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March 2, 2018

SENT VIA EMAIL to: [aneidhardt@dir.ca.gov](mailto:aneidhardt@dir.ca.gov)

Amalia Neidhardt, MPH, CSP, CIH  
Research and Standards  
Division of Occupational Safety and Health  
California Department of Industrial Relations  
1515 Clay Street  
Oakland, CA 94612

Dear Ms. Neidhardt:

Southern California Edison (SCE) appreciates the opportunity to make recommendations to the proposed Heat Illness Prevention in Indoor Places of Employment. After several Advisory Committee meetings and revisions of this proposed regulation, we see and appreciate the effort put forth by the Division in working with stakeholders on such a complex issue. Our objective is to collaborate with CalOSHA to provide a safe workplace for all workers. This process allows us an opportunity to communicate and gather input from internal SCE workers, as well as collaborate with various stakeholders, in an effort to gain a better understanding of the proposed requirements and its potential impacts. Based upon our evaluation, there are still some topics that we believe merit further review and discussion.

SCE is in agreement with the statement, made at the February 8, 2018 Advisory Committee meeting, of the need for a rule to cover employers at various levels of sophistication that is flexible to address all types of work environments. SCE asserts that working conditions vary from industry-to-industry and workplace-to-workplace, and recommends a performance- and risk-based approach that allows for appropriate flexibility, based upon that assertion.

Generally speaking, the vast majority of indoor places of employment do not reflect a hazard or an injury/illness rate associated with heat illness that would warrant such an onerous set of regulatory requirements. Therefore, regulatory oversight should be applied proportionately based on risk of heat illness for the indoor work and not solely on temperature. This would align with safety

management systems philosophies of first identifying risk and then taking appropriate mitigation and elimination steps. Applying these requirements as currently proposed will result in overlaying requirements in many areas where there is simply not a risk. It would be without significant benefit and burdensome for employers to fulfill many administrative regulatory requirements. Also, this proposed regulation does not appropriately reflect the concept of regulatory balance and consistency with previously vetted and similar regulations (i.e., 8 CCR 3395).

Considering that the risk of outdoor heat is greater than that presented by heat in indoor environments, it seems inconsistent to have more stringent requirements for indoor environments. We recognize the argument by other stakeholders that more stringent requirements are appropriate because indoor environments are more easily controlled than outdoor environments, but we believe that risk should be the primary consideration, rather than ease of control. We recommend that DOSH continue to revise the draft regulation to take into consideration the average employer's level of risk and expertise and the need for further simplification and clarity.

We strongly support limiting the scope of the regulation by removing professional and administrative office settings. We believe that DOSH properly uses its discretion in removing from the scope those employers providing a temperate environment and leaving them to address other safety and health needs at their workplaces. SCE recognizes that DOSH shares our interest in safety and health resources being invested where there will be benefits to worker safety and health. As such, it is challenging to support the investment of substantial resources to develop and implement a heat illness prevention program in an area of very little risk and where there will be minimal improvement to worker health and safety.

Specific comments, suggestions, and requests related to these areas of proposed regulatory change include:

**(a) Scope and Application**

*Current Language:*

*This standard applies to all indoor work areas where the temperature equals or exceeds 80 degrees Fahrenheit when employees are present.*

*Proposed Language:*

*This standard applies to all indoor areas where work is being performed by employees ~~places of employment~~ where the temperature equals or exceeds 85 degrees Fahrenheit. ~~when employees are present.~~*

SCE asserts that the temperature threshold should be established at 85 degrees Fahrenheit (F). Sufficient evidence has not been presented to substantiate that risk is present in indoor work environments that are 80 degrees F. Additionally, according to CDC/NIOSH, in the Topics page for indoor environment, the operative temperatures recommended range from 75°-80.5°F in the summer. More information can be found at: <https://www.cdc.gov/niosh/topics/indoorenv/temperature.html>. The proposed 80 degree threshold is within the CDC/NIOSH recommended range, making it a conflicting trigger for regulatory activity.

Also, Flex Alerts are periodically issued by the California Independent System Operator (ISO), a nonprofit, public benefit corporation that operates the high voltage grid in California and in parts of eight western states. The ISO does not own transmission lines or power plants, but does tell power plants when to generate electricity, how much to generate and where the electricity will be delivered. The ISO is regulated by the Federal Energy Regulatory Commission. The Flex Alert recommendation, to set thermostats to 78° F or higher, is unreasonably close to being in violation of the proposed regulation if the threshold remains as only 80°F. This would result in only two degrees making the difference between compliance with the Flex Alert and non-compliance with the Heat Illness Regulation.

Furthermore, the Department of Energy guidance for setting a home thermostat in the summer is 78° F. While SCE acknowledges that this guidance is intended for homes, it provides a reasonable level of comparison.

## **(b) Definitions**

SCE supports the definitions of acclimatization, cool down area, environmental risk factors for heat illness, heat index, high radiant heat work area, personal risk factors for heat illness, preventative cool-down rest, and relative humidity.

Comments and recommendations relating to other definitions are as follows:

**“Indoor”**- This is a key element of the regulation, as it triggers all requirements. Employees who have been covered under Section 3395 for outdoor heat, should not be included in the scope of this regulation because it will be confusing for workers and employers to have both “indoor” and “outdoor” heat illness prevention training and differing sets of expectations for their work. Additionally, employers should not risk potential penalties under the indoor heat rule because an employee “outdoors” goes inside. As several participants mentioned at the February 8, 2018 Advisory Committee meeting, many employees are inside and outside

repeatedly throughout the day. Therefore, it is important for employers and employees to have clarity on what work areas are “indoor” vs. “outdoor”.

SCE supports the current draft definition of “indoor” with one clarifying change; we believe the intention of the exception was to address professional or administrative office environments, while the language says “professional and administrative.” We recommend that DOSH clarify its intent that either professional OR administrative office environments are accepted.

SCE supports the remainder of the definition as we believe that it clarifies what an “indoor” space is, and takes into consideration the different types of work environments. For example, some employers rely on the inside of a vehicle, when air-conditioned, to provide shade required in Section 3395, which should not then be regulated as an “indoor space.” Another example is with employers who have workers going inside and outside of a garage continuously and have been included in the employer’s Outdoor Heat Illness Prevention Plan (HIPP) under section 3395. There was concern regarding the previous draft definition, as it appeared that workers who have been trained and protected under the section 3395 are now considered “indoor” workers, requiring development of additional procedures and training. We believe that employers who erected structures for compliance with section 3395 should not be penalized for taking protective measures. We believe the current definition provides that important clarity.

**Radiant Heat** – SCE recommends that DOSH incorporate the definition of radiant heat from the American Institute of Chemical Engineers (AIChE) which is well-recognized: “the heat transferred from one body to another not in contact with it but by means of wave motion through space.” <https://www.aiche.org/ccps/resources/glossary/process-safety-glossary/radiant-heat>

**Temperature** – SCE recommends that DOSH require employers to follow manufacturers’ recommendations to increase the likelihood that the employer and DOSH have similarly calibrated equipment, to provide some assurance that bulb thermometers are not tampered with, and assure that electronic systems are accurate.

**Shielding** – SCE recommends that DOSH include a definition for “shielding,” as this term is required in subsection (f)(3). In order for employers to understand what they are required to provide, we believe a definition is needed. We recommend the following text for that definition: “barrier materials that prevent or reduce high temperature radiant heat gain.”

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

*Current 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; (B) shall be encouraged to remain in the cool-down area; and (C) 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.*

*Proposed 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 ~~(C)~~ (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.*

The primary purpose of a preventative cool down rest period should be to prevent heat related illness symptoms from presenting themselves by removing the worker from the heat source and reducing a person's internal heat generated by physical labor. Employees should be encouraged to take frequent preventative cool down breaks to prevent heat related illnesses. This is an administrative control to prevent employees from experiencing signs and symptoms of heat illness, which would then need to be abated. It can send the wrong message to ask an employee every time they are taking a preventative cool-down rest, if they are having symptoms of heat illness. Asking an employee if they are having symptoms of heat related illness every time they take a cool down break may give them the impression that they should only be taking a cool-down rest when they are experiencing heat related signs and/or symptoms, instead of preventing them before they occur.

Additionally, we recommend the deletion of language related to waiting until signs of symptoms of heat illness to have been abated prior to resuming work. By definition, workers have not exhibited signs or symptoms at the point of a preventative cool down rest period. As such, it would not be logical to look for abatement of symptoms at that time.

## **(e) Control Measures**

### *Current Language:*

*(1) When the temperature equals or exceeds 90 degrees Fahrenheit, or where work processes use or generate water and the heat index equals or exceeds 90 degrees Fahrenheit, the employer shall assess the environmental risk factors for heat illness.*

### *Proposed Language:*

*(1) When the temperature equals or exceeds ~~90~~ 95 degrees Fahrenheit, or where work processes use or generate water ~~and the heat index equals or exceeds 90 degrees Fahrenheit~~, the employer shall assess the environmental risk factors for heat illness.*

With a proposed threshold of 85 degrees, as discussed above in this letter, it is logical to increase the “Control Measures” temperature from 90 to 95 degrees and utilize control measures (based upon the NIOSH hierarchy of controls) to ensure indoor temperatures are below 95 degrees Fahrenheit.

### *Current Language:*

*(A) The assessment shall be in writing and shall include heat index measurements and all other environmental risk factors for heat illness, as applicable.*

### *Proposed Language:*

*(A) For work areas where a radiant heat source is present, ~~The~~ the assessment shall be in writing and shall include ~~heat index~~ temperature measurements and all other environmental risk factors for heat illness, as applicable.*

The assessment requirement invokes a rigor of formality that would not provide significant benefit to workers, but would be a significant administrative burden for most employers. Leveraging a risk-based approach to this situation would lead us to documenting assessments in situations where we have radiant heat sources, rather than all indoor environments.

### *Current Language:*

*(B) The temperature or heat index measurements shall be taken at times and locations where the temperature or heat index is at or near the annual high, shall be taken as close as practicable to the affected employees, and shall be taken again whenever there is a change in working conditions that may increase temperature or*

*heat index levels. Employers may use representative measurements for multiple work areas that share similar conditions.*

*Proposed Language:*

*(B) The temperature ~~or heat index~~ measurements shall be taken at times and locations where the temperature ~~or heat index~~ is at or near the annual high, shall be taken as close as practicable to the affected employees, and shall be taken again whenever there is a change in working conditions that ~~may~~ increase temperature ~~or heat index~~ levels. Employers may use representative measurements for multiple work areas that share similar conditions.*

We recommend that “temperature” be used, if we are attempting to be consistent with the outdoor regulations. Several times “temperature” and/or “heat index” are used together and could cause significant confusion to both workers and employers.

Additionally, the use of the term “may increase” under the assessment requirement becomes very subjective. Any change in the factors listed “may” affect heat stress. If this is the enforcement position, employers will constantly be under difficulties of subjective enforcement.

In regard to section (C) and (D), we support the Division’s deletion of the requirement to maintain written assessments of indoor heat as employee exposure records, and require availability as required in Title 8 Section 3204.

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

*Current Language:*

*(1) Where the work area is affected by outdoor temperatures, 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 10 degrees Fahrenheit higher than the average high daily temperature in the preceding five days.*

*Proposed Language:*

*(1) ~~Where the work area is affected by outdoor temperatures, all~~ All employees shall be closely observed by a supervisor or designee when the temperature in the work area is 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 10 degrees Fahrenheit higher than the average high daily temperature in the work area in the preceding five days.~~*

The relevant temperature for heat illness prevention risk is the temperature in the work environment, not outside. We recommend this language to eliminate the confusion generated from the insertion of the outdoor temperature into a requirement regarding the indoor heat illness prevention.

Also, the clause “where the work area is outdoor or affected by outdoor temperatures” is surprising, as almost all indoor temperature may be affected by outdoor temperature to some extent, unless there is an internal localized radiant source such as a boiler. In addition, we do not understand why an outdoor “heat wave” is relevant. We recommend that DOSH clarify the requirement to state that when the indoor temperature of the work area increases by ten degrees over the previous five days, then close observation would be necessary. Outside temperature differentials are irrelevant for indoor environments; it is the temperature in the work area that the employee is experiencing.

*Current Language:*

*(2) An employee who has been newly assigned to a work area where the temperature or heat index, as applicable, equals or exceeds 90 degrees Fahrenheit or to high heat area or a high radiant heat work area shall be closely observed by a supervisor or designee for the first 14 days of the employee's employment.*

*Proposed Language:*

*(2) An employee who has been newly assigned to a work area where the temperature ~~or heat index~~, as applicable, equals or exceeds ~~90~~ 95 degrees Fahrenheit or to high heat area or a high radiant heat work area shall be closely observed by a supervisor or designee for the first 14 days of the employee's employment.*

As stated previously, we recommend that “temperature” be used, if we are attempting to be consistent with the outdoor regulations. Several times “temperature” and/or “heat index” are used together and could cause significant confusion to both workers and employers. Additionally, as stated previously, with a proposed threshold of 85 degrees, as discussed above in this letter, it is logical to increase the “Control Measures” temperature



from 90 to 95 degrees and utilize control measures (based upon the NIOSH hierarchy of controls) to ensure indoor temperatures are below 95 degrees Fahrenheit.

Again, thank you for your willingness to hold meaningful dialogue that will lead to the improvement of this proposed regulatory language and the successful implementation of these changes across the state of California. We look forward to continued partnership in these efforts.

If you require further information on the comments listed above, please do not hesitate to contact me at 626-633-7120 or at [James.Mackenzie@sce.com](mailto:James.Mackenzie@sce.com).

Sincerely,

A handwritten signature in blue ink that reads "James M. Mackenzie III". The signature is fluid and cursive, with the first name "James" being the most prominent.

James Mackenzie, CSP  
Principal Manager, Corporate Health & Safety - Safety Programs  
Southern California Edison