workers from heat hazards. The agency has conducted more than 5,000 heat-related inspections since beginning a ***heat safety emphasis program*** in 2022.

To keep workers safe and comply with existing regulations, employers should—at a minimum—***provide adequate cool water***, rest breaks and shade or a cool rest area, OSHA says.

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What steps does your business take to protect workers from heat exposure? Tell us in the comments below.

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