

**California Retailers Association and National Retail Federation’s Comments to the  
California Occupational Safety and Health Standards Board on the Notice of Modification  
to California Code of Regulations to Add New Section 3396 of the General Industry Safety  
Orders**

**Proposed Rulemaking Concerning Indoor Heat Illness Prevention Standard**

The California Retailers Association (CRA), National Retail Federation (NRF), and their members respectfully submit this letter in response to the proposed Section 3396, Heat Illness Prevention in Indoor Places of Employment, to Title 8 of the California Code of Regulations (C.C.R.).

**BACKGROUND**

CRA is the only statewide trade association representing all segments of the retail industry, including general merchandise, department stores, mass merchandisers, online marketplaces, restaurants, convenience stores, supermarkets and grocery stores, chain drug, and specialty retail such as auto, vision, jewelry, hardware, and home stores. CRA works on behalf of California’s retail industry, which operates over 400,000 retail establishments with a gross domestic product of \$330 billion annually and employs one-fourth of California’s total employment.

NRF is the world’s largest retail trade association with over 16,000 members. NRF represents the largest private-sector industry in the United States. In 2018, the U.S. retail industry had nearly 4.2 million establishments, paid \$2.3 trillion in labor income, and contributed \$3.9 trillion to the national GDP in 2018. In that period, the industry also provided over 32 million direct employment to American workers. Retail also supported nearly 20 million indirect and induced employment across nine occupations.<sup>1</sup>

The retail industry is committed to protecting employees in the workplace. Naturally, CRA and NRF welcome initiatives that effectively abate or prevent occupational hazards without unduly burdening employers. Conversely, we oppose regulations that are not necessary, scientifically supported, practically feasible, or appropriately tailored in scope and application.

**COMMENTS**

CRA and NRF oppose the currently proposed C.C.R. Title 8, Section 3396. The new regulation will only undermine employers’ ability to nimbly counter known or potential indoor heat stressors. Nonetheless, CRA and NRF offer the following insights to assist the Standards Board in revising and improving Section 3396.

**I. Application Thresholds Under Subsections (a)(1)-(2) Are Baseless.**

Section 3396’s application thresholds are baseless. Under Subsection (a)(1), all regulatory measures but Subsection (e) apply to “all indoor work areas where the temperature equals or exceeds 82 degrees Fahrenheit when employees are present.” It is critical to understand that

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<sup>1</sup> *The Economic Impact of the US Retail Industry*, NRF (May 2020), <https://cdn.nrf.com/sites/default/files/2020-06/RS-118304%20NRF%20Retail%20Impact%20Report%20.pdf>.

workers have different temperature points at which they experience physiological discomfort or detriment.<sup>2</sup> Likewise, how individuals respond to and manage heat stressors depends on multiple variables such as work type and intensity, climate conditions, genetics, and physical traits.<sup>3</sup> And no scientific study shows that heat becomes unacceptable or dangerous starting at 82 degrees in every indoor work area for every exposed worker. Moreover, convenience seems to be the only discernible reason for settling on 82 degrees.<sup>4</sup> Thus, Subsection (a)(1)'s application threshold is subjective, uninformed, and arbitrary.

Likewise, the threshold under Subsection (a)(2) lacks any scientific basis. Under Subsection (a)(2), certain conditions trigger Subsection (e)'s additional duties to assess and use control measures to mitigate the risk of heat illness. The conditions include a temperature or heat index at or above 87 degrees; the threshold is at or above 82 degrees when employees wear clothes that restrict the removal of heat or work in a radiant heat area. According to the initial statement, employees working under these conditions face an increased risk of heat-related death, illness, and injuries.<sup>5</sup> But just as before, there is no discussion of any scientific research or data to support that these conditions pose an increased heat illness risk or why they require Subsection (e)'s specific protective measures. The lack of scientific support is troubling and inconsistent with the rulemaking procedures Cal/OSHA must follow.

Using the heat index as a threshold is especially problematic here. A heat hazard assessment based on the heat index is appropriate only for outside locations.<sup>6</sup> The heat index's irrelevance for indoor heat is evident in Subsection (b)(9)'s definition as well, under which heat index "means a measure of heat stress developed by the National Weather Service for outdoor environments..." But the same definition inexplicably states that "heat index refers to conditions in indoor work areas" for Section 3396, which is a brazen attempt to support a regulatory measure with pseudo-science. Most importantly, the heat index is not a scientifically reliable source to determine what heat illness is possible or probable based on any particular index.<sup>7</sup> Thus, requiring employers to record the heat index if it is greater than the temperature, or relying on the heat index to determine when employers must use control measures to mitigate heat illness, is not logically or legally sound.

## **II. Subsection (a)(1)(C)'s Exception Is Unworkable.**

Subsection (a)(1)(C)'s attempt to exempt certain indoor work areas is unworkable for several reasons. The first criterion is that a location is not normally occupied. Yet, because Section 3396 never defines "normally occupied," employers must speculate regarding when an area meets

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<sup>2</sup> *Heat and Health*, World Health Organization (Jun. 1, 2018), <https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health>.

<sup>3</sup> See generally Josh Foster, et al., *Individual Responses to Heat Stress: Implications for Hyperthermia and Physical Work Capacity*, 11 *Frontiers in Physiology*, Sep. 11, 2020.

<sup>4</sup> *Initial Statement of Reasons*, Cal. OSHSB (May 18, 2023), <https://www.dir.ca.gov/oshsb/documents/Indoor-Heat-ISOR.pdf>.

<sup>5</sup> *Initial Statement of Reasons*, *supra*.

<sup>6</sup> Heat Stress, Environmental Health and Safety, University of Iowa, <https://ehs.research.uiowa.edu/occupational/heat-stress>.

<sup>7</sup> *Secretary of Labor v. United States Postal Service, et al.*, Docket No. 26-1813, at 61 (OSHRC ALJ Jul. 29, 2020).

the definition. Language defining what instances suffice as normally occupied is critical so that employers do not risk possible enforcement actions for locations that they reasonably considered as “not normally occupied” based on their self-created or assessed metrics. The lack of “a reasonable and practical construction that is consistent with probable legislative intent” for this provision makes it impermissibly vague and vulnerable to future challenges.<sup>8</sup>

The second criterion requires the location to be not contiguous with a normally occupied location. This too requires knowing the full scope of “normally occupied” because a location may qualify as an exception if none of the locations that it shares border with is normally occupied. As before, the undefined “normally occupied” makes this exception almost impossible to figure out. The absence of scientific data showing that an indoor heat hazard may be present in locations that are contiguous to an occupied location is yet another example of speculative rulemaking that will not survive in future litigations.

The third mandates that employees must be present in the location for less than fifteen minutes in any one hour. The keyword “present” is again undefined, thereby making all “presence” in the location enough to run the clock regardless of how short its duration is. And why the exception applies at fourteen minutes and fifty-nine seconds but not after one second later remains unexplained, which makes the time constraint’s purpose dubious. Further, there is no way of knowing if the time constraint is shared among all the employees or if each gets his or her own fourteen minutes and fifty-nine seconds. Last, the regulation is silent on how employers are to verify that a location did not have employees’ presence for less than fifteen minutes in any one hour.

Separately, making shipping containers ineligible for Subsection (a)(1)(C)’s exception is not warranted. Shipping containers are usually not indoor work areas. Even when shipping containers are on job sites, they normally serve to hold items or equipment that employees use during work and store away after work. The exception’s three requirements—as haphazard as they are—will adequately rule out containers converted into an office-like space. Excluding shipping containers also conflicts with the existing regulatory definition of intermodal containers, under which shipping containers can and should be exempt from the indoor heat illness standard.<sup>9</sup>

### **III. The Proposed Regulation is Infeasible with Real World Application of “Cool Down” Areas and Acclimatization.**

Unlike other occupational hazards like excessive noise, indoor heat stressors do not pose a uniform kind or degree of harm to the exposed employees. Accordingly, employers must tailor efforts to mitigate or prevent the risk of heat illness in indoor work areas based on each area’s circumstances and needs. Unfortunately, many of the proposed protective measures are a one-size-fits-all approach.

Subsection (d) requires providing cool-down areas large enough to accommodate all employees on recovery or rest. Subsection (d) also requires employers to encourage and allow

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<sup>8</sup> See *Teichert Const. v. Cal. Occupational Safety & Health Appeals Bd.*, 140 Cal.App.4th 883, 890–91 (2006).

<sup>9</sup> Cal. Code Regs. Tit. 8, § 3460.

employees to take preventative cool-down rest whenever employees feel the need to do so. When employees are taking a preventative cool-down, employers have to monitor and ask whether the employees are experiencing symptoms of heat illness, encourage them to remain in the cool-down area, and not order them back to work until signs of heat illness have abated. These measures are onerous burdens on employers and are infeasible.

For instance, employees in a warehouse may experience varying temperatures throughout the day based on their job assignments,—such as opening or closing bay doors—weather conditions, and a myriad of other factors. But if the temperature equals or exceeds 82 degrees for even one second, employees can take preventative cool-down rests for as long as they wish by claiming that they are hypersensitive to such temperature and the employer would have no recourse against this abuse. Thus, Subsection (d)’s utter disregard for business and operational needs in favor of employee safety from inadequately proven indoor heat threats at 82 degrees or higher will cause unjust economic loss for employers.

Subsection (g)’s measures ignore the well-established science that acclimatization is a complex process that depends on multiple factors.<sup>10</sup> Moreover, living in a particular climate naturally acclimatizes workers even if they are not working. In other words, daily activities such as loading groceries into the car, performing yard work, or walking in the neighborhood serve as some measure of acclimatization. Cal/OSHA’s insistence on rigid acclimatization protocols ignores this fact. The regulation insists on setting the threshold at temperature points that have not been proven to be dangerous for every employee in every indoor work condition. The regulation also fails to elucidate what closely observing employees during a heat wave entails. The amorphous requirement unfairly forces employers to guess while facing potential enforcement actions and penalties. This provision also highlights a fundamental issue Cal/OSHA has declined to address: Employee exposure to heat is not limited to workplace exposure. On the contrary, heat exposure is not only a workplace hazard—it is a public hazard. Cal/OSHA should adhere to the science and recognize this issue.

Finally, Cal/OSHA must explicitly acknowledge that individuals react differently to heat exposure. An employee could be working at heat levels of 75 degrees and suffer a heat illness. A different employee could work at heat levels of 95 degrees and suffer no ill effects. Given how individualized the reaction to heat is, Cal/OSHA should state in the rulemaking record that the fact that an individual worker suffers a heat illness does not mean that the employer’s heat stress program is not compliant or qualitatively deficient.

### **Additional CRA Feedback and Proposed Amendments**

Standards to prevent heat illness must be reasonably feasible and regulate core body temperature to be effective. We believe the revised proposed language still falls short on both fronts. First, the proposed modifications to the standard do not contain sufficient guardrails to prevent abuse while simultaneously creating significant administrative and financial burdens for employers. This combination will make successful implementation nearly impossible without

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<sup>10</sup> See generally John E. Greenleaf, et al., *Acclimatization to Heat in Humans*, National Aeronautics and Space Administration (April 1989), <https://ntrs.nasa.gov/api/citations/19890016187/downloads/19890016187.pdf>.

substantial reductions in productivity. Second, as written, the standard fails to account for commonly accepted and more objective methodologies regarding the monitoring and prevention of heat stress illness. To combat both concerns, we propose “alternative means” language below, which will prevent abuse by employees and employers alike and reduce unnecessary administrative and financial burden through objective means of monitoring heat stress.

### **Reasonable Implementation**

The proposed modifications to the regulation have no guardrails related to the frequency and duration of preventative cool-down rests, creating concerns for reasonable implementation. Paragraph (d)(2) specifies a minimum rest of five minutes but does not specify a maximum duration or frequency for these preventative cool-down rests. As proposed, the standard is ripe for abuse. Without an upper limit for frequency or duration, employees could designate their entire shift as a preventative cool-down break. This, in combination with required monitoring during preventative cool-down rests, has the potential to remove two employees from their work for an entire shift. The resulting reduction in productivity would be untenable for any business.

Additionally, the added text defining preventative cool-down rests as recovery periods appears to imply that Cal. Lab. Code § 226.7 (c), effective 1 January 2027, would also apply, requiring employers to pay each employee one additional hour of pay each time an employer objects to such practice. This creates a direct financial incentive for employees to request breaks, regardless of need. Conversely, there is potential for unscrupulous employers who do not value occupational and environmental health and safety to abuse this standard to prevent employees from exercising their rights to preventative cool-down breaks.

### **Accounting for More Objective Methodologies**

The revised proposed language also does not address alternative, authoritative, and recognized practice guidelines for heat illness prevention provided by the American Conference of Governmental Industrial Hygienists (ACGIH). ACGIH issued an updated Heat Stress and Strain TLV Documentation in 2022, based on an extensive review of peer-reviewed literature related to heat illness risk. Federal OSHA frequently relies upon ACGIH, including for the annotated PEL tables, demonstrating the reliability of these standards. Disregarding these standards discards decades of work done by occupational and environmental health and safety professionals to arrive at an objective method for protecting nearly all workers from heat illnesses. We propose language that accounts for ACGIH’s methodology below. Note that a similar Alternative Means structure was adopted in the Federal OSHA Silica Standard (29 CFR 1926.1153(c)(1).

Adopting the ACGIH’s Heat Stress and Strain (2022) methodology would provide employers with a recognized means of ensuring preventative cool-down breaks remain reasonable and an objective method of ensuring heat stress and strain remain below the Threshold Limit Value (TLV). The proposed rule does not specify a WBGT<sub>i</sub> measurement method alternative to heat index or temperature. The standard should allow for a demonstration of employee exposures below the ACGIH TLV as an alternative performance measure to demonstrate Assessment and Control Measures. The TLV can be expressed as  $56.7 - 11.5 \log_{10} M$ , where M is the metabolic rate in Watts. It is especially important to consider a TLV alternative because humidity can vary substantially inside versus outside a building and within sections of the same building. The need to evaluate, potentially, each room of a building (or multiple locations within large rooms) is

excessively burdensome and does not provide actual protection to employees. Further, the use of a TLV alternative helps avoid “feasibility” interpretation questions that are inevitable if the regulation is adopted as proposed. Requiring employers maintain worker exposures below an objective TLV makes the standard easier to understand, implement, and enforce.

Additionally, employers should be able to use objective, physiological indicators to demonstrate conformance to the TLV. Doing so limits the potential for abuse as discussed above, and also ensures employees are not returning to work before their symptoms have sufficiently subsided. Using an objective means of monitoring symptoms like core body temperature or heart rate better protects both employees and employers than the subjective methods currently proposed.

### **Proposed Alternative Means Language**

At a minimum, Section 3396 should provide employers with the option to utilize ACGIH physiological or environmental monitoring methods to reduce heat illness. Proposed language for Section 3396 may be as follows:

(e)(3) Alternative Means.

- (A) Employers may utilize ACGIH evaluation methods to evaluate exposures to heat strain. Where evaluation measures ensure that employee exposure is less than the TLV, section (e)(2) shall not apply.
- (B) Employers may utilize physiological measurements or environmental WBGTi-TWA measurements representative of an employee’s work shift to determine conformance with the TLV.
- (C) Employee preventative cool-down breaks may be moderated by objective physiological or environmental WBGTi-TWA measurements demonstrating conformance to the TLV.

### **CONCLUSION**

CRA and NRF appreciate the Standards Board’s effort to give employees greater protection from indoor heat illness. But the proposed Section 3396’s flaws—from its scientifically unsupported regulatory scope and application to overgeneralized control measures—will make protecting employees in the workplace more difficult for employers across all industries. For the proposed regulation to truly work, the regulation should be based on science and best practices. CRA and NRF invite the Standards Board to collaborate with the retail industry to improve Section 3396.

Sincerely,



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