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California DOSH of Industrial Relations  
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RE: Heat Illness Prevention in Indoor Places of Employment 29 January 2019 Draft

Dear Ms. Neidhardt:

The Phylmar Regulatory Roundtable (PRR) appreciates this opportunity to provide comments on DOSH's 29 January 2019 revised draft proposal for Heat Illness Prevention in Indoor Places of Employment. PRR is a group of 40 companies and utilities; 15 of the members rank among the Fortune 500. Combined, PRR members employ more than 847,000 individuals in the U.S. and have annual revenues of more than \$937 billion. PRR members are committed to improving workplace safety and health. Toward that end, PRR provides informal benchmarking and networking opportunities to share best practices for protecting employees. In addition, participating entities work together in the rulemaking process to develop recommendations to federal and state occupational safety and health agencies for effective workplace regulatory requirements.

PRR recognizes that prevention of heat illness in indoor work environments is a complex area and appreciates Division of Occupational Safety and Health (DOSH) staff for its continued efforts during this collaborative process and for considering PRR recommendations included in the five previous sets of comments filed during 2017 and 2018. Some PRR members have had procedures in place for years to protect employees from radiant heat sources; a number of members have implemented programs for employees working outdoors.

These comments were developed based on experience, guidance and recommendations of PRR members. Nevertheless, the opinions expressed below are those of PRR, and may differ from beliefs and comments of individual PRR members.

### **General Comments**

1. **Level of Risk** – PRR believes that this regulation, which will cover virtually all employers in the State, must address elevated risk work activities and industries. The current emphasis in safety is on hazard and risk mitigation. Crafting a regulation based upon risk is consistent with OSHA enforcement which targets specific industries that are high risk. Imposing an administrative burden on businesses and industries where there is no elevated risk to the health and safety of workers does nothing to improve worker

health and safety. Further, it degrades overall safety efforts, as **workers clearly see that they are performing tasks in the name of safety that do not benefit their health or well-being**. PRR believes that this regulation should be focused on those work environments that present an elevated risk to workers.

To repeat our view as expressed in the 2 March 2018 PRR comments to DOSH, we believe that the draft proposal does not reflect the level of risk from indoor heat for the majority of employers. We also believe that DOSH shares our interest in safety and health resources being invested where there will be benefits to worker safety and health. The investment of substantial resources to develop and implement a heat illness prevention program when there will be zero improvement to worker health and safety is a waste of these resources which can be put to use actually protecting workers.

2. **Indoor/Outdoor Employees and Relative Risk** – PRR members with employees who work outdoors have trained employees on the risk of heat outdoors and the measures to take to protect their health. Many of these employees also work indoors. These employees see that the risk of heat illness is far greater outdoors than indoors. Requiring more intricate measures indoors, which typically present less risk, will make them question whether their employer is truly interested protecting their health. Simply because an indoor work environment is easier to regulate than an outdoor one does not mean that it is responsible public policy to have more stringent requirements for indoors than outdoors. The authority to regulate indoor heat was granted by the California legislature; with that authority is a responsibility to do so carefully, considering all other regulations currently existing.
3. **Draft's Perspective Does Not Address the Solo Workforce** – The draft rule is written from the point of view of a fixed site such as a manufacturing facility, warehouse, or foundry, where there are multiple people present: supervision, management, EHS staff, as well as other workers. For those employers with employees who work alone, there is no supervision or management available. These organizations have solo worker programs already. The trades people and union staff will be responsible for taking temperature measurements, and no one will be there to observe employees, encourage them to take rest breaks, etc. The draft rule does not take into account these types of work situations. We recommend that DOSH consider these work environments in crafting this regulation. Some suggestions have been provided previously, and are repeated below.

### **Specific Comments**

In the interest of brevity, we will not repeat comments from previous submissions. Instead, we will state our continued belief that revisions are needed, and provide for DOSH reference the date of the previous comments and page number with the rationale for our recommendations. PRR comments and recommendations are listed under the appropriate sections as identified in the 29 January 2019 draft. Any revised and/or additional content PRR recommends is in **bold**; suggested deletions are in ~~strikethrough~~. We offer the following comments and recommendations for your consideration:

## **Subsection (a) Scope and Application**

### **A. Recommendations for (a)(1)**

#### **CONCERN 1: Regulation Should not Apply to Exposures of Short Duration:**

Occupational illness is related to a “dose” of something sufficient to cause harm. “Dose” is a function of concentration (in this case, temperature) **and** duration of exposure to that concentration. Occupational health standards are established to prevent occupational illnesses from occurring by controlling employee exposure to, or below, that dose. The draft proposal establishes a trigger temperature (concentration) but does not establish a corresponding exposure duration. Therefore, as currently written, the regulation would apply anytime an employee enters a work environment where the temperature is at, or above 82 degrees Fahrenheit, regardless of the exposure duration.

#### **Recommended Language for (a)(1):**

This standard applies to all indoor work areas where employees are exposed for twenty (20) or more minutes in any sixty (60) consecutive minute period and the temperature equals or exceeds 82 degrees Fahrenheit when employees are present.

#### **Rationale:**

There is no supporting evidence in the literature that associates a short or momentary exposure to 82 degrees Fahrenheit with ill effects in a healthy working population. In fact, the National Weather Service Heat Index Chart in the draft regulation identifies a heat index of **less than 91 degrees F as presenting a “lower” (Caution) risk level** that only triggers basic heat safety and planning. Further, the Heat Index chart associates the likelihood of heat disorders with **prolonged exposure and/or strenuous activity**.

**CONCERN 2: Language Should Eliminate Confusion:** PRR believes that limiting the scope to the conditions of indoor work areas identified in (a)(2)(A)-(D) is appropriate. However, members with cleanrooms believe that the language is confusing with section (a)(1) followed by (a)(2) and they are uneasy about compliance officers interpreting the conditions differently than we understand the intent to be. PRR members continue to believe that a revision in the text of this section will result in less employer confusion, particularly in the temperature-controlled cleanrooms in the high-tech electronics and pharmaceuticals industries where employees wear clothing to protect the process. We believe it is important to clearly set forth that, regardless of the conditions identified in (a)(2)(A)-(D), indoor areas that do not reach the temperature identified in (a)(1), are **not** subject to this regulation. The rationale and recommended language appear on pages (2) and (3) of comments filed November 2018.

**CONCERN 3: Trigger Temperature Should not Be Within the Range Recommended by Governmental Agencies and Standard-Setting Bodies:** PRR members persist in their strong support of the scope in the DOSH 16 May 2018 draft which identified the trigger temperature to be 85-degrees Fahrenheit. PRR believes that responsible public policy

dictates that the regulation should be based on the workplace risk of heat illness, and that setting a trigger that is within the range of temperatures recommended by various governmental agencies and standard-setting bodies is inappropriate. Please see PRR November 2018 comments, pages (3) and (4) for the rationale and recommended language.

**CONCERN 4: Limit Regulation to Specific Industries:** PRR members persevere in recommending limiting the scope of the regulation to the nine industries identified in DOSH’s 5/16/18 draft text where the risk of heat illness from indoor work environments has been documented. The enabling [legislation](#) contemplates this, and specifically permits DOSH to limit its rule to “certain industry sectors.” During the extensive Advisory Committee meetings, several industries were identified as particularly at risk for heat illness in indoor environments, including: agriculture, commercial kitchens and laundries, manufacturing, warehousing and storage. In addition, multiple government agencies have released data identifying industries where there is a risk of heat illness from indoor work environments, including Bureau of Labor Statistics, U.S. Department of Labor, and Centers for Disease Control. Please see PRR November 2018 comments, pages (4) – (6) for rationale and specific language recommendations.

**CONCERN 5 – Remote, Unstaffed Structures:** PRR members have many of these structures built to house equipment which would be considered “indoor” as currently defined in subsection (b) and subject to this rule, even though an employee may be present only once a year. These structures, e.g., pump houses, rate control stations, electrical storage buildings, and equipment sheds, provide security, noise attenuation, protection from inclement weather, and improve aesthetics. The expense of implementing engineering controls will not provide commensurate employee protection. PRR continues to believe that an exception is appropriate for these structures; for details on the recommended language and rationale, please see pages (6)-(8) of PRR’s November 2018 comments.

Although Chief Sum suggested verbally that administrative controls could be used in these cases, both the hierarchy of controls and language in subsection (e)(2) **permit administrative controls only where engineering controls are infeasible**. Organizations could divert resources from other projects to design and construct costly engineering controls for these buildings which employees rarely enter. We believe resources should be allocated to address health and safety issues critical to protect employees, and that creating engineering controls for these structures is irresponsible when more pressing safety and health issues need attention.

**CONCERN 6 – Clarifying that Workers Must Be Present:** PRR members maintain their belief that the location of the exception, following (a)(1), is interpreted as applying only to (a)(1), and that the exclusion requiring that workers be present is not applicable to subsection (a)(2). We recommend that DOSH move it from following subsection (a)(1) to below section (a)(2) to apply to both (a)(1) and (a)(2). Also, PRR members continue to believe that DOSH intends that the conditions in (a)(2) (A)-(D) apply only when employees are present and recommends that the regulation clarify this. Please see page (8) of PRR comments filed November 2018 for rationale and recommended language.

**B. Recommendations for (a)(3) - Eliminate Redundancies:** PRR persists in its recommendation that DOSH delete the subsection regarding an Order to Take Special Action because this is an enforcement tool always available to DOSH, and it is unnecessary to repeat it in every Title 8 regulation.

**C. Recommendations for NOTES:**

**Concern 1 - Prohibition on Retaliation:** Most Title 8 regulations do not include the specific prohibition on retaliation or discrimination which are clearly set forth in the California Labor Code Sections 6310, 6311, and 6312. PRR is concerned that this may lead some to believe that the prohibition on retaliation or discrimination does not extend to other Title 8 regulations where it is not specifically stated, and continues to recommend that this language should be removed. Please see page (9) of the November 2018 PRR comments for rationale.

**CONCERN 2 –Recommendation for Additional Note:** There are situations when employees work alone, and no supervisor or designee is available to implement the assessment or control measures. PRR members maintain their belief that certain steps should be taken by employers in such cases, and recommend that the regulation address these types of situations. Please see pages (9) and (10) of November 2018 comments for rationale and specific language recommendation.

**Subsection (b) Definitions**

PRR members support the language in the following definitions: acclimatization, administrative controls, cool-down area, engineering controls, environmental risk factors for heat illness, globe temperature, heat illness, heat index, personal heat-protective equipment, personal risk factors for heat illness, preventative cool-down rest, radiant heat, relative humidity, shielding, temperature, and union representative. Particularly with regard to definitions for administrative, engineering, and personal heat-protective equipment, we believe that including definitions of these terms rather than as language within the text of the requirement will provide clarity.

PRR members also support the exception in the definition of “Clothing that restricts heat removal” which reads as follows:

*“EXCEPTION: “Clothing that restricts heat removal” does not include clothing with flame or arc-flash resistant properties demonstrated by the employer to be all of the following:*

- (1) Constructed only of knit or woven fibers; and*
- (2) Worn in lieu of the employee’s street clothing; and*
- (3) Worn without a full-body thermal or moisture barrier.*

Please see pages (11)-(12) of PRR comments November 2018 for rationale.

However, PRR continues to recommend that waterproof clothing be better defined, as stated in our 4 June 2018 comments, page (5). The ACGIH uses the terms: water-vapor impermeable, air

impermeable, and thermal insulating to discuss features that prevent evaporation and PRR recommends that DOSH use the same terms, rather than “waterproof.”

## **Recommendations for subsection (b) Definitions**

### **D. Recommendation for “Clothing that Restricts Heat Removal”**

**CONCERN:** PRR supports the majority of the language in this definition. However, PRR members are concerned about part (3) of the definition: “Designed to protect the wearer or the work process from contamination” because it does not differentiate among different types of clothing. For example, lightweight clothing which does not add to the heat burden on the body is often provided to workers to protect a process. (Please see pages 12-13 of the November 2018 PRR comments for rationale.) PRR members recommended an exemption to the definition, as follows:

#### **Recommended Language:**

*(3) Designed to protect the wearer or the work process from contamination.*

***EXCEPTION: Light weight protective clothing that is used to maintain cleanliness and contamination standards in indoor facilities where workers are not exposed to high radiant heat sources are not subject to provision (e) in this Standard.***

### **E. Recommendation for “High Radiant Heat Area”**

**CONCERN:** PRR members question the scientific basis for the five-degree differential between the globe temperature and the “temperature” defined in this subsection and they were not able to find support for it in the scientific literature. Further, members do not believe that five degrees is a substantial enough difference to define a “High Radiant Heat Area.” A five-degree difference could be accounted for by sunlight from outside. Please see pages 13-14 of the November 2018 PRR comments.

#### **Recommended Definition:**

*“High radiant heat work area” means a work area where the globe temperature is at least **515-degrees** Fahrenheit greater than the “temperature,” as defined in this subsection.*

### **F. Recommendation for definition of “Indoor”**

**CONCERN 1:** For the most part, PRR supports the revised definition in the 24 October draft. However, members recommend further clarifying the definition so that non-traditional indoor areas are not subject to the standard. An interpretation of the current draft definition is that if three sides of a perimeter are enclosed and one is exposed, that area is considered “indoor” and subject to the Standard. PRR members do not believe that DOSH intends the

definition to be overly broad and request clarification. Please see page 15 of the November 2018 comments for the rationale.

**Recommended Language:**

*“Indoor” refers to a space that is under a ceiling or overhead covering and is enclosed along its **full** perimeter by walls, doors, windows, dividers or other physical barriers, whether open or closed. All work areas that are not indoor are considered outdoor and covered by section 3395.*

**Subsection (d) Access to Cool-Down Areas.**

**G. Recommendation for (d)(2)**

**CONCERN:** PRR members remain concerned with the language in (d)(2)(A) which reads “[employees] shall be monitored and asked if he or she is experiencing symptoms of heat illness.” We suggest that it be deleted because asking this question could easily be interpreted by an employee to mean that either: (i) the employer does not want them to take a rest break, or (ii) that they should only take a cool-down break when they are experiencing heat illness symptoms.

We believe the draft language sends the wrong message. The intention of the requirement and the desire of PRR members (and, we believe, DOSH) is that employees take the break **before** experiencing heat illness symptoms. In addition, PRR believes that a note should be added to address when employees are working alone. Please see page 16 of the November 2018 comments for the rationale for this recommendation.

**Recommended Language:**

*(2) Employees shall be allowed and encouraged to take a preventative cool-down rest in a cool-down area when they feel the need to do so to protect themselves from overheating. Such access to cool-down areas shall be permitted at all times. An individual employee who takes a preventative cool-down rest ~~(A) shall be monitored and asked if he or she is experiencing symptoms of heat illness;~~ (A) shall be encouraged to remain in the cool-down area; and (B) shall not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the cool-down area.*

**Subsection (e) Assessment and Control Measures**

**H. Recommendation for subsection (e)(1)(B)(2) – Concern:** PRR members believe that the focus of requirement that measures be taken “again when they are reasonably expected to be ten degrees or more above the previous measurement” is misplaced. The focus should be significant changes of any kind in the work area that would increase the heat load to the body.

**Recommended Language:**

~~Measurements shall be taken again when they are reasonably expected to be 10 degrees or more above the previous measurements.~~ *Applicable work areas shall be reassessed when significant changes occur in the factors considered in the assessment.*

- I. Recommendation for (e)(1)(B)(1) – Concern:** PRR members with operations in thousands of locations, continue to be concerned about this provision which requires that measurements “... shall be taken *as soon as subsection (e) applies.*” For these employers, this requirement will be impossible to comply with. We recommend that DOSH permit a phase-in period of at least a year from effective date of the regulation to complete the initial measurement and documentation indoor temperatures for all locations. Please see page 18 of the November 2018 comments for the rationale.

**Recommended Language for (e)(1)(B)(1):**

*EXCEPTION: Following final approval of this rule, employers have one year to complete initial temperature measurements.*

**Recommendation for (e)(1)(D)(1) – Concern:** PRR members believe that involving the worker, who is the expert on how the work is done, is essential in developing and maintaining all workplace safety and health programs. Members therefore support the requirement that employers “...obtain the active involvement of employees...” in the development of the program and identifying and evaluating work areas for heat illness risk. However, the word “performing” in subsection (e)(1)(D)(1) could be interpreted as requiring that *employees* conduct measurements and record them. The employer is held responsible for providing a safe and healthful workplace and for compliance with all Cal/OSHA regulations and cannot delegate that responsibility to an employee to take and record measurements. Please see pages 18-19 for the rationale for this recommendation.

**Recommended Language for (e)(1)(D)(1):**

*The employer shall have effective procedures to obtain the active involvement of employees and their union representative in: ~~performing the following:~~*

- 1. Designing, conducting, and recording the measurements of temperature or heat index, as applicable.*
- 2. Identifying and evaluating all other environmental risk factors for heat illness.*

- J. Recommendation for (e)(2)(A) Engineering Controls – Concern:** Some PRR members are concerned that engineering controls must be used in all indoor work areas, even those which are unstaffed most of the time. As stated in comments regarding the Scope (above), there are situations in which the requirement for engineering controls will add little benefit to



employees who are present at a location for perhaps one day a year. This provision requires engineering controls unless the employer can demonstrate they are infeasible. An employer may be able to pay for engineering controls for these locations (so they are feasible), but administrative controls such as job rotation would be effective to protect employees and would permit the use of resources on controls for work environments where employees are typically present. Rationale for the language we propose may be found on page 19-20 of the November 2018 PRR comments.

**Recommended Language for (3)(2)(A):**

*EXCEPTION: For remote, unstaffed locations where employees are present rarely, employers may use administrative controls to minimize the adverse effects of heat stress.*

**Subsection (g) Close Observation during Acclimatization**

**K. Recommendation for Revision of (g) Close Observation during Acclimatization**

**CONCERN 1:** As PRR has noted in previous comments, many general industry employers are confused about what exactly is meant by “Close Observation during Acclimatization,” and we recommend revising this section for clarity. In addition, PRR members believe that because of the nature of the hazard and the number of employers to be covered, this should be a risk-based regulation, and that an **employer must take precautions during acclimatization periods**. We believe that these precautions are broader than simply “close observation” of an unacclimatized employee. Please see pages 20-21 of the November 2018 PRR comments for the rationale for our recommended language.

**Recommended Language for (g)(1):**

(g) *Precautions ~~Close Observation~~ during Acclimatization*

(1) *All employees shall be closely observed by a supervisor or designee. ~~The employer shall take precautions when employees are present~~ when the temperature in the work area is at least 10 degrees Fahrenheit higher than the average high daily temperature in the work area during the preceding five days. **These precautions may include increased supervisor or designee observation, oversight or checking affected employees as well as other administrative controls.***

**Subsection (h) Training**

**L. Recommendation for (h) Training**

**CONCERN:** PRR supports the current training topics and suggests that DOSH include an additional topic in the training requirements: the responsibilities, precautions and procedures an employee should follow when they may experience temperatures above the trigger when

working alone in an indoor structure. PRR members recommend that for employees working alone, an additional topic should be mandatory to protect workers.

**Recommended Language for (h):**

*(J) The employee's responsibility to be aware and monitor indoor temperatures when working alone, and procedures to follow in the event temperatures rise and present a potential threat of heat exposure.*

**Subsection (i) Heat Illness Prevention Plan**

**M. Recommendations for (i)(2) Heat Illness Prevention Plan**

**CONCERN:** PRR members believe that an effective Heat Illness Prevention Plan should not focus solely on recorded measurements and suggest revising the language to make the Plan more effective. Please see page 21 of the PRR November 2018 comments for rationale.

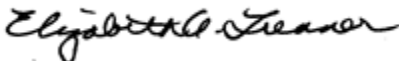
**Recommended Language for subsection (i)(2):**

*Procedures, in accordance with subsection (e), to ~~measure and record the temperature or heat index, as applicable,~~ assess work areas for heat illness risk factors, and to implement control measures.*

**Closing:**

In conclusion, PRR supports the intent of the regulation, which is to reduce the incidence of heat illness in indoor work environments and appreciates the opportunity to submit comments and recommendations. We look forward to continued participation in this important process.

Sincerely,



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