



June 30, 2017

Amalia Neidhardt  
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Sent Via Email

**Re: Heat Illness Prevention in Indoor Places of Employment**

Dear Ms. Neidhardt,

Please find enclosed written comments in response to the Advisory Committee's second discussion draft of the standard on Heat Illness Prevention in Indoor Places of Employment. These comments are submitted on behalf of 26 organizations in California committed to protecting workers from the hazards of indoor heat. Along with our comments, we have enclosed statements from workers who are impacted by indoor heat in their jobs.

We appreciate the opportunity to submit comments and statements to the Advisory Committee on this draft. We are eager to move the process along to adopt a standard with a broad scope that protects all workers in all industries from the hazards of indoor heat. If you have any questions about these comments, please contact me at [tshadix@worksafe.org](mailto:tshadix@worksafe.org) or (541) 842-0964.

Sincerely,

Tim Shadix  
Staff Attorney  
Worksafe

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**Re: Heat Illness Prevention in Indoor Places of Employment**

Dear Ms. Neidhardt,

The undersigned organizations would like to extend our appreciation to the Advisory Committee for the opportunity to submit written comments on the second discussion draft of the standard on Heat Illness Prevention in Indoor Places of Employment. We respect and appreciate the tremendous amount of work contributed by all stakeholders and government agencies involved in this process.

Our organizations include worker centers, labor unions, legal aid providers, and advocacy organizations. We base our comments on our considerable collective experience working directly with workers impacted by indoor heat conditions. We appreciate your consideration of these written comments, as well as the comments many of us made at the Advisory Committee meeting on May 25, 2017. We are eager to move the process along to adopt a standard with a broad scope that protects all workers in all industries from the hazards of indoor heat.

Along with our written comments, we are attaching statements the undersigned organizations gathered directly from workers impacted by indoor heat. These statements illustrate the dangerous indoor heat conditions many workers endure. We appreciate your consideration of these first-hand experiences from workers with a very personal stake in this process, which starkly illustrate the need for a comprehensive standard that protects all workers.

In working directly with workers across industries, we have repeatedly heard about the dangerous indoor heat conditions many workers endure. These experiences are by no means limited to a few industries. For this reason, we strongly support the continued application of this standard to workers in all industries, including temporary and contingent workers. To fulfill its purpose of protecting workplace safety, however, the standard must require stronger protections than those put forward in the second discussion draft.

Worker experience and widely accepted scientific research both tell us that individual exposure should be limited at heat index temperatures of around 80°F, not 85°F, much less 85°F measured by dry-bulb temperature alone. Effectively limiting exposure requires reducing temperatures and workloads whenever possible. Engineering and administrative controls to reduce exposure must apply when workers become at risk – 80°F heat index – not only in the most extreme conditions above a 100°F heat index, as suggested in the second discussion draft. Finally, any adjustments in control measures should account for clothing worn, work activity, acclimatization, and other factors known to affect the risk of heat illness.

We discuss the above issues in more detail below, along with our comments on other parts of the discussion draft, organized based on the sections of the draft.

## **Scope and Application**

### **Coverage**

We appreciate the Division maintaining the standard's coverage of all industries in the second discussion draft. Indoor heat impacts a broad range of workers, from warehouses, restaurants, cafeteria and catering kitchens, indoor recycling facilities, janitorial, bakeries, produce packing sheds and factories – often non-ventilated, even in the peak of summer – to heat-intensive industries like laundry facilities and foundries, where workers are routinely expected to work for hours in high-heat environments. In order for this standard to be effective it must apply to all workers, including temporary and contingent workers.

The California Labor Federation, sponsors of the legislation to create this standard, consistently hear from represented workers in every industry about the dire need for indoor heat protection. This is not a problem for just one industry sector or just one region of the state. Heat affects everybody, regardless of where they work. For these reasons, excluding any industries from coverage, or narrowing the scope of the standard to a pilot program, would needlessly expose large numbers of workers in non-covered industries to indoor heat hazards.

### **Application Threshold**

We strongly urge using 80°F, measured by heat index, for the overall application threshold in the standard. The 85°F dry-bulb temperature threshold in the second discussion draft is too high to provide adequate protection for many workers, and does not account for the critical factor of humidity.

Under an 85°F dry-bulb threshold, even workers engaged in very heavy work activities, wearing heavy or vapor-impermeable clothing, or working in high humidity would have no protections at all under the standard at temperatures as high as 84.9°F. Such a high baseline threshold significantly undermines the effectiveness of the standard. Many of the undersigned organizations have heard directly from workers who have experienced heat illness symptoms in temperatures below 85°F, especially after the prolonged exposure many jobs require. Control measures should apply at a lower threshold of 80°F heat index. This would be a more effective threshold for protecting workplace safety and health, and would more closely follow American

Conference of Governmental Industrial Hygienists (ACGIH) exposure indices, which the authorizing legislation for this standard, SB 1167, directs the Division to consider. The ACGIH exposure limits are based on scientific studies showing that above certain temperatures, depending on work activity level and other factors, the body struggles to maintain a safe core temperature on its own. Exposure limits are thus not about mere discomfort, but rather about preventing dangerous body core temperatures that can lead to heat stroke or worse.

The baseline application threshold for all workplaces should be a temperature at which workers engaged in moderate or heavy work require some control measures to remain safe. This is because in many situations workers in the same area will be engaged in both light work and moderate to very heavy work, and some individual workers may perform multiple duties throughout the day that range from light to very heavy work.

For example, the Warehouse Worker Resource Center (WWRC) reports that in many warehouses some workers perform light work, such as moving material while seated, while others may engage in heavy lifting or pulling, involving intense arm and trunk work. This work all occurs in the same place of employment. Likewise, in recycling facilities workers engaged in light work often may work near others engaged in moderate to very heavy work in the same workspace.

It is incredibly important for workers to be protected during all the work they perform, even if their duties range or their workplace is fragmented. Therefore, the lower threshold heat index of 80°F must trigger an employer's heat illness prevention plan for indoor heat for the entire workplace. Using a threshold low enough to protect workers engaged in all work levels would also help to reduce complexity without increasing the risk to workers.

### Measurement

To serve as an effective trigger for control measures, the application threshold temperature must account for the relative humidity of the workplace. Humidity significantly affects the body's ability to cool itself when temperatures rise, and humid environments can become hazardous at relatively lower dry-bulb temperatures. Although the second discussion draft uses heat indices for the tiers of control measures, the overall application threshold remains based on a dry-bulb measurement. This would endanger workers in more humid workplaces, who could experience heat indices over 80°F before the dry-bulb temperature reached the application threshold required to trigger control measures.

Between the available measurements that account for humidity, we recommend the heat index over the Wet Bulb Globe Temperature (WBGT). The heat index measurement is more responsive to the effects of humidity, and we believe it is also an easier measurement to take and understand, leading to improved compliance and more transparency for workers. As discussed further below, however, heat index measurements must be coupled with short-term exposure limits for high radiant heat work areas, since the heat index does not account for infrared radiation from radiant heat sources.

## Exception for Clothing Adjustment Factor

To adequately protect workers from the risks of heat illness, even a lower baseline application heat index of 80°F must include an exception for workers wearing heavy protective clothing. Protective clothing required for some jobs can restrict evaporative heat transfer, putting the wearer at risk of overheating at much lower temperatures than other workers. The application threshold should be lowered for all workers when they wear vapor-barrier coveralls or double-layer clothing, by an amount based on the clothing adjustment factors recommended by ACGIH and the National Institute for Occupational Safety and Health (NIOSH), such as by reinstating the table of adjustment factors provided in the initial discussion draft.

## **Definitions**

We are pleased to see many important worker-protective definitions in this standard, including some important additions in the second discussion draft. We urge amending and incorporating the following definitions in this standard:

“Acclimatization” should be amended to peaking within seven to fourteen days, as that is what both NIOSH and ACGIH recommend. We realize this departs from the outdoor heat standard but believe reflecting the best available evidence should be a higher priority.

“Cool-down area” is an important addition to the definitions in the second discussion draft. Too often we hear of workers not being provided adequate cool areas to rest, and the requirements in this definition help to address concerns such as access to water, the temperature of the rest area, and proximity to the work area. We urge adding to this definition the requirements that rest areas provide air circulation distributed through air inlets, and also sufficient space to accommodate all workers on shift.

“High radiant heat work area” should not limit the list of industries covered under the definition. In the prior discussion draft the use of “such as” included industries as possible, but not all-inclusive, examples of high radiant heat work areas. By limiting the list of industries, the current draft would protect fewer workers who are exposed to high radiant heat. Crafting a perfect list of high radiant heat industries that leaves none out is a difficult task, and unnecessary. High radiant heat work areas pose the same hazards regardless of industry, and should therefore be defined based on the presence of a radiant heat source, rather than by enumerated industry.

“Representative” needs to be included in the definitions, and should allow for an employee-designated representative where workers are not represented by a union. Worker-designated representatives play a key role in increasing safety and health in California’s workplaces. Their role is especially important when workers are not protected by a collective bargaining agreement.

For example, the Warehouse Worker Resource Center (WWRC) has played an important role in assisting warehouse workers in the Southern California area to improve health and safety in their workplaces. The organization, many times in the absence of effective employer-provided training, has provided workers with training on indoor heat and information on how to use their rights. WWRC was also key in helping Domingo Blancas and his coworkers respond to his

severe heat illness incident and navigate the Cal/OSHA process, in a case that helped inspire the indoor heat illness legislation authorizing this standard.

Nonprofit organizations such as WWRC have demonstrated their vital role in assisting non-unionized workers to understand their rights and participate in making workplaces safer. This standard should ensure that all workers have the right to designate a representative, including but not limited to an attorney, nonprofit organization, or fellow employee.

A broad definition of employee-designated representative would be consistent with existing definitions in current law. California's Hazard Communication Standard, Title 8 Section 5194(c), defines "Designated Representative" as "any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section," and provides that "[a] recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization." Cal/OSHA's recently adopted standard on Process Safety Management for Petroleum Industries includes a similarly broad definition of "employee representative."

### **Heat Illness Prevention Plan**

We support the requirement that heat illness prevention plans include procedures to obtain the active involvement of employees and their representatives. Including worker involvement in this standard is important because workers are experts in their workplaces and can come up with the solutions to help assess, identify, and correct heat hazards. Workers and their representatives should be encouraged to develop the plan and come up with innovative ways to help assess the harm and develop procedures for control, rest, hydration, training and other measures.

To ensure temporary and contract workers are not exposed to greater risks, the prevention plan should be required to include procedures for communicating the particular heat hazards of a workplace to other employers, and employees of other employers, who are present in the work area.

Finally, a requirement should be added for annual review of the plan's adequacy, taking into account any incidents of heat illness, and updating of the plan as necessary.

### **Assessment of Heat Illness Risk**

While we support the idea in the second discussion draft behind measuring the heat index in all locations where heat exposure is at or near the highest levels, we believe a personalized heat monitoring procedure would be more effective and no more complicated.

Simply measuring the heat index of particular locations does not indicate actual exposure levels for individual workers, since some may spend their whole shift in the hottest area while others may work in many different areas throughout the day. In terms of preventing heat illness, individual exposure provides a more useful indicator. Thus, the assessment of heat illness risk should be based on individual heat exposure monitoring, used to calculate a two-hour time-weighted average or similar indicator, using methodology accepted by ACGIH and NIOSH.

This may include determining heat exposure by means of area monitoring; the key is that the exposure assessment be individualized. Consistent with Cal/OSHA regulations under Title 8 Section 340.1, workers or their representatives should be notified in advance of any individual heat exposure monitoring plans and be given the opportunity to observe the monitoring.

We strongly support the requirement for posting heat index measurements in the workplace. This transparency is important to enable workers to understand their exposure risks and to know whether their employer should be providing them with additional protection.

This section should also require all employers to conduct an initial heat illness risk assessment within 30 days of this standard becoming effective, otherwise employers could potentially wait a year until conducting an assessment.

We strongly support the requirements for reassessment of heat illness risks when there is a change in working conditions, when a new heat source is introduced, when there is a more extreme heat wave than previously assessed, when there is an incident of heat illness, and at least annually. All of these factors affect heat illness risk, and when they change control measures need adjustment to remain effective.

### **Rest and Hydration**

Rest and hydration are key to helping workers stay safe and healthy while working in places of employment where indoor heat is a hazard.

We support the current language encouraging workers to drink water and requiring water to be readily accessible and provided free of charge. We also support the language indicating the importance of cool-down rests, and the requirement that workers be allowed to take a cool-down rest break when they feel the need to in order to prevent overheating. Everyone's body is different in how it reacts to heat conditions, and workers must have the ability to take preventative actions whenever they personally feel symptoms of heat illness or stress.

To ensure employees are in fact able to take preventative cool-down rests, this section should specify that employers have an obligation to arrange for relief as quickly as practicable for employees unable to leave their post without a replacement worker. This obligation should include establishing and maintaining procedures for scheduling enough workers to make immediate relief and rotation feasible for workers needing to take cool-down rests.

Given the requirement of encouraging workers to drink more water, this section should also require in this context that employers provide restroom facilities as close as practicable to work areas and allow employees to take restroom breaks as often as needed.

Finally, to help clarify procedures for cool-down rests, this section should specify that preventative rests must be in appropriate cool-down areas, as defined by the standard. As the standard is currently written, employers and workers have to look up the definitions of both "preventative cool-down rest" and "cool-down area" to know this, possibly leading to confusion.

## **First Aid and Emergency Response**

It is important to have clear roles and responsibilities for first aid and emergency response. Equally important is that workers be trained on who is responsible for implementing the first aid or emergency response.

We support the addition in this section of the monitoring, communication, and buddy systems to ensure workers are in close contact with supervisors and within reach of emergency intervention in case of a heat-related incident. Similarly, we support designating employees on each worksite to call for emergency medical services, although the standard should specify that all employees are allowed to call for emergency services, regardless of whether a designated employee is available.

We support requiring employers to take commensurate action in response to a worker experiencing symptoms of heat illness. However, the standard should also specify minimum procedures in response to heat illness. Because heat illness can escalate quickly into a dangerous or life-threatening condition, any worker who reports or exhibits symptoms of heat illness should be given a cool-down break of at least 10 minutes, be closely observed for at least an hour after returning to work, and directed to reduce his or her workload by at least 20 percent until the end of the shift. Workers must not lose any compensation for taking these precautions, and employers must offer these procedures as an alternative to ending the shift or going home. We hear from many workers that if they complain about heat illness symptoms, supervisors simply tell them to go home, which often means losing pay. This creates an incentive for workers to ignore heat illness symptoms and continue working, potentially leading to worse symptoms and greater disruption.

The need for clear guidelines for emergency procedures is especially true for temporary employees, who may be shuttled around and not know who is supposed to assist them when they experience heat illness. This is particularly concerning since temporary workers face greater risks of being injured on the job, with one study finding the risk to be 50 percent higher compared to direct-hire workers, and twice as high for the risk of suffering from heat illness.<sup>1</sup>

To help reduce these risks and avoid confusion among temporary workers, this section should require employers to inform all workers of whom they should report heat illness symptoms to, with separate instructions for temporary workers.

Furthermore, this section should specify that in dual employer arrangements, both employers are responsible for ensuring the maintenance of first-aid and emergency response procedures that satisfy the requirements of this section.

Finally, employers should be required to maintain procedures for ensuring that, in the event of an emergency, clear and precise directions to the worksite can and will be provided as needed to emergency responders. This is particularly important in remote rural locations, where emergency responders may be farther away and workplaces harder to locate. Prompt medical attention is

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<sup>1</sup>Grabell, et al., *Temporary Work, Lasting Harm*, Pro Publica (Dec. 18, 2013), <http://www.propublica.org/article/temporary-work-lasting-harm>.



critical for workers experiencing heat illness, in order to prevent serious complications or even death. Confusion about directions can lead to costly delays.

### **Acclimatization**

Acclimatization is an especially important factor in protecting workers from heat illness. It takes time, seven to fourteen days according to NIOSH, for the human body to acclimate to working in new heat conditions. Unacclimatized workers are at a particular risk of suffering from heat illness. New workers, temporary workers on a new assignment, workers returning from illness or vacation, and workers who have been removed from heat conditions for more than a week are especially likely to be unacclimatized to workplace heat conditions.

The serious risks heat poses to unacclimatized workers should be addressed with the most effective preventative measures – engineering or administrative controls. However, the second discussion draft does not include any such control measures to protect unacclimatized workers. We appreciate and support the inclusion of requirements to observe all new employees for their first fourteen days, but strongly urge the additional requirement of engineering or administrative control measures.

An effective administrative control measure to protect unacclimatized workers is to implement graduated exposure to the workload. For example, when implementing its indoor heat standard, Minnesota’s OSHA (MNOSHA) recommended an acclimatization procedure where new workers perform up to 20 percent of the normal workload on their first day, with 20 percent added each subsequent day until a full workload is reached. Importantly, MNOSHA also recommended an acclimatization procedure for continuing workers who are absent from the heat conditions for a week or longer, albeit on a faster schedule of 50 percent workload on the first day, 60 percent on the second, 80 percent on the third, and 100 percent on the fourth.<sup>2</sup> We urge adding similar acclimatization procedures to this standard, taking into account any recommendations developed by ACGIH or NIOSH.

To protect all workers who may be unacclimatized to their worksite, this section should also specifically address workers with intermittent assignments in a covered work area, as they may require acclimatization any time they are removed from high heat conditions for a week or longer.

### **Short-Term Exposure Limits**

We are very concerned that the short-term exposure limits were dropped entirely in the second discussion draft, especially limits for work in high-radiant heat work areas. In addition to increasing air temperature, high radiant heat sources emit infrared radiation. This radiation is not detected by instruments that measure heat index. This means that application threshold or control measures based on heat index will be inadequate to protect workers from high radiant heat exposure. These measures should be coupled with short-term exposure limits specifically for high radiant heat work areas, and include the option of using WBGT measurements to more

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<sup>2</sup>*MNOSHA Heat Stress Guide*, Minnesota Department of Labor and Industry, Occupational Safety and Health Division (Dec. 2016), [http://www.dli.mn.gov/osha/PDF/heat\\_stress\\_guide.pdf](http://www.dli.mn.gov/osha/PDF/heat_stress_guide.pdf).

accurately evaluate radiant heat exposure. We also urge lower short-term exposure limits for unacclimatized workers, with both exposure limits based on ACGIH recommendations.

### **Control Measures**

We are very concerned that the strongest control measures in the second discussion draft do not apply until a “Level III” heat index, which is 100°F or higher. The most effective protections against heat illness are engineering controls to reduce temperatures and administrative controls to reduce exertion, yet in this draft these measures are reserved for only the most extreme temperatures.

Especially for workers performing strenuous tasks, wearing heavy clothing, or who are unacclimatized or have personal risk factors, significant changes in the environment or work activity may be required to keep conditions safe, even in heat index temperatures well below 100°F. Workers should not have to endure high heat exposures up to the 100°F heat index before these preventative measures become available.

We strongly urge eliminating the “levels” and tiered control measures, in favor of a baseline application heat index of 80°F, above which the full range of control measures, including especially engineering and administrative controls, should be required.

To the extent any threshold progressions for control measures are ultimately used, to be effective they must include adjustments for work activity, clothing, and any other factors that reduce the body’s ability to cool itself.

Additionally, rest breaks required under control measures should be adjusted in length for workers engaged in heavy work or required to wear heavy or vapor-impermeable clothing. ACGIH exposure limits indicate that 10-minute breaks are not adequate for those conditions. For example, at higher temperatures ACGIH recommends workers engaged in very heavy work take 15-minute breaks every hour, and 30-minute breaks in very high heat. Workers wearing vapor-impermeable suits and engaged in very heavy work may require breaks as long as 45 minutes per hour in temperatures above 95°F. The break lengths required to maintain safety will vary but should follow ACGIH limits and account for humidity, work activity level, and vapor-impermeable clothing.

We also recommend amending this section by removing the words “feasible and applicable” and rephrasing as, “Engineering controls shall be established, implemented, maintained and operated to reduce the heat index to below 80°F, unless the employer demonstrates that reduction to that heat index is not feasible.” If engineering or administrative controls are necessary to protect workers’ safety, employers should be required to implement them, or implement equivalent alternative controls from specified options, which could be included in the standard. Employers should bear the burden of establishing the control’s infeasibility. The additional requirement to establish, implement, maintain and operate reflects workers’ observations that existing controls, such as HVAC systems, are often inadequate or not operated as a cost-saving measure.

We strongly oppose the provision in section (h)(4) of the second discussion draft which allows rest breaks under this standard to be provided concurrently with any other meal or rest period. In addition to undermining the purpose and effectiveness of preventative cool-down rests, this provision runs contrary to current law. Preventative cool-down breaks are stated as having the same meaning as “recovery periods” under Labor Code section 226.7(a), which are counted as hours worked. Meal periods are not counted as hours worked in most circumstances, and should not be taken concurrently with rest periods of any kind, as this would result in workers losing compensable rest periods.

Moreover, the very purpose of an indoor heat standard derives from the need for control measures beyond those required under normal conditions. Regular meal and rest periods are already part of the workday under normal heat conditions. High heat conditions often require *additional* preventative cool-down rests to protect workers from the risks of heat illness. Allowing these breaks to be taken concurrently with the minimum breaks required under normal conditions counteracts the purpose of this standard of providing additional protections when temperatures become hazardous. The standard should specify that cool-down rests are compensable and in addition to meal and rest periods required under normal heat conditions. This is especially important for workers, such as in the garment industry, who are compensated by piece-rate and might avoid taking cool-down rests even when they need them from fear of losing compensation.

Deadlines for installing or implementing engineering or administrative controls need to be added to the standard as well, to ensure timely compliance and minimize the amount of time workers are exposed to high heat hazards.

Finally, meetings conducted before the commencement of work to review the heat plan should not be described as occurring “pre-shift.” The standard needs to specify that these meetings constitute compensable time for workers. Otherwise, employers may not pay employees for the time of reviewing the plan, which should be considered a work activity.

## **Training**

We support the inclusion of training requirements in the discussion drafts. However, it is critical that the standard require training to be in a language workers understand, and to be literacy-sensitive and culturally appropriate.

Our organizations have heard too many stories of employers training workers in a language the workers do not understand or with written materials when many workers have low or no literacy skills. Or training workers in 5 minutes and then having workers sign a sheet indicating that they have been trained. This is not sufficient.

Relatedly, for trainings to be effective they should be both in-person and interactive. This allows for important discussions on heat illness. There is broad recognition that in-person training is the most effective method, and it has been required in other recent Cal/OSHA standards, including those addressing violence prevention in healthcare settings, bloodborne pathogens, and aerosol

transmissible diseases.<sup>3</sup> Federal OSHA has also stated that it believes the effectiveness of training is enhanced by trainer-trainee interaction.

Requiring the most effective training methods pays dividends for workplace safety and health. In a study involving 4,387 low-wage workers in Chicago, Los Angeles, and New York, UCLA-LOSH found that workers who had received health and safety training on the job had significantly better injury outcomes than those who had not received training—they were more likely to receive medical care, more likely to notify their employers of injury, less likely to encounter a negative reaction from employers, more likely to receive workers' compensation paperwork, and more likely to file for benefits.<sup>4</sup>

We appreciate the requirement that training include informing workers of their right to exercise their rights under this standard without retaliation. We urge this training to also include the right to refuse to work in unsafe conditions.

A critical component of effective training is having workers and their representatives involved. We recommend including language requiring employers to involve workers and their representative in developing and implementing the training curriculum.

### **Recordkeeping**

We strongly support the continued inclusion of the requirement that employers not prohibit employees from recording or utilizing their own thermometer or similar device. Allowing workers to take their own measurements aids their ability to monitor their own safety, take appropriate preventative measures, and ensure their employer is providing adequate protection.

Workers in the warehousing and steel industries spoke passionately at the Advisory Committee meeting in Ontario on May 25, 2017 about how bringing their own thermometers to work helped them stay safe on the job. They also gave examples of employers sometimes failing in their obligations to keep measurements up to date and accurate, illustrating how allowing workers to have their own thermometers increases transparency and accountability in the workplace. We recognize there may be important safety exceptions to bringing in outside thermometers, such as only allowing non-electronic thermometers in highly flammable environments, but these exceptions should be limited to imminent and serious safety issues.

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<sup>3</sup>Workplace Violence Prevention in Health Care, Cal. Code of Reg., Tit. 8 § 3342 (e) “The employer shall have an effective procedure for obtaining active involvement of employees and their representatives in developing training curricular and training materials, participating in training sessions and reviewing and revising the training program”; Bloodborne Pathogen Standard, Cal. Code of Reg., Tit. 8 §1910.1030 (g)(2)(G) “Information and Training: The training program shall contain at the minimum the following elements . . . (G) (14) Interactive questions and answers with the person conducting the training session.”

<sup>4</sup> Riley, et al., *Patterns of Work Related Injury and Common Injury of Workers in the Low Wage Labor Market Workers in the Low-Wage Labor Market Report to the Commission on Health and Safety and Workers' Compensation California Department of Industrial Relations* (March 2015), [http://www.irle.ucla.edu/publications/documents/Patterns\\_Work\\_Related\\_Injury.pdf](http://www.irle.ucla.edu/publications/documents/Patterns_Work_Related_Injury.pdf).

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In closing, we would again urge the Advisory Committee to amend the basic threshold to a heat index of no more than 80°F for all workers. We strongly believe that 85°F allows extreme discomfort while generating a significantly higher risk of illness and even death, given the unpredictability of workloads, variations in individual acclimatization, and other factors. Additionally, to meaningfully lower the risk of heat illness, we believe the full range of control measures, especially engineering and administrative controls, must apply at the baseline 80°F heat index.

Please find attached after this letter an addendum of statements from workers directly impacted by indoor heat, which were gathered by the undersigned organizations. These statements illustrate the severity of the heat hazards many workers endure, and the broad range of industries affected. As much as our specific comments above, we hope these first-hand experiences from those most directly impacted by indoor heat will guide the development of this standard.

Please direct any questions regarding this comment letter to Worksafe's Nicole Marquez at [nmarquez@worksafe.org](mailto:nmarquez@worksafe.org) or (510) 922-9719, or Tim Shadix at [tshadix@worksafe.org](mailto:tshadix@worksafe.org) or (541) 842-0964. We appreciate all of the work going into establishing a strong and comprehensive regulation for indoor heat and the opportunity to be a part of this process.

Sincerely,

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## Worker Statements on Indoor Heat

The following statements were gathered directly from workers impacted by indoor heat. Workers spoke with our organizations about the dangerous indoor heat conditions many endure in their jobs. We hope these first-hand experiences of workers with a very personal stake in the process will help guide the development of a strong and comprehensive indoor heat standard.

“I load and unload trailers. Inside the trailer sometimes it gets to be about 120 degrees. I’ve experienced cramping and nausea from the heat, when I was working hard and there was no water. When I asked to rest, my supervisors told me there was no such thing as a heat break.”

– Michael Johnson, Lumper in Los Angeles

"What most people don't take into consideration is that not only are we enduring the heat from the weather outside, we also have to endure the heat that emits from the machines. As garment workers, we are sometimes forced to work within inches of one another and our sewing machines. At times, there are machines in front of us, behind us, and to the left and right of us. Add to this all of the fabric that is all around us. Can you imagine how hot it is with all of that heat being trapped inside of our shops? The only relief we get are windows (in the factories that have them) and if we are lucky, the boss brings one portable fan for the entire factory. We come out of the factories drenched in sweat, almost as if someone had soaked us with a bucket of water."

– Anonymous, Garment Worker in Los Angeles

“In my experience as a waiter, I subconsciously try to spend less time in and even near the kitchen when I’m waiting to inquire about, request or pick up food. Even working as wait staff, I get dizzy when I’m in the kitchen for too long. When I worked as a salad prep, I noticed that humidity made the heat even worse. We sweated a lot and I worried about sweat making contact with food or cooking tools, which is unsanitary for customers. 80 degrees and even 75 degrees at high humidity can feel like unbearable heat. One of the reasons that I decided to work as a waiter instead of continuing in the kitchen is that there are no standards about indoor heat in the kitchen. You can work in one kitchen that’s great and another that is extremely hot and unhealthy. Cal/OSHA can make a difference in the life of millions of employees by protecting our rights while improving productivity. This would translate into healthy profits and is a win-win. Thank you.”

– Anonymous, worked as waiter for over 7 years and also as a salad prep cook

“I clean airplane cabins at LAX. There is no air conditioning on inside the airplanes as I’m doing my daily tasks, and it’s very hot and uncomfortable. There is also often no air conditioning in the vans that transport us to complete our assignments. It gets very hot inside when you’re out on the pavement.”

– Anonymous, Cabin Cleaner at Los Angeles International Airport

“I worked in a paper box plant in Orange County, California for 20 years and experienced firsthand the difficulties of working physical labor in high heat conditions. My shifts varied but were 8 to 12 hours a day and worked many 6 and 7 day weeks. I worked around high noise, large and dangerous equipment, dust and heat. It does take a toll on your body and a



reasonable standard is necessary for employers that have workers in these conditions. In my current job as a USW Staff Rep, I am assigned to 31 manufacturing plants in the Southern California area. The products made vary greatly from Oil Refineries to Mattress Builders to Chemical Plants to Paper Plants. All have different conditions and many if not all the facilities have indoor spaces with workers subjected to high heat throughout the year. Our members work around dangerous equipment that can take their limbs or lives. Fatigue, especially from exposure to high heat, can put workers at risk. A reasonable standard and guidelines will help workers in these conditions.”

– Shig Noguchi, USW Staff Rep.

“As professional shuttle van drivers that work in and around the railroad yards throughout California, we face major heat exposure, especially during the summer heat. Our Union members work in some of the hottest regions in California, like Barstow, Needles, Central California, El Centro, etc. We always have to keep our employer accountable to make sure the maintenance in the vans are kept to standard, like our air conditioning in our vans. We support higher OSHA standards to protect workers against major heat exposure.”

– Ricardo Rodriguez, President, UE Local 1077

“I have permanent damage to my eyes from working in extreme temperatures, both hot and cold. Many commercial kitchens have a broiler called a salamander. At my old job where I worked for over 10 years, the broiler was installed at eye level. When I opened it, the heat from the broiler hit my eyes. I did not have eyeglasses, goggles or other equipment. I was always going between the salamander and the freezer, hot, cold, hot, cold. At first, I knew that the heat was irritating my eyes but I didn’t realize until too late the long-term damage. I have pain in my wrists and arms from moving between extreme temperatures and it is difficult to pick up and hold my daughter, who is my youngest kid.

Rest breaks are critical and a place to rest is critical. My old job was at a famous restaurant where celebrities ate. But there was no place for employees to take a break. As a result, we almost never took breaks, even if we worked 12 or more hours in one shift. I remember one time I took a meal break sitting down in the dining area. The manager yelled at me and two customers overheard. The customers approached me afterward to ask if I was alright. It was a very uncomfortable situation. Unfortunately, lack of a rest area is a common problem in the restaurant industry.”

– Anonymous, salad prep cook at steakhouse in Beverly Hills, worked as a cook for 20 years

“Through my 15 years, I have seen a lot of heat-related injuries. Heat can be suffocating and insane. I have had three different jobs where I had to work on the basement level, underground. Getting ventilation to that spot is really difficult. We cooked with woks, which create a lot of smoke because you have to get the wok to a very high temperature. Sometimes the kitchen would get so smoky that the smoke detector would literally go off. To deal with it, we would buy our own fans and bring gallons of water to drink while working. Our HVAC system wasn’t sufficient but when we reported it to the restaurant owner, he didn’t listen to us. We told him, come into the kitchen and feel it yourself. He would promise to come and check it out himself but didn’t. As employees, we had to buy fans for each spot in

the kitchen, one for the dishwasher, one for the line cooks. In my current job, we're cooking with charcoal and the carbon really irritates the eyes. The smoke and heat irritate the eyes and I walk out of the kitchen at the end of my shift with red eyes. If I'm working with charcoal and high heat for a long time, I believe it will affect my eyesight in the long-term. Ventilation is so important, as well as a rest area that is cool and clean. Realistically, I have to wear heavy clothes like a chef coat to protect my arms. As a kitchen manager now, I definitely support more rest breaks because your body becomes exhausted doing physical work in the heat. I see that in my staff and I want to make sure they rest and don't accidentally hurt themselves or others."

- Anonymous, spent 15 years doing every position in the kitchen – dishwasher, prep cook, line cook, lead cook, now kitchen manager

"In my experience, I worked in bad conditions. We did not have ventilation, I worked under a lot of pressure, constantly moving from one place to another, handling very hot water to disinfect the dishes, then going to the walk-in freezer to get something that the cooks might need. Sometimes we asked the managers to please put on the A/C but they didn't listen, they said that there is food that needs to be a certain temperature and that they can't do anything about our working temperature. As a result of going between the hot dishwashing water and the freezer, I got sick often. Like many restaurant workers, I don't have access to health insurance and I have gone to work sick.

It's very important to me that we as restaurant workers have access to fans, ventilation and drinking water. I know that I'm putting my health at risk just to make ends meet. With the help of stronger rules from Cal/OSHA and protection from retaliation, I hope for a better work situation. We need to be treated with respect because the value of a restaurant is not only the food served but the people who prepare it. Thank you."

- Anonymous, worked over 7 years as dishwasher and food prep cook

"For the last 12 years I have worked for ALCOA/ARCONIC an aluminum extrusion company in Chandler, AZ. I can tell you from firsthand experience the difficulties of working physical labor in a setting with high interior/exterior heat conditions. My shifts varied between 8 to 12 hours a day and I worked anywhere from 6 to 13 days straight. I worked around high noise, large and dangerous equipment, dust and heat from both machines and mother nature. Heat and humidity do take a toll on your body and a reasonable standard is necessary for employers that have workers subjected to working in these conditions. Employees work around dangerous equipment that can take their limbs or lives at any moment and working in hot environments is an added stress. Fatigue especially from exposure to high heat of 80°+ can put workers at risk and a reasonable standard and guidelines will help further protect workers in these conditions. Workers thank you in advance for taking these comments into consideration."

- Miguel Garcia, USW Casual Staff assigned to Southern California

"In many factories, there is no potable water for us to drink. When it's really hot, we are not only sweating profusely, we are also being dehydrated because of the lack of water."

- Anonymous, Garment Worker in Los Angeles

"We are working in sweatshops while the bosses and the consumers get to enjoy the fruits of our labor."

– Anonymous, Garment Worker in Los Angeles

"I work as a lumper in a warehouse. There are no cooling fans. I'm running around throwing boxes, and the containers get over 110 degrees. It feels like being in a sauna with your clothes on"

– Leo Cunningham, Lumper in Pomona

"Loading and unloading containers, it gets hot, about 95 degrees or more. I've gotten sick. I felt like they overworked me. I got dizzy and then I started cramping. It felt like I couldn't breathe, like it was taking my breath away. If I didn't get out I'd probably pass out."

– Sergio Pacheco, Lumper from Long Beach

"Inside the container the temperature gets above 100 degrees while we load and unload. I've suffered headaches and dizziness, nausea, and cramping from the heat. But the supervisor tells us the temperature is 'not too bad.'"

– Allen Winn, Loader from Long Beach

"In the containers it gets to be 90 to 100 degrees, and you're doing heavy lifting with 50-80 pound boxes. It's like being in a microwave. It's miserable. You're hot, and on top of that you're lifting heavy things. Sometimes I get headaches and heat migraines. Supervisors often want you to knock out two or three containers per day. They frown on taking heat breaks and think you're lazy and don't want to work if you ask for it."

– Danell Hooks, Lumper from Long Beach

"The first time we asked for a heat break, the supervisor said I had to clock out because it was going to have to be deducted from my paycheck. After the second time, when we knew our rights better, we weren't told to clock out but management gave us a report that looked like a written warning."

– Jose Rodriguez, Lumper in Wilmington

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