

December 22, 2023

Andrew Levinson, Director  
Directorate of Standards and Guidance  
U.S. Department of Labor  
Occupational Safety and Health Administration  
Washington, D.C. 20210

Re: Reopening of the Comment Period on Docket No. OSHA-2021-0009

*Submitted via Regulations.gov.*

Dear Mr. Levinson:

The undersigned 33 organizations appreciate the opportunity to comment on the Occupational Safety and Health Administration's (OSHA) Small Business Advocacy Review (SBAR) Panel materials regarding Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings (hereinafter the regulatory framework<sup>1</sup> and Panel Report<sup>2</sup>). As advocates and allies invested in ensuring every worker in the United States has a safe and healthy workplace, we urge you to move without delay from the high-level regulatory framework developed for the SBAR to a strong, enforceable heat standard.

### **U.S. Workers Need a Specific Heat Standard**

The Small Entity Representatives (SERs) participating in the SBAR raised several reasonable concerns and questions that OSHA should carefully consider as it structures and implements heat standards. However, we want to address two of the common arguments SERs used against promulgation of *any* sort of heat standard.

First, many SERs questioned the need for a new regulation based on low numbers of heat-related illnesses at their company, within their industry, and/or in the entire country. However, as the Panel Report itself notes, existing federal and state workplace health and safety databases have many known shortcomings, and their counts of heat-related outcomes “are likely vast underestimates.”<sup>3</sup>

---

<sup>1</sup> OSHA, “Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings: Regulatory Framework,” August 2023, [https://www.osha.gov/sites/default/files/Heat\\_Regulatory\\_Framework\\_8\\_21\\_2023.pdf](https://www.osha.gov/sites/default/files/Heat_Regulatory_Framework_8_21_2023.pdf).

<sup>2</sup> Small Business Advocacy Review Panel, *Report of the Small Business Advocacy Review Panel on OSHA's Potential Standard for Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings*, November 2023, <https://www.osha.gov/sites/default/files/Heat-SBREFA-Panel-Report-Full.pdf>.

<sup>3</sup> For instance, a study of more than 11 million workplace injuries over 18 years concluded that the annual number of heat-related workplace injuries in California is about 19 times higher than indicated in worker compensation records. R Jisung Park et al., “Temperature, Workplace Safety, and Labor Market Inequality,” IZA Institute of Labor

Children under the age of 16 are one largely invisible population in occupational health and safety databases.<sup>4</sup> This is problematic given the illegal, but growing, reliance of some employers on child labor.<sup>5</sup> There is no way to tell, for example, how many of the underage “ruferitos” across nearly two dozen states experience heat-related harms while laboring on roofs.<sup>6</sup>

As a result, OSHA should look to the combination of available databases, decades of peer-reviewed research, surveys and interviews of union and workforce members across many industries and regions of the country, and recent investigative reporting by the media. Together, these sources tell a vastly different story than the experience of one company or the Bureau of Labor Statistics alone: Workers in the United States are insufficiently protected by the current system of heat education campaigns, compliance assistance, and enforcement of the General Duty Clause.

Relatedly, many SERs told the SBAR Panel that they are already doing “most, or all, of what OSHA had included in the regulatory framework.” Some SERs were even concerned that a standard would “primarily penalize responsible employers.” This concern is unfounded given that OSHA inspects industries with known hazards, and establishments where something has already gone wrong.<sup>7</sup> Even the National Heat Emphasis program, which was intended to increase enforcement in industries with high heat hazards, has resulted in vanishingly few citations—just 20 in more than 1,800 inspections conducted from early April 2022 to mid-June 2023.<sup>8</sup> A heat standard will help level the playing field for employers that are already doing the right thing, by holding bad actors to account.

### **The Standard Must Apply to All Indoor and Outdoor Workers Under OSHA’s Jurisdiction**

Although outdoor workers are often considered most vulnerable to high temperatures, peer-reviewed studies, government data, and worker testimonies regularly point to the dangers of

---

Economics, 2021,

<https://www.iza.org/publications/dp/14560/temperature-workplace-safety-and-labor-market-inequality>.

<sup>4</sup> E.g., David Biagas et al., “BLS Response to ‘Working Children: Federal Injury Data and Compliance Strategies Could Be Strengthened’ (GAO-19-26),” n.d.,

<https://www.bls.gov/bls/congressional-reports/response-to-working-children-federal-injury-data-and-compliance-strategies-could-be-strengthened.pdf>.

<sup>5</sup> Nicole Goodkind, “Illegal Child Labor Is On the Rise in a Tight Job Market,” *CNN*, July 30, 2023,

<https://www.cnn.com/2023/07/30/economy/child-labor-louisiana-texas/index.html>.

<sup>6</sup> Hannah Dreier et al., “Children Risk Their Lives Building America’s Roofs,” *New York Times*, December 14, 2023,

<https://www.nytimes.com/interactive/2023/12/14/us/roofing-children-immigrants.html>.

<sup>7</sup> OSHA, “OSHA Inspection Activity,” <https://www.osha.gov/enforcement/2022-enforcement-summary> (accessed December 12, 2023).

<sup>8</sup> Gary Orr, “Outdoor and Indoor Heat-Related Hazards in Construction: A Q&A Session on OSHA’s National Emphasis Program,” presentation for The Center for Construction Research and Training, July 2023,

<https://www.cpwr.com/wp-content/uploads/CPWR-Heat-Presentation-July12-2023.pdf>.

heat in warehouses, restaurants, airplanes, public school classrooms, and many other indoor environments.

Workplaces with mechanical ventilation or cooling should not be exempt unless they are able to produce monitoring data that consistently show safe temperatures where and when workers are present. A September 2023 report from Worksafe and SEIU<sup>9</sup> is just one example of why this is important. Seventy percent of nearly 400 fast food workers surveyed from more than 270 establishments across California reported that they have had to work in excessively hot conditions. More than half of the workers said it “gets too hot at work” because the air conditioner “is broken, not working well or has been turned off.”

### **The Standard Should Require Employers to Create a Written Heat Injury and Illness Prevention Program (HIIPP)**

Written HIIPPs should be developed with the input of workers and their representatives and reviewed and updated whenever a serious heat-related illness or injury occurs, but no less than annually (option 4 on page 2 of the regulatory framework).

According to the Panel Report, two SERs “questioned whether any periodic review is necessary because they ‘do not expect that there will be substantial changes in heat hazards from year to year.’” This assertion ignores the hard reality that heat hazards are regularly increasing as the climate changes.<sup>10</sup> One only has to look at the Pacific Northwest in 2021 for plentiful examples of employers scrambling<sup>11</sup> to respond to a 1-in-1,000-year heatwave.<sup>12</sup>

We understand concerns about unduly burdening very small employers, but a broad-brush exemption from written HIIPP requirements would potentially endanger millions of workers. According to the Census Bureau’s 2019 Statistics of U.S. Businesses (SUSB),<sup>13</sup> which covers most economic activity in the United States, an estimated 12.7 million people work at enterprises with fewer than 10 employees. In construction, a particularly high-risk industry for heat hazards, more than 1.5 million people work for very small employers.

Rather than entirely exempting very small employers, OSHA should consider:

---

<sup>9</sup> Worksafe and SEIU, “*iAguántate!*” Heat, Hazards and Indifference to Safety in California’s Fast Food Restaurants, September 2023, <https://worksafe.org/heat-hazards-report-landing-page.html>.

<sup>10</sup> A.K. Jay et al., “Chapter 1. Overview: Understanding Risks, Impacts, and Responses” in: *Fifth National Climate Assessment*, A.R. Crimmins et al. eds., 2023, U.S. Global Change Research Program, <https://doi.org/10.7930/NCA5.2023.CH1>.

<sup>11</sup> E.g., Alejandro de la Garza, “This Week’s Heat Wave is Pushing Businesses and Workers to Their Limit,” *Time*, July 2, 2021, <https://time.com/6077792/heat-wave-businesses/>.

<sup>12</sup> Sjoukje Y. Philip, “Rapid Attribution Analysis of the Extraordinary Heat Wave on the Pacific Coast of the US and Canada in June 2021,” *Earth System Dynamics* 13 (2022): 1689-1713, <https://esd.copernicus.org/articles/13/1689/2022/>.

<sup>13</sup> U.S. Census Bureau, “2019 SUSB Annual Data Tables by Establishment Industry,” February 2022, <https://www.census.gov/data/tables/2019/econ/susb/2019-susb-annual.html> (accessed November 1, 2023).

- Requiring all employers in moderate- and high-risk industries to create a plan, regardless of size;
- Requiring very small employers to create a modified plan, that at minimum includes emergency response procedures; *or*
- Providing a model plan and other compliance assistance to very small employers.

Dodge Construction Network’s 6th annual *Safety Management in the Construction Industry* surveyed nearly 300 U.S. contractors.<sup>14</sup> The survey suggests that construction companies with written heat safety plans are more likely to implement each of the main categories of heat hazard reduction measures, including worker training, emergency response plans, and acclimatization. One SER also commented to the SBAR Panel that “their HIIPP reduced the number of first-aid and more serious safety incidents, reduced workers’ compensation costs, and maybe improved absenteeism.”

Written plans are particularly important if, as the SBAR Panel recommends, OSHA provides significant flexibility to employers on key elements such as temperature monitoring and acclimatization.

### **All Employers Should Conduct Heat Hazard Assessments**

All employers should be required to identify if and when heat hazards exist for their employees, unless employers opt to assume that work conditions exceed the temperature triggers as described on page 3 of the regulatory framework.

For outdoor workplaces, we prefer the option to measure heat conditions in work areas (page 2 of the regulatory framework). However, we recognize that may not be practical for employers with a dispersed outdoor workforce or for groups of workers covering large distances during their shift. We agree with the SBAR Panel’s recommendation for OSHA to provide some flexibility on environmental monitoring. Nevertheless, we call on OSHA to include clear guardrails on what is and is not acceptably protective, including—but not limited to—frequency, timing, location, and method of monitoring.

For indoor workplaces, OSHA should require employers to monitor temperatures year-round. Most employers are unlikely to have the tools to consistently determine “whether and when outdoor heat affects indoor temperature/heat index” (page 3 of the regulatory framework), given that building systems can malfunction or fail and climate change is making ambient conditions more volatile. This is particularly true with larger facilities that contain multiple types of work areas (e.g., manufacturing areas, loading docks, offices, and break rooms). An example of why

---

<sup>14</sup> Stephen A. Jones and Donna Laquidara, eds. *Safety Management in the Construction Industry 2023: SmartMarket Report*, Dodge Construction Network, October 2023, <https://www.construction.com/resource/safety-management-in-the-construction-industry-2023/>.

indoor monitoring is needed comes from the SBAR Report itself: “SERs employing kitchen staff all said that indoor work areas are climate controlled,” yet one of the SERs noted that kitchen temperatures still can exceed 100°F.

We agree with the initial heat triggers proposed by OSHA, based on recent work by Maude and Tustin,<sup>15</sup> Evoy et al.,<sup>16</sup> the Washington Department of Labor & Industries,<sup>17</sup> and Vanos et al.<sup>18</sup> OSHA should *not* leave the determination of heat triggers up to employers, as was suggested to the SBAR Panel by some SERs (page 13 of the Panel Report).

Finally, given the lack of a universal definition for heat waves, it seems unnecessarily complicated to use heat waves to trigger a limited number of provisions. National Weather Service heat alerts can themselves be problematic because local forecast offices have wide discretion in setting criteria for alerts. As a result, there is a patchwork of different approaches across the country, which a recent study found are “not correlated with heat attributable mortality.”<sup>19</sup>

### **The Standard Should Require a Combination of Engineering and Administrative Controls**

OSHA should require a combination of controls, as proposed on page 4 of the regulatory framework. The standard should also:

- Specify that cool-down areas must be free of heat-generating sources such as engines or hot pipes.
- Specify a maximum temperature at which electric fans can be used safely.<sup>20</sup>
- Require air conditioning or other cooling mechanisms in the cabs of vehicles when employees spend most their shift working in or from the vehicle (page 5 of the regulatory framework). OSHA should also carefully define “the majority of their shift.” Otherwise,

---

<sup>15</sup> Zaw Maung and Aaron W. Tustin, “The Heat Death Line: Proposed Heat Index Alert Threshold for Preventing Heat-Related Fatalities in the Civilian Workforce,” *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy* 30, no. 2 (2020): 138-145, <https://journals.sagepub.com/doi/10.1177/1048291120933819>.

<sup>16</sup> Richard Evoy et al., “The Impact of Wildfire Smoke and Temperature on Traumatic Worker Injury Claims, Oregon 2009–2018,” *Health Science Reports* 5, no. 5 (2022): e820, <https://onlinelibrary.wiley.com/doi/full/10.1002/hsr.2.820>.

<sup>17</sup> The Washington Department of Labor & Industries reduced the air temperature threshold of the state’s outdoor heat rule from 89°F to 80°F for most clothing types after completing an analysis prompted by a June 2021 petition from stakeholders. Washington L & I, “Preproposal Statement of Inquiry: Ambient Heat Exposures in All Industries,” August 17, 2021, <https://lni.wa.gov/rulemaking-activity/AO21-33/2133CR101.pdf>.

<sup>18</sup> Jennifer Vanos, “A Physiological Approach for Assessing Human Survivability and Liveability to Heat in a Changing Climate,” *Nature Communications* 14 (2023): 7653, <https://www.nature.com/articles/s41467-023-43121-5>.

<sup>19</sup> David M. Hondula et al., “Spatial Analysis of United States National Weather Service Excessive Heat Warnings and Heat Advisories,” *Bulletin of the American Meteorological Society* 103 (2022): E2017-E2031, <https://journals.ametsoc.org/view/journals/bams/103/9/BAMS-D-21-0069.1.xml>.

<sup>20</sup> L. A. Parsons, “Higher Temperatures in Socially Vulnerable US Communities Increasingly Limit Safe Use of Electric Fans for Cooling,” *GeoHealth* 7, no. 8 (2023): e2023GH000809, <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2023GH000809>.

a worker who is in a vehicle for 3.9 hours of an 8-hour shift could conceivably be left without cooling.

- Specify a maximum distance or time from workers to water and cool-down areas. “Close as practical” (pages 5 and 6 of the regulatory framework) is open to interpretation, as illustrated by a case in California in which farmworkers “had to climb through multiple grape trellises to access drinking water.”<sup>21</sup> In North and South Carolina, lack of water is one of the most commonly-cited concerns by farmworkers, who struggle to reach supplies left at the ends of long crop rows or at the edge of fields during infrequent breaks.<sup>22,23</sup>
- Employers should be required to provide paid cool-down breaks on a regular schedule that is informed by work rate, PPE, environmental conditions, other workplace hazards (such as climbing up and down trees or power poles), and meaningful input from workers and their representatives. “Allowing and encouraging” workers to take cool-down breaks (page 7 of the regulatory framework) puts the onus on workers, who may (a) be subject to quotas or other pay structures that disincentivize breaks; (b) have had direct or indirect experience in the workplace with discrimination or retaliation; or (c) be unaware that they need a break because they are already experiencing confusion or abnormal thinking related to a heat-related illness. Oregon’s Heat Illness Prevention standard provides a useful model of how to structure paid cool-down breaks.<sup>24</sup>

### **Employers Should Have a Written Medical Treatment and Heat-Related Emergency Response Plan**

The heat standard should require employers to have a written medical treatment and emergency response plan that includes the minimum elements listed on page 8 of the regulatory framework.

The plan should also include the location of first aid supplies (e.g., cold packs, wet towels, immersion equipment) that can be used to cool workers before emergency responders arrive. As with paid breaks, Oregon’s heat standard is a useful model.<sup>25</sup>

---

<sup>21</sup> California Department of Industrial Relations, “OSH Appeals Board Decision in Heat Illness Prevention Case Adds Clarity to Provision of Water Requirements,” February 27, 2023, <https://www.dir.ca.gov/DIRNews/2023/2023-19.html>.

<sup>22</sup> John S. Luque et al., “‘I Think The Temperature Was 110 Degrees!’: Work Safety Discussions Among Hispanic Farmworkers,” *Journal of Agromedicine* 24, no. 1 (2019): 15-25, <https://doi.org/10.1080/1059924X.2018.1536572>.

<sup>23</sup> Elizabeth Mizelle et al. “Understanding Farmworker Fluid Intake Using Intersectionality Theory,” *New Solutions* 32 no. 1 (2022): 19-29, <https://doi.org/10.1177/10482911221078964>.

<sup>24</sup> Oregon OSHA, “Frequently Asked Questions (FAQs): Heat Illness Prevention (OARs 437-002-0156 and 437-004-1131),” n.d., <https://osha.oregon.gov/OSHApubs/5866.pdf> (accessed December 14, 2023).

<sup>25</sup> *Ibid.*

## **The Heat Standard Should Require Robust, Equitable Training for Workers and Supervisors**

We agree with the SBAR Panel’s recommendation for OSHA to include a robust training provision in the standard and to continue to offer training compliance support to employers. An example of such support compliance comes from Oregon OSHA, which developed a free, online training module in English and Spanish that is intended to satisfy most of the required training elements in the state’s heat standard.<sup>26</sup>

The federal standard should require employers to institute a training program for supervisors and non-supervisory employees that:

- Includes information on workers rights in addition to the minimum elements listed on page 9 of the regulatory framework;
- Is appropriate to the language, literacy level, and *format* that employees and supervisors understand;
- Is offered frequently, as described at the top of page 10 of the regulatory framework; and
- Is evaluated at least annually with the input of workers and their representatives to reflect improved understanding about best practices and changes in the workforce and environmental conditions.

## **The Heat Standard Should Require Employers to Maintain Records of Monitoring Data, Acclimatization Protocols, and Training**

At minimum, OSHA should require employers to keep at least simple records of training, acclimatization protocols, and environmental monitoring. These records represent an important accountability and enforcement tool, as demonstrated by the stories emerging about alleged record falsification by the United States Postal Service.<sup>27</sup> Furthermore, these three sets of records are essential for employers who seek to improve their HIIPPs over time. These records shall also be made available to workers and their representatives.

## **The Heat Standard Should Aim for Prevention of Heat-Related Harms, Not “Mitigation”**

Finally, we strenuously disagree with the recommendation of two SERs to frame heat injury and illness programs as “mitigation” instead of “prevention” (page 43 of the SBAR Report). While there will always be outliers, the majority of serious heat-related harms *are* preventable. Aiming for heat illness and injury mitigation versus total prevention signals that regulators and employers have already given up on protecting the workers most at risk of heat-related injury, illness, or even death.

---

<sup>26</sup> Oregon OSHA, “Heat Illness Prevention Online Course,” n.d., <https://osha.oregon.gov/edu/courses/pages/heat-illness-prevention-online-course.aspx> (accessed December 14, 2023).

<sup>27</sup> Ariel Wittenberg, “A Deadly Delivery Highlights ‘Falsified’ Heat Records at USPS,” *Politico*, December 11, 2023, <https://www.politico.com/news/2023/12/11/usps-major-heat-deaths-00128875>.

Strong, enforceable heat protections for workers are long overdue. As U.S. workers stare down the prospect of another unusually hot summer in 2024,<sup>28</sup> we urge OSHA to formally propose and finalize a heat standard without delay. We look forward to working together with the agency on this critical issue to ensure no more workers suffer preventable harms from a known hazard with commonsense solutions.

Respectfully,

Alliance of Nurses for Healthy Environments (ANHE)  
Arts, Crafts & Theater Safety (ACTS)  
BlueGreen Alliance  
Carolina Advocates for Climate, Health, and Equity (CACHE)  
Center for Biological Diversity  
Center for Work and Health Research  
Child Labor Coalition  
CLEO Institute  
Climate Resolve  
Concentra  
CRLA Foundation  
Earth Ethics, Inc.  
Earthjustice  
El Futuro es Nuestro  
Justice at Work  
National Center for Health Research  
National Consumers League  
National Council for Occupational Safety and Health (COSH)  
National Farm Worker Ministry  
Natural Resources Defense Council (NRDC)  
NC FIELD, Inc.  
New Mexico Health Professionals for Climate Action  
North Carolina Farmworker Advocacy Network  
North Carolina Justice Center  
NW Workers' Justice Project  
Oregon Environmental Council  
Public Citizen

---

<sup>28</sup> National Weather Service Climate Prediction Center, "Prognostic Discussion for Long-Lead Seasonal Outlooks: Summary of the Outlook for Non-Technical Users," November 16, 2023, <https://www.cpc.ncep.noaa.gov/products/predictions/90day/fxus05.html> (accessed December 12, 2023).

SafeWork Washington  
Toxic Free NC  
Union of Concerned Scientists  
UFCW International Union  
Virginia Clinicians for Climate Action  
Worksafe