Phylmar Group® Environmental Health & Safety Social Responsibility

31 March 2017

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Research and Standards
Division of Occupational Safety and Health
California Department of Industrial Relations
1515 Clay Street
Oakland, CA 94612

RE: Heat Illness Prevention in Indoor Places of Employment

Dear Ms. Neidhardt:

The Phylmar Regulatory Roundtable (PRR) appreciates the opportunity to provide comments on the draft proposed rule for Heat Illness Prevention in Indoor Places of Employment, made available prior to the 28 February 2017 Advisory Committee meeting.

PRR is a group of 34 companies and utilities with 15 members ranking among the Fortune 500. Combined, PRR members employ more than 673,000 individuals in the U.S. and have annual revenues of more than $829 billion. PRR member companies 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 writes here to express concerns about the draft proposal for Heat Illness Prevention in Indoor Places of Employment and to encourage the Division of Occupational Safety and Health (DOSH) to revise it. PRR members were surprised to see the complexity of the draft proposal. Based on the draft requirements, it appears that risk of heat illness in indoor work environments is greater than outdoor work environments. This has not been the experience of PRR members, and we are concerned that requiring employers to develop an extensive program for a low risk trivializes the importance of workplace safety and health efforts in other areas. Further, financial and human resources devoted to workplace safety and health are limited; in many indoor work environments, upper management will find it unbelievable that heat illness is a workplace risk requiring any plan, much less one that is especially detailed and complicated. PRR urges DOSH to amend its approach.

The outdoor Heat Illness Prevention standard, Section 3395, contains provisions commensurate with the risk involved. PRR recommends significant revision of the proposal for indoors, reflecting the degree of risk and variability in the nature of operations and levels of expertise within the regulated community. Although the legislature fulfilled part of the showing of necessity, DOSH has provided no basis to justify the extent of the requirements in the draft proposal.

PRR believes that it will be a challenge for unsophisticated employers or those without expertise or staff to figure out what is required and how to comply with the draft. Even employers

with safety and health professionals on staff will face challenges understanding and complying with the current draft. PRR strongly recommends that DOSH instead use a performance oriented approach to developing an Indoor Heat Illness Prevention Plan similar to the language included in the Injury and Illness Prevention Program (Section 3203) and the existing Heat Illness Prevention standard (Section 3395). PRR has long believed that heat illness hazards are among the hazards to fulfill responsibilities under Section 3203.

PRR recommends that a rule for Heat Illness Prevention for Indoor Work Environments include a requirement that employers evaluate their workplaces to assess the risk of heat illness. Once assessed, if there is a risk of heat illness, the employer should then develop a plan to address it, including rest breaks, emergency response procedures, control methods, training for supervisors and employees to recognize risk factors and signs and symptoms of heat illness.

Before addressing more specific concerns about the draft proposed rule, PRR first asks DOSH to reconsider its interpretation of the statutory deadline in Senate Bill 1167 (now California Labor Code Section 6720) which states:

> By January 1, 2019, the division shall propose to the standards board for the board's review and adoption a standard that minimizes heat-related illness and injury among workers working in indoor places of employment.

We believe that the plain meaning of this language is that it creates an obligation for the division, not the OSH Standards Board (Board). The phrase "for the board's review and adoption" gives DOSH the authority to complete its proposal for the Board by January 1, 2019, but does not mandate the Board to adopt a regulation by that date. The language foresees the Board following its usual procedures, which often include levels of review and communications with DOSH to solidify the proposal and complete the rulemaking package for internal approvals prior to issuance for public hearing. It is highly unlikely that the first-ever rule in the U.S. for the intricate issue of heat illness in indoor work environments, covering all employers, could be drafted and ready for adoption within one year. It therefore seems reasonable that the legislature intended DOSH to present its proposal to the Board by January 1, 2019, not by January 1, 2018, as stated in the Advisory Committee meeting. The first draft proposal went far beyond what was expected by the regulated community. We believe it is more important to complete a technically sound, clear, and enforceable regulation capable of being complied with by a majority of employers (and therefore protecting employees at risk for heat illness) than it is to move quickly through the process. PRR asks that DOSH review its interpretation of the enabling legislation.

## *Comments*

### *(a) Scope*

PRR supports some of the current language of the scope section which reads:

> This section applies to any indoor place of employment where the dry bulb temperature exceeds 90 degrees Fahrenheit or where employees perform **moderate, heavy, or very heavy work** and the dry bulb temperature exceeds 80 degrees Fahrenheit. (Emphasis Added)

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PRR recommends that DOSH revise the language above to eliminate the work level activity differentiation. Employees may work at varying levels of activity during their workdays, and tracking what is a particular employee's predominate work level will make compliance exceedingly challenging. Simplification is needed so that employers understand what is

required. The definitions of each of these terms is too subjective; lines between moderate and heavy and very heavy are not clear and PRR anticipates lengthy unproductive disputes about which employee is doing what type of work.

Further, PRR recommends that additional exceptions be included, as follows:

> Exception 3: This section does not apply to structures built by employers for the purpose of providing shade to work operations to protect employees from outdoor heat and for compliance with Section 3395.
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> Exception 4: This section does not apply to employer operations covered by other Cal/OSHA standards (e.g., telecommunications, electric safety orders, or confined space-Sections 5156-5158).

***(b) Definitions***

1. **Acclimatization**

   PRR recommends that DOSH define this term in the same way it is defined for Section 3395. It is inconsistent to have different definitions covering the same health impact.

   > "Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat."

2. PRR suggests that DOSH define the term "a**ir-conditioning"** as follows:

   > "A system for controlling the humidity, ventilation, and temperature in a building or vehicle, typically to maintain a cool atmosphere in warm conditions (excluding "swamp coolers)."

3. **Clothing-Adjustment Factors**

   Several PRR members have reported that the ACGIH clothing-adjustment factors are unworkable in practice and not reflective of real-world workplace situations. PRR believes that Table 1 which includes the clothing type and the "clothing-adjustment factor" lacks clarity and will not result in improved worker safety. PRR recommends deletion of this table and the concept of clothing-adjustment factors. Instead, PRR recommends that the clothing worn by employees be part of the employer's assessment of its workplace heat illness risks.

4. **Heat Illness**

   PRR members believe that this term should be defined for consistency, using the same language as in Section 3395.

   > "Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke."

5. **Heavy work/light work/moderate work/very heavy work**

   As stated above, PRR members believe that inclusion of this concept and these terms is too subjective and the requirements lack clarity. Also, since the risk of indoor heat illness is lower than the risk of outdoor heat illness, we believe that the regulation

should not include this level of complexity or requirements not commensurate with the risk. PRR recommends deleting these terms.

6. **High radiant heat work area**

The draft definition reads:

> "High radiant heat work area" means a work area with a significant radiant heat source such as found in foundries, brick-firing and ceramic plants, glass manufacturing, vehicle and vehicle parts manufacturing, rubber manufacturing, electrical utility rooms, electric power-cogeneration facilities, boiler rooms, industrial scale bakeries and confectioneries, commercial kitchens, industrial scale laundries, food canneries, chemical plants, mining sites, smelters, and steam tunnels."
> .

PRR recommends that DOSH either define what is a "significant radiant heat source" or specify in the definition of "high radiant heat work area" that the operations identified are all of the "significant radiant heat source[s]." Workplaces contain many radiant heat sources: computers, printers, copiers, refrigerators, and the average employer will not know what is "significant" without further clarity in the term. If DOSH does not accept this comment, PRR requests that the Agency clarity how employers are to measure radiant heat sources.

Also, PRR members were confused that "electrical utility rooms" were included in the definition of "high radiant heat work areas" since their experience has been that employees work in these locations for short durations. PRR recommends that the words "electrical utility rooms" be deleted from this definition.

7. **Personal Risk Factors**

PRR believes that training employees and supervisors on personal risk factors as well as workplace risk factors is important to understand individual susceptibility to heat illness, and recommends that DOSH include this term in the regulation, using the definition in 8 CCR 3395:

> "Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat."

8. **Wet Bulb Globe Temperature (WBGT)**

It should be noted that the definition of this term already takes into account radiant heat (globe temperature – GT). The draft proposal includes different tables for work "in radiant heat" (Table 2) and "outside radiant"/non-radiant (Table 3). PRR believes that this approach is technically flawed. It appears that DOSH is correcting for radiant heat with the tables when radiant heat load is already accounted for in the WBGT measurement. PRR believes that WBGT is a challenging standard and difficult to follow for relatively little health benefit. From a risk perspective, there seems to be a misplaced priority and allocation of compliance resources.

Further, similar to any workplace exposure method, it is important that DOSH provide a validated sampling and analytical method so employers know what is an acceptable measure of accuracy, precision, and repeatability. PRR believes that equipment used to measure WBGT must meet certain performance criteria, similar to the sound level meters required under the OSHA Noise Standard, as well as calibration, storage, and care requirements. Employers need to know what level of accuracy Cal/OSHA

requires, and simply stating that these instruments are available at Wal-Mart may not result in compliance as measured by inspectors. PRR members have stated that "you get what you pay for," and that "a device is only as good as the hand that holds it." PRR recommends that should DOSH continue to use this term, the Agency should provide more information to employers on what is the acceptable measure of accuracy. A cheap measuring instrument may have a variance of +or- 5 degrees which would make a significant difference in compliance with a requirement that a specific temperature be maintained.

In short, if DOSH requires a WBGT measurement, a validated sampling and an analytical method for the testing should be provided in the regulation.

Finally, PRR is concerned that this language of the regulation may give rise to unethical individuals calling themselves "heat assessors" and "technical heat advisors" who will prey on unsuspecting employers without technical expertise. These employers, who are simply trying to comply with the regulation, may end up giving money to these individuals without actually addressing indoor heat illness prevention.

### *(c) Heat Illness Prevention Plan*

PRR believes that the opening paragraph of this part of the draft is appropriate, and recommends that the subsections beneath it be revised using performance language, as some of the subsections may not apply to all industries and workplaces. As noted above, PRR believes it is incongruous for the regulation of heat illness in indoor environments to be more stringent than the regulation for outdoor environments, as well as misplacing limited health and safety resources. Therefore, PRR recommends that the subsections read as follows:

(1) Effective procedures to obtain the active involvement of employees and their representatives in developing and implementing the Plan.

(2) Effective procedures to identify and assess heat stress hazards.

(3) Effective procedures to control hazards.

(4) Rest and hydration procedures.

(5) First-aid and emergency response procedures.

(6) Training programs.

### *(d) Identification and Assessment of Heat Stress Hazards.*

PRR recommends that DOSH clearly state in item (d) of the draft that employers are to assess workplaces to identify and evaluate heat illness risks. PRR suggests the following language:

> Employers shall perform an assessment of heat illness risks in indoor work environments if an indoor workplace has the potential to exceed the limits in the scope.

PRR recommends that the subsections under the draft proposal subsection (d) be included in an appendix to provide employers with guidance should they need it. This is appropriate instead of enforceable regulatory requirements which may not apply to various industries and workplace situations (e.g., office environments, compressor rooms, weld rod trailers, tool rooms, equipment trailers, steam plants, boiler shops, machine shops, maintenance shops, generator rooms, transportation garages, warehouses).

### *(g) Close Observation of Unacclimatized Employees.*

PRR supports the language in 8 CCR 3395(g) regarding Acclimatization:

> Acclimatization.
> (1) All employees shall be closely observed by a supervisor or designee during a heat wave. For purposes of this section only, "heat wave" means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days.
> (2) An employee who has been newly assigned to a high heat area shall be closely observed by a supervisor or designee for the first 14 days of the employee's employment.

### *(h) Short-Term Exposure Limits (STEL)*

PRR believes that the use of two tables for radiant and non-radiant heat is technically flawed. As stated in comments in (b)(8) above, WGBT is used in Table 2, but WBGT, as defined above, already takes into account radiant heat (see definition of WBGT, which is 0,7NWB+0.3GT). It seems that DOSH is trying to correct for radiant heat with the tables when radiant heat load is already accounted for in the WBGT measurement.

Also, in Table 2, only three degrees separate the "unacclimatized employees" from the "acclimatized employees," although eight degrees separates light work activity from heavy or very heavy work activity. In Table 3, there are relatively few degrees between light work for unacclimatized employees and heavy work for unacclimatized employees; in addition, the differential in degrees for acclimatized employees is similarly limited. This provision will be very difficult to track for employers, likely resulting in lack of understanding of the requirement. Therefore, for clarity, PRR recommends that DOSH remove all distinctions between acclimatized and unacclimatized workers, clothing, work activity levels, as well as radiant heat/ outside radiant heat, and work activity levels, and eliminate the STEL entirely. Although the language was based on the ACGIH approach, PRR recommends deleting the STEL to follow the requirements of Section 3395 which does not include a STEL for manageability, practicality and feasibility reasons, across the wide range of employers and operations in the state.

It is not reasonable public policy to establish more onerous requirements for indoor heat exposure than those for outdoor heat exposure, as they are not proportionate with the risk posed. Section 3395 does not include a STEL, and has been successful in significantly reducing the number and severity of workplace heat stress. We recommend that DOSH take a similar approach with indoor work environments.

### *(i) Control Measures*

PRR recommends that DOSH remove the emergency response procedures from Subsection (i) and make them part of a new Subsection titled Emergency Response Procedures. PRR believes that it is DOSH's intent that the emergency response procedures would apply to **all** indoor heat situations, not only "During the period necessary to install or implement engineering or administrative controls" or "when engineering and administrative controls are not feasible to reduce employee exposures" below the short-term exposure limit.

Also, PRR recommends that DOSH delete the remainder of Subsection (i) and include it as item (c)(5) under the Heat Illness Prevention Plan because the detailed control

measure section is not proportionate to the risk of indoor heat illness. Employers are already required to identify workplace hazards under Section 3203. PRR believes that heat illness is a workplace hazard to be addressed in the Injury and Illness Prevention Program. Therefore, PRR recommends that the language be revised to include a requirement that the Heat Illness Prevention Plan include control measures with language similar to the Section 3203:

> Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:
>
> > (A) When observed or discovered; and,
> > (B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

Outdoor heat illness presents a greater risk to employee health, but the regulation includes much more limited control measures. Again, there are limited resources for safety and health, and they should be used to address hazards actually present in work environments. PRR recommends that DOSH not include the lengthy Control Measures section in its draft rule for heat illness prevention in indoor work environments because (a) the provision is not commensurate with the risk; and (b) the wide variability of employers and situations. The "blank check" language of "to the extent feasible" and "as feasible and applicable" in Subsections (c)(5) and (i)(1-4) are unreasonable considering the level of risk. The cost and range of interpretations of "feasible" and "applicable" render the draft proposal unclear as to what specifically is required of employers.

***(l) Add subsection on Emergency Response Procedures from 3395***

PRR recommends that DOSH delete the language on Emergency Response Procedures from the Control Measures Subsection and include the language in Section 3395 in a new subsection entitled Emergency Response Procedures. Emergency response procedures are not commonly understood to be "control measures." Rather, emergency response procedures are those to be carried out in an emergency situation, and should have their own subsection, instead of buried under "control measures." We believe that DOSH appropriately intends all employers to have emergency response procedures.

## *Conclusion*

PRR recommends that DOSH modify the draft proposal to more closely reflect the degree of risk to employees from exposure to heat in indoor work environments and to take into account the variability in employer operations and available expertise. PRR recommends that DOSH craft a rule with requirements for assessing heat illness hazard risks, correcting them, and training employees. PRR believes that that the regulation should include clear requirements for these, as well as emergency procedures, training (emergency procedures, risk factors, and signs and symptoms of heat illness), rest breaks and hydration, in performance-oriented language. We believe that simplifying the regulation will result in greater employer understanding of the requirements and greater likelihood of compliance, with the benefit of increased worker protection.

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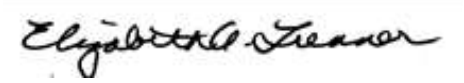
Thank you for the opportunity to provide these comments on this important proposal. PRR would be pleased to discuss any of these comments further with DOSH staff.

Sincerely,



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