What Last Summer's Weather Taught Us about Jobsite Equity

Climate change symptoms, including wildfire smoke and extreme heat, are endangering outdoor workers and changing assumptions about productivity and construction timelines.

by Elizabeth Waters

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Climate change is threatening outdoor construction workers. Extreme heat and dangerous air quality from wildfire smoke are becoming more frequent and prolonged, occurring in places that have not previously experienced them. And without federal regulations in place, employers must make judgment calls about safety breaks and work stoppages in an industry notorious for its immense time pressures.

Photo: Western Specialty Contractors

Almost no national and few state safety regulations exist to protect construction workers from heat on the jobsite.

How climate change compromises safety

According to a report by the World Meteorological Organization (WMO), climate change increases the likelihood of prolonged heat waves, which in turn contribute to poor air quality by increasing the development of ground-level ozone (a.k.a. smog) as well as the risk of wildfire, dust storms, and other consequences of drought.

In an August article from The Guardian, author Oliver Milman cites data from the U.S. Centers for Disease Control and Prevention (CDC) that shows a 95% increase in annual heat-related deaths in the U.S. from 2010 to 2022. He writes that, although the total global death count from extreme heat in the summer of 2023 is still unknown, the world-record-breaking temperatures in June, July, and August mean fatalities likely surpassed those of recent years.

Construction laborers are at particular

risk of heat illness and death. They often work outside and on hot surfaces, and they are required to wear long-sleeved shirts, boots, jeans, hard hats, glasses, and respirators that can make it almost impossible to keep cool. According to the Bureau of Labor Statistics, 436 construction workers died of heat exposure between 2011 and 2021. But, as reported by Anita Snow and Kendria Lafleur of the Associated Press, official numbers of heat-related deaths are certainly undercounts. Such fatalities are often recorded only as their immediate cause, such as heart disease.

OSHA in a holding pattern

Almost no national safety regulations exist to protect construction workers from heat on the jobsite. The U.S. Occupational Safety and Health Administration (OSHA) mandates that employers have a "general duty" to keep employees safe, but the broadness of the provision leaves it hard to enforce and vulnerable to legal challenge. OSHA began drafting a heat-specific rule two years ago after President Biden called for one in 2021. But the rulemaking process could take years—even without the pushback it's getting from business interests (notably the U.S. Chamber of Commerce)—according to CNN's Chris Isidore. In the meantime, the agency has rolled out a national emphasis program for heat, through which OSHA inspectors can investigate how construction companies are handling worker safety during periods of extreme heat.

Only seven states (California, Colorado, Maryland, Minnesota, Nevada, Oregon, and Washington) have enacted heat-specific protections for workers. That leaves 43 states—including some of the hottest, such as Arizona and Texas—that don't protect workers from heat.

Arizona and Texas are also two of the three states (along with California) with the highest percentage of Hispanic construction workers—49% and 61%, respectively. A 2017 study by the CDC found that non-U.S. citizens are three times more likely than U.S. citizens to die from heat, with Hispanic immigrants facing the highest risk. Unsurprisingly, the study found that almost 95% of immigrant heat-related deaths occurred in California, Arizona, and Texas, and were most likely connected with outdoor work.

In the absence of federal and state heat-protection rules, cities in Texas, including Dallas, Houston, and Austin, instituted their own. In June, just before a massive heat wave hit the state, Governor Greg Abbott signed what opponents dubbed the Death Star legislation to challenge the rights of cities to pass certain types of local ordinances, including heat protections, that impose stricter regulations than the state. In late August, a Texas lower court declared the law unconstitutional in response to a Houston lawsuit. But the state immediately appealed, superseding the local judgment. Until the appellate court rules, the law is in effect.

Workers' needs and clients' desires clash

Mitigating the effects of poor air quality, which threatened new places like New York City and Toronto this past summer, comes with some of the same problems as addressing extreme heat. In June, OSHA released guidance for how contractors can manage worker safety amidst periods of bad air quality, recommending contractors reschedule work, encourage workers to wear respirators, and allow them to work inside. However, according to a survey administered by *Construction Dive*, many general contractors feel that anything short of a mandatory rule puts them in a difficult position with project owners, who have expectations about timelines and budgets.

BuildingGreen spoke with Joseph Riccillo, vice president and El Paso regional

Photo: Western Specialty Contractors

Western Specialty Contractors manages a heat illness training program to help workers prevent, identify, and address heat stress.

director at Sundt and Alex Jeffries, safety director at Western Specialty Contractors about how their respective companies manage the challenges of worker heat safety.

Riccillo explained, "When temperatures get over 100 degrees [Fahrenheit], there's a 40% drop in production directly related to heat. Not just an illness prevention [issue], but there's a productivity issue involved. A double whammy." And while he agreed there could be more safety regulations, he thinks that general contractors need to take the lead to protect workers. This means paying attention and actively managing worker safety. "A lot of workers," he said, "are not going to say anything [about heat]. They don't want to lose hours. Some of them would rather grin and bear it than work at night."

He explained that "OSHA is a minimum standard [to comply with the law]. It is not something that is intended to be best practice." For that reason, he said, "The general contractor has to create a culture of safety on the jobsite so that people feel safe, act safe." (The Contractor's Commitment, a project of the BuildingGreen Sustainable Construction Leaders peer network, suggests contractors develop a jobsite wellness plan that addresses severe weather and offers a list of best practices, including providing sunscreen.)

Riccillo recounts that Sundt has had heat-illness prevention programs in place for decades but has added more measures, like heat illness kits containing water and ice packs, over the last ten years. Sundt's jobsite management teams are required to conduct heat checks every morning and provide cooling stations and shaded spaces for breaks at every jobsite; they also are not allowed to let people work alone. The company encourages workers to take breaks whenever they feel themselves heating up.

According to Jeffries, Western asks workers to speak up when they see signs of heat illness. He explained that the company manages a heat illness training program and displays signage at every project to help workers prevent heat stress, identify signs and symptoms, and take effective action when they or a coworker are affected. "Cold water, cooling bands or towels, hard hat shades; also shaded areas or fans on the jobsite," listed Jeffries, are some measures that can help bring body temperature down.

He added that Western encourages employees to use mobile applications, like the OSHA-National Institute for Occupational Safety and Health (NIOSH) Heat Safety Tool, which calculates the heat index and risk level for outdoor worksites and offers users reminders to take protective action. The application is available in both English and Spanish.

If working conditions become dangerous, Western authorizes branch managers and teams to stop work. “We have to respect and extend that authority to everyone to speak up,” said Jeffries, “And if you see it, you own it. ‘We need to stop work; we need to notify a supervisor.’”

Construction companies like Sundt and Western are expanding safety precautions and equipping workers with the knowledge to identify heat illness and the authority to do what is needed to prevent and address it.

But there are certainly companies that will not do so without regulation. For example, in Austin, a 2018 study showed that workers were 35% more likely to get a rest break after the rest break ordinance was passed in 2012 than before. In the absence of stronger OSHA protections, outdoor workers in many industries remain at risk—and projections indicate that extreme heat, humidity, and wildfires will only increase in the coming years.

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