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SENT VIA EMAIL to: 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 provide input and recommendations to the proposed Heat Illness Prevention in Indoor Places of Employment. After several Advisory Committee meetings and revisions of this 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.

Specific comments, suggestions, and requests related to areas of proposed regulation within the latest draft are included below. Recommended insertions are shown in underlined font and proposed deletions are shown using strikethrough font (i.e., underlined and ~~strikethrough~~).

(a) Scope and Application

Current Draft Language with Proposed Language Revisions:

(a) Scope and Application

- (1) This standard applies to all indoor work areas in the following industries, operations or locations where the temperature equals or exceeds 80 degrees Fahrenheit when employees are present:
 - (A) Agriculture;
 - (B) Commercial and institutional kitchens;
 - (C) Commercial and institutional laundries;
 - (D) Construction;
 - (E) Manufacturing;
 - (F) Mining;
 - (G) Oil and gas extraction;
 - (H) Steam plants, geothermal plants, steam tunnels, and boiler rooms;
 - (I) Warehousing and storage.
- (2) This standard applies to any indoor work, regardless of the industry, operation, or location, where employees wear clothing that restricts heat removal and the temperature equals or exceeds 80 degrees Fahrenheit. Breathable flame resistant clothing is not a significant contributor to heat stress, and can be helpful in mitigating heat stress. According to NIOSH, workers should be encouraged to wear clothing that is breathable and loose-fitting.
- (3) This standard applies to all other indoor work areas, not specifically identified in subsection (a)(1) or (a)(2), where the temperature equals or exceeds 85 degrees Fahrenheit when employees are present.
- (4) This standard applies in any other setting identified in writing by the Division through the issuance of an Order to Take Special Action, in accordance with Section 332.3 of these orders.
- (5) This standard applies to the control of risk of occurrence of heat illness. This is not intended to exclude the application of other sections of Title 8, including but not necessarily limited to, sections 1512, 1524, 3203, 3363, 3395, 3400, 3499, 3457, 6251, 6512, 6969, 6975, 8420 and 8602(e). ~~This is also not intended to exclude the application of Section 3203 to indoor work areas not covered by this section where one or a combination of environmental risk factors can still cause heat illness in employees.~~

NOTE ~~No. 1~~: The measures required here may be integrated into the employer's written Injury and Illness Prevention Program required by section 3203, the employer's written

Heat Illness Prevention program required by section 3395, or maintained in a separate document.

~~NOTE No. 2: This standard is enforceable by the Division of Occupational Safety and Health pursuant to Labor Code sections 6308 and 6317 and any other statutes conferring enforcement powers upon the Division. It is a violation of Labor Code sections 6310, 6311, and 6312 to discharge or discriminate in any other manner against employees for exercising their rights under this or any other provision offering occupational safety and health protection to employees.~~

SCE supports the language (a)(1) and (a)(3) as reflective of the risk of heat illness in indoor environments. The final sentence of (a)(5) appears to be redundant with its previous sentence which identifies section 3203. Additional language may likely cause confusion rather than clarify the issue at hand. Lastly, SCE believes that Note No. 2 regarding the prohibition on retaliation or discrimination against employees for exercising their rights under the standard should be deleted, as it is redundant with existing requirements for notifying employees about the prohibition on retaliation or discrimination.

SCE also believes that it is important to clarify that breathable flame resistant clothing is not a significant contributor to heat illness, as the technology involved with that clothing makes it very comparable to other commonly worn apparel items.

(b) Definitions

SCE supports the definitions of: acclimatization, cool down area, environmental risk factors for heat illness, heat illness, heat index, high radiant heat work area, personal risk factors for heat illness, preventative cool-down rest, relative humidity, shielding, and temperature. Requested changes to proposed language are provided below.

Current Draft Language with Proposed Language Revisions:

“Clothing that restricts heat removal” means full-body clothing covering the arms, legs, and torso that is any of the following:

- (1) ~~Waterproof~~ Impermeable to water and water vapor, impermeable to air, or thermal insulating; or
- (2) Designed to protect the wearer from a chemical, biological, radiological, or fire hazard;
or
- (3) Designed to protect the work process from contamination.

Note: “Clothing that restricts heat removal” does not include clothing with flame-resistant or arc-rated properties if the shirt and pants or coveralls are constructed only of knit or woven fibers, have a fabric weight typical of work clothing, and are worn as the outer layer.

Or, an alternate definition may be appropriate:

“Clothing that restricts heat removal” means full-body clothing covering the arms, legs, and torso that are impermeable and retain heat. Clothing which retains heat (such as raingear or impermeable membranes) can contribute to heat stress.

SCE recommends this definition be revised. As written, the proposed definition includes clothing that is “waterproof.” The American Conference of Governmental Industrial Hygienists (ACGIH) discusses clothing that severely restricts heat removal by evaporation of sweat from the skin in its heat stress Threshold Limit Value (TLV). ACGIH uses the terms water-vapor impermeable, air impermeable and thermal insulating to discuss features that prevent evaporation. Also mentioned are multiple clothing layers (and encapsulating suits, addressed in part 2 of the proposed definition). Developments in fabrics also have made waterproof, but vapor permeable, garments available that can improve heat removal.

The proposed regulation also defines “clothing that restricts heat removal” to include clothing “designed to protect the wearer from a chemical, biological, radiological, or fire hazard.” Some persons may interpret fire hazard as including rare and unpredictable exposure to electric arc and flame such as during electrical faults. Currently work shirts, pants, and coveralls with flame-resistant (FR), arc-rated (AR) properties are worn extensively in various industries. These FR/AR rated garments are manufactured of fabrics that are similar to unrated/traditional clothing in water, vapor and air permeability and heat loss. If electric arc and flame are interpreted as a “fire hazard,” FR/AR clothing would be defined as “clothing that restricts heat removal” *even though FR/AR shirts, pants and coveralls do not restrict heat removal beyond other typical unrated work shirts, denim jeans and coveralls.* Alternatively, this section could be clarified to identify the type of clothing targeted by this regulation as welding or firefighting clothing and gear. Also, most full-body clothing worn for protection against chemical, biological, radiological or fire hazards is worn *over* daily wear clothing and those multiple layers would restrict heat removal. But FR/AR shirts/pants or coveralls worn as an outer layer do not restrict heat removal more than typical work clothing does. FR/AR clothing are loose fitting and allow for good air moment to evaporate sweat and cool the body. Based upon this information, and in order to ensure clarity for workers wearing these lightweight and breathable FR/AR shirts and pants, SCE requests either the note drafted above be included in this standard, or the alternate definition provided above.

(d) Access to Cool-Down Areas

Current Draft Language with Proposed Language Revisions:

(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 during the rest period; 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.~~

If this is a preventative cool-down rest, there should be no need for signs and symptoms of heat illness to be abated.

The primary purpose of a preventative cool down rest period is to prevent heat related illnesses by removing the worker from the heat source and reduce the 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 symptoms of heat illness. We feel it will send the wrong message to ask an employee if they are having symptoms of heat illness when they are encouraged to take “preventative” breaks. Asking an employee if they are having symptoms of heat related illness every time they take a cool down break may give the impression that they should only take a break when symptoms exist.

(e) Assessment and Control Measures

Current Draft Language with Proposed Language Revisions:

(1)(B) The assessments shall be representative of employees’ environmental risk factors for heat illness and shall include measurements taken in work areas where the temperature or heat index is expected to be the highest. Employers may use representative measurements for multiple work areas that share similar conditions.

Many employers within the state of California may have hundreds of buildings or facilities that fall under the definition of indoor. To facilitate written assessments at each of these facilities, which may share similar characteristics and environmental risk factors, within close geographical proximity, could cause an undue burden on those employers without significant benefit to workers.

(g) Close Observation during Acclimatization

Current Draft Language with Proposed Language Revisions:

(g) Close Observation during Acclimatization.

(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 during ~~in~~ the preceding five days.

SCE recommends that DOSH include examples or guidance materials pertaining to this proposed language. We understand that the concept of acclimatization appears in the current 3395 regulation (Outdoor Heat Illness), but significant a number of employers in a variety of industries are not covered within the Outdoor Heat Illness Standard and may have no frame of reference or a clear understanding of the requirements related to observing employees while they are acclimating to higher temperatures.

Additionally, the language “where the work area is outdoor or affected by outdoor temperatures” will likely cause further confusion for employers and employees, 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.

(h) Heat Illness Prevention Plan

Current Draft Language with Proposed Language Revisions:

~~(5) Applicable procedures under section 3203 to identify, evaluate, and correct indoor heat hazards not already addressed in this standard, where one or a combination of environmental risk factors can still cause heat illness in employees.~~

Any procedures previously included in an employer’s 3203 Injury and Illness Prevention Plan that address heat illness prevention in indoor work environments would obviously need to be included in the Heat Illness Prevention Plan for Indoor Work Environments. SCE believes that mentioning this here will cause confusion on behalf of employees and employers.

Again, we are thankful 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.

Sincerely,

A handwritten signature in blue ink that reads "James M. Mackenzie III". The signature is written in a cursive style with a large initial 'J' and a distinct 'III' at the end.

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