

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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**FINAL STATEMENT OF REASONS
for****Proposed Amendments to General Industry Safety Order on Heat
Illness Prevention****CALIFORNIA CODE OF REGULATIONS
Title 8, Section 3395****UPDATE OF INITIAL STATEMENT OF REASONS**

As authorized by Government Code Section 11346.9(d), the Occupational Safety and Health Standards Board ("Board") incorporates the Initial Statement of Reasons prepared in this rulemaking.

Revisions Following Initial Public Comment Period

The following revisions were made after the initial public comment period and circulated for additional public comment.

Subsection (b)

To add greater clarity to the text, the proposed additional phrase at the end of the definition of "shade" was further modified to read "and that does not *deter or discourage access or use.*" (Added words italicized.) The reason and purpose for this revision is to express more completely the concept of workers being unable or unwilling to use the available shade because of where that shade is located.

Subsection (c)

The language in the first paragraph was reorganized so that the first sentence will now read, "Employees shall have access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable, *including but not limited to the requirements that it be fresh, pure, suitably cool, and provided to employees free of charge.*" This change was made to reflect more clearly the fact that these requirements are drawn from other existing safety orders. It is not intended to impose new requirements as some commenters believed.

The proposed second paragraph in this subsection was deleted, and in its place, the following sentence was inserted immediately following the first sentence (quoted above) as follows. "The water shall be located as close as practicable to the areas where employees are working." This revision replaced a combined prescriptive and performance standard that included a distance limit of 400 feet unless an employer could demonstrate that conditions prohibited locating water within that limit, with a purely performance standard of "as close as practicable." The revision

was made in response to comments from both employer representatives who believed the distance limit was inappropriate for various types of worksites and worker representatives who believed that the 400 foot limit would become a default enforcement standard even when conditions allowed having water much closer to workers.

Subsection (d)(1)

In the last sentence of this paragraph the words “shaded area” were changed to “shade,” and the additional language that had been proposed at the end of that sentence, setting forth a 700 foot distance limit for shade with an exception, was deleted, so that the sentence reads: “The shade shall be located as close as practicable to the areas where employees are working.” This essentially reverts back to the existing standard, and as with the water standard above, this was done in response to comments from both employer representatives who believed the distance limit was inappropriate for various types of worksites and worker representatives who believed that the 700 foot limit would become a default enforcement standard even when conditions allowed having shade much closer to workers.

Subsections (d)(3) and (4)

In response to comments, the wording of these paragraphs has been revised to add clarity. A suggestion to add the word “preventative” before the words “cool down rest”, both here and elsewhere in the regulation, was accepted as better reflecting the broader purpose of encouraging use of this safety precaution without waiting for actual heat illness to develop. The word “individual” was also added to distinguish this employee-directed situation from the group breaks required by subsection (e)(6) for agricultural employees working continuously in high heat. The “monitoring” requirement was moved from (d)(4) to (d)(3), and a specific cross-reference to the employer’s emergency response procedures was added to (d)(4).

Subsection (e)

The proposal to change the trigger temperature for high-heat procedures for the five affected industries (designated in subsection (a)(2)) to 85 degrees Fahrenheit was deleted and the trigger temperature restored back to the existing 95 degrees Fahrenheit. This change was made in response to comments that (1) the regulation as a whole had too many trigger temperatures, making it difficult for employers to track the various requirements; and (2) that some employers currently take the most effective precaution of stopping work at 95 degrees rather than implementing high heat procedures, but would find it far more difficult to do so at the lower temperature. The trigger temperature was also changed back in recognition that the heat illness prevention standards applicable to all industries had been clarified and strengthened throughout the regulation, including by making acclimatization requirements applicable to all employers, thus eliminating the necessity for this change.

Subsection (e)(3)

This subsection was redrafted to read as follows: “Designating *one or more* employees on each worksite *as* authorized to call for emergency medical services, *and allowing other employees to call for emergency services when no designated employee is available.*” This change was made in response to comments that chain of command concerns might inhibit employees from

responding appropriately and expeditiously if the supervisor or a sole authorized employee was not present when a heat illness emergency occurs.

Subsection (e)(6)

In response to comments, the term “recovery period” was changed to “preventative cool down rest period” to better reflect the broader purpose of encouraging use of this safety precaution without waiting for actual heat illness to develop. In response to expressed confusion over timing requirements and the possible imposition of multiple breaks to comply both with this section and Wage Order No. 14, the timing requirements were reworded with the intent of clarifying the ability of employers to (1) provide these breaks concurrently with breaks required by Wage Order No. 14, and (2) not be liable to pay for an otherwise non-compensable meal break if an employee was not under the employer’s control during such a break. (*Note: additional language was added to this subsection for the same clarifying purpose as part of the second 15-day public comment period notice discussed below.*)

Subsection (f) [new]

The Emergency Response Procedures were moved from subsection (g)(4) and placed in a new subsection (f). What was previously set forth in subsection (h) on observation and response was also incorporated into new subsection (f). The prior language was also modified by adding the words “or emergency medical services” after the word “supervisor” and a new sentence stating, “If an electronic device will not furnish reliable communication in the work area, the employer will ensure a means of summoning emergency medical services” in paragraph (1) [formerly (g)(4)(A)], and the deletion of an unnecessary sentence at the end of paragraph (4) [formerly (g)(4)(D)]. This change was made in response to comments that the Emergency Response Procedures contained important substantive requirements that should not be expressed only as required elements of the employer’s safety procedures.

Subsection (g) [new]

The proposed requirements for Acclimatization were also moved from the subsection on written procedures [formerly (g)(3)] into a new subsection (g), also in response to comments that these are important substantive requirements that should not be expressed only as required elements of the employer’s safety procedures. The provisions were also redrafted in response to comments expressing confusion over the triggers requiring acclimatization. In particular, the provisions were split into one requirement for all employees in defined “heat wave” conditions and another requiring supervision of an employee newly assigned to a high heat area. “Heat wave” was clearly defined as a day when the predicted temperature will reach or exceed 80 degrees Fahrenheit *and* be at least 10 degrees higher than the daily average high in the preceding five days (responding to concerns that acclimatization would be required whenever temperatures exceeded 80 degrees *or* there was a ten degree jump in temperatures, even in wintertime). Further definition was not given to the “newly assigned to a high heat area” in the second requirement, recognizing that this is a more individualized determination depending on the location and where the employee was prior to starting work.

Subsection (h)

Due to the addition of the previous two subsections, subsection (f) on Training was redesignated as subsection (h).

Subsection (i)

What was previously proposed as a new subsection (g) on Written Procedures was redesignated subsection (i), and the title was changed to “Heat Illness Prevention Plan,” which is how the procedures are referred to in the body of the subsection. In responses to comments concerning the need for standalone procedures, language was added to specify that it may be included as part of the employer’s Illness and Injury Prevention Program under section 3203 of Title 8.

Subsection (i)(3) [formerly proposed (g)(4)]

The substantive requirements were separated out into a new subsection (f) as noted above, and this subsection was revised to state only that the Heat Illness Prevention Plan must include “Emergency Response Procedures in accordance with subsection (f).”

Subsection (i)(4) [formerly proposed (g)(3)]

The substantive requirements were separated out into a new subsection (g) as noted above, and this paragraph was revised to state only that the Heat Illness Prevention Plan must include “Acclimatization Procedures in accordance with subsection (g).”

Further Revisions After 15-Day Public Comment Period

The following revisions were made after the first 15-day public comment period and circulated for additional public comment.

Subsection (d). Access to Shade

In the first lines of paragraphs (1) and (2), the words “required to” were changed to “shall”. This is a grammatical change only with no intended change in meaning. Also in paragraph (1), the shade requirement for meal periods was revised to indicate that the amount of shade present be “at least enough to accommodate the number of employees on the meal period who remain onsite.” This modification was made in response to concerns that the original proposal imposed an unnecessary requirement to provide shade for 100% of the workforce at times when workers would be gone from the worksite.

Subsection (e)(6). High Heat Procedures

The following language was added to agriculture break rule in this paragraph to further clarify the timing requirements and interrelationship between this safety standard and the breaks required by Wage Order No. 14. “...The preventative cool down rest period required by this paragraph may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 if the timing of the preventative cool down rest period coincides with a required meal or rest period, *thus resulting in no additional preventative cool down rest period required in an eight hour workday. If the workday will extend beyond eight hours, then an additional preventative cool down rest period will be required at the conclusion*

of the eighth hour of work; and if the workday extends beyond ten hours, then another preventative cool down rest period will be required at the conclusion of the tenth hour and so on. . . .” This revision was made in response to continuing confusion over the meaning of the requirements, and in particular to clarify concerns regarding the timing of these breaks; but is consistent with the original intent on how the break requirements are to apply. [Note: In the second 15-day notice, the revised language shown in italics above, inadvertently included hyphens between the words “down” and “rest” in two locations, and expressed the term “workday” first as one word and then as two. These inadvertent and non-substantive errors have been corrected in the text shown above and in the regulatory text approved by the Board.]

Subsection (f). Emergency Response Procedures

In response to comments, paragraph (2)(c) was modified to further specify that an employee exhibiting signs or symptoms of heat illness “*shall be monitored and shall not be left alone*” or sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer’s procedures. The purpose is to clarify that leaving the employee alone unwatched is an inappropriate response to signs or symptoms of heat illness in the same way that sending the employee home without offering assistance is.

Subsection (h). Training

A suggested clarifying non-substantive change was made to the wording of paragraph (1)(D) concerning training on acclimatization.

Subsection (i). Heat Illness Prevention Plan

The suggested change in the wording of paragraph (4) was made so that it refers to acclimatization “methods and procedures”.

Summary and Response to Oral and Written Comments:

I. Written Comments Received During Initial 45 Day Public Comment Period:

Paul Underhill, Terra Firma Farm, email dated August 13, 2014

Comment #PU1: The commenter has concerns about the proposed changes and states that in the Central Valley, it is not uncommon for nighttime temperatures to remain above 80 degrees until 10 p.m. or even later in June, July and August. He inquires whether the board could be passing a standard that requires employers to install and maintain shade for their employees even after the sun has set and/or before it has risen. He adds that the 80 degree trigger temperature will not be taken seriously by people who work outdoors during the summer months in places like the Central Valley. Supervisors and employees required to install shade structures will think the rule is a joke, exposing employers to fines and other penalties.

Response: The shade requirements must be understood in reference to the regulation’s existing definition of shade, which is “blockage of direct sunlight” that can be provided “by any natural or artificial means[.]” Thus, at night, there is shade provided by the natural means of the earth’s rotation and no need for artificial shade. The Board disagrees that conscientious employers do

not take heat illness prevention seriously at 80 degrees or would consider important preventive measures a joke. Please see response to comment #BT5 below.

Comment #PU2: The proposed rule change further lowers the threshold for invoking “High Heat” measures from 95 to 85 degrees. Average high daytime temperatures in Yolo County exceed this amount in June, July, and August; and no one who works outside in the Central Valley will take seriously a rule that requires them to think of 85 degrees as “high heat”.

Response: The Board agreed to restore the 95 degree trigger for high heat procedures, which apply to a limited number of industries. Given the important changes being made in other subsections on provision of water, access to shade, emergency response procedures, and acclimatization that apply to all outdoor work, and also to encourage the practice of some employers who discontinue work rather than implementing high heat procedures at 95 degrees, the Board no longer believes it is necessary to lower this particular trigger temperature. Thus, the Board has modified subsection (e) to leave the requirement for high heat procedures at 95 degrees.

Comment #PU3: While emphasizing the need to acclimatize employees, the revised rules ignore the science behind it and the fact that California has a number of different climates. It makes no sense to set a specific temperature such as 80 degrees or 85 degrees to trigger certain requirements in the Heat Safety Standards. The standard should be re-written using National Weather Service data for the specific geographic location of the workplace. Language such as “average daily temperature” should be used to set the shade requirement, and “above average daily temperature” for the high heat requirement. These data points are equally accessible to employees, employers and on-site regulators through easily available cell phone applications. This would be a science-based, 21st century standard that would be taken seriously by workers, while the proposed revision to the rule will not be taken seriously by anyone, including Cal/OSHA regulators tasked with enforcing it.

Response: The Board must strike a balance between those who want no set standards and those seeking even more prescriptive guidance, while at the same time devising a rule that is unambiguous, readily understandable, and enforceable by employers and regulators across the state. The Board does not discourage employers from using National Weather Service data specific to their geographic location and having even lower trigger temperatures where they feel it is appropriate. However, the Board shall continue to set one minimum trigger level of 80 degrees to avoid any confusion among supervisors and employers should they not have access to such data or know when, where or how to apply it to their exact location. Lowering the trigger temperature will decrease employees’ risk to heat illness statewide. Please see responses to comments #PU2, #BT5, #BT9, #BT11 and #MF18.

Comment #PU4: As amended, the standard gives unscrupulous workers the right to take unlimited shade breaks of no defined limit for most of three months and disallows employers from penalizing workers from taking too much rest. This creates an impossible situation where a worker could demand to spend a significant portion of their time resting in the shade without any potential disciplinary action.

Response: Similar concerns about the current regulatory language on rest periods were expressed in the original rulemaking, and neither the Board nor the Division of Occupational Safety and Health (“Division”) are aware of any such misuse. The proposal only adds clarity to the current obligation for providing rest periods. In response to other comments on this section, the Board has provided further clarifying modifications and does not believe this language will in any way encourage employee misuse of rest periods. However, if misuse occurs, employers can handle it with verification and disciplinary measures, the same as they would with any other misuse of authorized break time.

Luke Serpa, City of Clovis Public Utilities Department, letter dated August 26, 2014

Comment #LS1: The commenter states that with regard to subsection (e)(5), requiring daily pre-shift meetings to review High Heat procedures in Municipal operations, which do not have a daily changing workforce, would be an inefficient use of time and resources. Their employees currently receive annual Heat Illness Prevention Training, all new employees receive Heat Illness Prevention Training prior to commencing work and daily lead workers make sure water is sufficiently provided to their crews reminding them to drink plenty of water and to rest when needed in the shade. Requiring a specific meeting (which undoubtedly would require documentation) would not increase the safety of any of their employees, but would increase the cost of their operations and reduce the efficiency of their delivery of services.

Response: The Board does not believe that training received in orientation, which may be remote in time from hot summer months will necessarily provide adequate precaution against the risks of heat illness. Pre-shift meetings are a reasonable measure to ensure workers are reminded of appropriate precautions, including staying hydrated and how they will be monitored; and these reminders can be part of pre-shift meetings held for other purposes. These pre-shift meetings are meant to be brief reminders to review the high heat procedures and are not meant to go over each and every training element or entire program normally given during the annual training session. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #LS2: The commenter has several concerns with regard to subsection (g)(3) requiring procedures for the close supervision of all employees, because: 1) This proposed regulation is not practical in areas of California that do not have mild climates and "Close supervision" could even be required in the winter. For example, when the Tule Fog is present in the San Joaquin Valley for several consecutive days, the high temperatures could be in the 40s, but as soon as the Tule Fog clears, the high temperature could jump to 60 degrees or higher, triggering the provisions of this proposed change. 2) Additionally, it is impossible to implement as their daily operations consist of multiple-varying work sites and conditions of operation. Each lead worker makes a plan at the beginning of every shift to address the exact conditions of the work day for their individual work crews, taking into consideration that service calls occur after the work shift begins, that there may be unexpected needs for emergency response, and that the locations of those calls cannot be planned for in advance. 3) There are not enough supervisors to be in all the places their respective employees could be at any given time throughout the day. Many of these employees work by themselves. The cost of a special salary upgrade to designate a person "supervisor for the day", would reduce their overall efficiency in providing service to their tax

and rate paying citizens. The current standard, as they effectively implement, is sufficient for ensuring the safety of their workers.

Response: The commenter misread this provision as requiring acclimatization whenever predicted temperatures will exceed 80 degrees *or* be 10 degrees higher than the preceding week, rather than requiring both factors to be present, which is the actual meaning and intent of the provision. In response to this and similar comments, the acclimatization requirements were separated out into their own subsection (g), and the term “heat wave” was added as a regulatory term requiring the presence of both factors. The Board has not changed the supervision requirement given the Division’s enforcement experience showing a connection between heat wave conditions and heightened risk, even at temperatures regarded as moderate in mid-summer, and that avoiding injury due to heat illness is often dependent on another person being able to see, recognize, and respond to signs that a co-worker is suffering from heat illness. It should also be noted that the supervision factor in this subsection does not mean that employees must be paired with supervisors, but only that they are watched; and that employers are authorized to devise systems best suited to their work environment, which may be a call-in system for employees working alone. See also the response to comment #BT11 below.

Comment #LS3: The commenter notes that the proposed regulatory changes are not necessary, nor practical to implement in Municipal operations. These proposed regulatory changes are onerous, cumbersome and too rigid for unilateral implementation throughout all applicable industries in the State. Attempting to gain full compliance would be damaging to labor relations and would increase the financial burden of tax and rate payers in their community. The existing standard meets the need of our employees and we responsibly implement those regulations. Therefore, they respectfully urge the Board to reconsider the proposed changes or consider exempting municipal operations from the revisions.

Response: The Board disagrees that the existing standard is sufficient to save lives, particularly in light of the documents and studies referred to in the Initial Statement of Reasons, and the Division’s experience with heat illness cases which demonstrate that severe heat illnesses and fatalities continue to occur. Please see response to comment #BT1. The Board is not aware of any significant distinctions between municipal operations and other kinds of operations in terms of added burdens or the preventative measures needed to protect outdoor workers against heat illness, and thus does not believe that further modification to the proposal is necessary as a result of this comment. The Board thanks Mr. Serpa for his comments and participation in this rulemaking process.

Theresa Drum, California Department of Transportation (Caltrans), email dated September 2, 2014

Comment #TD1: The commenter has concerns specifically with the proposed text regarding subsection (d) access to shade and adds that the Department of Transportation maintains thousands of miles of roadway and acres of adjacent right of way in varying climates and geographic locations. It is not feasible or desirable to erect a portable shade structure upon the roadway or within the right of way (on a highway or immediately adjacent to it) where the danger of errant motorists exists (even on break time). Employees must always remain alert, face traffic, and plan an escape route.

Response: The Board notes that the existing regulation includes the following exception, which is unchanged by the proposal:

(1) Where the employer can demonstrate that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, the employer may utilize alternative procedures for providing access to shade if the alternative procedures provide equivalent protection.

In response to several comments about the impracticality of distance limitations, the Board changed the shade requirement in subsection (d)(1) back to the existing performance standard of “as close as practicable to the areas where employees are working.”

Bill Taylor, Public Agency Safety Management Association (PASMA), letter dated September 3, 2014

Comment #BT1: The Public Agency Safety Management Association (PASMA) expresses concerns over the absence of data from the Division to justify these significant and comprehensive changes to the current Heat Illness Prevention Standard. They add that there has been no showing that either the frequency or severity of heat illness cases has increased substantially, or would necessitate these outlined changes.

Response: The Division’s enforcement experience and review of heat illnesses and fatalities has demonstrated a need to clarify, make more specific, and strengthen the requirements of Section 3395 in order to prevent heat illness and ensure that workers are better hydrated, have a better opportunity to break the heat illness cycle through cool-down breaks, are acclimatized, and receive more timely emergency aid. Additionally, included within the Initial Statement of Reasons are numerous documents and studies relied upon by the Board in support of the changes proposal, which are part of the rulemaking record available to the public. These include: (1) ACGIH Criteria document for a heat stress and strain threshold limit value. (2009) American Conference of Governmental Industrial Hygienists. 7th Edition; (2) Anderson, G B and Bell, M L. (2011) Heat Waves in the United States: Mortality Risk during Heat Waves and Effect Modification by Heat Wave Characteristics in 43 U.S. Communities. NIH Environmental Health Perspectives 119:210–218; (3) Armstrong, Lawrence E.; Casa, Douglas J.; Millard-Stafford, Mindy; Moran, Daniel S.; Pyne, Scott W.; Roberts, William O., “Exertional Heat Illness during Training and Competition.” *Medicine & Science in Sports & Exercise*. 39(3):556-572, March 2007; (4) United States Department of Commerce, National Oceanic and Atmospheric Administration, Heat Index Chart, printed from internet, June 3, 2014; (5) U.S. Army, Heat Stress Control and Heat Casualty Management, Technical Bulletin. Washington, D.C. March 7, 2003; (6) Armed Forces Health Surveillance Center [2011]. Surveillance Snapshot: reportable medical events of 19 heat injury in relation to heat index, June-September 2011. *MSMR* 18(10): 19; and (7) Washington State Department of Labor and Industries, Concise Explanatory Statement for Rulemaking on Outdoor Heat Exposure, January 2008. The data and conclusions contained in these reports and documents are consistent with the Division’s enforcement experience and support each proposed change to the regulation. The Board also notes that data from recent Division cases has been reported publically, and has been cited back to the Board by other commenters. (See comment #AK2.). Additionally, in August 2014, subsequent to the

submission of the Initial Statement of Reasons, the CDC released the MMWR titled “Heat Illness And Death Among Workers, United States, 2012-2013,” a review by Federal OSHA of 20 enforcement cases of which thirteen involved a heat fatality, also indicated that heat illnesses and deaths occurred on days in which the temperature was below 85 degrees Fahrenheit. The data and conclusions found in the report supports the lowering of a shade trigger temperature from 85 degrees to 80 degrees. Similarly, the same report concluded that acclimatization may be the most important element of a Heat-Illness Prevention Program indicating that from the review of 20 OSHA enforcement cases of which thirteen involved a worker death attributed to heat exposure, none had an acclimatization program. The data and conclusions contained in this report demonstrate that “failure to support acclimatization appears to be the most common deficiency and the factor most clearly associated with death” and support the addition of specific acclimatization requirements in the proposed regulation. Finally, in response to numerous comments received from a wide range of perspectives, the Board has made several further modifications to the proposals to improve clarity and pare down prescriptive language.

Comment #BT2: PASMA has several situations where it is not practical or feasible to provide water within 400 feet walking distance; one example would be firefighters engaged in wildland firefighting activities. Depending on the terrain, hose lay, etc., rations are provided and stocked as the incident grows. Wildland firefighters are required to carry their own water. Typically during these incidents there is a rehab area provided where firefighters can rest and hydrate. These new changes requiring that water be within 400 feet of every firefighter will result in a significant increase in manpower and water stations.

Response: The Board agrees that this language can be problematic, and that there would be specific situations where it would be prohibitive to locate the drinking water within the specified distance. In response to these concerns as well as other comments expressing concern that 400 feet was too far but would end up as a default standard for compliance and enforcement, the Board revised this language to set forth a performance standard as follows: “The water shall be located as close as practicable to the areas where employees are working.”

Comment #BT3: The language that exempts the employer from the requirement to provide water within 400 feet, where employers need to demonstrate that conditions prohibit locating the drinking water within this prescribed distance, does not address practical considerations and feasibility concerns, nor does it take into consideration that it may come at a significant cost and time.

Response: In response to these concerns as well as those noted in preceding response to comment #BT2, the Board has deleted the referenced text and converted this requirement to a performance standard, as also indicated in the preceding response.

Comment #BT4: PASMA is concerned about the ambiguity and feasibility of the proposed requirement to ensure that water be fresh, pure and suitably cool. The Division has not established a temperature range for what is considered to be “suitably cool” and there is no definition as to what is considered “fresh or pure”. In order to assure compliance with this new standard, there would be a duty for the employer to take random water samples to have them tested periodically and to take temperature readings of the water at each worksite. Since the

burden of proof is on the employer to determine what is fresh, pure, and suitably cool, this could have significant costs in the time taken for testing and in the costs to have the water samples analyzed. The proposed changes are unnecessary, and the requirements in Section 3363 adequately cover the standards for drinking water.

Response: The proposed amendments are acquired from safety orders which have been in existence for many years. The regulations do not require, and the Division has never cited an employer for not taking temperature readings of water containers or not taking water samples. The Division advises employers not to insert thermometers or any other objects into drinking water containers to avoid contaminating the water. Instead, employers or supervisors should taste the water or pour some against their skin and confirm the use of clean containers to ensure that the water is suitably cool, fresh and pure. The desired objectives here are to assure that all employees working outdoors have access, at no cost to themselves, to sufficient quantities of water, and to increase consumption frequency so that water can serve its role as an effective measure for heat illness reduction. (*Note:* the term “suitably cool” serves as an important distinction from “cold” or “ice water” which may be inappropriate under the circumstance.) In response to this and similar comments expressing concern that the terms are new or undefined, the Board has relocated the language to clarify that these requirements are drawn from and to be applied as specified in the other existing safety orders (8 CCR Sections 1524, 3363, and 3457) that are referenced in the subsection.

Comment #BT5: With regard to access to shade, PASMA believes that there is no evidence or rationale for lowering the shade up requirement from 85 to 80 degrees.

Response: The Board is confident that its efforts to address reduction of occurrence of heat illness are appropriate in light of the Division’s enforcement experience and review of heat illnesses and fatalities, which indicate that severe heat illnesses and fatalities can occur at temperatures lower than 80 degrees Fahrenheit. More recently, the Morbidity and Mortality Weekly Report (MMWR) titled “Heat Illness And Death Among Workers, United States, 2012-2013” released by the Centers for Disease Control and Prevention (CDC), where the federal Occupational Safety and Health Administration (OSHA) reviewed 20 enforcement cases of which thirteen involved a heat fatality, also indicated that heat illnesses and deaths occurred on days in which the temperature was below 85 degrees Fahrenheit. Thus, the proposed amendments provide reasonable measures which are needed to save lives. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #BT6: PASMA is concerned about the feasibility and practicality of providing shade within a 700 foot walking distance. Specifically, that while it may be possible, it may also come at a significant cost due to additional personnel to transport, set up and take down the shade structures that would be required to accommodate employees working at different locations, either during a wildland fire incident or when maintenance is required on a trail. In addition, there are situations where field personnel may be more than 700 feet away from their air-conditioned vehicles because they are conducting inspections or surveillance activities. The requirement for them to carry a shade structure with them is impractical.

Response: The Board agrees that this language can be problematic and that there would be specific situations where it would be prohibitive to locate shade within the specified distance. Thus further modifications were made to improve clarity and pare down this prescriptive language. The Board also notes that when it is infeasible or unsafe to have a shade structure, the existing regulation allows the employer to utilize alternative procedures for providing shade. In response to these concerns as well as other comments expressing concern that 700 feet would become a default limit for compliance and enforcement, the Board restored the language establishing a performance standard as follows: “The shade shall be located as close as practicable to the areas where employees are working.”

Comment #BT7: PASMA further believes that the new language with regard to the exception to providing shade, such as when the terrain or other conditions prohibit locating shade within 700 feet, is very limited.

Response: In response to this comment and others about both the 700 foot limit and the exception, the previously proposed text has been deleted in favor of restoring the existing performance standard, as indicated in the preceding response to comment #BT6.

Comment #BT8: Currently employers are required to allow and encourage all employees to take a cool-down rest in the shade when they feel the need to protect themselves from overheating, but the proposed language implies that all employees may need to be monitored for signs and symptoms. Yet there is no explanation on what type of monitoring is required or a definition of monitoring. In the Fire Service it is recommended by NFPA 1584 that the Fire Department physician or appropriate medical authority establish medical protocols and procedures regarding the following: 1) immediate transport to an emergency medical facility, 2) close monitoring and treatment in rehabilitation, and 3) release from rehabilitation. However, for the rest of the general working population, it is most likely not possible to have a person with adequate medical training and experience to know how to monitor employees in the rest or rehab areas, how long to keep them in rehabilitation or in the shaded rest area, and when to release them from their rest area. If a supervisor is required to conduct medical monitoring of an employee's signs and symptoms and the person's condition worsens and they suffer a fatality, there are increased exposures to supervisors and designated employees for criminal prosecution. Most supervisors do not have the medical expertise to conduct this level of employee monitoring. In our view, employees should be trained in the signs and symptoms and should be responsible for hydrating and seeking shade when necessary. Once the employee determines it is necessary to seek medical treatment, or if a competent medical authority/provider makes this decision, then the supervisor should assist in providing appropriate first aid and facilitating in assuring that the employee is provided with medical services.

Response: The proposed amendments provide reasonable measures which are crucial to saving lives. In the Division's enforcement experience, it is crucial that workers that exhibit heat illness symptoms not be left unattended (as has occurred in past incidents investigated by the Division, including fatalities) and that in the event symptoms are observed, the employer ensures that appropriate first aid or emergency medical services be provided. The Board notes that syncope (fainting), generalized disorientation or mental confusion can be some of the physiological responses of exposure to heat, and as such, an employer can't expect an employee, even when

properly trained, to report or seek shade when stricken with heat illness. The Division does not expect supervisors or employees to have medical expertise, but rather that they be appropriately trained and increase their vigilance towards the presence of heat related symptoms. In order to reduce the severity of a heat illness, it is essential to ensure that employees be observed for the presence of symptoms of heat illness and that if symptoms are observed that first aid and/or emergency services be provided without delay. In response to these comments and others, the wording of paragraphs (d)(3) and (d)(4) have been revised to provide additional clarity.

Comment #BT9: PASMA is concerned about the new requirements to develop methods to acclimatize employees. Currently, under the training section, employees are required to receive heat illness prevention training which includes the importance of acclimatization. The proposal now requires training in the “concept, importance, methods of acclimatization and the employer’s procedures under subsection (g)(3).” In addition, there is a new requirement to develop methods to acclimatize employees which most likely would include how long an employee is permitted outdoors, and for how many days. There is no indication on what the acclimatization plan should include, or what the elements of a compliant plan are. Also, the proposed changes do not require that the acclimatization methods or plan be approved by a physician. PASMA also questions the necessity of an acclimatization plan for every employer in every industry. An employee’s susceptibility to heat illness may be more likely if they have a preexisting medical condition rather than whether they were included in an acclimatization plan. PASMA believes that employers working with their occupational health physicians should be able to develop their own medical protocols for pre-placement screening, and then make the determination if it is appropriate for each position and whether an acclimatization plan is necessary.

Response: The Board disagrees that acclimatization is unnecessary, particularly in light of both the Division’s enforcement experience and review of heat illnesses and fatalities which demonstrate that inadequate acclimatization can imperil anyone exposed to conditions of heat, and the most recent MMWR released by CDC and OSHA (“Heat Illness and Death among Workers, United States, 2012-2013”), where it was concluded that acclimatization may be the most important element of a Heat-Illness Prevention Program. The report showed that “failure to support acclimatization appears to be the most common deficiency and the factor most clearly associated with death”. More generally, the Board notes that while the proposed standard requires a plan, it does not prescribe what must go in the plan other than a requirement to respond to two specific triggers – a heat wave (as defined in subsequent revisions) and a new employee going to work in a high heat area. In response to comments that these requirements were confusing and should not be mentioned only as part of the written procedures, the Board restated the acclimatization requirements and moved them into their own new subsection (g).

Comment #BT10: There is a new requirement that a heat illness prevention plan be available at each worksite. The Division has provided no data or evidence which would indicate whether having similar plans or a Heat Illness Prevention Program available at the worksite actually has resulted in fewer cases of heat illness. In addition, given the number of worksites involved in a municipality, county or special district, there could be hundreds of employees scattered over a wide area and each would be required to have their own copy of this plan with them. Many of these employees work alone and under the new changes would be required to keep a copy of the

heat illness plan in their vehicles. This seems unenforceable and impractical for many employers. We see this new requirement as unnecessary and having the potential to create significant administrative burdens.

Response: The proposed amendments provide reasonable measures which are necessary to ensure that employers and employees are aware of and understand the control measures the employer will use to prevent heat illness. In the Division's enforcement experience, it is essential that workers who assist a coworker exhibiting heat illness symptoms check their employer's program to ensure they follow all necessary steps, offer immediate first aid, and provide clear and precise directions to the worksite in order to summon emergency personnel without delay. The amendments do not establish a new requirement to have written procedures, but rather clarify that those procedures must be available at the worksite. The Board does not believe that further modification of the proposal is necessary as a result of this comment.

Comment #BT11: PASMA is concerned about the proposed language under the new section (g)(3) requiring close supervision of all employees during periods when it is predicted that the high temperature for the day will be 80 degrees Fahrenheit or more and ten degrees or more above the average high daily temperature in the preceding five days. A temperature reading of 80 degrees Fahrenheit is normally considered to be reasonably mild and not likely to provide a heat stress condition for workers. The Division has not provided any evidence or data to suggest otherwise. The new requirement for the "close supervision" of employees is ambiguous in that "close supervision" is not defined. In addition, the requirement that close supervision be required when the temperature is 10 degrees above the average daily high temperature in the preceding five days does not seem to make sense in those situations where the average temperature is 60 degrees, and then it rises to 70 degrees. Their experience is that employees working at these low temperatures would not need close supervision, nor would they be at any significant increased risk of suffering from a heat-related illness. In addition, "high heat areas" is not defined in the regulation. This is ambiguous and could lead to confusion. They believe that the employer consulting with their occupational health physician should determine whether close supervision is necessary for their employees.

Response: With regard to the temperature triggers and supervision, please see the responses to comments #LS2 and #BT9. Severe heat illnesses and fatalities can occur at temperatures even lower than 80 degrees Fahrenheit, and special attention needs to be paid by supervisors when workers are subjected to sudden increases in temperature of 10 degrees Fahrenheit or more. Given the capriciousness and rapid occurrence of non-seasonal higher temperatures in several parts of the state, as well as unseasonal onset of high temperatures, all employees working in a "heat wave" or during a rapid day-over-day temperature increase are at increased risk of suffering heat illness. The Board has chosen not to define "high heat area" because it is a relative term based on where or what situation a new employee is coming from, and, as the commenter suggests, leaves it to employers to determine how best to address their situation.

Comment #BT12: PASMA appreciates the opportunity to provide comments on the proposed changes and is concerned that the proposed changes are overly prescriptive and unnecessary. In addition, there are numerous sections which are not feasible for many industries and organizations which would result in additional costs to public agencies while doing little to

reduce the incidence of heat-related illnesses in the workplace. They urge the Board to OPPOSE the proposed changes to GISO Section 3395.

Response: See response to comment #BT1. The Board thanks PASMA for its comments and participation in the rulemaking process.

**Marti Fisher, Chamber of Commerce/Heat Illness Prevention Coalition
(CalChamber/HIPC), letter dated September 25, 2014**

Comment #MF1: CalChamber/HIPC states that until recently, Cal/OSHA engaged the employer community across industries to discuss potential revisions to the current regulation that would be rational, necessary, enforceable and effective. Unfortunately, Cal/OSHA elected to turn away from its previously collaborative approach and move forward with a proposal without responding to three separate requests from regulated employers for specific information about illnesses and deaths that may have occurred even in instances where the employer was in full or substantial compliance with the standard, how the deaths occurred, and in what way the current standard proved to be inadequate based on that experience. Regulated employers are left to wonder why the proposal is written in a way that is confusing and will leave the regulated community unable to understand the agency's priorities or to comply with directives.

Response: The Board thanks the CalChamber/HIPC for their participation in the rulemaking process. However, the comments are not specific to the proposed text and the Board believes that the proposed amendments satisfy statutory requirements. With regard to the requests for information and data to support the revisions, please see response to comment #BT1.

Comment #MF2: CalChamber/HIPC states that Cal/OSHA has not demonstrated the need for such a far-reaching revision of the current standard nor provided any evidence of necessity to justify these changes. There is no supporting data from existing cases, no evidence that a problem has arisen that is directly related to each proposed rule change, and the agency has not identified deficiencies in or the demonstrable inadequacy of the existing regulation based on field experience or data. The employer community engaged in good faith discussions with the Division and participated in advisory committees to reach agreement on appropriate revisions. Additionally, there was neither discussion nor collaboration with the impacted employers to look at any identified problems and work together to identify any necessary changes. Advisory committees were conducted as a discussion of the justification for far-reaching, over-reaching provisions that are similar to the proposal before us, rather than as a discussion of the problem and a search for rational, practical solutions that make sense. Cal/OSHA also declined to consider any solutions outside the regulatory process such as consultation, enforcement, policies and procedures, and partnering with stakeholders where a problem has been identified or whether further prevention or response is necessary.

Response: Please see response to comment #MF1. It should also be noted that the Division has and regularly does pursue all the suggested methods for addressing employee safety and health; and that it is committed to enforcement and has seen increased compliance as a result of these efforts. However, it is not a lack of enforcement that is at issue, but rather the inadequacy of some of the existing provisions and need for a stronger and clearer regulation on heat illness prevention.

Comment #MF3: CalChamber/HIPC repeatedly requested data from Cal OSHA to justify any proposed amendments. The request was made in writing as well as verbally during DOSH-led advisory committees on the subject (copies of these letters were provided). Requests went unanswered. DOSH is asking employers that have been compliant and entire industries that have invested significant training and resources to completely change their program and approach to the prevention of heat illness without providing any justification. Both employers and employees need to understand the need for changes and the resulting anticipated benefits.

Response: See response to comment #BT1.

Comment #MF4: This newly revised regulation will only lead to unnecessary challenges to compliance for employers. The proposal lacks coherence and clarity and is disjointed in its flow, impeding employers' ability to understand and comply with its requirements. The proposal is in direct conflict with Administrative Procedures Act criteria which require clarity and a justification of necessity. Employers striving to comply will be unable to do so and will never be certain that they are in full compliance, leading to citations and penalties. CalChamber/HIPC suggests a more organized and orderly presentation.

Response: In response to these and other comments, the Board has made further modifications to revise the language, pare down prescriptive text, and reorganize and separate required preventive measures (like acclimatization and emergency response) to improve clarity.

Comment #MF5: The proposed changes incorporate five different and overlapping temperature triggers that will impede and greatly hamper employer efforts to be in full compliance.

Response: The Board acknowledges that some were confused by the variety of trigger temperatures. In response to these and other comments, modifications were made to improve clarity, including leaving the trigger temperature for high heat procedures at 95 degrees and revising the language for close supervision.

Comment #MF6: CalChamber/HIPC states that there are other proposed changes to the heat illness prevention regulation that lack clarity and create obstacles for compliance. They add that various portions of the proposed regulatory changes are not feasible, enforceable or clear enough to allow for employer compliance. In particular, the new acclimatization requirements which establish unspecified methods to acclimate employees. Additionally, paragraph (g)(3) greatly expands the scope and applicability of close supervision in high-heat conditions for new employees in five industries to all employees in all outdoor industries; yet these onerous new duties are buried in subsections (f) (Training) and (g) (Written procedures).

Response: The Board agrees that acclimatization and close supervision need further modifications to improve clarity. With regard to the need for acclimatization and close supervision for all outdoor workers during a heat wave and for all newly hired employees, please see responses to comments #LS2, #BT9, and #BT11.

Comment #MF7: CalChamber/HIPC states that Cool-Down Rest Breaks and the Duty to Assess Medical Condition by Non-Medical Personnel are confusing and lack clarity. Paragraphs (3) and (4) of subsection (d), imply that a preventative cool-down rest break shall be treated as a period

of recovery from heat illness as well as a preventive measure when an employee feels the need to cool down. This confusion would force employers to either ignore the implication or assess all employees for symptoms of heat illness during all breaks in temperatures over 80 degrees. Nowhere in the proposed regulation is either “recovery period” or “cool down period” defined even though the terms are used interchangeably, along with the term “cool-down rest.” The concepts of heat illness and cool-down rest need to be separated so that the presumption is not created that a cool down period means the employee is suffering heat illness, which triggers a duty to respond to a heat illness, and could cause an employee to pass on a needed cool-down break. Paragraph (4) of subsection (d) shifts responsibility from the employee to the employer for ensuring that the employee takes a cool-down or recovery break when needed. Further, supervisors and designated employees would have to monitor and assess employees for signs or symptoms of heat illness during those breaks. Many employees choose to take their breaks unsupervised: they go to their car, to a shady spot away from the work area, or leave the worksite, making supervision during breaks impossible. The symptoms of heat illness can be as subtle as tiredness or may be confused with the symptoms of other serious medical conditions. Supervisors and designated employees are not qualified to make those determinations. Clearly a supervisor’s lack of medical training will lead to greater liability in heat illness cases. Emergency response provisions also potentially conflict with the rights of employees to self-administer their first aid. The best way to deal with this is to allow and encourage employees to take a cool-down rest in the shade when they feel the need to do so, to protect themselves from overheating, as is the requirement in the current regulation.

Response: The Board agrees that all employees should be allowed to take a cool-down rest in the shade to protect themselves from overheating and should be encouraged to take this preventative cool-down rest and not wait until she or he feel ill. Please see response to comment #BT8. In response to these comments, the wording of paragraphs (d)(3) has been revised to add clarity. The word “preventative” has been added to stress the importance for cool-down rests, and a separate sentence has been modified to emphasize that all employees taking a preventative cool-down rest will be observed or asked if they are experiencing symptoms, and even when no symptoms are present they shall be encouraged to remain in the shade. Paragraph (d)(4) was also modified to clarify that if an employee exhibits or reports signs or symptoms of heat illness, the employer must provide appropriate first aid or emergency response.

Comment #MF8: Paragraph (e)(6) forces an unprecedented mingling of wage-and-hour requirements with health and safety requirements, paving the way for frivolous and expensive lawsuits against employers to enforce heat illness prevention requirements.

Response: In response to this and other comments, the Board has further modified paragraph (e)(6) to improve clarity and be consistent with the original intent to enable employers to align these breaks with other breaks required by Wage Order No. 14.

Comment #MF9: Subsections (f) (Training) and (g) (Written procedures) have provisions not included elsewhere in the regulation, proposed or existing. Any compliance requirements should be clearly and plainly spelled out in the regulation so employers can easily determine what must be done. For example, subsection (g)(3) requires written procedures for close supervision under certain circumstances.

Response: In response to these and other comments, the Board has reorganized and separated required preventive measures on emergency response procedures and acclimatization into separate subsections. See also responses to comments #BT11, #MF4, and #MF6.

Comment #MF10: With regard to the proposed text for definition of shade: “and does not discourage access”, it is not clear how this provides clarity or improvement to the existing language. CalChamber/HIPC believes this phrase creates vagueness and an opportunity for erroneous citations when an employer has no clear direction to comply with this directive.

Response: The Board agrees that this definition can be further clarified. Based on this comment and others, additional modifications were made to add greater specificity and clarity. The Board has provided examples of siting that discourages or deters use or access in the Initial Statement of Reasons, and Comment #TD1 provides another. However, the examples have not been incorporated directly into the text in order to avoid limiting deterrents or excluding other situations that can discourage access or use.

Comment #MF11: With regard to the proposed text that “The water provided shall be fresh, pure and suitably cool...”, the regulation now requires drinking water to be potable, and there is no demonstration of necessity to elaborate upon or substitute a new definition for the commonly understood definition of “potable”. Adding requirements to “potable” is confusing. Water is either suitable for drinking or it is not. CalChamber/HIPC believes the proposed new phrase creates vagueness and an opportunity for erroneous citations when an employer has no clear direction as to how to comply with this directive. CalChamber/HIPC is concerned as to what would be considered “pure” and “fresh” and whether municipal water would be compliant. This new phrase has been part of the Field Sanitation Standard (subsection 3457(c)(1)(B)); however, it also predates the Heat Illness Prevention standard. “Potable” is a more specific and therefore better word to define the condition of the water an employer must provide. Therefore, the reference to “fresh, pure, and suitably cool” only adds confusion.

Response: The Board notes that it is essential that all employees working outdoors have access, at no cost to themselves, to sufficient quantities of water, and to increase consumption frequency so that water can serve its role as an effective measure for heat illness prevention. The Division does not cite an employer for using potable municipal water. However, the Division will cite if the water is dispensed from dirty containers or the containers were refilled from non-potable (e.g. irrigation) lines. In response to this and other comments about the terminology, the Board revised the wording to reflect the fact that these terms and requirements already exist in other standards. Please see also response to comment #BT4.

Comment #MF12: The proposed text that water be located within a distance no further than 400 feet, sets up two potentially conflicting requirements, leaving employers confused as to what constitutes compliance. CalChamber/HIPC questions if an inspector could determine that it was not as close as practicable even though it is within 400 feet. CalChamber/HIPC believes this proposed provision creates vagueness and an opportunity for erroneous citations when an employer has no clear direction on how to comply with this directive. In addition, there is no compelling reason given for the seemingly arbitrary designation of 400 feet.

Response: Based on this comment and others, the distance limit and related exception were removed. Please see responses to comments #BT2 and #BT3.

Comment #MF13: The proposed text that "... unless the employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance." lacks clarity, has no direction, no examples and provides no indication of what conditions might be considered to prohibit closer placement. There must be clear direction for employers to know what demonstrates that conditions prohibit closer placement.

Response: Based on this comment and others, the distance limit and related exception were removed. See responses to comments #BT2 and #BT3.

Comment #MF14: CalChamber/HIPC has concerns with regard to the proposed change to the trigger temperature for shade and notes that there is no data to indicate the necessity for this change.

Response: Please see response to comment #BT5.

Comment #MF15: CalChamber/HIPC has concerns with the revision to the amount of shade required to be present to accommodate the number of employees on meal, recovery or rest periods and the proposed changes to the standard which would require employers to observe and monitor employees while on their meal and rest breaks. Is an employee on break taking a recovery period, a cool-down rest period, or a meal period, or would the employee be suffering from heat illness? Generally, employees are free to leave the work area and be away from supervisors by going to their cars, or off site during their breaks. No data has been presented to support a conclusion that the existing requirement is inadequate. This change (a substantial increase from the current 25% requirement) may not only be impractical to implement, but would create no new benefit for employees. CalChamber/HIPC is also concerned with the requirements to monitor employees during recovery periods and fears wage-and-hour penalties for not providing recovery periods. Would the failure to have enough shade available at lunch equate with a failure to provide a recovery period? This is the confusion created by using wage and hour terms to specify health and safety requirements. Converting a meal period to a recovery period would make the meal-period time, which may otherwise be excluded from hours worked, compensable under Labor Code section 226.7.

Response: The Board notes that access to shade is a pre-existing employee right and that the regulation has always allowed access to shade for all employees at all times. Additionally, the Board is confident that its efforts to address reduction of occurrence of heat illness are appropriate, particularly in light of the Division's enforcement experience and review of heat illnesses and fatalities which indicate the need to ensure that all workers be provided with a better opportunity to break the heat illness cycle through cool-down breaks and that disincentives be limited. In reconsidering the shade requirements, the Board has determined that providing all employees access to shade provides a greater level of safety and has not been presented with any contrary evidence or rationale. With regard to the requirement to monitor/observe employees for signs and symptoms please see response to comment #BT11. With regard to related wage and hour requirements, preventative cool down periods are being required as a safety measure rather

than to create employee benefits, and the Board has endeavored to draft the safety language in a way that will have the least impact on other wage and hour obligations, particularly with respect to the agriculture industry high-heat break rule in subsection (e)(6).

Comment #MF16: CalChamber/HIPC has concerns with the requirement that shade be placed no farther than 700 feet walking distance and states that this would create vagueness and an opportunity for erroneous citations.

Response: The Board has deleted this proposed language. Please see response to comment #BT6.

Comment #MF17: CalChamber/HIPC has concerns with the proposed text for subsections (d)(3) and (d)(4) and notes the potential for the signs or symptoms of heat illness to be also associated to other maladies. This provision would require supervisors to make decisions as to the medical condition of employees which they believe places an unreasonable expectation on supervisors that they have medical training.

Response: The Board notes that although signs and symptoms for heat illness could also be associated with other maladies, it is still vital that supervisors increase their vigilance to be able to recognize as soon as possible signs and symptoms on affected workers and reduce the severity of a heat illness. With regard to the concern that a supervisor will be making medical decisions, please see response to comment #BT8.

Comment #MF18: There is no data to demonstrate the need for change in the high-heat trigger temperature, and that this proposed change will create complexity for employers.

Response: The Board notes that since important changes are being made in other subsections on provision of water, access to shade, emergency response procedures and acclimatization, there appears to be no compelling need to lower this particular trigger temperature. Thus, the trigger temperature is being left at 95 degrees. Please see also response to comment #MF5 above.

Comment #MF19: Not all of the high-heat procedures are contained in subsection (e) (High-heat procedures). Some provisions are found elsewhere in the standard, and these requirements should all be provided within one section in a manner that is easily followed and understood. The high-heat requirements included in training requirements should first be spelled out in the high-heat procedures section. The proposed change to delete the current requirements found in high-heat procedures subsection (e)(4) and instead insert them into the written procedures is confusing and also not in line with the intent of the current requirements, which impose high-heat requirements on a specified list of industries (subsection (a)(1) Scope and Application). Moving this provision not only makes compliance more difficult, but also eliminates the specificity to industries that must comply with high-heat requirements.

Response: As noted in the response to comment #MF18 above, items were moved and revised to make certain requirements and procedures more broadly applicable to all outdoor places of employment rather than just the industries covered by subsection (e). The Board also notes that the term “high-heat procedures” is only used in subsection (e). The Board has reorganized and

revised language to provide greater clarity. Please see also responses to comments #MF4, #MF6 and #MF9.

Comment #MF20: Subsection (e)(6) applies only to employees in agriculture, and there is no data to demonstrate need for this requirement in the agricultural workplace. The provision as proposed would create timing issues with rest periods and meal periods already required by Industrial Welfare Commission Order No. 14. Because work often begins and ends at different times from day-to-day, these requirements allow some flexibility in determining when rest periods and meal periods should occur. However, these proposed changes will add rigidity to the schedule and would cause employers to not be able to coordinate rest and meal periods with these new mandatory recovery periods. They are further concerned that the combined recovery-period and rest-period time (40 minutes) taken would be twice the amount of rest-period time (20 minutes) required to be authorized under Order 14. They add that rest periods authorized under Order 14 need not be recorded but to prove compliance with the proposed requirement, an employer would need to record them. Since this requirement does not apply until the temperature reaches 95 degrees, supervisors would have to monitor temperatures throughout the day to ensure it is timely invoked.

Response: The Board notes that the preventative cool down rests plays an important role in heat illness prevention, and that this is an inherent employee right regardless of the industry. Nonetheless, the pay structure in agriculture (in which longer straight-time hours, shorter working seasons, and piece rate compensation all operate as disincentives for both employers and employees to halt production work) still justifies the differential treatment of this industry. The Board does agree however, that this safety measure should not create new wage and hour obligations if taken for preventative purposes only at times when employees would already be on a regular break. The Board has redrafted subsection (e)(6) twice [following the initial public comment period and again after the first 15-day comment period] in an effort to arrive at language that best reflects this intent. Please see responses to #MF5 and #MF8. The Board also notes that supervisors are already required to know how to monitor the temperature and respond to hot weather advisories.

Comment #MF21: Subsection (f)(1)(D) requires employers to train employees on “the concept, importance, methods of acclimatization and the employer’s procedures under subsection (g)(3).” This provision implies that employers must have procedures to acclimatize employees. When combined with subsection (g)(3) these provisions are confusing and do not set clear requirements regarding acclimatization. Furthermore, acclimatization is not a one-size-fits-all process; it is a complex and highly individualized process. These requirements could lead to a more invasive employee data gathering environment as employers try to cope with personal risk factors.

Response: Please see responses to comments #BT9 and #BT11.

Comment #MF22: Subsection (g) imposes a new requirement for provision of a free-standing written heat illness prevention plan, in English and a language understood by a majority of the employees. The current standard allows the written plan to be incorporated into the employer’s Illness and Injury Prevention Program (IIPP). This provision also requires employers to have the written plan available at the worksite, and CalChamber/HIPC recommends that various methods

be specified as allowed such as on mobile devices, in a supervisor's vehicle, or at a worksite office. Subsection (g)(3) creates several new requirements that should be easily found, clearly labeled and not buried so as to avoid confusion. This provision is partially the deleted paragraph (4) of subsection (e) High-heat procedures. However, the existing provision in current law for high-heat procedures applies only to specified industries, while moving these requirements to the written procedures would place all industries within its scope. Additionally, subsection (g)(4) Emergency response procedures, should be contained in their own separately labeled and easily identified section.

Response: The Board has accepted most of these recommendations by specifying that the Heat Illness Prevention Plan can be incorporated into the employer's IIPP, and by separating requirements for Emergency Response Procedures and Acclimatization into their own subsections. The Board does not believe it is necessary or appropriate to spell out or create blanket exceptions on where the Heat Illness Prevention Plan can be maintained, since the overriding consideration is its availability to employees where they work. For example, having it on mobile devices might be appropriate if all employees are given those devices, but not if the employees do not have ready access to a device on which the plan is kept.

Comment #MF23: In conclusion, CalChamber/HIPC urges the Standards Board to send this proposal back to Cal/OSHA for a demonstration of necessity and to establish needed clarity before any changes to the standard ultimately move forward.

Response: The Board thanks the CalChamber/HIPC for its comments and participation in the rulemaking process.

Michael Wolf, Michael Wolf Vineyard Services Inc., letter dated September 2, 2014

Comment #MW1: With regard to subsection (c), the commenter notes that he has no issue with the requirement to provide water at no cost to workers.

Response: The Board acknowledges the commenter's support for providing drinking water at no cost to workers.

Comment #MW2: The commenter has concerns with the phrase "suitably cool" and inquires as to how it will be enforced.

Response: See the response to comment #BT4.

Comment #MW3: The commenter notes that it would be cumbersome to place drinking water within 400 feet and notes that they place the water at the end of the row, so that the maximum travel distance is 500 feet. Additionally, the commenter suggests that rather than have varying distances between water, shade and restroom, that the traveling distance for all three be standardized.

Response: In response to numerous comments about the distance requirement, the Board pared down the proposal into a performance standard requiring that water "be as close as practicable to where employees are working" which may be closer than 400 feet. Given the importance of frequent consumption of water as a heat illness prevention measure and water's greater

portability, the Board does not believe that water can or should be equated with shade or restroom requirements in terms of its accessibility to workers. Please see also response to comment #BT2.

Comment #MW4: With regard to subsection (d), the commenter is concerned about the phrase “shade to accommodate” and inquires as to how it will be enforced.

Response: The Board notes that in the Division’s enforcement experience, it is essential that all workers be given an opportunity to break the heat illness cycle through cool-down breaks in shade and not be discouraged from or rushed while taking these breaks. With regard to enforcement, the Division would look at each situation and evaluate whether sufficient shade is present to allow the number of employees on meal, recovery or rest periods to access the shade that meets the specifications in the standard.

Comment #MW5: The commenter questions the need and the rationale for changing the trigger temperature for the shade-up requirement.

Response: Please see responses to comments #BT5 and #MW4.

Comment #MW6: The commenter notes that they make shade available at the end of vineyard rows and notes that workers are able to reach shade within 500 feet. The commenter restates that the distances to water, shade and restrooms should be standardized so that all these elements are kept together.

Response: Please see responses to comments #BT6 and #MW3.

Comment #MW7: The commenter inquires as to the type of documentation that employers will have to keep in regards to monitoring employees taking requested cool-down rest periods. The commenter is further concerned about the requirement to ensure that supervisors allow for at least a 5-minute rest once the employee reaches the shade and the evidence that would be required to demonstrate compliance with this requirement.

Response: The Board notes that in the Division’s enforcement experience, it is crucial that workers be given a better opportunity to break the heat illness cycle through cool-down breaks and not be discouraged from taking these breaks or being rushed while taking them. The proposed modified language provides clarification of the existing mandate and does not constitute a requirement to document each break. However, as modified, the proposal does require that procedures for complying with the break requirements be in writing and available to employees and representatives of the Division upon request. Thus, while failure to document every instance of encouragement of cool-down rests along with the length would not be expected to constitute a violation of the standard, employers would be expected to have written documentation of the procedures in place to ensure that employees are being encouraged to take those breaks. Credible documentation of actual encouragement of cool-down rest during periods of elevated heat illness risk could of course serve as evidence of effective implementation of the required procedures and serve the employer’s interest of demonstrating compliance with the standard. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #MW8: With regard to subsection (e), the commenter inquires as to the need for change in the high-heat trigger temperature and is concerned about the loss of productivity and employees' income. The commenter notes that the number of days in which the temperature exceeded 95 degrees in Napa County was 5 versus 29 if the proposed trigger temperature were to go into effect.

Response: Please see responses to comments #PU2 and #MF18.

Comment #MW9: The commenter notes that the phrase "regular communication" is highly subjective and inquires as to how this will be enforced and the system of communication that will be needed to demonstrate compliance.

Response: In the context of this requirement, "regular communication" refers to consistent and reliable communication sufficient to ensure that an employee working alone or remotely is effectively monitored. With regard to enforcement, the Division will inspect and evaluate each particular situation, and conduct employee and management interviews before making a determination. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #MW10: The commenter questions why the agricultural industry is being singled-out for the recovery period requirement as all outdoor employees working in the heat (like in construction, landscape, etc.) also have the potential of suffering heat illness at 95 degrees Fahrenheit or higher.

Response: Please see response to comment #MF20.

Comment #MW11: The commenter agrees with the proposed language for subsection (f) training and finds that the amendments are straightforward and reasonable.

Response: The Board acknowledges the commenter's support for this aspect of the proposal.

Comment #MW12: With regard to subsection (g), the commenter notes that close supervision is an undue burden on the employer and that, in particular, the language proposed which requires procedures for the close supervision of all employees under those specified conditions, would be difficult to explain to their workforce.

Response: See responses to comments #BT11 and #MF9.

Comment #MW13: With regard to subsection (h), the commenter agrees with the proposed language to require employers to provide care if an employee exhibits signs and symptoms of heat illness.

Response: The Board acknowledges the commenter's support for this aspect of the proposal.

Comment #MW14: The commenter notes that the proposal merits further clarification to address subjectivity, is not grounded in scientific evidence, and will result in a decrease of worker health and safety. Additionally, the commenter encourages the Board to reconsider these changes and to encourage the Division instead to enforce the standard in a more judicious manner.

Response: See response to comment #BT1. The Board thanks Mr. Wolf for his comments and participation in the rulemaking process.

Matt Jacquel, Old Republic Construction Program Group, email dated September 11, 2014

Comment #MJ1: The commenter notes that the proposed changes related to providing drinking water within 400 feet, are easy to accommodate and acceptable.

Response: The Board acknowledges the commenter's support for this aspect of the proposal. However, the Board has deleted this referenced text and converted this requirement to a performance standard. Please see response to comments #BT2 and #BT3.

Comment #MJ2: The commenter believes that the proposed changes related to providing enough shade for the entire work crew, may be difficult for some contractors.

Response: The Board notes that it is essential that workers be provided with a better opportunity to break the heat illness cycle through cool-down breaks. Coverage for the entire work crew is not necessary if the employer rotates breaks. Please see also responses to comments #TD1 and #MF15.

Comment #MJ3: The commenter states that the current temperature thresholds of 85 degrees and 95 degrees Fahrenheit are almost completely arbitrary and that Cal/OSHA's focus on these temperature thresholds is based on absolutely nothing.

Response: See responses to comments #BT5, #MF14, and #MW8.

Comment #MJ4: The commenter refers the Division to the 2012 (or newer) American Council of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values and Biological Exposure Indices handbook and notes that Cal/OSHA would be best suited in utilizing the ACGIH's method of heat safety as opposed to utilizing the current system of misleading temperature thresholds.

Response: Utilizing the ACGIH method could be of value in many workplaces, especially indoors with artificial heat sources, where temperatures have the potential to be controlled, and at the very least anticipated within a relatively narrow range. However, the Board also believes that requiring all employers with employees working outdoors to determine the Wet Bulb Globe Temperature on a continuous, or even intermittent, basis would not substantially contribute to control of employee risk of heat illness while at the same time consuming resources that could be more effectively used implementing control measures, such as providing readily available drinking water along with shade and other means of cooling. The Board has chosen to rely instead on the Division's experience and review of heat illnesses and fatalities cases. Therefore, the Board does not believe that further modification to the proposal is necessary as a result of this comment.

Brian Crets, JR Simplot Company, email dated September 17, 2014

Comment #BC1: The commenter states that although the standard is specifically directed at Agriculture, Construction, Landscaping, Oil and Gas Extraction, and Transportation, that Cal/OSHA Enforcement routinely applies the standard to other areas of General Industry,

including indoor work environment through Section 3203, and requests language clarification to specify outdoors, or both indoors and outdoors.

Response: The existing regulatory language states that it applies to all outdoor places of employments, is not limited to the industries specified by the commenter, and does not apply to indoor work environments. The comment regarding Section 3203 is outside the scope of this proposal. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #BC2: The commenter notes that there is no significant advantage in reducing the trigger temperature or the high heat temperature. He is further concerned that many environments can reach the 80 degrees trigger point during the typical winter months which poses unique challenges when applied to indoor environments.

Response: Please see response to comment #BT5 in regard to changing the trigger temperature from 85 to 80 degrees Fahrenheit, and responses to comments #PU2, #MF18, and #MW8 in regard to changing the high heat temperature from 95 to 85 degrees Fahrenheit. Regarding the comment on indoor environments, see response to comment #BC1.

Comment #BC3: The commenter is concerned that the proposed change in language from potable drinking water to “fresh, pure, suitable cool drinking water” will have a significant impact for General Industry. He further notes that the change in language may precipitate testing of the water and inquires as to the quality, testing frequency and sampling methodology that would be required.

Response: Please see response to comment #BT4.

Comment #BC4: The commenter is concerned that the proposed text may bar the use of bottled water.

Response: Neither the existing nor the proposed amendments bar the use of bottled water. No further modification to the proposal is necessary as a result of this comment.

Comment #BC5: The commenter notes that the current standard is sufficient in addressing the hazards associated with heat illness and that the proposed changes would not enhance the standard.

Response: The Board disagrees that the current standard is sufficient and thanks Mr. Crets for his comments and participation in the rulemaking process.

Manuel Cunha, Nisei Farmers League, letter dated September 10, 2014

Comment #MC1: The commenter expressed concerns about the proposed changes and notes that their agricultural groups have done hundreds of training seminars in concert with Cal OSHA Consultations where an average of 200,000 people have been served. Nisei inquires as to why the Board proposes more regulations at this time and states that the agricultural industry has not been supplied with any data in order to see the need nor do they believe that the Division’s data is based on fact.

Response: Please see responses to comments #BT1, #MF1, and #CEA1.

Comment #MC2: The proposal to have water within 400 feet is not practical to any crop. Row crops are in ¼ mile runs, and vineyards contain wire and berms which would make it totally impractical to get within 400 feet of water in many circumstances (as observed on the pictures which were included).

Response: Please see responses to comments #BT2 and #MF12. The Board wishes to add that it is not the Board or Division's intent for employees to cross rows where there are barriers or a risk of injury to the employee (such as by tripping) or to the crop.

Comment #MC3: Asking for shade to be increased from 25% to 100% is not reasonable and would cause an undue burden and cost to agricultural employers while failing to provide any more protections.

Response: Please see response to comment #MF15.

Comment #MC4: Nisei is concerned that the proposed high heat procedures break requirement is a duplication of existing requirements already in Industrial Wage Order 14, which requires a minimum of 10 minutes break for every two hours worked regardless of the temperature. This would be burdensome because it requires additional documentation and is confusing as to when the break period should occur.

Response: Please see response to comment #MF18.

Comment #MC5: Nisei believes that the current heat illness prevention standard is necessary and working as intended and requests to receive from the Division a report summarizing statistics and what it has experienced since Section 3395 was adopted. They hope the proposed regulation is based on sound science and evidence and not on lawsuits the department may be experiencing.

Response: The Board disagrees that the current standard is sufficient. With regard to a request to receive additional statistics or report from the Division, please see response to comment #BT1. The Board thanks Nisei for its comments and participation in the rulemaking process.

Michael Walton, Construction Employers Association (CEA), letter dated September 16, 2014

Comment #CEA1: The Initial Statement of Reasons does not include data or specific information establishing how the current regulation is deficient, which CEA believes is key in meeting the necessity requirement of the California Administrative Procedure Act. CEA notes that this information would have enabled the Advisory Committee to have collaboratively identified reasonable solutions to address the regulation's inadequacies since the proposal's overly prescriptive changes are not applicable across all industries that perform work outdoors.

Response: Please see response to comment #BT1.

Comment #CEA2: CEA is concerned that the proposed text which adds additional adjectives to the requirement to have potable drinking water detracts from the clarity and creates ambiguity

for both employers and Division personnel. CEA inquires whether: (1) the use of city provided potable (tap) water meets the “fresh and pure” criteria; (2) employers would be expected to purchase filters in order to filter tap water before filling water jugs; (3) employers would have to provide purified ice to maintain “fresh and pure” water and (4) employers would be expected to purchase bottled water and ensure that the water remains “suitably cool”.

Response: The Board notes that the potability for most of the plumbed water from city lines is determined by the local water district. There are however plumbed water lines such as for irrigation or reclaimed water which are not potable. It is not the intent of the proposed text to require that employers purchase purified ice, filters or bottled water. Please also see responses to comments #BT4 and #MF11.

Comment #CEA3: CEA is concerned that the proposed language regarding proximity of water to workers is too rigid and overly prescriptive as a worker may need to leave his area briefly to go to the jobsite trailer which may be located more than 400 feet away. CEA is also concerned about the language that only allows exceptions for employees using/travelling to the restroom or when the employer demonstrates that conditions prohibit locating the water within the prescribed distance.

Response: Please see responses to comments #BT2 and #BT3.

Comment #CEA4: Not only may it be unsafe to place water within 400 feet walking distance, but it will require additional labor resources and increase costs due to the additional water stations that have to be set up, replenished, and cleaned. It also would be overly burdensome to have to create a paper trail demonstrating why site conditions prohibited the employer from placing water within the prescribed distance at various times during the day.

Response: Please see responses to comments #BT2 and #BT3.

Comment #CEA5: CEA is concerned about the feasibility of providing shade for a hundred percent of workers at one time and believes that it would be impossible to provide shade within 700 feet walking distance to every worker. Due to the nature of construction, staggered meal and rest periods are not always an option, and it would not be feasible to provide shade for an entire crew particularly in a densely populated metropolitan area. The exception which states that “unless the employer can demonstrate that terrain or other conditions prohibit locating the shaded area within the prescribed distance” does not address CEA’s concerns.

Response: Please see responses to comments #TD1, #BT6, #BT7, #MF15, and #MJ2.

Comment #CEA6: CEA is concerned that portions of the proposed language regarding access to training and written procedures actually create ambiguity and confusion as to when they would apply. Specifically, subsection (g)(3) is confusing, as the proposed language related to high heat procedures states that they are implemented at 85 degrees, while the provision for close supervision of employees takes effect when the temperature is 80 degrees. Additionally, the proposed text for (f)(1)(D) refers to methods of acclimatization, but the language does not specify methods to acclimatize employees.

Response: Please see responses to comments #BT11, #LS2, #BT9, #PU2 and #MF18.

Comment #CEA7: The new emergency response procedures are unnecessary and are adequately addressed in the current language of Section 3395 and in Sections 1512 and 3400. Employers who fail to protect their workers or provide appropriate first aid or emergency response should be held accountable, and more stringent requirements are not the solution.

Response: The Board disagrees that existing emergency response requirements are clear and specific enough to address how to prevent heat fatalities and reduce the severity of the illness, particularly in light of the Division's enforcement experience and review of heat illness cases and fatalities which demonstrate the need for the employer to ensure that appropriate first aid or emergency medical services be provided without delay. In response to other comments, the Emergency Response Procedures have been separated out into their own new subsection (f). The Board thanks CEA for its comments and participation in the rulemaking process.

Bruce Wick, California Association of Specialty Contractors (CALPASC), email dated September 18, 2014

Comment #BW1: The proposal is flawed and over-reaching. The proposal has not met the burden of showing necessity, and it is quite unusual for a regulation to be in effect for nine years and considered successful to necessitate changes to "clarify" or to "make clear." Additionally, changes based on "the Division's experience" are informative, but are not the type of inferences upon which to base substantial regulatory changes. There is a glaring lack of hard data on which to base the changes and that data was requested several times but never provided.

Response: Please see responses to comments #BT1 and #MF1.

Comment #BW2: Two Advisory Committees did not lead to consensus. This is a far reaching proposal, not cooperative rulemaking, and this approach is disrespectful.

Response: These comments are not specific to the proposed text and the Board has satisfied statutory requirements of the Labor Code and the Government Code with respect to necessity, clarity, non-duplication, and reference. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #BW3: There is no apparent measurement of costs associated with these changes, and this proposal will be a substantial cost burden to California employers.

Response: Projected cost estimates, including information showing how those estimates were calculated, were set forth at length in the Initial Statement of Reasons and the Fiscal and Economic Impact Statement (Form 399). Although the Board has received a high volume of comments on this proposal, very few addressed these cost estimates; and the Board has received no information showing that the estimates were invalid or inaccurate.

Comment #BW4: The proposal will be counterproductive to heat illness prevention, and its complexity will result in far less compliance. The 9 year old regulation is successful, while the

22 proposed changes are indicative of failure; and none of these modifications have data or factual evidence to necessitate change.

Response: The Board disagrees that these amendments will be counterproductive to heat illness prevention or that the proposed changes are indicative of failure. Please see response to comment #BW2.

Comment #BW5: The proposed definition for shade in subsection (b) added a phrase which does not provide any real clarity or improvement to the regulation.

Response: Please see response to comment #MF10.

Comment #BW6: The commenter inquires whether municipal water would meet the requirement to be fresh, pure, cool and free. Additionally, the commenter is concerned that a measurement such as 400 feet reduces an important regulation to simply an exercise with a tape measure or walking meter.

Response: Please see responses to comments #BT2 and #MF11.

Comment #BW7: With regard to subsection (d), the commenter notes that no data has been provided to substantiate the changes related to the trigger temperature for shade, requiring shade for 100% of employees, the required 700 feet for shade, requiring supervisors to make decision as to the condition of employees, and required monitoring. These changes will add a significant cost or place a substantial burden on employers.

Response: Please see responses to comments #BT5 and #MF14 with regard to the trigger temperature, #MF15 with regard to shade to accommodate all employees, #BT6 for the 700 foot limitation, and #BT8 for proposed changes to(d)(3) and (4) concerning monitoring of employees on preventative cool down rest breaks. Also, see response to comment #BW3 with regard to costs.

Comment #BW8: No data has been provided to substantiate the change to the trigger temperature for the high heat procedures in subsection (e), which comes at a significant cost and places a significant burden on employers. Additionally, subsection (e)(2)'s requirement for effective observation/monitoring does not include a clear definition of what is meant by "effective," and the proposal for (e)(3) (authorized employee to call for emergency services) is duplicative of current regulations.

Response: The Board has decided to leave the high heat procedures trigger temperature at 95 degrees for reasons noted in the responses to comments PU#2 and MF#18. The Board notes that the word "effective" is a commonly used term in Title 8 and does not need further specification. However, other comments and the Division's enforcement experience with cases of heat illness in which no one sought help, indicate that existing regulatory language is not adequate with

regard to the need to have a designated employee authorized to call for emergency services at each worksite.

Comment #BW9: The requirements to have pre-shift meetings or for requiring extended rest periods for agriculture are additional burdens, and there is no evidence to show need or that proof was provided. He is also concerned that documentation will be required to show that the pre-shift meetings took place.

Response: Please see responses to comments #BT1 and #BW3 for necessity and cost; #LS1 and #LS2 with regard to pre-shift meetings; and #MF20 for rest periods required for agriculture.

Comment #BW10: Subsection (f)(1)(B) is duplicative of requirements already in place.

Response: The Board notes that based on the Division's enforcement experience, not all employers train or include in their plans each and every necessary heat illness prevention procedures to prevent heat illness or reduce the severity of the disease. See also response to comment #BW15. The Board does not believe that further modifications to the proposal are necessary as a result of these comments.

Comment #BW11: The commenter has concerns about subsection (f)(1)(D) which require employers to train in the "concept" of acclimatization.

Response: Please see response to comments #LS2 and #BT9.

Comment #BW12: The commenter supports the proposed addition in subsection (f)(1)(E) and notes that this appears to be a reasonable addition to the training.

Response: The Board acknowledges Mr. Wick's support for this aspect of the proposal.

Comment #BW13: The commenter is opposed to the proposed amendments to subsections (f)(1)(G) and (f)(2)(C), which add the word "signs" to the text, and notes this modification is unclear and unnecessary.

Response: The Board notes that a symptom is what a worker affected by a disease experiences and cannot necessarily be observed by someone else, such as rapid heartbeat, while a sign is what someone other than the affected can observe, such as a red face or disorientation. Accordingly, the Board believes this clarification is necessary and appropriate.

Comment #BW14: The requirement to have the written heat illness prevention plan at each worksite is not justified and would be a burden for employers.

Response: Please see responses to comments #BT10 and #MF22.

Comment #BW15: The proposed subsections (g)(1), (g)(2), (g)(3) and (g)(4) (which detail the elements that must be included in an employer's heat illness prevention plan) are duplicative of existing requirements and it is not clear why they are necessary.

Response: The Board disagrees that these are duplicative requirements and notes that in the Division's enforcement experience, not all employers understand what specific preventive measures must be planned in advance and included in the employer's heat illness prevention plan to adequately prevent heat illness or reduce the severity of the disease. Planning and preparing in advance is essential, for example, in ensuring that if the presence of signs or symptoms of heat illness are observed or reported, that first aid and/or emergency services be provided without delay.

Comment #BW16: There is no data or documentation to show that subsection (h), which requires that an employee exhibiting signs or symptoms of heat illness shall not be sent home without being offered treatment, is necessary.

Response: The Division's enforcement experience and review of severe heat illnesses and fatalities identified incidents where workers exhibiting symptoms of heat illness in fact were sent home or left alone rather than being offered or provided with necessary emergency care. The Board thanks Mr. Wick and CALPASC for their comments and participation in the rulemaking process.

David Shiraishi, Occupational Safety and Health Administration, U.S. Department of Labor, letter dated September 17, 2014

Comment #DS1: The proposed standard appears to be commensurate with the federal standard.

Response: The Board thanks Mr. Shiraishi for the OSHA assessment of the standard and proposed changes.

Anne Katten, California Rural Legal Assistance Foundation (CRLAF), email dated September 19, 2014

Comment #AK1: CRLAF writes to express its overall support for most of the proposed revisions to the Heat Illness Prevention Regulation and to recommend some revisions.

Response: The Board acknowledges CRLAF's support of the proposal and for participating in the Board's rulemaking process.

Comment #AK2: The revision to the existing regulation is urgently needed. The Cal/OSHA confirmed numbers of worker heat fatalities and illnesses (which were, for 2013, four worker heat fatalities and 54 cases of heat illness and for 2012, three worker heat fatalities and 48 heat illnesses) are unacceptably high and do not include all fatalities and illnesses due to underreporting and misdiagnosis. A comparison of the California Department of Public Health's (CDPH) analysis of workers comp claims with the Division's numbers indicates that Cal/OSHA confirmed less than 5% of the total work heat claims. Many studies have found an association

between exposure to extreme heat and increased rates of heart attacks, kidney failures and other illnesses, and thus CRLAF does not agree with industry representatives that the current regulation is adequately addressing heat stress.

Response: The Board thanks CRLAF for its analysis.

Comment #AK3: CRLAF supports the addition that shade may be provided by any means... “that does not discourage access” and recommends that in order to ensure regulatory clarity, the following addendum be made to the regulatory language: “by locating shade in areas such as those adjacent to portable toilets or across a roadway from the work area.”

Response: The Board acknowledges CRLAF’s support for the revised definition of shade and notes that further modifications were made to add greater clarity. The Board does not believe it is necessary or appropriate to incorporate examples directly into the text, which could be construed as limiting deterrents or excluding other situations that discourage access or use. See also response to #AK9.

Comment #AK4: CRLAF suggests changing the definition of Environmental Risk Factors from “create the possibility that heat illness could occur” to “together contribute to the risk or likelihood that heat illness could occur,” to recognize the additive or combine contribution of factors to the overall risk of heat illness.

Response: The Board and the Division are not aware of any problems with the existing definition in terms of its meaning and application, and accordingly the Board does not see a need for changing it.

Comment #AK5: CRLAF supports the addition that the water provided be fresh, pure and suitably cool and provided to workers free of charge, as they continue to hear reports of some employers charging for water or providing workers in the Central Valley with water that is not fresh, pure or suitably cool.

Response: The Board acknowledges CRLAF’s support for this aspect of the proposal.

Comment #AK6: CRLAF is opposed to the proposal which allows drinking water to be as far as 400 feet from the work area. Employers are already accustomed to moving supplies such as boxes and bins to follow the work, and water can be carried on harvesting machinery and located within 10 feet of the work area. 400 feet from the work area is not readily accessible and would be inconsistent with the Field Sanitation Standard. Drinking water should be within 10 feet of workers or a 30 second walk, unless the employer can demonstrate that it is not possible. The greater the distance, the greater the disincentive to stop work to walk to take a drink, particularly when the worker is paid piece rate or being subjected to quota requirements. CRLAF notes that even 10 feet may be too far and submits a heat illness accident investigation which indicated that a worker fainted in the field while attempting to reach the drinking water that was 10 feet from the work station.

Response: The Board agrees that the greater the distance, the greater the disincentive for workers to walk to drink water and notes that based on this and other numerous comments, further modifications were made to the text to remove distance limits and specify only that “The water shall be located as close as practicable to the areas where employees are working.” Please also see responses to comments #BT2 and #MF12.

Comment #AK7: CRLAF recommends that the regulation require that drinking water be provided in the shade during rest and meal periods.

Response: The Board notes that the proposed language does not preclude water being present while workers use the shade or during rest and meal periods. Therefore, the Board does not see a need for this modification and declines to adopt it.

Comment #AK8: CRLAF supports the proposed change to require that shade be erected at 80F rather than 85F and notes that evidence indicates that an even lower threshold of 75F is needed to adequately protect unacclimatized workers and all workers when humidity is high. CRLAF adds that the Heat Index used by the National Weather Service also uses a heat index of 80F as the threshold for Caution.

Response: The Board acknowledges CRLAF’s support for this aspect of the proposal. The Board is not aware of specific information or data that would support an even further reduction in the shade trigger temperature to 75 degrees as a necessary and not just recommended measure to prevent heat illness. Therefore, the Board declines to adopt this suggestion.

Comment #AK9: CRLAF supports the proposed change requiring enough shade to accommodate the number of workers who take meal, recovery or rest periods at the same time and recommends that there be a requirement to prevent contact with the ground (seating or ground covering), as contact with hot ground will detract from the cooling effect of the shade.

Response: The Board acknowledges CRLAF support of this aspect of the proposal. The Board does not believe it is necessary or appropriate to add additional language on ground contact inasmuch as the definition of shade already states that the shade shall not be provided in a way that deters or discourages access. The Division has found that this performance approach works and given the variety of situations and terrains, it may not be appropriate to require ground covering in every situation. Please see also response to #AK3.

Comment #AK10: CRLAF opposes allowing the shaded area be located at a maximum distance of 700 feet and notes that this will not allow workers to access shade quickly enough. CRLAF believes that a maximum distance to shade should be a 1 minute walk or 400 feet, and that it should be located as close to the work area as is safe and physically possible. They recommend that the language specifically prohibit shade from being located next to the road or across a road or ditch from workers. They note that close location of adequate shade is particularly important

for workers who are not fully acclimatized. They add that shade must be required at the ends of the field rows or in the middle when wide enough to allow for placement.

Response: Based on this and other comments, including comments expressing the view that 700 feet is too restrictive and burdensome for employers, the Board has withdrawn this language in favor of keeping the existing performance standard of “as close as practicable to the areas where employees are working. “Please also see response to comment #BT6.

Comment #AK11: The standard should specifically prohibit using crop plants, such as grape and tomato vines as shade, as these do not provide adequate or a safe source of shade (due to exposure to pesticides, spiders or snakes).

Response: These concerns are already fully addressed by the definition of shade as “blockage of direct sunlight [so that] objects do not cast a shadow” and (as modified by these proposals) “that does not discourage or deter access or use.” With regard to adding specific examples to the text to address potential hazards such as those described in the comment, please see response to comment #AK3.

Comment #AK12: The proposed revision appropriately specifies that cool-down periods in the shade should be allowed and encouraged to help prevent overheating, and clarifies that the time needed to access the shade must not be counted as rest time. However, the proposed language is confusing and CRLAF believes it is ill-advised to add a reference to abatement of signs and symptoms of heat illness as it implies that a rest in the shade is adequate treatment even for severe heat illness. CRLAF recommends revising the proposal to read:

An employee who takes a cool-down rest shall be encouraged to remain in the shade and shall not be ordered back to work until he or she no longer feels over-heated, but in no event less than 5 minutes in addition to the time needed to access the shade. Employees taking a cool down recovery period shall be monitored and as specified in subsection (g) if signs or symptoms of heat illness develop shall immediately be provided appropriate first aid and emergency medical assistance.

Response: The Board thanks CRLAF for its support for this aspect of the proposal. The Board has made further revisions to subsections (d)(3) and (4) that largely incorporate these suggestions.

Comment #AK13: Subsection (d)(4), concerning cool down and providing appropriate first aid or medical response, should be deleted because it is inappropriate to put requirements for response to heat illness in the access to shade section of the regulation.

Response: The intent of this subsection is to address appropriate monitoring and response in the context of a preventative cool down rest period rather than fully or exclusively address emergency procedures. As noted in the response to comment #AK12, subsection (d)(4) has been

further revised to add clarity. Emergency response procedures were also separated out and enumerated in a new subsection (f).

Comment #AK14: CRLAF supports reducing the temperature trigger from 95F to 85F for high heat procedures but adds that the body of evidence supports stronger protections and a lower temperature trigger of 80F when humidity is high.

Response: The Board acknowledges CRLAF's support for this aspect of the proposal. However, based on other comments regarding the variety of trigger temperatures and the fact that across-the-board requirements were strengthened, the Board decided instead to leave the trigger temperature for high heat procedures for five specific industries at 95 degrees. Please also see response to comment #PU2.

Comment #AK15: Subsection (e)(2) should also require a system for accounting for all workers before leaving the worksite, as there have been several suspected work heat fatalities in California where the worker was left at the field and found deceased the next day.

Response: The Board believes that its proposed language adequately addresses CRLAF's concerns. The Board's proposal does not preclude an employer from having a system for accounting for all workers, but the Board believes it is unnecessary and unduly prescriptive to expressly require an accounting in each and every case.

Comment #AK16: Subsection (e)(5) should be amended by replacing the term "pre-shift" with "meetings at the beginning of the workday" because it is not legal or appropriate to require employees to attend meetings before the paid workday begins.

Response: The Board agrees that employees must be paid for attendance at mandatory meetings but disagrees that the term "pre-shift" in any way negates that legal requirement. The Board does not believe it is necessary, appropriate, or feasible to revise or incorporate language to address every possible misinterpretation, and sometimes the effort to do so merely leads to other unanticipated misinterpretations.

Comment #AK17: CRLAF supports the addition of a requirement for a mandatory recovery period for agricultural workers, but is concerned that a break every 2 hours under high heat conditions above 95F is not adequate protection, particularly for non-acclimatized workers or in situations of extreme heat or very strenuous work. CRLAF suggests hourly breaks of at least 15 minutes above 85F for very strenuous work or where personal protective equipment (PPE) is worn, and above 90F for all other outdoor work. Furthermore, CRLAF states that extra limitations or measures are needed during heat waves, when the weather is unseasonably hot or extreme heat lasts for an extended period without night cooling and recommends suspension of outdoor work between noon and sunset during heat waves.

Response: The Board acknowledges CRLAF's support for this aspect of the proposal. The existing regulation does not have a break requirement, and the Board is adopting this proposal as

a necessary safety measure for a particular industry. It is always possible to adopt more strenuous safety measures, but taking an unduly prescriptive approach, including by requiring measurements of multiple factors, can make compliance overly complicated and inhibit work from being performed even when there otherwise is a safe working environment. This was one of the most controversial proposals within these amendments, and while every effort has been made to clarify the proposal's intent, the Board does not believe it is appropriate to adjust its substantive requirements.

Comment #AK18: CRLAF supports the additions to the training section but believes employers and supervisors without first aid or medical training could underestimate the gravity of a situation and need guidance on what constitutes appropriate first aid and/or emergency response. CRLAF suggests adding a Mandatory Appendix on Heat Illness Response adapted from the federal OSHA webpage "Preparing for and Responding to Heat Emergencies."

Response: The Board acknowledges CRLAF's support for this aspect of the proposal. The Board agrees that inadequately trained personnel could cause delays in or failure to implement emergency response procedures; but the Board believes these concerns are adequately addressed in the subsections on Emergency Response Procedures, Training, and Heat Illness Prevention Plan. It is not feasible to try to address every potential deficiency through prescriptive regulatory text, nor is such text a substitute for an effective Plan, Procedures, and training program. See also response to comment #CEA7.

Comment #AK19: The following sentence should be added to subsection (f): "Training material appropriate in content and vocabulary to the educational level, literacy, and language of employees shall be used." CRLAF notes that it is important to be specific, so that the actual worker training be conducted in a manner that all employees understand its content and meaning.

Response: The regulation currently requires "effective" training, and the Board continues to rely on this performance oriented language to achieve the same goal of providing training that employees understand. Therefore, the Board declines to make the proposed modifications.

Comment #AK20: CRLAF supports the more detailed requirements for the written heat illness prevention plan and response procedures. However, they believe that subsection (g)(4)(B) should specify that procedures for providing first aid and emergency medical services in response to signs and symptoms of possible heat illness must be consistent with the requirements of subsection (h).

Response: The Board acknowledges CRLAF's support for this aspect of the proposal and notes that additional modifications were made to add greater clarity to the proposed text, including separating emergency response procedures into their own subsection.

Comment #AK21: The title for subsection (h) should be "First Aid and Emergency Medical Response." CRLAF supports the requirements for taking immediate action when signs or

symptoms of heat illness are observed and for providing treatment instead of sending a worker home. However, it opposes the language that requires employers to implement emergency response procedures when signs or symptoms are indicators for severe heat illness. CRLAF believes this threshold is unacceptably high as less severe heat illness can rapidly progress to life-threatening heat stroke. CRLAF recommends adopting as an appendix the Federal OSHA webpage on Heat Illness Emergency Response which recommends immediately calling an ambulance for workers suffering heat stroke symptoms and for workers suffering symptoms of heat exhaustion to be taken for medical evaluation at an emergency room or clinic if their symptoms do not resolve after one hour of cooling. The regulation should specify that the employer must take immediate action to provide first aid in the shade if a supervisor observes or an employee reports any signs or symptoms of suspected heat illness and must take immediate action to obtain emergency medical services for all cases of suspected heat illness except heat rash and possibly heat cramps. Lastly, CRLAF suggests adding a requirement that an employee trained in first aid for heat illness must be present at all outdoor worksites whenever the temperature can be expected to reach or exceed 75F.

Response: The Board notes that subsection (h) was incorporated into the new separate subsection (g) on Emergency Response Procedures and that all subsections now have titles. With regard to the balance of the comment prior to the last sentence, please see responses to comments #AK18 through #AK20. The Board declines to accept the last suggestion because subsection (h) already requires employee and supervisor training on heat illness first aid and emergency response, and a further elaboration and additional temperature are unnecessary.

Comment #AK22: CRLAF appreciates the Division's and Board's hard work in developing this proposal and suggests that they should move forward with developing a standard to protect indoor workers from heat illness.

Response: The Board thanks CRLAF for its comments and participation in the rulemaking process. With regard to indoor workers, this comment is beyond the scope of this proposal.

Roger Isom, California Cotton Ginners Association and Other Agriculture Organizations, email dated September 18, 2014

Comment #RI1: The commenter expressed concerns about modifying the existing regulation, notes that the existing regulation provides the necessary protections, and believes that the agricultural industry has stepped up and implemented the precautions and training necessary to protect against heat illness. Their educational efforts undertaken in partnership with Cal/OSHA have been a vital contributor towards ensuring an effective application of the heat illness prevention standard and has increased the knowledge level of heat illness and advanced employer and employee readiness to prevent heat related illness. The Division has not provided substantive data or justified the changes, which are likely to place unnecessary and burdensome requirements on agricultural operations.

Response: Please see response to comment #BT1.

Comment #RI2: The proposal to require that water be located no further than 400 feet would be problematic for many crops such as cotton, since many farms, even if divided into quarter sections, would be half-mile by half-mile (2,640 ft. by 2,640 ft., diagrams and pictures submitted). A worker in the middle of the field hoeing weeds, would be at a maximum distance away of 1,230 feet or if located within the row's midway point at 600 feet. Rather than strengthening the regulation, the 400 foot prescriptive distance would impart a false sense of security that the appearance of water at a known distance would reduce risk. The issue is not the distance to the water, but the presence or lack thereof. Lastly, they recommend that the Board only consider revisions that have been proven necessary.

Response: The distance limit was removed. Please see responses to comments #BT2 and #MF12.

Comment #RI3: The commenter is opposed to the proposed increase in the percent of shade from 25 to 100% and to the distance to shade requirement of 700 feet. They do not believe there is any heat illness data to demonstrate need, and this would place an undue burden and unwarranted cost on agricultural employers. Additionally, due to space limitations and the need to maintain sufficient space within rows, shade should be required to be provided at the end of the row (although this would place an additional physical burden on employees to climb up and over furrows to get to the side of the field). Furthermore, the proposed language is vague, unattainable and would leave it up to the interpretation of the inspector who may deem that shade could be placed within 700 feet, not at 700 feet.

Response: Please see response to comment #MF15 with regard to the 100% coverage requirement, which has been retained with an exception for employees who leave the worksite during meal breaks; and see response to comment #BT6 with regard to the proposed distance limit, which has been withdrawn.

Comment #RI4: The commenter is opposed to subsection (e)(6) and notes that this is duplicative of existing requirements already required by Industrial Wage Order 14 which requires a minimum of 10 minute break for every two hours regardless of the temperature. An employer would need to track the temperature and once it hits 95 degrees, determine when additional breaks are needed. These breaks would be required to be taken and different than what is permitted and authorized currently by Wage Order 14. They add that this would be burdensome by requiring additional documentation and confusing and are opposed to singling out agricultural settings without evidence. Lastly they thank the Board for the opportunity to provide comments.

Response: Please see responses to comments #MF8 and #MF20. The Board thanks Mr. Isom and the organizations he represents or their comments and for participating in this rulemaking process.

Guadalupe Sandoval, California Farm Labor Contractor Association (CFLCA), letter dated September 18, 2014

Comment #GS1: CFLCA, referencing the FY 2013 Comprehensive Federal Annual Monitoring

and Evaluation (FAME) Report, states that it is in agreement with this evaluation, and adds that Fed OSHA did not recommend a revised rule. CFLCA further notes that the United Farm Workers (UFW) indicated that workers would be better protected if Cal OSHA would properly enforce the current regulation.

Response: The Board thanks the commenter for participating in the rulemaking process. However, the comments are not specific to the proposed text and therefore will not be addressed here. Please see the response to comment #BT1 regarding the general necessity for revisions.

Comment #GS2: CFLCA supports the addition that the water provided shall be fresh, pure and suitably cool and provided to employees free of charge.

Response: The Board acknowledges CFLCA's support for this aspect of the proposal.

Comment #GS3: CFLCA agrees that drinking water should be placed as close as practicable, but emphasizes that requiring that water be placed within 400 feet is not practicable. The rows within many agricultural fields may be very long, furrowed, uneven dirt surfaces and with limited accessibility for motorized, wheeled equipment. Food safety rules also mandate that in most agricultural commodities, no drinking/eating is to take place in the production area. Requiring a worker or supervisor to continuously move the water to keep it within 400 feet would significantly increase the risk of serious musculoskeletal injuries and would create additional work loads, trash and expenses. CFLCA states that their current practice is to place water at the end of the rows or when conditions allow it, water is provided on tractors close to workers. Workers are allowed unfettered access to drinking water. Lastly CFLCA notes that they have not seen evidence or Cal OSHA data justifying that the specific short distance would reduce the incidence of heat illness.

Response: Please see response to comment #BT2.

Comment #GS4: CFLCA is opposed to changing the temperature threshold for the provision of shade from 85 to 80 degrees and notes that they are unaware of any data showing a decrease of worker heat illness when shade is provided at 80 degrees.

Response: Please see response to comment #BT5.

Comment #GS5: CFLCA is opposed to the proposed change to require that shade be present to accommodate 100% of workers and that it be located no farther than 700 feet. CFLCA notes that no evidence has been provided demonstrating that the current requirement is inadequate and that the cost to provide additional shades would be more than \$100.00. Many agricultural employers go far beyond the basic pop-up shade structures and provide shade trailers that cost up to \$3,000. Thus they estimate an increase in annual cost to be \$800 for a 100 person workforce due to the wear and tear of frequently moved shade structures. Additionally, CFLCA states that open space to place the additional shade is not readily available, as small dirt roadways around the field is

the norm and the ranch roads are also needed for work vehicles. CFLCA favors the current requirements to locate the shade as close as practicable and for 25% of the work crew.

Response: Please see responses to comments #MF15 and #BT6. With regard to the estimated cost of shade structures, the Board notes that while employers may choose to spend more on those structures, the proposal does not require them to do so. With the modification of the proposal, the impact is also limited to having adequate coverage for all employees on break at a given time. Thus the Board is not persuaded to change this element of its cost estimates.

Comment #GS6: CFLCA does not object to the proposed changes to subsection (d)(3) which revise the wording on cool-down rest periods.

Response: The Board acknowledges CFLCA's support of this aspect of the proposal.

Comment #GS7: CFLCA does not object to the proposed text for subsection (d)(4), which addresses employer's response to employees' exhibiting signs and symptoms. However, they suggest that this item would fit better under subsection (g) or (h) and that it appears to be redundant of (h).

Response: See response to comments #BT8 and #AK13.

Comment #GS8: CFLCA is opposed to lowering the temperature threshold for high-heat procedures from 95 to 85 degrees and note that Cal-OSHA has not provided evidence that the current threshold of 95 degrees is inadequate to prevent heat illness.

Response: Please see responses to comments #PU2 and #MF18.

Comment #GS9: CFLCA agrees with the proposed modification for subsection (e)(2) and new language for (e)(3) which are related to ensuring effective employee monitoring and designating an authorized employee to call for emergency services.

Response: The Board acknowledges CFLCA's support for this aspect of the proposal.

Comment #GS10: CFLCA agrees on the importance of reminding workers to consume more water during periods of high heat as required by subsection (4). However, they are opposed to proposed subsection (e)(5) which will require pre-shift meetings before the commencement of work as there would be a significant financial cost to piece-rate workers because they would be compensated at a lower rate than their productive piece-rate work time. Furthermore, CFLCA believes that there would be additional cost to employers to document and track the new mandated safety meetings.

Response: Please see response to comment #LS1. The Board does not believe the costs cited in this comment are attributable to the proposal because the proposal does not compel employers to pay piece-rate workers a lower rate for non-productive time. As noted in the response to

comment #AK15 above, time spent in meetings is compensable, and it is up to the parties to agree on the rate of compensation, provided that it is at least minimum wage. The cost of documenting non-productive time for piece-rate workers is also attributable to the agreement between employer and employee to compensate work on a piece-rate basis rather than to the requirements of this proposal.

Comment #GS11: CFLCA is opposed to proposed subsection (e)(6) and any regulation that deprives outdoor workers in any industry of the same protections offered to agricultural workers. CFLCA believes that there is no evidence that agricultural workers are at greater risk to heat illness than employees in other industries. Moreover, this proposed change would financially penalize agricultural piece-rate workers, as this non-productive rest time would be paid at a reduced rate. Employers estimate that for a workforce of 100 employees, their wage loss would be \$84 per 10 minute rest period and to employers the additional rest periods cost would be \$290 per event, not \$250 as indicated in the economic impact.

Response: Please see response to comment #MF20 with regard to the intent, reason, and purpose of this proposal. Please see response to comment #GS10 with regard to the cost to piece-rate workers. With regard to the cost to employers, CFLCA's estimate assumes an effective rate of \$17.40 per hour but provides no source data or documentation. The Board notes that CFLCA's estimate is within the ballpark of its own estimate and also that the language of the proposal has been modified so as to avoid any additional costs (beyond breaks already required by Wage Order No. 14) in almost all situations. Therefore, the Board does not see a basis for changing this element of its cost estimates.

Comment #GS12: CFLCA agrees with all the proposed changes in subsection (f) training, except for the redundant requirement to include the employees' rights to exercise their rights without retaliation. CFLCA believes that workers are already informed of this right with the requirement to post the Cal-OSHA notice at the workplace.

Response: The Board acknowledges CFLCA's support for this aspect of the proposal and notes that setting/having a poster at the workplace does not equate to being trained on the employees' rights to exercise their rights without fear of retaliation. Please see also response to comment #UCON12 below. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #GS13: CFLCA has no objections to the changes proposed in subsections (g) and (h).

Response: The Board acknowledges CFLCA's support for this aspect of the proposal. The Board thanks CFLCA for participating in this rulemaking process and in particular for being one of the few commenters to offer specific feedback on the estimated costs of the proposal.

Elizabeth Treanor, Phylmar Group, letter dated September 19, 2014

Comment #ET1: The Phylmar Regulatory Roundtable (PRR), believes the proposed standard, particularly lowering the trigger temperatures, will help improve worker safety and reduce the

incidence of heat illness for outdoor workers. However PRR has concerns regarding specific language in certain provisions and has suggested alternative language for consideration.

Response: The Board acknowledges PRR's support for this aspect of the proposal and thanks them for participating in the rulemaking process.

Comment #ET2: With regard to the distance for water, PRR supports the exception for when an employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance. This flexibility is essential for workers at remote worksites which are geographically inaccessible (e.g. mountain slopes or cliffs).

Response: The Board acknowledges PRR's support for this aspect of the proposal, although the Board has removed both the distance limit and exception in favor of a single performance standard. Please see responses to comments #BT2 and #BT3.

Comment #ET3: With regard to the distance for shade (subsection (d)(1)), PRR supports the inclusion of an exception when an employer can demonstrate that conditions prohibit locating the shade within the prescribed distance. Several members, particularly from the utility industry, routinely send employees to remote sites where it would be impractical or even dangerous to erect shade structures nearby.

Response: The Board acknowledges PRR's support for this aspect of the proposal, although the Board has removed both the distance limit and exception in favor of retaining the existing performance standard. Please see responses to comments #BT6 and #BT7.

Comment #ET4: PRR supports proposed subsection (d)(4). However, some members have expressed concerns with the term "monitor" in that it may be viewed as implying the employer must provide competent medical supervision of employees exhibiting signs or reporting symptoms of heat illness, even though such medical expertise is not an area of competence for employers and would therefore be problematic. PRR recommends that the Board use the term "observe" instead of the term "monitor".

Response: The Board acknowledges PRR's support for this aspect of the proposal. With regard to monitoring and medical competency, please see response to comment #BT8.

Comment #ET5: PRR supports the proposed revisions to subsection 3395(e), including the lowering of the trigger temperature to 85 degrees Fahrenheit.

Response: The Board acknowledges PRR's support for this aspect of the proposal. However, based on other comments regarding the variety of trigger temperatures and the fact that across-the-board requirements were strengthened, the Board decided instead to leave the trigger temperature for high heat procedures for five specific industries at 95 degrees. Please also see response to comment #PU2.

Comment #ET6: PRR has concerns with subsection (e)(1), and recommends that the Board remove the term “effective communication” and replace it with the term “readily understandable communication.” The affected portion of subsection (e)(1) would then read:

(1) Ensuring that readily understandable communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. ...

PRR notes that term “readily understandable communication” is currently used in the IIPP Standard, Section 3203(a)(3) of the GISO.

Response: Please see the response to comment #AK19.

Comment #ET7: PRR has concerns with subsection (e)(2), to ensure effective means of employee observation when employees are working in high-heat conditions, and the phrase “observation/monitoring.” For reasons similar to their previous comments to subsection (d), PRR recommends that the term “monitoring” be deleted and that only the term “observation” be used in this provision.

Response: Please see response to comment #ET4.

Comment #ET8: PRR has concerns with subsection (g)(3), and believes that the phrase: “and ten degrees Fahrenheit or more above the average high daily temperature in the preceding five days,” lacks clarity, is fraught with opportunities for error, and will be difficult to implement and to enforce. PRR recommends that it be deleted from the proposal. PRR believes that the regulation will provide sufficient protection from heat illness by requiring written procedures when temperatures are expected to reach 80 degrees Fahrenheit or above. They believe it would be onerous and would provide no additional protection to require employers to track whether daily temperatures will exceed 10 degrees above the previous five-day average high temperature. PRR also believes that introducing a new term, “high heat areas,” in subsection (g)(3), is confusing, as the term is not defined in the regulation. PRR therefore recommends that subsection (g)(3) read as follows:

(3) Procedures for the close observation of all employees during periods when it is predicted that the high temperature for the day will be 80 degrees Fahrenheit or more ~~and ten degrees Fahrenheit or more above the average high daily temperature in the preceding five days,~~ and for an employee newly assigned to ~~high heat areas by a supervisor or designee,~~ for the first 14 days of the employee’s employment by the employer.

Response: The Board does not accept the proposal, which would change procedures required for acclimatization during a heat wave into a close observation requirement for every day of the year when temperatures reach 80 degrees, regardless of how acclimatized the workers may be. In response to several comments expressing confusion over the acclimatization provisions, those

provisions were redrafted and separated out into their own subsection, as noted in the responses to comments #LS2 and #BT11.

Comment #ET9: PRR recommends that the Board remove the term “effective communication” from subsection (g)(4)(A) and replace it with the term “readily understandable communication.” The general requirement under subsection (g) to establish, implement, and maintain an effective heat illness prevention plan, as well as the specific requirement under subsection (g)(4)(A) to maintain communications so that employees can contact a supervisor when necessary, provides specific and sufficient guidance to employers and makes the inclusion of the term “effective communication” unnecessary. As stated above, the term “readily understandable communication” is currently used in the IIPP Standard. It provides a more specific and reasonable qualification of the type of communication that would be expected, and is also consistent with the language used in the IIPP Standard.

Response: The Board disagrees that the term “effective communication” is unnecessary particularly in light of the Division’s enforcement experience and review of heat illnesses and fatalities which identified the need for employers to ensure that for instance, workers operating at remote locations (either alone or without a site supervisor) be provided with effective means of communication (such as cell phones or two-way radios that have working signals/or are not out of range) so that they can communicate in the event of an emergency. (As noted in the response to comment #BW8 above, the word “effective” itself is a commonly used term in Title 8.) Based on numerous comments, Emergency Procedures have been reorganized and regrouped under subsection (f) and (g)(4)(A) is now (f)(1). Please also see response to comment #AK19.

Comment #ET10: PRR has concerns with subsection (h), primarily with the phrase in the first sentence “the supervisor shall take immediate action commensurate with the severity of the illness.” It is unreasonable to expect supervisors without medical training to gauge the severity of an employee’s heat illness. PRR recommends the Board change the language to read: “the supervisor shall take immediate action to offer or provide appropriate first aid and/or emergency medical services in accordance with the employer’s procedures.” The alternative language won’t weaken the protective effects of the provision and would provide an appropriate and clear directive for supervisors to implement.

Response: The Board notes that it is not the intent of the proposal for supervisors to be medically trained, and the Board does not believe that such a requirement can be reasonably inferred from the proposal. Please also see response to comment #BT8.

Comment #ET11: PRR thanks the Board for the opportunity to provide these comments and looks forward to working with the Board, Board staff, and Division staff.

Response: The Board thanks Ms. Treanor and PRR for their comments and participation in the rulemaking process.

Nino Maida, Worksafe, email dated September 19, 2014

Comment #NM1: The commenter writes to express overall support for most of the proposed revisions and to make some recommendations needed to adequately protect outdoor workers from heat illness. Worksafe also wants to urge the Standards Board to address the serious problem of heat hazards in indoor work settings. Revision to the existing regulation is urgently needed to better prevent heat illnesses and deaths in outdoor workers and to assure adequate first aid and emergency medical procedures for workers who have signs and symptoms of heat illness. The proposed changes are also based on the Division's professional judgment and the challenges it encountered in enforcing the current standard.

Response: The Board acknowledges Worksafe's support and thanks them for their participation in the rulemaking process. With regard to indoor work settings, the comment is beyond the scope of this proposal.

Comment #NM2: The commenter supports the proposed changes to the definition of shade and also support CRLAF's request to add: "...and that does not discourage access" to the definition of shade and "such as adjacent to portable toilets or across a roadway from the work area," to reduce disincentives for workers to use shade. Additionally, they recommend modifying the definition of environmental risk factors from "create the possibility that heat illness could occur" to "together contribute to the risk or likelihood that heat illness could occur." They note that the definition continues to omit humidity, exposure to direct sun, and air movement and that this is an inaccurate measure of the hazard.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal and notes that the last part of the definition of shade has been further clarified, but the Board does not believe it is appropriate to incorporate examples into the text as noted in the response to comment #AK3. The Board has not proposed to change the definition of "environmental risk factors" and notes that the existing definition *does* include the factors of relative humidity, radiant heat from the sun, and air movement.

Comment #NM3: Worksafe supports subsection (c)'s specification that "the water provided be fresh, pure and suitably cool and provided to employees free of charge." Providing cool water adds the extra benefit of providing direct cooling to the body immediately upon consumption, independent of perspiration. Care must be taken to ensure that water is not too cold as to discourage workers from drinking it. The National Institute for Occupational Safety and Health (NIOSH)/Occupational Safety and Health Administration (OSHA) infosheet, Protecting Workers from Heat Illness, recommends that the water temperature be 50-60°F.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal. The term "suitably cool" is performance oriented relative to each specific situation -- some worksites might require extra efficient thermal-insulated water containers while others might not present such a challenge. The Board does not believe it is necessary or appropriate for the regulation to specify a temperature for each and every case, as this might lead employers to think they will

have to insert thermometers into the drinking water, contaminating it in the process. Please also see response to comment #BT4.

Comment #NM4: Worksafe supports subsection (c) requiring drinking water to “be located as close as practicable to the areas where employees are working” but is concerned that the requirement that it be within 400 feet might lead employers to use that limit as a default rather than the current guidance to place the water “as close as practicable” to workers. Given that heat illness prevention health guidelines stress that workers should sip small amounts of water frequently instead of large amounts at longer intervals, 400 feet is not close enough to provide workers and supervisors sufficient incentive to take water breaks, particularly when workers are paid on a piece rate system. We defer to CRLAF’s expertise regarding an appropriate distance in the agricultural sector and agree with them that water always should be available in designated shade areas. Any increased costs to purchase more coolers will be offset by reduced time spent walking to get water.

Response: In response to this and numerous other comments, this requirement was revised to a performance standard of “as close as practicable to the areas where employees are working.” Please also see responses to comments #BT2, #MF12, and #AK6.

Comment #NM5: Worksafe strongly supports the proposal to require shade to be erected at 80°F rather than 85°F and recommends an even lower threshold of 75°F to adequately protect unacclimatized workers and all workers when humidity is high. The National Weather Service’s Heat Index uses 80°F as the threshold for “Caution – risk of less severe heat illness in sensitive individuals.” The Service also states that full sun can increase the Index reading by 15°F. This would make working in the sun at 75°F equivalent to working in the shade at 90°F; that is the Service’s threshold for “Extreme Caution.” Other systems have similar adjustments and precautions.

Response: Please see response to comment #AK8.

Comment #NM6: Workforce strongly supports requiring enough shade to comfortably accommodate the number of workers who take meal, recovery, or rest periods at the same time. This only makes sense, so that workers don’t have to juggle breaks or not take them. In addition, there should be something to prevent contact with the ground (seating, ground covering) because contact with hot ground detracts from the shade’s cooling effects.

Response: Please see response to comment #AK9.

Comment #NM7: Workforce notes that with regard to the 700 feet distance for shade, they defer to CRLA’s expertise and support their recommendations in this area.

Response: Please see response to comment #AK10.

Comment #NM8: The proposed revisions appropriately specify that cool down periods in the shade should be allowed and encouraged to help prevent overheating. Workforce also supports that the time needed to access the shade cannot be counted a rest time.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal.

Comment #NM9: Workers taking a recovery period should be monitored for signs or symptoms of heat illness. Since this section is primarily concerned with providing a cool-down rest, a reference to remain in the shade until the abatement of signs and symptoms of heat illness is confusing. It implies that a rest in the shade is adequate treatment, even for more severe forms of heat illness, which is inaccurate. NIOSH materials say that first aid should be started immediately for four of the five types of heat illness. They recommend that this section be amended to link to subsection (g) about first aid and emergency response. They add that they support the language CRLAF proposes.

Response: Please see responses to comments #AK12 and #AK13.

Comment #NM10: Subsection (d)(4) should be deleted, as it is not appropriate to put requirements for responses to heat illness in the access to shade section.

Response: Please see response to comment #AK13.

Comment #NM11: Worksafe strongly supports reducing the temperature trigger for high heat procedures from 95°F to 85°F and strengthening revised high heat provisions. The evidence supports stronger protection and a lower temperature trigger of 80°F when humidity is high or the temperature-humidity combination raises the effective temperature. There also should be a requirement to account for all workers before leaving the worksite, whatever the outdoor occupation. There have been several suspected work heat fatalities in California where the worker was left and found dead the next day.

Response: Please see responses to comments #AK14 and #AK15.

Comment #NM12: Worksafe recommends amending subsection (e)(5) to mandate "~~Pre-shift Meetings at the beginning of the workday before the commencement of work~~ to review high heat procedures..." It is not legal or appropriate for regulations to require employees to attend meetings before their paid workday begins.

Response: Please see response to comment #AK16.

Comment #NM13: Worksafe strongly supports adding requirements for mandatory recovery periods for agricultural workers and others. However, studies and best practices make it clear that a break every two hours in high heat conditions is not sufficiently protective, especially for workers who are not fully acclimatized or in situations of extreme heat or very strenuous work. The requirements should be for hourly breaks of at least 10 minutes above 85°F for very

strenuous work (after adjusting for humidity and other factors) or work where protective gear is worn, and above 90°F for all other outdoor work. This is more in line with the ACGIH Criteria document for a heat stress and strain threshold limit value, used by the US armed forces, some private employers, and other jurisdictions. It also is one of the documents Cal/OSHA relied on for its proposals and should be used for this purpose. There should also be extra limitations or measures during heat waves when weather is unseasonably hot or extreme heat lasts for an extended period without night cooling. This could include suspension of outdoor work between noon and sunset during heat waves.

Response: Please see response to comment #AK17.

Comment #NM14: Worksafe strongly supports the additions to the training section for non-supervisory employees and supervisors and recommends that the following sentence be added: “Training material appropriate in content and vocabulary to the educational level, literacy, and language of employees shall be used.” It is important to specifically require that worker training is done so that all employees understand its content and meaning, and know their rights and the employer’s procedures to prevent heat illnesses and deaths.

Response: Please see response to comment #AK19.

Comment #NM15: Worksafe supports the more detailed and comprehensive requirements for heat illness prevention and response plans and procedures. In addition, they recommend that subsection (g)(4)(B) specify that procedures for providing first aid and emergency medical services in response to signs and symptoms of heat illness must be consistent with requirements of subsection 3395(h). The written plan also should identify the name, job title, and contact information of the person(s) the employer designates to provide first aid and contact emergency medical services, for all work shifts.

Response: The Board acknowledges Worksafe’s support for this aspect of the proposal. Based on this and numerous other comments received, further modifications were made to add greater clarity to the proposed text, although the Board did not accept the last suggestion about including contact information in written plans. Please see responses to comments #AK18 and #AK20.

Comment #NM16: Subsection (h) should be given the title: “First Aid and Emergency Medical Response.” Worksafe strongly supports the requirements to take immediate action if signs or symptoms of heat illness are observed or reported, and to provide treatment instead of sending a worker home. This subsection could be strengthened by including references to materials from NIOSH and other government agencies or departments that provide guidance about appropriate first aid and/or emergency responses for different types of work-related heat illness. There should also be a requirement to have an employee trained in first aid for heat illness present at all outdoor worksites whenever the temperature is expected to reach or exceed 75°F.

Response: Please see responses to comment #AK18 through #AK21.

Comment #NM17: Worksafe appreciates the hard work that the Division and the Board staff put into developing these proposals and asks that the Board accept their recommendations for improvements.

Response: The Board thanks Worksafe for its comments and acknowledges their participation in the rulemaking process.

Edward Klinenberg, California Industrial Hygiene Council (CIHC), letter dated September 10, 2014

Comment #EK1: CIHC believes that the Heat Illness Prevention regulation has merit in California and applauds Cal/OSHA for its continued effort in the prevention of heat illness.

Response: The Board welcomes CIHC comments and acknowledges their participation in the rulemaking process.

Comment #EK2: In the definition of shade, the addition of the phrase “discourage access” is vague, unclear and not defined. The phrase makes no meaningful addition to the intent of the regulation.

Response: Please see response to comment #MF10.

Comment #EK3: CIHC agrees with the addition of “shall be provided to employees free of charge” and with the addition of “cool” to define the temperature of the water. They do not understand what added benefit there is to the use of the terms “fresh” and “pure” since the subsection clearly states that the water must be potable and therefore by definition the water would be fresh and pure.

Response: The Board disagrees that there is no added benefit to using the terms “fresh” and “pure.” Please see responses to comments #BT4 and #MF11.

Comment #EK4: CIHC does not understand the basis for distance rather than the time to reach water (similar to other Cal/OSHA regulations, e.g., emergency shower access). Stating a distance may pose a safety hazard for some workers, e.g., electrical work, work in trenches, and work on sloped terrain. They suggest a change to the verbiage, “as close as practical so as not to cause a safety hazard.”

Response: Based on this and numerous other comments, the distance limits were deleted and the proposal was revised into a pure performance standard of “as close as practicable to the areas where employees are working.” Please see responses to comments #BT2, #MF12, and #AK6.

Comment #EK5: CIHC does not understand the scientific basis for lowering the trigger temperature for access to shade. They are unaware of any illnesses that have occurred with the lack of shade at temperatures less than 85 degrees, with no other environmental factors considered, e.g., wind speed, humidity, cloud cover, etc.

Response: Please see response to comment #BT5.

Comment #EK6: It is also unclear why the deletion of “25%” which is to be replaced with “number of employees on meal, recovery or rest periods” is necessary. The prior language is more inclusive and easily determined, as it prevents a problem for the employer attempting to establish shade for 100% of his workforce simply because they have a single lunch break. The intent of the regulation is to accommodate those feeling the need to protect themselves from overheating and, as proposed, the intent is lost.

Response: Please see response to comment #MF15.

Comment #EK7: The requirement that shade be located “no farther than 700 feet walking distance” is meaningless and time is a more appropriate measure.

Response: In response to this and numerous other comments, the distance specification was withdrawn. Please see response to comment #BT6.

Comment #EK8: The proposed addition of “cool-down rest” is a reasonable addition, but as written, it is unclear what steps an employer must take regarding cool-down rest if the employee actively shows no signs or symptoms of heat illness.

Response: The Board notes that based on this and numerous other comments the language of subsections (d)(3) and (4) was revised to add greater clarity, particularly with respect to the employer’s obligations.

Comment #EK9: CIHC is in agreement with the proposed wording in subsection (d)(4) and believes it is a meaningful addition to the regulation.

Response: The Board acknowledges CIHC’s support for this aspect of the proposal.

Comment #EK10: CIHC is unclear of the basis for lowering high heat provisions from 95 degrees to 85 degrees.

Response: The Board has restored this trigger temperature to 95 degrees for reasons stated in the responses to comments #PU2 and #MF18.

Comment #EK11: The addition of “effective” in subsection (e)(2) is not defined. Similar use of the term in other Cal/OSHA regulations (e.g., IIPP) poses a lack of clarity for the employer unless the term is defined. They believe the intent can be retained by the simple removal of the word “effective.”

Response: The Board notes that the word “effective” is a commonly used and important term in the enforcement of employee health and safety standards. It is also an important concept when

setting performance standards as opposed to prescriptive. For example, an employer could set up a system for observing employees at all times, such as a video camera, that would be utterly ineffective as a means for identifying and responding to an employee's signs or symptoms of heat illness. Therefore, the Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #EK12: CIHC appreciates the opportunity to comment.

Response: The Board thanks Mr. Klinenberg and CIHC for their comments and acknowledges their participation in the rulemaking process.

Bryan Little, California Farm Bureau Federation, email dated September 19, 2014

Comment #BL1: There is no demonstration of necessity, and the existing regulation has been successful in protecting farm employees. The agency has failed to satisfy the legal requirements set forth in the Government Code to support revisions to the existing regulation. The agency has failed to produce data or information illustrating that, despite employer compliance with existing requirements, employees are suffering illness or fatalities under the current regulation. As for Benefits of the Regulation, nowhere in this proposal or any of its accompanying documents does the agency explain how "the proposed amendments will reduce the risk of serious injury and death" due to heat illness. The agency has abandoned its previous, successful regulatory approach of close collaboration with regulated stakeholders in favor of a secretive, non-collaborative approach in which the agency will not explain its reasons for revising the standard.

Response: Please see response to comment #BT1.

Comment #BL2: The commenter has the same concerns as the Chamber of Commerce with regard to subsections (d)(3) and (d)(4).

Response: Please see responses to comments #BT8 and #MF17.

Comment #BL3: The commenter has similar concerns as the Chamber of Commerce with regard to subsections (e)(6).

Response: Please see responses to comments #MF8 and #MF20.

Comment #BL4: The commenter has similar concerns as the Chamber of Commerce with regard to subsections (b) Definition of Shade, (c) Provisions of Water and (d) Access to Shade.

Response: Please see responses to comments #MF12 through #MF17.

Comment #BL5: In summary, the commenter notes that the proposed changes are confusing and that there is no demonstration of need.

Response: Please see response to comment #BT1. The Board thanks Mr. Little for his comments and acknowledges his participation in the rulemaking process.

Richard Quandt, Grower Shipper Association, letter dated September 19, 2014

Comment #RQ1: The proposed changes with regard to the new plan elements and worker training would require every outdoor employer to perform a wholesale re-write of their existing Heat Illness Prevention Program to meet the new program elements. Such a rewrite would also need to be reviewed by counsel to insure legal adequacy and be translated into Spanish and other indigenous languages. Workers would then need to be trained in the new program elements. The Division has concluded that the economic impact of this effort for employers would be “negligible.” The staff time and consultant fees of such an undertaking will be a significant expenditure (estimated at \$2500 for a small employer [<100 workers], \$5000 for a mid-size employer [100-500], and \$10,000 for larger employers) and need to be considered. In coastal areas heat illness is not the predominant safety hazard, and the proposed wholesale changes will divert safety efforts away from other areas that pose greater and more serious hazards to employees. This is third time the rules have been changed in the last decade. Changing the rules yet again creates confusion and uncertainty among employers. The existing Heat Illness Prevention Standards are working and are not in need of wholesale revisions.

Response: The Board made cost estimates based on the assumption that most employers subject to this regulation will need to make at least minor changes to their plans and that some may incur higher expenses for consultants or translators. Mr. Quandt is the only person to comment on this factor, and while his comments are consistent with the Board’s assumption about some employers incurring higher costs, the source of his cost estimates was not given, and it is not clear that these expenses will be representative of all employers. Thus the Board is not persuaded to change this element of its cost estimates. The Board also disagrees that the existing standard is sufficient to address heat illness hazards for reasons set forth in the response to comment #BT1. Additionally, the Board does not agree that heat illness is not a serious hazard in coastal areas particularly since the Division’s experience and review of heat fatalities demonstrate that heat cases can occur anywhere within the state.

Comment #RQ2: The commenter urges the Board to reject the proposed 700 feet distance requirement for shade. As an alternative they urge the Standards Board to adopt the Field Sanitation distance requirement set forth in Section 3457. This existing requirement is well understood by the agricultural community and adopting it would promote consistency and simplicity. That field sanitation standard requires facilities be located within one quarter mile walk or five minutes whichever is shorter. These facilities are located in a single area at the edge of the field for the convenience of the workers. Workers will use the toilet and hand washing facilities in conjunction with meal periods. Shade should be co-located in these same areas for ease of access for workers using these facilities during break periods.

Response: The Board has withdrawn the distance limits in favor of retaining the existing performance standard, but also declines to adopt the suggestion to standardize distances for water, shade, and sanitation. Please see responses to comments #BT6 and #MW3.

Comment #RQ3: The commenter urges the Standards Board to reject expanding the shade coverage requirement from the current 25% of employees. The purpose of the shade requirement is to allow a recovery period when symptoms arise so as to prevent heat illness. It is extremely unlikely that the entire workforce will suffer from heat illness at exactly the same time. Whether all workers should be provided shade for rest breaks and meal periods is an issue of convenience, not one of worker safety. The analysis by the Division that employers could rotate breaks so as to minimize the size of the shade structure does not reflect production practices in this area. Workers typically “field pack” vegetables working in a single integrated unit. It is not feasible to break up production teams to rotate breaks as suggested by the Division. Moreover the Division also grossly under estimates the cost of providing shade. Due to local conditions employers frequently rely on heavier units to provide shade such as mobile trailers or wagons. These units typically can hold 20 workers at one time and can cost up to \$5,000 per unit. If these changes were adopted, we estimate that 500 additional shade trailers would have to be placed in use especially if the shade threshold is lowered to eighty degrees.

Response: The Board has adopted the terminology suggested by CalChamber/HIPC -- “preventative cool-down rest” -- to better reflect the purpose and intent of these breaks as an essential preventative measure to cool the body down and forestall heat illness, rather than something to do only after symptoms arise. The Division’s enforcement experience and review of heat illnesses and fatalities demonstrated the need to ensure that workers be provided with a better opportunity to break the heat illness cycle through cool-down breaks and that disincentives be limited. Please also see response to comment #MF15. With regard to cost estimates, please see the response to comment #GS5.

Comment #RQ4: The commenter states that the proposed changes would lower the existing temperature thresholds by five degrees and create a third threshold triggering an extra rest period. They think the current thresholds are working and see no need for wholesale changes. The current thresholds take into account the low relative humidity typical of the workplace in California. They fear that if adopted they will create confusion and uncertainty.

Response: Please see responses to comments #PU2, #BT5, #MF5, and #MF18.

Comment #RQ5: The commenter urges the Standards Board to not change the standard and believes that heat illness does not pose a significant health risk under normal daytime working conditions in many areas of California.

Response: The Board thanks Mr. Quandt and acknowledges his participation in the rulemaking process.

John Robinson, California Attractions and Parks Association, Inc. (CAPA), letter dated September 18, 2014

Comment #JR1: CAPA recognizes the importance of preventing heat illness for both workers and patrons. The amusement park environment is unlike most other outdoor work situations.

Their parks have plumbed water, accessible cooled buildings, and medical personnel onsite. The sweeping new heat illness proposals are unclear, overly prescriptive, and unnecessary for their industry and workers.

Response: Please see responses to comments #BT1 and #MF1.

Comment #JR2: CAPA has concerns about the requirement that shade be located no further than 700 walking feet away and the exceptions to subsections (d)(1); and adds that clarity in the regulations is appreciated.

Response: Both the distance limit and exceptions have been withdrawn. Please see responses to comments #BT6 and #BT7.

Comment #JR3: CAPA has concerns about subsection (g)(3) as interpretation may lead all industries to unintentionally be classified as having to comply with "high heat" regulations under written procedures. In general the proposed amendments would benefit from more clarity in language.

Response: The procedures in question applied to acclimatization for all subject places of employment. In response to this and several comments, the acclimatization requirements were revised and separated out into their own subsection (g). Please also see responses to comments #LS2 and #BT11.

Comment #JR4: CAPA has concerns about the apparent arbitrary lowering of the heat threshold from 85 degrees to 80 degrees with no supporting data provided by Cal/OSHA.

Response: Please see response to comment #BT5. The Board thanks Mr. Robinson for his comments and acknowledges his participation in the rulemaking process.

Peter Tateishi, Sacramento Regional Builders Exchange, letter dated September 19, 2014

Comment #PT1: The commenter is opposed to the proposed changes and feels that the "one size fits all" approach will negatively affect their construction industry members and their employees. The measurements and distances being proposed in the changes will have unintended consequences and risks for their employees. For instance, the proposed 400 foot walking distance to drinking water and the 700 feet for shade do not address workers on scaffolding.

Response: Please see responses to comments #BT2, #BT6, and #BT7.

Comment #PT2: The proposed changes for providing shade for all employees may require a significant number of shade structures that may not physically fit on a job site.

Response: Please see responses to comments #TD1 and #MF15.

Comment #PT3: There are several ambiguous requirements in the proposed changes. Examples of this are the terms "suitably cool" in regards to water temperature and "fresh and pure" in regards to the water provided by the employer. To regulate without clarification leaves them guessing as to what it actually is that they must provide to their employees.

Response: Please see responses to comments #BT4 and #MF11.

Comment #PT4: Another open ended requirement is the proposed change in who is to take the temperature reading. By changing it from an official reading by the National Oceanic and Atmospheric Administration (NOAA), it is now in the hands of differing instruments that may not perform effectively every time and may give different readings. Having an agreed upon authority reading for the temperature of our jobsites allows us to consistently enforce when to engage in High Heat Procedures. Furthermore, it does not require additional man hours and costs associated with taking readings and the documentation of those records.

Response: The Board notes that neither the proposal nor the current regulation address the issue raised by this comment. Thus, the Board has no further response.

Comment #PT5: The proposed changes now give the employee the sole discretion in determining if s/he needs a break from work due to heat, with no limit to the number of breaks. There is no recourse built into the proposed changes to manage an employee that takes advantage of this standard. Leaving the determination squarely with the employee will hamper the employer's ability to manage and supervise staff and those who would look to take advantage of the good nature of the regulation. They also have concerns with the number of potential labor and worker's compensation claims that will arise out of this proposal since the validation of conditions is left with only one party. Frivolous claims would hamper their members' ability to work in an efficient and productive manner.

Response: Please see response to comment #PU4.

Comment #PT6: It is unclear as to why there is a push for change when heat illness incidents have declined since 2005 and the program has shown overwhelming success in implementation. The changes being proposed do not demonstrate how employees will be safer, but rather confusion on implementation and potential for a more dangerous worksite. We ask that the proposed changes not be approved at this time.

Response: Please see response to comments #BT1 and #MF1. The Board thanks Mr. Tateishi for his comments and acknowledges his participation in the rulemaking process.

John Aguirre, California Association of Winegrape Growers (CAWG), letter dated September 19, 2014

Comment #JA1: CAWG is opposed to the proposed amendments and troubled due to the failure to clearly describe a rationale and justification for the proposed changes. The proposed changes are unnecessary, overly burdensome, and would be disruptive to employers that are in

compliance with the current requirements. Since 2005, agricultural organizations and employers have invested heavily to communicate and educate workers and their supervisors on heat illness prevention.

Response: Please see responses to comments #BT1 and #MF1.

Comment #JA2: The proposal cites several publications as source material used to develop the proposed changes. One such cited reference is the US Army, Heat Stress Control and Heat Casualty Management, Technical Bulletin. Washington, D.C. March 7, 2003. CAWG wishes to call attention the information on table 3.1, page 13 that clearly states that the average heat-acclimatized soldier wearing battle dress uniform can work with "no limit" (up to 4 continuous hours and appropriate rehydration) in temperatures up to 89.9 degrees Fahrenheit at tasks characterized as "easy work." Easy work is defined to mean such tasks as: weapon maintenance, walking hard surface 2.5 miles per hour carrying a load of less than 30 pounds, marksmanship training or drill and ceremony. At temperatures greater than 90 degrees a 50/10 minutes work-rest cycle is advised, but rest means, "...minimal physical activity (sitting or standing), accomplished in shade if possible." CAWG considers 'easy work', as defined by the military, to be comparable to many of the tasks represented in the vineyard: pruning, suckering, and grape harvest. And, they see the existing heat illness prevention standards as more protective than the guidance provided for in the Heat Stress Control and Heat Casualty Management, Technical Bulletin.

Response: The Board disagrees with CAWG's characterization that agricultural operations such as grape harvest are easy work. Moreover, this technical bulletin raises awareness about the risk of heat illness in outdoor work and the role preventive measures such as hydration, access to shade and work-rest-cycles play in heat illness prevention. The Board does not agree that existing standards are sufficient to protect all outdoor workers.

Comment #JA3: It is important that Cal/OSHA understand the scale and realities of a California vineyard. Vineyard shapes, layout, topography and sizes vary greatly and may range from 1 acre to 400 acres, or more. Movement of people within a vineyard is typically constrained by vineyard rows, which are defined by rows of winegrape vines and a trellis system (consisting of posts, support wires and a drip irrigation line). The vines and trellis system create a barrier to movement, which means workers must enter and exit the vineyard at end of rows. The proposed language requiring water within 400 feet is conflicting and will create employer confusion. Could a Cal/OSHA inspector determine that water placed at 400 feet is not as close as practicable? How do Cal/OSHA inspectors plan to enforce the 'exemption' provision for employers, and will it be handled on a case by case basis? Workers cannot, in practical terms, crawl under vineyard rows. As a consequence, water positioned in the center of a vineyard, may be physically closest to a worker two or three vine rows over, but the actual walking distance would be significantly greater than if the water were positioned at the end of the row. While water is and can be made available closest to the majority of the crew, there are instances when the crew is spread out, making the prescribed foot distance unfeasible. Water jugs/igloos can be hauled around on quads but depending on vineyard layout, particularly those on steep hills, water

on a quad may not be most feasible. Employees, even when provided use of a canteen to carry around, prefer not to carry the extra weight.

Response: In response to this and numerous other comments, the referenced text was revised to a performance standard without distance specifications. Please see responses to comments #BT2 and #BT3.

Comment #JA4: The proposed terms "fresh, pure, and suitably cool" are subject to interpretation - one employee's idea (or inspection personnel) of "suitably cool" may deviate from another employee's interpretation. They also note that the proposed language's ambiguity could subject employers to potential litigation.

Response: Please see responses to comments #BT4 and #MF11.

Comment #JA5: CAWG is concerned about the proposal to change the requirement for the amount of shade required from an amount sufficient to accommodate 25% of the employees to an amount sufficient to accommodate all employees who are on a meal period, rest period, or recovery period.

Response: Please see response to comment #MF15.

Comment #JA6: Given the layout of vineyards, shade trailers can only be made available at the end of rows. Trailers cannot be positioned within rows and having multiple shade trailers positioned around the edges of vineyards to satisfy a 700 foot distance requirement can be expensive. A sturdy, long-lasting trailer can cost anywhere from \$1,500-\$3,000. CAWG adds that while cheaper shade trailers are available, they are often less reliable, cannot withstand windy conditions (common in winegrape production areas), and do not last through the heat season. Similarly they are concerned about the 700 feet walking distance and add that growers will need clarity on how Cal/OSHA inspectors plan to enforce the 'exemption' provision for employers.

Response: In response to this and numerous other comments, the distance limits and corresponding exemption provision were removed, leaving the existing performance standard of "as close as practicable to the areas where employees are working." Please see responses to comments #BT6 and #BT7. This revision also eliminates the cost concerns for employers currently meeting the existing requirement unless they have not been providing sufficient shade for all employees on break; but there are also options for doing that without purchasing additional shade structures, including rotating breaks and natural shade, if adequate. See also response to comment #TD1.

Comment #JA7: CAWG understands that subsection (d)(4) is an existing requirement, and has no concerns with this requirement. Most employers designate a supervisor/crew boss to conduct monitoring.

Response: The Board acknowledges CAWG for their support of this aspect of the proposal.

Comment #JA8: CAWG is concerned about the proposed changes to the trigger temperature for high-heat procedures and subsection (e)(2) effective employee observation/monitoring. Based on reports of growers on industry practices, the association estimates a majority of grape growers send their employees home when ambient temperatures approach or reach 95 degrees. Growers do this for two reasons: 1) it's hot and growers don't want to avoid stressing their workers; and 2) the additional regulatory requirements associated with high-heat procedures mean higher costs and lower productivity. In other words, the additional gains in vineyard work during periods of high heat aren't worth the time, effort and expense. Consequently, growers prefer to schedule work, when possible, at the coolest hours of the day. They add that reducing the high heat trigger temperature to 85 degrees will impose an excessive burden on employers and to workers who must stop work. Lastly they note that Cal/OSHA should justify the proposed change in the high heat trigger temperature.

Response: Based on this and numerous other comments, the Board determined that the trigger temperature for high-heat procedures should remain at 95 degrees. Please see responses to comments #PU2 and #MF18.

Comment #JA9: CAWG is concerned that the monitoring/observation requirement in subsection (e)(2) imposes upon the employer an expectation of medical training and knowledge that is beyond the capability of most employers, supervisors, and other designated employees. They note that employers and supervisors are neither doctors nor medical personnel. If an employee experiences a heat illness related condition during the 'observation/monitoring' period, the employer, supervisor, and or other designated employee would be liable for failure to take quicker action to remedy the situation. The association supports training and awareness of employees and supervisors, so that any emerging problems in the field can be dealt with promptly and responsibly, but employers cannot be expected to observe the condition of employees with the same eyes as trained medical personnel.

Response: The Board does not expect supervisors or employees to have medical expertise, but rather that they be appropriately trained and increase their vigilance towards the presence of heat related symptoms. The Board also notes that employers will be liable in worker's compensation one way or the other if an employee suffers a heat illness injury at work; and consequently it is important that they take appropriate precautions to forestall incidences of heat illness. Please also see response to comment #BT8.

Comment #JA10: CAWG is concerned that the prescribed 'pre-shift' meeting is vague and needs to be further clarified. Is an employer required to conduct pre-shift meetings for each day the temperature is expected to be at or exceed 85 degrees? In the event there are five consecutive days of 85+ degree weather- would one day of meetings suffice or would an employer be required to instruct employees each day?

Response: The Board notes that pre-shift meetings are meant to be brief reminders to review the high heat procedures and are not meant to go over each and every training element or the entire program. The Board also notes that the trigger temperature for high heat procedures in subsection (e) is being left at 95 degrees. Please see response to comment #LS1.

Comment #JA11: CAWG is concerned that whenever employers are unable to send workers home once the 95 degree temperature has been reached (as is their practice), extra 'paid' recovery periods for employees and extra administrative paperwork will result. This proposal forces an unprecedented mingling of wage-and-hour requirements with health and safety requirements, paving the way for frivolous and expensive lawsuits against employers to enforce heat illness prevention requirements.

Response: See response to comment #MF20.

Comment #JA12: The proposed changes in the Training/Written Procedures add to an already heavy administrative, regulatory burden that agricultural employers must bear. The new provision will require employers to provide for a detailed account of acclimatization in their training/written procedures.

Response: Please see responses to comments #LS2 and #BT9.

Comment #JA13: CAWG urges the Board to reconsider the proposed changes until the need for change is justified.

Response: Please see responses to comments #BT1 and #MF1. The Board thanks Mr. Aguirre and CAWG for their comments and participation in this rulemaking process.

Karen Bowden, Valley Builders Exchange (VBE), letter dated September 19, 2014

Comment #KB1: VBE would like to express their concern over the proposed changes to the Heat Illness standard. They are not opposed to heat illness prevention, but feel the singular approach being presented in these proposed changes will negatively affect their members and employees. The proposed changes do not demonstrate how employees will be safer, but instead, show confusion on implementation and potential for a more dangerous worksite. VBE is asking that the proposed changes to the Heat Illness Prevention standards not be approved at this time. They ask for Cal/OSHA staff to work with construction industry partners and find a viable solution to the challenges the construction industries presents. VBE requests that the construction industry be removed from the proposed changes as they feel that these difficult regulations could hinder the productivity in the construction arena.

Response: The Board does not agree that the construction industry should be exempt from these proposed changes, particularly in light of the Division's enforcement experience and review of the heat illnesses and fatalities which demonstrates that workers laboring outdoors under direct sunlight are at risk of suffering severe heat illnesses or fatalities. This is further corroborated by the most recent MMWR released by CDC and OSHA titled "Heat Illness and Death among

Workers, United States, 2012-2013”, where it was also observed that severe cases of heat illness including fatalities occur in the construction industry. With regard to necessity for the proposals, please see responses to comments #BT1 and #MF1. The Board thanks VBE for its comments and participation in this rulemaking process.

Hortencia Aguilera, Aguilera Labor Contractor, letter dated September 17, 2014

Comment #HA1: The commenter has no issue with requiring water to be provided at no cost to all workers.

Response: The Board acknowledges Ms. Aguilera’s support for this aspect of the proposal.

Comment #HA2: The phrase "suitably cool" is ambiguous and merits further clarification, and the commenter questions how it will be enforced. The varying differences between water, shade and restroom requirements are burdensome and disjointed, and it would be far more logical to standardize the travel distance for all three elements.

Response: The Board notes that the words suitably cool are common terms that do not merit further specification. With regard to enforcement, please see response to comment #BT4. With regard to standardizing distances for all three elements, please see response to comment #MW3.

Comment #HA3: The phrase "shade to accommodate" is highly subjective and merits further clarification, and the commenter inquires how it will be enforced. The commenter also questions the need for the change in the trigger temperature for shade and requests again to standardize the distances to water, shade and restrooms given that it is their industry's practice to keep all three elements together.

Response: “Shade to accommodate” should be understood in terms of how “shade” is defined in the regulation and the common meaning of “accommodate.” Shade that is sufficient to accommodate all employees on break means that each employee on break has access to a place where there is “blockage of direct sunlight [so that] objects do not cast a shadow” and that meets the other requirements of the shade definition in subsection (b). Please also see response to comment #MW4.

Comment #HA4: What documentation will be expected of monitoring employees while taking requested cool- down rest periods? These questions need to be addressed to ensure employers satisfy the regulation.

Response: Please see response to comment #MW7.

Comment #HA5: The commenter asks about the need for the change in the high-heat trigger temperature. Additionally, she states that the phrase "regular communication" is highly subjective, merits further clarification and asks how it will be enforced.

Response: Please see responses to comments #PU2 and #MW9.

Comment #HA6: Why was agriculture singled-out for the recovery period requirement? There is nothing unique about the type of work their employees are doing that puts them at greater risk than those working in construction, landscaping, oil and gas extraction, and transportation.

Response: Please see response to comments #MF20.

Comment #HA7: The proposed changes to subsection (f) Training, are straightforward and reasonable.

Response: The Board acknowledges Ms. Aguilera's support for this aspect of the proposal.

Comment #HA8: The close supervision element in subsection (g) is an undue burden on the employer. In addition, the definition outlined in point (3) of what should be included in a plan is difficult to explain to the workforce. Acclimatization is an important process when working in the heat and the close supervision process can be simplified to ensure ease of understanding and compliance.

Response: Please see responses to comments #LS2, #BT9 and #BT11.

Comment #HA9: The commenter supports subsection (h) and notes that observation and response requirements are reasonable.

Response: The Board acknowledges Ms. Aguilera's support for this aspect of the proposal.

Comment #HA10: The commenter states that the majority of these proposed changes merit further clarification and are not grounded in scientific evidence. The standard as it is currently written provides reasonable, detailed measures to ensure that heat illness is prevented.

Response: The Board disagrees that the existing standard is sufficient to prevent heat illness. Please see responses to comments #BT1 and #MF1. The Board thanks Ms. Aguilera for her comments and participation in this rulemaking process.

Linda DeCarlo, United States Postal Service, email dated September 19, 2014

Comment #LD1: The proposed amendments are unlikely to significantly improve working conditions for outdoor workers, are unnecessary, overly burdensome, and disruptive to employers already complying with current requirements. The Board has not demonstrated a need, nor has it provided any evidence of necessity to justify the draft changes. Further, the proposal is overly prescriptive rather than following the Division's long-standing practice of providing performance standards. The Postal Service questions whether the provisions are feasible, enforceable, and clear enough for compliance and requests that the Board withdraw the proposed amendments.

Response: Please see responses to comments #BT1, #MF1, and #MF4.

Comment #LD2: The phrase "that does not discourage access" to the definition of "shade" is vague and ambiguous and discourages employers from providing any available shade for their employees. It is not feasible for employees who do not have a fixed and stationary worksite, and employees should be encouraged to seek shade wherever they can, without qualification, including in business establishments that are open to the public.

Response: The Board notes that access to shade is an existing employee right. There is no prohibition in the current or modified regulation against an employee availing themselves of shade provided by a business open to the public. The employer, however, is still responsible for training the employee and taking measures to provide shade where public shade is not available. Please see also responses to comments #TD1 and #MF10.

Comment #LD3: The words "fresh," "pure," and "suitably cool" are vague and ambiguous, leaving businesses without precise guidelines to know if they are in compliance. Additionally, the requirement that water be located no farther than 400 feet walking distance from an employee is not feasible for employees who do not have fixed and stationary worksites. Although the regulation allows an employer to demonstrate that conditions prohibit locating drinking water at the prescribed distance, without clear exception for mobile workers, employers are still subject to penalties for non-compliance with regulations they cannot meet.

Response: Please see responses to comments #BT2 through #BT4.

Comment #LD4: Replenishing water supplies throughout the day would require that businesses either assign employees to the task of providing water or require employees to carry their daily water supply. Replenishing water would require businesses to change their staffing models, and that while this is feasible for employees who use vehicles to perform their duties to carry water at a proper temperature, requiring the purchase of a portable cooler to outfit thousands of vehicles is, contrary to the Board's cost estimate, a significant expense. It is not feasible for employees who carry out their duties on foot to carry one quart of water for each hour spent outdoors.

Response: The Board notes that drinking sufficient quantities of water throughout the day goes hand in hand with preventing heat illness. Please see responses to comments #BT2 and #BT3. Additionally, the requirements for the provisions of water have been in existence for years and the proposed text does not imply that vehicles have to be outfitted with portable water coolers or that employers must provide bottled water to employees. Therefore, the Board does not believe that further modification to the proposal or the cost estimates for this aspect of the proposal are necessary as a result of this comment.

Comment #LD5: The requirement that shade be no farther than 700 feet walking distance from the areas where employees work is not feasible for employees who do not have fixed and stationary worksites. Although an exception is provided for workplaces where shade is unfeasible or unsafe, without a clear exception for mobile workers, employers are still subject to penalties for non-compliance with regulations they cannot meet.

Response: The Board has restored the existing performance standard for access to shade. Please see response to comments # TD1, #BT6, #BT8 and #MF15.

Comment #LD6: An 80-degree threshold (for access to shade) is excessive and overbroad because it does not take into account individual physiological differences nor the impact of relative humidity. The broad language of the break provision interferes with collectively bargained break periods. Businesses do not have extraneous staff; all staff positions have assigned duties. There is no additional staff for employee monitoring, although all employees do have access to cell phones. Employee monitoring, therefore, would require workforce restructuring. The requirement to restructure is burdensome and an unreasonable constraint on business. The decision to require an employee to remain in a cool-down rest period requires medical expertise and training. Requiring untrained supervisors to make medical decisions takes them outside of the scope of their knowledge and training and could subject employers to legal liability.

Response: The Board does not believe that it is necessary or appropriate to adopt highly detailed and prescriptive requirements on the trigger temperature for shade, which appears to be the thrust of the first part of this comment though contrary to the commenter's overall desire for less regulation. See also response to comment #AK17. With regard to breaks and staffing, the Board notes that recovery period rights are recognized by state statute, and that neither collective bargaining nor staffing concerns can override safety standards that are prescribed by statute and regulation. The Board also believes that observation and interaction with employees is a normal supervisory function, so it is unclear why a particular type of monitoring and communication to address a particular safety concern in high heat would require workforce restructuring. Please see responses to comments #LS2, #BT5, #BT8 and also see comment #DS1.

Comment #LD7: The commenter notes that subsection (e) High Heat Procedures assumes that there are supervisors or other employees available to do the employee monitoring. There is no additional staff for employee monitoring, although all employees do have access to cell phones. The requirement to restructure is burdensome and an unreasonable constraint on business. The requirement of pre-shift meetings is an impermissible and unreasonable interference with how business is conducted. For all the reasons stated above, the U.S. Postal Service recommends withdrawing the proposed amendments.

Response: Please see response to comment #LD6. With regard to pre-shift meetings, please also see response to comment #LS1. The Board thanks Ms. DeCarlo for her comments and for participating in this rulemaking process.

Mark Day, San Diego Day Laborers and Household Workers Association, email dated September 25, 2014

Comment #NDLON1: Their organization, the National Day Laborers' Organizing Network (NDLON) supports the improvements to the Heat Illness Prevention Standard. Staff from some NDLON affiliates have participated in the Heat Illness Prevention Campaign, are familiar with

the requirements for agua, descansos, y sombra, and they applaud Cal/OSHA for being the first in the country to recognize the need for a standard to protect workers.

Response: The Board acknowledges the support for this aspect of the proposal.

Comment #NDLON2: NDLON is concerned that the standard is not adequate to protect workers; there are still too many deaths that could be prevented. With regard to water and shade, they recognize that the current standard requires employers to provide water and shade, but note that it is critical that both be accessible to workers. They add that several factors limit workers ability to access necessary water and shade: 1) day laborers report having to use 10 minutes of their 15 minute breaks to reach a shaded area; 2) the distance to water can be an obstacle to the frequent consumption of small quantities of water; 3) shade that is located near a porta potty or has no comfortable area for workers to sit, which discourages workers from using the shade during regularly scheduled breaks or when needed to cool-down; and 4) pressure from supervisors. They support stronger enforcement of existing laws as well as a stronger heat illness prevention standard that prohibits employers from ordering workers back to their job when they need to take a break to cool down.

Response: The Board agrees that access to water and shade, not just availability, are essential heat illness preventive measures and an employee right; and the proposal seeks to address these and other concerns. The Board also notes that employees are encouraged to file a complaint with the Division when access to water or shade is not provided.

Comment #NDLON3: Water that is warm or has a disagreeable odor or taste discourages workers from drinking it as recommended and as needed to prevent heat illness and death. They support the addition of language to make water and shade more accessible to workers.

Response: The Board acknowledges NDLON's support for this aspect of the proposal.

Comment #NDLON4: NDLON supports adding language to the definition of shade that says "and does not discourage access," as well as adding the requirement that water "shall be fresh, pure and suitably cool, and be provided to employees free of charge." They also support adding the requirement that "water be located as close as practicable" and that workers "shall not be ordered back to work" when they are taking a rest to cool down from the heat.

Response: The Board acknowledges NDLON's support for these aspects of the proposal.

Comment #NDLON5: The commenter states that they are concerned that employers might interpret the requirement that water be no farther than 400 feet and shade be no farther than 700 feet as the allowable distance and urge strengthening the standard and/or the Division Policies and Procedures to ensure that water and shade be as close as possible, which should be closer than 400 and 700 feet.

Response: In response to numerous comments, the specified distance limits have been removed for both water and shade. Please see responses to comments #BT2, #MF12, #AK6, and #AK10.

Comment #NDLON6: NDLON supports the added requirement that training include “the employer’s responsibility to provide water, shade, cool-down rests, and access to first aid as well as employee’s right to exercise their rights under this standard without retaliation.” Day laborers often receive inadequate training and, when they attempt to exercise their rights, are easily subject to dismissal. They recommend adding a requirement that training be in the appropriate language, and at the appropriate literacy and educational level.

Response: The Board acknowledges their support for this aspect of the proposal. With regard to the additional recommendations, please see response to comment #AK19.

Comment #NDLON7: NDLON supports the additional details for written procedures in “both English and the language understood by the majority of the employees” as well as the explicit requirement to provide prompt first aid and emergency medical services.

Response: The Board acknowledges their support for this aspect of the proposal. The Board thanks Mr. Day for their comments and acknowledges his participation in this rulemaking process.

Kate Leyden, Valley Contractors Exchange (VCE), letter dated September 22, 2014

Comment #KL1: The VCE opposes the proposed changes. The proposed changes are without "why," and too prescriptive to be truly preventative or responsive.

Response: Please see responses to comments #BT1 and #MF1.

Comment #KL2: VCE is concerned about setting the trigger for implementing high heat procedures at 85 degrees. Most of inland California is over 85 degrees all summer, and inquires as to what they should do when it's 98 degrees and extra caution is truly required.

Response: In response to several comments, the trigger temperature for high procedures is being left at 95 degrees. Please see responses to comments #PU2 and #MF18.

Comment #KL3: Setting specific distances for water and shade for a construction work site is problematic.

Response: Specific distances have been removed. Please see responses to comments #BT2 and #BT6.

Comment #KL4: Subjective terms like "fresh, pure, suitably cool" instead of the objective term "potable" make it impossible for site supervisors to know if they are in compliance. Will employers be cited if the water is fresh, pure and suitably cool but the employee, though encouraged, does not drink it?

Response: The Board notes that it is not the intent of the regulation that employers force employees to drink water, but rather that employers evaluate their specific jobsite conditions and identify potential barriers or obstacles (such as location, cleanliness, etc.) that might discourage the frequent consumption of water. Please see responses to comments #BT4 and #MF11.

Comment #KL5: The proposed changes mandate a one-size-fits-all regulation for all of California's 16 climate zones, 120 industries and 17 million workers. They encourage the Board to reassess the facts that were used to create and/or consider the unintended consequences.

Response: Please see responses to comments #PU3, #BT1, #AK17, and #LD6. The Board thanks VCE for their comments and acknowledges their participation in this rulemaking process.

Michael Kelley, Central California Almond Growers Association, letter dated September 23, 2014

Comment #MK1: The proposed changes will impact the association in myriad ways and will not provide any additional benefit in the prevention of heat stress. The association hopes the Board will decide that further standards and government regulations are not necessary.

Response: Please see responses to comments #BT1 and #MF1.

Comment #MK2: The commenter states that they provide ample water for their employees, and have two ice machines and ample water jugs on their property. The commenter submitted an aerial view of their Kerman facility, showing the locations (red dots) upon which they will have to have water jugs in the future under the proposed standards at 400 foot increments to illustrate how ridiculous the proposed regulations would be to their organization.

Response: Based on this and numerous other comments, the proposed language for the location of water has been revised. Please see responses to comments #BT2 and #MF12.

Comment #MK3: Since the last Heat Illness Prevention Standards were imposed ten years ago there has not been one incident that would necessitate the need for further regulation. There should be a compelling issue at hand to be a need for additional measures.

Response: Information provided to the Board shows otherwise and demonstrates a need for additional measures. Please see responses to comments #BT1, #BT5, and #BT8.

Comment #MK4: The commenter takes exception to the public hearing being held in San Diego and believes that the Division is trying to provide an indoor environment for workers that work outdoors, which is impractical.

Response: The Board notes that public hearings on regulatory proposals are set to coincide with its regular monthly meetings, and that locations are set and reserved months in advance before specific agenda items are known. The Board also notes that this proposal affects employers in

all geographic regions of the state, which means that any hearing location would have been inconvenient for some stakeholders. The Board further notes that the rulemaking process allows stakeholders to submit comments in writing, as this and many other commenters did.

Comment #MK5: The high-heat mandates at 95 degrees are fine, but to lower it to 85 degrees would be impractical and unnecessarily cumbersome. The association is also concerned about the 700 foot distance for shade and notes that it would be excessive and unnecessary.

Response: In response to numerous comments, both proposed changes have been withdrawn. Please see response to comments #PU2, and #BT6.

Comment #MK6: The current standards are fine and no compelling incident makes the new standards necessary.

Response: The Board disagrees that the current standard is sufficient. Please see responses to comments #BT1 and #MF1. The Board thanks Mr. Kelley and his association for their comments and participation in this rulemaking process.

Frank Pitarro, AFSCME Local 125, email dated September 24, 2014

Comment #FP1: AFSCME Local 125 joined other organizations in expressing overall support for most of the proposed revisions and recommending some additional revisions, and urging the Board to address heat hazards in indoor work settings. The accompanying enumeration of concerns and recommendations is identical to the Worksafe letter submitted by Nino Maida.

Response: Please see comments and responses for #NM1 through #NM16. The Board acknowledges and thanks AFSCME Local 125 for its participation in this rulemaking process.

Rosemarie Molina, CLEAN Carwash Campaign, letter dated September 24, 2014

Comment #RM1: The commenter supports the following revisions to the Heat Illness Prevention Standard: lowering the threshold for high heat procedures from 95 F to 85 F; quick and easy access to fresh cool water and shade for all outdoor workers; hourly breaks for 10 minutes to cool down during high heat conditions; employee training appropriate for the language and literacy levels of workers so that employees understand the signs and symptoms of heat illness and know their rights; and that supervisors who are trained and responsible must take immediate action when an employee shows sign or symptoms of heat-related illness. They urge the Board's support for these revisions.

Response: The Board acknowledges the CLEAN Carwash Campaign's support for these aspects of the proposal, while noting some of them have been modified in response to other comments. Please see responses to comments #PU2, #BT4, #BT6, #BT8, #MF7, and #MF20. The Board thanks the group for their comments and participation in this rulemaking process.

Michael Musser, California Teachers Association (CTA), email dated September 23, 2014

Comment #MM1: CTA joined other organizations in expressing overall support for most of the

proposed revisions and recommending some additional revisions, and urging the Board to address heat hazards in indoor work settings. The accompanying enumeration of concerns and recommendations is identical to the Worksafe letter submitted by Nino Maida.

Response: Please see comments and responses for #NM1 through #NM16. The Board acknowledges and thanks CTA for its participation in this rulemaking process.

Bryan Rahn, Coastal Viticultural Consultants, email dated September 23, 2014

Comment #BR1: There is no specific definition of “pure” water. Potable water is a better term.

Response: Please see responses to comments #BT4, #MF11, and #CEA2.

Comment #BR2: Requiring the employer to supervise an employee during their cool-down would require that any and all other employees be without supervision during that time. They recommend having a supervisor periodically check on the employee during the cool-down period. Sometimes the crews are as small as four people, and employing two trained supervisors for smaller crews is not financially feasible.

Response: An employee suffering from heat illness presents the same considerations as any other employee who suddenly suffers a serious illness or injury. It is crucial that workers who report or exhibit heat illness symptoms and may be disoriented, not be left unattended or checked only periodically, lest their condition quickly worsen before emergency care is sought. Please see response to comment #BT8.

Comment #BR3: Lowering the High-Heat procedure trigger temperature from 95 degrees to 85 degrees is extreme considering that in California the temperature climbs about 85 degrees almost every day through the summer. For those who work outside on a regular basis 85 degrees is a nice day, not a “High Heat” day.

Response: The proposal to lower this trigger temperature was withdrawn. See response to comment #PU2.

Comment #BR4: The commenter recommends defining “immediate action” if an employee exhibits signs or symptoms of heat illness and notes that “immediate” is an unrealistic requirement for supervisors to assess an employee’s status. The commenter is concerned that supervisors are now assigned the role of EMT and/or physician. This also does not take into consideration those employees who refuse treatment and/or onsite first aid while insisting that they are healthy and capable of fulfilling their work duties. Implementing these proposed changes will result in increased supervisory workload, while not improving the care we currently provide our employees.

Response: The Board notes that “immediate action” is a commonly used term and does not require further specification. With regard to employees who might refuse treatment, the Board notes that employers are expected to exercise due diligence, including being alert to whether the

employee seems disoriented, and make treatment available. For example, if a supervisor observes severe signs of heat illness and responds by calling an ambulance, the employer would have exercised due diligence, even if the worker refused to be transported to the hospital. The Board adds that it is not the intent of the proposed language to have supervisors make medical decisions. Please see response to comment #BT8. The Board thanks Mr. Rahn for his comments and participation in this rulemaking process.

Kristina Urch, United Contractors (UCON), Christopher Lee, UCON, Eddie Bernacchi, National Electrical Contractors Association (NECA) and Heating and Piping Industry (CLC), Kate Mergen, Southern California Contractors Association (SCCA), David Jones, Associated General Contractors (AGC) and Frank Nunes, Wall and Ceiling Alliance (WACA), letter dated September 23, 2014

Comment #UCON1: UCON, NECA, CLC, SCCA, AGC and WACA submit the following concerns on behalf of the construction industry. With regard to the definition of shade, UCON notes that the proposed amendments are vague, unnecessary and do not meet the stated intent of the Board. It is unclear how or in what manner this change offers greater protection.

Response: Please see responses to comments #MF10 and #AK3.

Comment #UCON2: The proposed changes for the provision of water are vague, unclear and unnecessary. Existing safety orders all refer to potable water, and that there is no further requirement regarding freshness, purity or temperature. This proposed amendment is unnecessary, and no criteria, standards or specifications are provided to ascertain freshness, purity or temperature. A compliance officer's determination that an employer has failed to meet one or more of these elements would be subjective.

Response: Please see responses to comments #BT4 and #MF11.

Comment #UCON3: It is very important to provide reasonable latitude to employers to determine the most appropriate means and methods of compliance to protect their employees. This is done by adopting 'performance' language, rather than 'specification' requirements. They concur with DOSH that water should be as close as practicable given working conditions and the layout of the worksite. There is no medical, scientific, or technical basis provided for the 400 feet distance requirement. Also, the last portion of the proposed revision is vague: "...unless the employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance." Again, no objective criteria, specifications, descriptions or examples are provided that would give an employer clear, unambiguous direction they could utilize to offer a reasonable explanation for not locating water within the prescribed distance.

Response: Based on this and numerous other comments, the distance limitation and exception were removed, and this provision was changed to a performance standard. Please see responses to comments #BT2 and #BT3.

Comment #UCON4: The commenter states that no medical, scientific or technical data provided justifies the changes to trigger temperatures for shade. The proposed revisions to the amount of shade will undoubtedly create confusion and problems.

Response: Please see responses to comments #BT5 and #MF15.

Comment #UCON5: The requirement for the distance to shade should be based on a 'performance' requirement, not a specification requirement. Construction sites by their very nature can be sprawling and extensive in their operations. Providing construction employers the latitude to determine how best to comply and protect their employees with a requirement that shade be 'as close as practicable' is a reasonable and justifiable approach. No scientific, medical, or technical basis is provided to justify either the 400 or 700 foot requirement. An additional concern for their members relates to the existence of hazards proximate to their worksites such as road building, road repairing, or bridge projects where active traffic may be present or new or different construction vehicles may be introduced to the job site. The constantly changing nature of construction job sites, and, in many cases the extensive geographical coverage of a job site dictate that a performance standard – "as close as practicable" is a reasonable requirement that affords our employers who are committed to implementing and enforcing effective safety and health programs the latitude to protect their employees.

Response: Based on numerous comments, the distance limitation and exception were removed, and the existing performance standard was restored. Please see responses to comments #TD1, #BT6, and #BT7.

Comment #UCON6: The current language clearly implies that cool-down rest breaks shall be at least 5 minutes in duration, and longer if the employee feels that they should continue to rest to protect themselves from overheating, and supervisors are already expected to encourage employees to take such breaks as appropriate. Management representatives are not medical professionals, and as such should not be expected to make decisions regarding the medical status of their employees.

Response: Please see response to comment #BT8.

Comment #UCON7: Proposed subsection (d)(4) sets an expectation that supervisors/foremen trained in first aid and heat illness prevention will now be expected to go beyond that capability and make medical decisions. Construction foremen and supervisors have a multitude of responsibilities including ensuring that the particular job is done in a timely manner, completed properly according to specifications, and most importantly in a safe and healthful manner.

Response: Please see response to comment #BT8.

Comment #UCON8: No medical, scientific or technical data is provided to justify the reduction of the high heat trigger temperature by 10 degrees.

Response: Please see responses to comments #PU2 and #MF18.

Comment #UCON9: With regard to subsection (e)(2), “Observing employees for alertness and signs or symptoms of heat illness,” a performance-oriented approach such as in the current regulation, versus a specification approach, gives our employers the flexibility to implement those methods and means they deem appropriate to observe employees.

Response: The Board believes this subsection is performance oriented, as the employer has four different options, including “(D) Other effective means of observation,” which can be implemented as deemed most appropriate to the worksite. Thus the Board does not believe that further modification is required as a result of this comment.

Comment #UCON10: UCON has concerns with the proposal to add a requirement to the existing subpart (e), requiring that an employer “designate an employee on each worksite authorized to call for emergency medical services.” UCON members have supervisors/foremen at each jobsite who are trained in heat illness prevention, and who are authorized and equipped to summon emergency medical services if necessary. This new requirement that an employee, in addition to the onsite supervisor/foremen, be designated to summon emergency medical services is duplicative and unnecessary.

Response: The current practice of UCON members, as described in the comment, would be in compliance with new subsection (e)(3). Supervisors and foremen are employees of the employer, and nothing in the proposal states or implies that the designated employee must be a non-supervisory employee or someone in addition to an onsite supervisor or foreman (although employers have that option, as specified in a further modification which changed the wording to “one or more employees on each worksite”).

Comment #UCON11: UCON members have concerns with proposed subsection (e)(5) and the requirement for pre-shift meetings, noting that they are unclear and believe unnecessary, as their current members already hold tailgate/toolbox safety meetings at least every 10 days, as required under Section 1509(b).

Response: Please see response to comment #LS1.

Comment #UCON12: Proposed subsection (f)(1)(B) will require new training requirements to include specific references to the employer’s responsibility to provide water, shade, cool-down rests, and access to first aid as well as the employees’ right to exercise rights under the heat illness regulations without retaliation. UCON notes that the current language is sufficient and that the new required elements are duplicative. Their members are already complying with these specific requirements, and certainly do not discriminate against employees exercising their rights.

Response: The Division's enforcement experience shows that many employers are not fully aware of their obligation to provide these essential preventive measures, and the Board believes it is necessary and appropriate to specify the items here even if many other employers are already in compliance.

Comment #UCON13: It is unclear whether or not employers will be required to acclimatize employees; what training would be required for an employer's representative to properly oversee such an activity; and whether or not a medical assessment will be required to confirm that a particular employee has been properly acclimatized. UCON believes that this ambiguous requirement creates scenarios where employers may be open to citation due to lack of clear, precise direction.

Response: The Board notes that acclimatization may be one of the most important elements of a heat illness prevention plan, and that in response to numerous comments, the language has been clarified and placed in its own subsection. Please see response to comments #LS2, #BT9, and #BT11.

Comment #UCON14: UCON members have concerns with the requirement to train in the different types of heat illness, common signs and symptoms, and appropriate first aid/emergency responses. They believe the current language is sufficient.

Response: The Board notes that given the Division's field experience and review of severe heat cases and fatalities, this clarification is needed to raise awareness that heat illness can progress quickly and become a life threatening illness, and that supervisors must take immediate action commensurate with the signs or symptoms observed and ensure emergency medical services are provided without delay. See also response to comment #UCON12.

Comment #UCON15: The current requirement for a written plan addressing (f)(1)(B), (G), (H), and (I) satisfactorily covers the most critical issues that should properly be included in a plan. This written plan can be a free-standing document or contained in the IIPP. With regard to the availability of the plan, UCON suggests using clearer language and recommends specifying that it could be on a supervisor's mobile device, in an onsite vehicle, or at a dry shack at the job site. Production could also be specified in a defined period of time.

Response: The Division's enforcement experience and review of severe heat illnesses and fatalities demonstrates the need for employers to pre-plan, establish, implement and maintain effective preventive measures needed to avert heat illnesses or reduce the severity of the disease. In response to this and other comments, the proposal was modified to specify that the plan may be contained in the IIPP. With regard to the availability of the plan, please see responses to comments #BT10 and #MF22. The Board does not believe that further modifications are needed as a result of this comment.

Comment #UCON16: The existing regulation regarding close supervision is adequate to protect employees. The new requirements regarding temperature triggers will lead to confusion and may

create uncertainty for employers resulting in the possibility of citations. Construction foremen and supervisors have multiple responsibilities for health, safety, hazard identification/correction, and the overall job site operation. These job sites are constantly changing, with new crews, different equipment, and potential hazards at many stages of the project. While UCON members wholeheartedly support steps that have been taken to reduce and hopefully eliminate heat illnesses, they believe that these proposed revisions create many difficulties for construction employers.

Response: The Board disagrees that the existing regulation is adequate. Please see responses to comments #LS2 and #BT11. The Board thanks UCON members for their comments and participation in this rulemaking process.

John McCullough, Wells Fargo Insurance Services, letter dated September 23, 2014

Comment #JM1: The commenter states that it appears that the “evaluation or checking” step is being skipped and inquires as to proof that the current system is not working. He is not certain that there have been studies to support some of the proposed changes or at least these studies have not been well published.

Response: Please see responses to comments #BT1 and #MF1. The rulemaking record includes studies that support the need for the proposed revisions and are listed at pages 7-8 of the Initial Statement of Reasons, as well as one additional item listed in the Notice of Proposed Modifications issued on November 19, 2014.

Comment #JM2: It is uncertain of what the terms “fresh, pure or suitably cool” mean, and the term “potable” should suffice. The commenter is concerned that they will need to retain documentation for each container of water as to its water source, the time of day the container was filled, the initial temperature of the water, and the name of individual filling the container, in order to prove the water was fresh, pure, and suitably cool.

Response: Please see responses to comments #BT4 and #MF11, and see also comments #NDLON3 and #RHA3 with regard to the type of complaints that might be made concerning water quality.

Comment #JM3: The commenter has concerns with proposed subsection (f)(1)(B) which states, “The employer’s procedures for complying with the requirements of this standard, including, but not limited to, . . .”. He has not seen any other regulations that have such a phrase and asks how the regulated public would know what they are required to do.

Response: When there are a variety of situations or conditions to which a particular statutory or regulatory clause could apply, the phrase “including, but not limited to” is used to avoid limiting or excluding possible conditions or scenarios, in lieu of attempting to enumerate all possible examples or conditions within the text. The phrase appears in several thousand statutes and regulations throughout California’s statutory codes and the California Code of Regulations.

Comment #JM4: The commenter is uncertain why safety orders are mixed with Wage and Hour standards. If this issue is paramount, then it should be tackled another way, but not in the General Industry Safety Orders. If there are some employers that are charging for water or doing other egregious actions, they should be cited. The commenter believes that the proposed standard should be rejected.

Response: Subsection (e)(6) is a preventative safety measure that happens to have wage and hour implications, as other safety requirements may. Based on this and numerous other comments, subsection (e)(6) was revised to further clarify its intent and meaning and limit its consequences in terms of potential added pay requirements. Please see response to comments #MF8 and #MF20. The Board thanks Mr. McCullough for his comments and participation in this rulemaking process.

Jack Hamm, San Joaquin Farm Bureau Federation, letter dated September 23, 2014

Comment #JH1: The new regulation would mandate that water and shade be within a certain distance of the employees, 400 and 700 feet respectively. In the event this standard cannot be met, the employer must demonstrate that compliance is prohibited by conditions. While we appreciate the intent behind changing the distance to be measurable is to make the regulation more objective, it instead imposes an arbitrary distance requirement on growers while they will continue to face subjective enforcement. Often, a row of vines or trees will be longer than the proposed requirement and the grower will be faced with either setting up temporary shade in the middle of the field, or trying to prove that conditions prohibited them from doing so. There are no examples of what conditions are considered prohibiting and therefore it is too subjective.

Response: Based on this and numerous other comments, the distance specification and exception were removed and the existing performance standard restored. Please see responses to comments #BT2, #BT3, #BT6 and #BT7.

Comment #JH2: The federation proposes that shade and water be consistent with current sanitation requirements and believes that this is fair to the employees because everything they need will be in one location and the time to travel to shade and water will not count against their statutorily required time for rest. This will increase compliance by eliminating the too narrow and arbitrary foot requirement and would reduce the subjectivity because both the grower and the inspector will know exactly where to look for the shade and water.

Response: This suggestion was not accepted for reasons set forth in the response to comment #MW3.

Comment #JH3: The federation has concerns about the lowering of the temperature thresholds for both the shade requirement and the implementation of high heat procedures. Lowering the temperature required for shade from 85 degrees to 80 degrees will increase the amount of days that shade is required, whether or not it is necessary. Additionally, the regulation will be changed to lower the temperature threshold for the implementation of high heat procedures from 95 degrees to 85 degrees. When high heat procedures are implemented, it requires time-intensive

paid staff meetings to communicate safety procedures at the beginning of every shift. The Division estimates that the proposed changes would add an additional two to three months per year that would be considered “high heat.” This will lead to lost productivity and economically impact operations. For the safety of their employees and the efficiency of their farms, these are only required when temperature conditions necessitate such precautions.

Response: With regard to the shade trigger temperature, please see response to comment #BT5. With regard to the proposed change to the trigger temperature for high heat procedures, which the Board decided to leave at 95 degrees, please see responses to comments #PU2 and #MF18.

Comment #JH4: In cooperation with Cal/OSHA consultation, the federation has provided training to hundreds of members and their employees on heat illness with either annual or biannual seminars. Successful repetition of the same information and procedures year after year is critical for the efficacy of the educational programs. Farmers make considerable investments in training all of their employees to know and understand heat illness rules and the signs and symptoms to be aware of in the field. Unfortunately, they have to keep reeducating their employees because the rules keep changing without any science or logic. The rules need to have a reasonable basis and be easily understood, so that it will not leave growers vulnerable to subjective enforcement.

Response: The Board agrees that training plays an important role in heat illness prevention and believes that the proposals, as revised, have a reasonable basis, can be easily understood, and are necessary. Please also see responses to comments #BT1 and #MF1. The Board thanks the federation for its comments and participation in this rulemaking process.

Tim Cromartie, Fire Chiefs Department for the League of California Cities, email dated September 24, 2014

Comment #TC1: The Fire Chiefs Department for the League of California Cities strongly urges the Board to expressly clarify whether it intends for the proposed heat illness regulation to apply to local fire agencies or to emergency response personnel who may be employed by said agencies. As a matter of routine best practice, local fire agencies already make accommodations and preparations (through good Incident Command System practices) for rehabilitation, cooling, and hydration of their personnel on deployed emergency scenes and during training. Based on these facts, we think it appropriate that local fire agencies and first responders have an outright exemption to the proposed rule, or at a minimum, that they be granted a variance under existing procedures so that their current practices in this area shall be deemed compliant with the new rule.

Response: The Board notes that the existing heat illness prevention regulation applies to all outdoor workers including fire protective service employees engaged in outdoor operations such as wildfires. The Board does not agree that local fire agencies and first responders engaged in outdoor work should be exempt from the proposed rule given the Division’s field enforcement experience and review of severe heat illnesses and fatalities which has demonstrated that heat illnesses occur in this line of work. Any employer can apply for a variance if they have another

way of providing equivalent safety. The Board thanks Mr. Cromartie for his comments and participation in this rulemaking process.

Michael Donlon, Department of Water Resources (DWR), letter dated September 12, 2014

Comment #MD1: The current heat illness regulation is a performance standard allowing employers to implement the requirements in a way that works for their industry. The proposed changes are prescriptive and tailored to agricultural operations; and they will force DWR to modify its Heat Illness Prevention Program to fit an agricultural model, limit the innovation DWR has developed, and make the workplace less safe for DWR employees.

Response: The Board notes that just like the current regulation, the proposed changes apply to all outdoor work and not just agriculture. However, in response to comments, the Board has made further modifications to pare down prescriptive language and improve clarity. Please see response to comment #MF4.

Comment #MD2: DWR is concerned with the proposed changes in subsection (c) requiring that water be no farther than 400 feet. DWR has many field workers doing surveying, water testing, and other work where they hike long distances from their vehicles. Also, DWR works from boats, in wetlands and marshes where keeping an igloo within 400 feet would create a hazard. In many cases it would be impossible to do this work while never being farther than 400 feet from an igloo. DWR and its employees have developed innovative solutions to keep employees hydrated. The proposed changes will stifle this innovation, make the workplace less safe, are tailored to agriculture and don't show necessity. The proposed language does allow for an exception but places the burden on the employer. This means that dozens of daily activities conducted throughout the state would need documentation as to why an igloo could not be kept within 400 feet. It is unreasonable to put this burden on all California employers.

Response: The distance limit and exception have been removed, with a performance standard remaining. Please see responses to comments #BT2 and #BT3.

Comment #MD3: The proposed changes to subsection (d), requiring 700 foot maximum distance for shade, is tailored to agriculture. Requiring people on foot to carry or pull heavy shade structures will only add to their heat load, raising their body temperature and reducing their safety. Many DWR boats are too small to provide a shade structure; but these employees can get back to their launch site and shade much quicker and with less exertion than an employee walking across a furrowed agricultural field. Also, there is no show of necessity for this change.

Response: The distance limit and exception were removed, and the existing performance standard restored. Please see response to comments #BT6 and #BT7.

Comment #MD4: The proposed language related to the amount of shade lacks clarity and could be interpreted to mean enough shade for 100% of employees at the site. Although the ISOR states that this proposed change could require more or fewer structures depending on whether all employees take breaks at the same time, a Cal/OSHA Compliance Officer could claim the shade

is not sufficient if all employees need a recovery period at the same time though this is not a realistic possibility. To conform with the need for the change, the commenter recommends that the word "recovery" be deleted from proposed text "...the number of employees on meal, or rest periods, ..."

Response: The Board intends this requirement be construed reasonably, consistent with the explanation in the Initial Statement of Reasons and not based on theoretical rather than actual need for access. Please see also responses to comments #MF15, #MW4, and #MJ2. Thus the Board does not believe that further modification is required as part of this comment.

Comment #MD5: DWR has concerns with proposed subsection (d) which reduces the temperature when shade must be present to 80 degrees. The ISOR mentioned medical data and studies, but these studies were not included in the documents relied upon. Additionally, the documents relied upon had two items that stood out: 1) the Armed Forces Health Surveillance Center states that "86% of the heat injuries were associated with heat index readings between 90 and 104"; and 2) the Washington State Department of Labor Rulemaking on Outdoor Heat Exposure refers to 4 heat illness cases where the temperature were 88, 90, 99 and 105 degrees (all above the current 85 degree requirement). The current trigger temperature is adequate. Without clear and substantial scientific evidence to support lowering the trigger temperature the necessity has not been demonstrated.

Response: The Initial Statement of Reasons did include several documents and studies relied upon, and an additional study was added in the initial 15-day notice, as outlined in the response to comment #BT1. The Board disagrees that the current trigger temperature for shade is adequate. Please see response to comment #BT5, and see also response to comment #BT11.

Comment #MD6: The proposed changes to Section 3395(e) reduce the trigger temperature down to 85 degrees without demonstrating need. This change is based on studies and data mentioned but not made available to the regulated public and so the necessity of the change has not been demonstrated.

Response: Based on several comments and the effect of other changes made by these proposals, the Board decided to leave the trigger temperature for high heat procedures at 95 degrees. Please see responses to comments #PU2 and #MF18.

Comment #MD7: Subsection (e)(3) should be revised to say "Designating one or more employees on each worksite authorized to call for emergency medical services." All DWR employees are authorized to call for emergency medical services but the proposed language would limit that. The commenter points out that a designated person could become ill, and that the proposed language would reduce the safety of DWR employees.

Response: The Board accepted this recommendation.

Comment #MD8: Based on DWR experience, subsection (e)(5)'s requirement for daily pre-shift meetings could have negative consequences for employees. DWR instituted daily heat illness briefings at 85 degrees resulting in repetitive briefings almost every day throughout the summer months, frustrating both the employees and the supervisors. This contributed to a negative view of the heat illness prevention program and the DWR Safety System in general. The ISOR does not provide substantial evidence for the necessity of these briefing being pre-shift (daily) versus weekly or monthly. DWR strongly recommends following the construction tailgate model that has proven effective over decades. The recommended language below would keep employees informed "Supervisory employees shall conduct safety meetings with their crews at least every 10 working days to emphasize the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary."

Response: The Board notes that the high heat trigger temperature was left at 95 degrees, thus lessening the frequency of this measure. Please see responses to comments #LS1, #BW9 and #UCON11. The Board thanks DWR for its comments and appreciates their participation in this rulemaking process.

Robert Harrison, University of California, San Francisco (UCSF), Linda Morse, Kaiser Permanente Occupational Health Services, Scott McAllister, M&M Occupational Safety and Health Associates, James Seward, UCSF, Dennis Shusterman, UCSF, Julia Quint, California Department of Public Health, Judie Guerriero, Barbara Burgel, UCSF, Marc Schenker, University of California, Davis, Jordan Rinker, Rinker Occupational Medicine, Richard Jackson, University of California, Los Angeles, Fran Schreiber, National Lawyers Guild, Soo-Jeong Lee, UCSF, Denise Souza, California State Association of Occupational Health Nurses, Mary Gene Ryan, M G Ryan & Co., email dated September 24, 2014

Comment #RH1: The commenters respectfully request the Standards Board to support the Cal/OSHA proposed revisions to the Heat Illness Prevention Standard. They support these changes: 1) lowering the threshold for high heat procedures from 95°F to 85°F; 2) quick and easy access to fresh cool water and shade for all outdoor workers; 3) hourly breaks for 10 minutes to cool down during high heat conditions; 4) employee training appropriate in language and literacy so that employees understand the signs and symptoms of heat illness and know their rights; and 5) supervisors who are trained and responsible must take immediate action when an employee shows signs or symptoms of heat-related illness.

Response: The Board acknowledges the commenters' support for the proposal. The Board notes that it decided not to lower the threshold for high heat procedures for the reasons noted in the responses to comments #PU2 and #MF18. It also did not accept an hourly break requirement or more specific requirements with respect to training for reasons noted in the responses to comments #AK17 and #AK19 respectively. The Board thanks these commenters for their participation in this rulemaking process.

Nancy Zuniga, and Angela Alvarez, IDEPSCA, letter dated September 25, 2014

Comment #NZ1: The commenters support improvements to Cal/OSHA's Heat Illness

Prevention Standard and applaud Cal/OSHA for being the first in the country to recognize the need for a standard to protect workers. They are, however, concerned that the standard is not adequate to protect workers and submit the same recommendations as Mr. Mark Day from San Diego Day Laborers.

Response: The Board acknowledges Ms. Zuniga's and Ms. Alvarez's support for the proposal and thanks them for their participation in the rulemaking process. Please see comments and responses to #NDLON2 through #NDLON7.

Jorge Cabrera and Dean Baker, University of California, Irvine, Southern California Coalition of Occupational Safety and Health (SoCalCOSH), letter dated September 25, 2014

Comment #JC1: SoCalCOSH finds CalOSHA's proposal to improve the Heat Illness Prevention Standard encouraging because of its promising potential to prevent worker injuries and fatalities. They strongly support these changes and urge the Board's support for the same revisions suggested in Dr. Harrison's letter.

Response: The Board acknowledges SoCalCOSH's support for the proposal and thanks them for their participation in this rulemaking process. Please see comment and response to #RH1.

Marx Gutierrez, SEIU United Service Workers West, letter dated September 25, 2014

Comment #MG1: SEIU United Service Workers West finds CalOSHA's proposal to improve the Heat Illness Prevention Standard encouraging because of its promising potential to prevent worker injuries and fatalities. They strongly support these changes and urge the Board's support for the same revisions suggested in Dr. Harrison's letter.

Response: The Board acknowledges SEIU United Service Workers West's support for the proposal and thanks them for their participation in this rulemaking process. Please see comment and response to #RH1.

Robert Gubran, International Brotherhood of Teamsters member, email dated September 24, 2014

Comment #RG1: Aircraft maintenance members who spend most of their work day outdoors in the sun, encounter problems with access to water, due to mold, low quantity, or distance (with picture of maintenance facility aircraft parking submitted). The contract maintenance group is not able to access any other facility for water with the Airport security and new TSA security processes, so they are on their own with the water supply. Local management had purchased a water bottle for each of the employees assigned duties of contract maintenance, but these items were not replaced when they got old, deteriorated, or dirty with mold. The commenter is asking for clarity in their field of Airport Employees with regard to distances of travel for clean cool drinking water.

Response: The Board agrees that access to water, not just availability, is an essential heat illness preventive measure and an employee right. Employees are encouraged to file a complaint with

the Division when access to water or shade is not provided. See also responses to comments #BT2 through #BT4, and #AK6 concerning water quality and distance.

Comment #RG2: Los Angeles or Southern California experiences temperatures of 103 to 111 degrees, and the temperature in the shade (under the wing or tail of an aircraft) can be over 85 degrees. When air conditioners are not running in the aircraft (to save fuel), the temperature can exceed 130 degrees. The contract maintenance group drives a bread van equipped with tools, but the van air-conditioner does not have good cooling capability when other equipment like the compressor or generator is running. Workers are not allowed by the company to go on the aircraft to lounge and have been disciplined for goofing off when it was too hot to work in the attic with no air-conditioning. Heat at the airports is unforgiving and the only rest area is in the same equipment.

Response: The Board agrees that access to shade is an essential heat illness preventive measure and an employee right. The Board further notes that shade needs to be effective and “allow the body to cool” under the existing definition. Employees are encouraged to file a complaint with the Division when access to water or shade is not provided. Please also see response to comment #AK10.

Comment #RG3: There are no Division guidelines to help companies or employees working in the field to be provided with sun screen or PPE protecting them from the sun; the company does not like having employees out of uniform. The commenter asks for Division help to structure a guide for both companies and employees for clothing and head protection from the sun; and he urges Cal/OSHA and the Standard Board to address the issue of PPE designed to protect workers from sun exposure.

Response: The Board notes that while personal protective equipment is addressed in other safety orders, including but not limited to GISO 3380, these comments are not specific to the proposed text, and therefore no further response is made. The Board thanks Mr. Gubran for his comments and participation in this rulemaking process.

Eddie Gonzalez, Pomona Economic Opportunity Center (PEOC), letter dated September 25, 2014

Comment #EG1: PEOC supports improvements to Cal/OSHA’s Heat Illness Prevention Standard and applauds Cal/OSHA for being the first in the country to recognize the need for a standard to protect workers. They are, however, concerned that the standard is not adequate to protect workers and submit the same recommendations as Mr. Mark Day from San Diego Day Laborers.

Response: The Board acknowledges PEOC’s support for the proposal and thanks them for their participation in this rulemaking process. Please see comments and responses to #NDLON2 through #NDLON7.

Nadia Marin-Molina, National Day Laborer Organizing Network, letter dated September 25, 2014

Comment #NMM1: The National Day Laborer Organizing Network supports improvements to Cal/OSHA's Heat Illness Prevention Standard and applauds Cal/OSHA for being the first in the country to recognize the need for a standard to protect workers. They are, however, concerned that the standard is not adequate to protect workers and submit the same recommendations as Mr. Mark Day from San Diego Day Laborers.

Response: The Board acknowledges the commenter's support for the proposal and thanks them for their participation in this rulemaking process. Please see comments and responses to #NDLON2 through #NDLON7.

June Fisher, TDICT Project, email dated September 24, 2014

Comment #JF1: Given the Board and Division's mandate to protect workers' health in this state, all heat hazards, whether in outdoor or indoor jobs, should be addressed by expanding the scope of Section 3395 to cover all workers or with an indoor heat regulation. Additionally, the high heat precautions and procedures should apply to all outdoor workers, not just the five groups in subsection (a)(2). Changes are needed to better prevent heat illnesses and deaths in outdoor workers; effective enforcement is necessary but not sufficient. She is particularly concerned that workers' signs and symptoms of heat-related illnesses be recognized promptly, and that they get the first aid and emergency medical assistance they need, when they need it.

Response: The Board notes that coverage of indoor worksites is beyond the scope of this proposal. With regard to high heat procedures, the Division has not asked to expand those requirements to all industries, and the Board believes that important revisions to standards that apply across-the-board mitigate against such an expansion.

Comment #JF2: The commenter supports requiring that all outdoor workers must have quick and easy access to fresh, cool, potable water (free of course).

Response: The Board acknowledges Dr. Fisher's support for this aspect of the proposal.

Comment #JF3: The proposed maximum distances to shade and water seem excessive and are too far away for those who urgently need or fear retaliation for seeking relief from the heat. This is likely to happen, despite the clear intentions in the proposed changes to decrease workers' fears about asking for, or seeking, either. Employer retaliation is increasingly common around health and safety issues, particularly for those who are temporary or precarious workers, or those paid piece rates for their labors. The maximum distance should be reduced by at least half, while retaining the "as close as practicable" provision. Also, it should be clear in the regulation that workers have the time needed to go to and from shade and water, as well as using them, and that employers must provide seating in the shade.

Response: Based on this and numerous other comments distance limits were removed and the performance standard of "as close as practicable to" where employers are working was retained.

Suggestions to incorporate greater specificity into shade requirements were not accepted. See response to comments #BT2, #MF12, #AK6, #AK9 and #AK10.

Comment #JF4: The commenter supports hourly breaks of at least 10 minutes for all workers when there are high heat conditions, and other scheduling changes that account for high temperatures (e.g., not working during the warmest hours of the day) without penalizing workers or retaliating against them for requesting those changes.

Response: See response to comment #AK17.

Comment #JF5: The proposals appear to treat cool down rest periods as treatment for heat signs and symptoms, rather than prevention of heat illnesses and deaths and the proposed text is confusing. The commenter inquires whether employers would have to monitor employees during the cool down rest or recovery period or both. The commenter states that the intentions are good, but the requirements are confusing and don't meet workers' needs for trained and effective help when they need it. The 2009 ACGIH criteria for heat stress, which Cal/OSHA relied on in preparing their proposals, should be the minimum starting point for preventive activities (e.g., extra cool down periods, accounting for humidity and other factors in assessing temperature) and limitations on work activity in particularly-hot situations and heat waves.

Response: Based on these and other comments, the term "preventative cool down rest" was incorporated through the proposal, and subsections (d)(3) and (d)(4) were further modified to clarify monitoring and related responsibilities. Please see responses to comments #MF7, #AK12 and #AK13.

Comment #JF6: Delays in first aid and emergency medical care cost lives or lead to other long-lasting consequences, and it should be clearly stated that this is not allowed. Consistent with NIOSH's recommendations, properly-trained first aiders should be available for all shifts, and required to provide on-site assistance for suspected heat illnesses. Because heat stroke is difficult for first aiders to assess and can progress quickly to a life-threatening situation, immediate qualified medical attention is required and ambulances should be called immediately when it is suspected that a worker has this or heat exhaustion. Furthermore, workers should not be expected to pay for any of this care, or ambulance transport; nor should they be sent home as an alternative to first aid or medical attention.

Response: Please see response to comments #AK12, #AK13, and #AK18 through #AK20. The Board notes that workers' compensation laws already require the employer to bear all costs for care and treatment of a workplace illness or injury, and that the proposal, as modified, specifies that an employee exhibiting signs or symptoms of heat illness should neither be sent home nor left alone without being offered onsite first aid or emergency medical services.

Comment #JF7: The commenter suggests that subsection (h) be re-worded to say:

If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness. If the signs or symptoms are indicators of severe heat illness (e.g., but not limited to, elevated temperature or elevated heart or respiratory rate; hot, dry skin; decreased level of consciousness; staggering; vomiting; disorientation; irrational behavior; convulsions), the employer shall implement emergency response procedures, in addition to appropriate first aid measures. An employee exhibiting any signs or symptoms of heat illness shall not be sent home without being strongly encouraged to accept offered on-site first aid and/or being provided with emergency medical services in accordance with the employer's procedures. An employee refusing offered care, in the face of confusion or inappropriate behavior, should be evaluated by trained emergency response personnel prior to leaving the worksite.

Response: Based on this and other comments, subsection (h) was incorporated into a new subsection (f) on emergency response procedures, albeit without trying to enumerate all the potential indicators of heat illness or overly prescribe how to respond. Please see responses to comments #AK18 through #AK21.

Comment #JF8: The commenter suggests that the Board change the training requirements to be consistent with the recently-passed Safe Patient Handling regulation and the relatively-recent Aerosol Transmissible Diseases standard. They both say: "Training material appropriate in content and vocabulary to the educational level, literacy, and language of employees shall be used." It is essential that all workers understand the signs and symptoms of heat illnesses, and are more comfortable standing up for their rights to prevent or deal with them.

Response: Please see response to comment #AK19. The Board thanks Dr. Fisher for her comments and participation in this rulemaking process.

Anne Katten, CRLAF Supplementary Comment, email dated September 25, 2014

Comment #AK23^{*}: The ISOR states that published studies support the need to reduce the trigger for high heat procedures from 95 F to 85 F, and the commenter concurs. The commenter submitted two studies to be included in the rulemaking record. The CDC study of 2012 work heat illnesses observed that heat illnesses and deaths occurred on dates when the heat illness index reached 84 F or higher. The study of Washington state workers compensation reports of heat related illness found that the average maximum temperature on days when heat illnesses were reported was 80.6 F. In addition to reasons stated in the ISOR, lowering the trigger for high heat procedures is particularly important for protection of unacclimatized workers, workers doing strenuous jobs which generate substantial metabolic heat and for protection from heat stress when humidity is high.

Response: The Board acknowledges and thanks Ms. Katten and CRLAF for submitting the articles, which are part of the rulemaking record and, in the case of "Heat Illness and Deaths Among Workers," identified in the initial 15-day notice as an additional document relied upon.

* A single numbering sequence is being used for all comments submitted by a particular individual or organization.

Matt Antonucci, Motion Picture and Television Industry, Contract Services Administration Trust Fund (CSATF) and Melissa Patack, Motion Picture Association of America, Inc. (MPA), email dated September 25, 2014

Comment #MA1: The commenters oppose the proposed revisions to the heat illness standard for the following reasons: First, Cal/OSHA has not demonstrated the need for a revised standard, particularly in the motion picture industry. A survey of the major motion picture and television studios has revealed zero fatalities related to heat illness, and it is unclear why all employers are being subjected to revisions that might be more applicable to high heat industries. Second, they are disappointed that the concerns raised by various employer representatives throughout the state during the advisory committees were not reflected in the Division's proposal. Third, the new standard as proposed is overly prescriptive, layered with ambiguity and complexity, and will seemingly result in more citations without an actual increase to worker safety.

Response: The Board notes that all outdoor workers regardless of their industries are at risk of suffering heat illnesses, particularly in light of the Division's experience and review of heat related cases which demonstrates that not a single industry with employees laboring outdoors is safe. In response to numerous comments and suggestions, the Board has made modifications to the proposal to improve clarity and pare down prescriptive language. Please see responses to comments #BT1, #MF1 and #MF4.

Comment #MA2: The commenters have concerns with the proposed text in subsection (c) which will require that water be at a distance of not greater than 400 feet. This prescribed distance does not take into account the various ways that water is delivered to workers on a set, nor does it take into account the potential need to position workers in a scene which may require them to be more than 400 feet away from water. Prescribed distances from water should not apply to a non-high-heat industry such as the Motion Picture and Television Industry.

Response: Specified distance requirements were removed from this provision. Please see response to comment #BT2.

Comment #MA3: The proposed lowering of the trigger temperature for shade from 85 degrees to 80 degrees has not been substantiated by data. Furthermore, the revised language states that shade must be present at all times at 80 degrees and available at 85 degrees. The proposed revisions will create compliance difficulties as employers will struggle to interpret the terms present and available, and maintaining the 85 degree threshold would result in greater compliance to the standard. Film and television crews can often number well over a hundred people, some of whom will have alternative means of shade, such as air-conditioned vans, trailers, cooled tents, etc., and the requirement to provide shade within 700 feet of the "worksite" does not take the logistics of motion picture production into consideration. Unlike high-heat industries, which generally operate at a single worksite for extended periods of time, film and television crews operate across multiple locations almost daily. On a transitory and mobile film set, it is impractical to identify a fixed "worksite" in this manner, and in this instance identifying

the "worksite" and measuring 700 feet from that, is completely subjective and cannot be reasonably defined.

Response: Please see responses to comments #TD1, #BT5 and #BT6.

Comment #MA4: The proposed changes to subsection (d) should not be applied to a non-high-heat specialized industry. In addition, they oppose proposed revisions to subsection (d)(4) requiring monitoring the employee during the cool down rest or recovery period, as they believe that this requirement places a medical evaluation duty on supervisors and other employees who may not have had medical training.

Response: Please see response to comment #BT8.

Comment #MA5: The commenters have concerns with proposed revisions to subsection (g), and note that the Division has moved this section out of the high-heat industries and applied it to all employers. They are particularly concerned that the proposed temperature calculation would result in "close supervision" every day of the year. Additionally, the term "high heat area" is not defined nor referenced anywhere else in the standard. This section also requires the supervisor or designee to supervise other employees. This creates a problem for employers who now have the challenge of establishing which employees are under the direction and control of other employees. The proposed requirement would subject employers to citation without increasing employee safety.

Response: The acclimatization procedures apply in the event of a heat wave or the hiring of a new employee who has not been working in hot weather. They would not apply every day of the year or even many or most days of the year, but only when there is a heat wave, as defined in the regulatory text. In response to this and other comments, the language on acclimatization was clarified and separated out into its own subsection. With regard to this change, close supervision, and the definition of high heat area, please see responses to comments #LS2 and #BT11. The Board thanks Mr. Antonucci and Ms. Patack for their comments and participation in this rulemaking process.

Nancy Madson, Seawright Custom Precast Inc., email dated September 25, 2014

Comment #SCP1: In the Coachella Valley (Palm Springs area) in the desert, the average monthly temperature is over 80° for eight months of the year, and seven months of the year average over 85°. She is concerned with the proposed new subsection (g)(3) and submitted information to demonstrate how confusing the language can be.

Response: Based on this and numerous other comments, this language on acclimatization was clarified and moved into its own subsection. Please see response to comments #LS2, #BT11, and #MA5. The Board thanks Ms. Madson for her comments and participation in this rulemaking process.

Joan Cuadra, PROTEUS Inc., letter dated September 25, 2014

Comment #PROTEUS1: PROTEUS Inc. finds CalOSHA's proposal to improve the Heat Illness Prevention Standard encouraging because of its promising potential to prevent worker injuries and fatalities. They strongly support these changes and urge the Board's support for the same revisions suggested in Dr. Harrison's letter.

Response: The Board acknowledges PROTEUS Inc.'s support for the proposal and thanks them for their participation in the rulemaking process. Please see comment and response to #RH1.

Gail Bateson, Worksafe, letter from group dated September 25, 2014

Comment #WS1: (Ms. Bateson, as Executive Director of Worksafe, submitted the same letter as Nino Maida and others.) The commenter expressed overall support for most of the proposed revisions and submitted recommendations, including urging the Board to address heat hazards in indoor work settings. The commenter's letter, concerns and recommendations are similar to Nino Maida's Worksafe letter.

Response: See comments and responses to #NM1 through #NM16. The Board thanks Ms. Bateson for her comments and participation in this rulemaking process.

Gail Bateson, Worksafe, written comments submitted at public hearing on September 25, 2014

Comment #GB1: Worksafe supports most of the proposed revisions to the Heat Illness standard, but urges the Board to address the serious problem of heat hazards in indoor work settings by either expanding the scope of Section 3395 to cover all workers or by issuing a separate proposal for indoor heat regulation. There is major concern for jobs where delineation between indoor and outdoor work is not clear. Case law for covering bus drivers was determined in the past month, but workers in other occupations, such as UPS drivers and people working in vehicles or warehouses that are open to air and ambient temperatures, are still in limbo.

Response: The Board acknowledges Worksafe's support and thanks them for their participation in this rulemaking process. The request to expand the scope of this standard or create a separate standard for indoor heat is beyond the scope of this rulemaking.

Comment #GB2: There is a wide discrepancy between data from CDPH and DOSH regarding heat illnesses and fatalities, and better and more current data is needed. However, the need for proposed changes is based on DOSH's professional judgment, along with the challenges that are encountered when enforcing the current standard. There is support for most of the proposed changes to add new requirements as well as specificity and guidance on existing elements.

Response: The Board acknowledges Worksafe's general support for the proposed changes.

Comment #GB3: Worksafe proposes removing subsection (a)(2), as that will allow for the high heat provisions of subsection (e) to apply to all outdoor workers, as opposed to limiting protection to the five industries listed in subsection (a)(2). Definitions of sectors, such as

transportation in (a)(2)(E), are unclear. UPS drivers who load and unload heavy packages up to 70 lbs. are not carrying agricultural or construction products, but they are carrying “other heavy materials” which include “commercial materials” – terms that are included in the definition. Clarity is needed.

Response: With regard to expanding the scope of subsection (e), please see response to comment #JF1. With regard to clarifying the definitions of sectors in subsection (a)(2), the Division did not ask for any revisions and has not flagged this as a problem. Accordingly, the Board declines to make any revisions in response to this comment.

Comment #GB4: Humidity, along with other factors, should be included in the definition of temperature to provide a more accurate assessment and proper protection. The definition continues to omit humidity, exposure to direct sun, and air movement. Cost of monitoring instruments is no longer a factor as recent technology on smart phones and apps can be utilized.

Response: The standard’s definition of “environmental risk factors” *does* include the factors of relative humidity, radiant heat from the sun, and air movement. The standard’s current definition of “temperature” uses the term in its everyday sense, i.e. as a measure of hot and cold in degrees Fahrenheit, while also specifying where and how to make this measurement for purposes of this regulation. The Board believes that adding other factors to this definition would confuse many about the true meaning of the term, and would complicate compliance and enforcement for employers and the Division. Consequently, the Board does not accept the suggestion. Please also see responses to comments #PU3 and #NM2.

Comment #GB5: Worksafe supports subsection (c) that “the water provided be fresh, pure and suitably cool and provided to employees free of charge”. Providing cool water adds the extra benefit of providing direct cooling to the body immediately upon consumptions, independent of perspiration. They suggest that the temperature range recommended in the NIOSH/OSHA infosheet, *Protecting Workers from Heat Illness*, that water temperature be 50-60°F, be included in the revised standard.

Response: The Board believes that including this specification is overly prescriptive and could lead employers to inserting thermometers into water containers, contaminating the drinking water in the process. Please see response to comment #BT4.

Comment #GB6: DOSH has done a good job in balancing the need to have water “as close as practicable” while providing some outer limits to be met unless it is not physically possible to do so. They defer to CRLAF’s expertise regarding an appropriate distance in the agricultural sector, and agree with them that water always should be available in designated shade areas. Heat illness prevention health guidelines stress that workers should sip small amounts of water frequently, several times an hour, instead of large amounts at longer intervals. There is strong financial incentive to provide water “as close as practicable” to workers to reduce the time spent walking to get water. Any increased cost to purchase more coolers will be offset by more time workers spend doing their job.

Response: Please see responses to comments #BT2, #MF12, #AK6 and #AK7.

Comment #GB7: Worksafe supports the proposal to require shade to be erected at 80°F rather than 85°F. They recommend an even lower threshold of 75°F to adequately protect unacclimatized workers and all workers when humidity is high. They also strongly support requiring enough shade to comfortably accommodate the number of workers who take breaks at the same time, and also recommend that there should be something to prevent contact with the ground (e.g., seat, ground cover), as contact with the hot ground radiates heat up and detracts from the shade's cooling effects. They note that all of OSHA's and Cal/OSHA's educational materials illustrate rest areas with workers sitting off the ground, indicating that this is the accepted practice. It should be specified in the standard.

Response: Please see responses to comments #AK8 and #AK9.

Comment #GB8: Some of the language proposed in subsections (d)(3) and (d)(4) could be confusing as it implies that resting in the shade alone is adequate treatment for workers with symptoms. They support the language CRLAF proposes in this area.

Response: In response to numerous comments, these subsections have been revised and clarified. Please see responses to comments #BT8, #AK12, and #AK13.

Comment #GB9: Worksafe strongly supports reducing the temperature trigger for high heat procedures from 95°F to 85°F and strengthening revised high heat provisions. NIOSH identifies 13 risk factors for heat illness, but the California standard only addresses 2½. By supporting a reduction on the threshold for high heat procedures to 85°F, this could partially compensate for lack of elements in the standard needed to address other risk factors. They also add that there should be a requirement in the standard for a system to account for all workers before leaving the worksite.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal. However, based on other comments regarding the variety of trigger temperatures and the fact that across-the-board requirements were strengthened, the Board decided instead to leave the trigger temperature for high heat procedures for five specific industries at 95 degrees. Please also see response to comment #PU2. With regard to requiring a system to account for all workers, please see response to comment #AK15.

Comment #GB10: Worksafe strongly supports the additions to the training section for non-supervisory employees and supervisors. They recommend that the following sentence be added to the employee training session: *"Training material appropriate in content and vocabulary to the educational level, literacy and language of employees shall be used."* so that all employees understand its content and meaning, know their rights and the employer's procedures to prevent heat illnesses and deaths.

Response: Please see response to comment #AK19.

Comment #GB11: Worksafe supports the more detailed and comprehensive requirements for the written heat illness prevention plan and notes that the plan should also identify the name, job title, and contact information of the person(s) the employer designates to provide first aid and contact emergency medical services for all work shifts.

Response: Please see response to comment #NM15.

Comment #GB12: Subsection 3395(h) needs a title, such as “First Aid and Emergency Medical Response”. They strongly support the requirements to take immediate action if signs or symptoms of heat illness are observed or reported. This subsection could be strengthened by including references to materials from NIOSH and other government agencies. They recommend adding a requirement that an employee trained in first aid for heat illness be present at all outdoor worksites whenever the temperature is expected to reach or exceed 75°F.

Response: Please see responses to comments #AK18 through #AK21.

Comment #GB13: Worksafe appreciates the hard work that the Division and the Board staff put into developing these proposals and asks that the Board accept their recommendations for improvements.

Response: The Board thanks Ms. Bateson and Worksafe for their comments and acknowledges their participation in this rulemaking process.

Mitch Seaman, California Labor Federation, AFL-CIO, email dated September 25, 2014

Comment #MS1: The proposed modifications to Section 3395 will strengthen and clarify the outdoor heat illness prevention standard. While the current standard has proven effective, a lack of specificity has just as often complicated enforcement and left too many workers unprotected. Additional language, as outlined in this proposal, gives law-abiding employers a better heat illness prevention framework while creating better tools for inspectors to target unsafe employers. For example, during advisory committee discussions, worker advocates revealed that some employers were offering hot and dirty water for free while charging workers for cool, clean, drinkable water. Employer representatives present decried such activity, but our existing standard’s silence with regard to the practice stands as undeniable evidence of the need for an update. The proposed language properly addresses this issue as well as numerous others. New sections enhance monitoring of heat illness-affected employees and improve shade structures. Existing training standards are expanded to cover additional—and potentially life-saving—information, written heat illness prevention plans are strengthened, and both high heat and shade thresholds are better aligned with what workers need.

Response: The Board acknowledges Mr. Seaman’s support for the proposal.

Comment #MS2: The commenter urges caution with respect to ensuring effective employee observation via “mandatory buddy system” or “other effective means of observation,” especially where high heat procedures are concerned. Workers are simply too busy and under too much pressure to assume all of the employer’s high heat monitoring responsibilities, and often a worksite’s terrain prevents such close observation. In addition, this change, as written, could create the real risk of employer retaliation against workers unable to adequately monitor co-workers. While they support language that encourages workers to keep an eye on each other, allowing an employer to shift all of their high-heat monitoring responsibilities onto rank and file workers is unfair and unsafe. They recommend that this section should clarify that a buddy system doesn’t absolve employers of their monitoring responsibilities, and it should also state that employees shouldn’t be retaliated against if unable to properly observe their co-workers.

Response: The Board notes that this proposed subsection is performance oriented, and that an employer has four different options, each general in nature which can be implemented as deemed most appropriate to their site. Additionally, the Board agrees that employees have the right to exercise their rights without fear of reprisal and notes that the proposal requires that employees be trained on the right to exercise their rights under the standard without retaliation. Thus, the Board does not believe that further modification is required as a result of this comment.

Comment #MS3: Other worker representatives have, in their comments, highlighted specific issues of concern with respect to their members’ working conditions, and they urge a close review of these issues. While no heat illness standard can adequately account for all potential circumstances, many of these suggestions improve worker safety while simplifying enforcement. They urge expanding the high heat procedures beyond the five industries outlined in the current regulation and creating an indoor heat illness standard as well. Lastly, they urge the Board’s support for this proposal.

Response: With regard to indoor heat, this suggestion is beyond the scope of this proposal. The Board thanks Mr. Seaman for his comments and participation in this rulemaking process.

Sammy Almashat, Public Citizen’s Health Research Group, email dated September 25, 2014

Comment #SA1: Public Citizen support the comments filed by Worksafe in response to the proposed revisions to the California Heat Stress rule. In 2011 they petitioned the U.S. Occupational Safety and Health Administration (OSHA) to establish a federal heat stress standard. They applaud the recent proposals by Cal/OSHA that would make California’s rule more protective and endorse Worksafe’s suggestions for further necessary improvements, in particular, the need to finally extend California’s heat stress rule to indoor workers.

Response: The Board acknowledges Public Citizen’s general support for the proposal. With regard to the request to expand the scope of this standard to indoor workers, this request is beyond the scope of this proposal.

Comment #SA2: Public Citizen is concerned about the provisions for mandatory, periodic rest breaks and states that the Division's proposal for a 10 minute rest break is inconsistent with the recommendations of both ACGIH and NIOSH. The mandatory rest breaks apply only to agricultural workers and there is no reason to allow other industries to work their employees continuously without rest breaks. They note that they hope the Board adopts both the revisions proposed by the Division and those suggested by Worksafe.

Response: The Board notes that California's Wage Orders entitle employees in all industries to take paid breaks in prescribed intervals, and this standard does nothing to negate that right. With regard to why breaks are being mandated as a safety precaution for agricultural workers in high heat conditions, please see responses to comments #MF20 above and #RHA2 below. The Board thanks Mr. Almashat and Public Citizen for their comments and participation in this rulemaking process.

Maile McWilliams, Humboldt Builders' Exchange (HBE), letter dated September 22, 2014

Comment #HBE1: HBE has several concerns over the proposed changes and asks that these proposed changes to the Heat Illness Prevention standards not be approved at this time. HBE requests that the matter be referred back to staff to work with the regulated industry partners to prepare standards that are specific, unambiguous, and accurately reflect construction industry jobsite conditions. Heat illness incidents have declined since the initial implementation of the current standards, and they are satisfied with the standards in place today. The proposed changes do not indicate that their employees will be safer, but rather, show confusion on implementation and potential for a more dangerous worksite.

Response: Please see response to comment #BT1.

Comment #HBE2: Several of the proposed changes would have unintended, negative consequences and risks for their employees. The proposed 400 foot walking distance requirement for access to drinking water does not address how the construction industry would manage that requirement for workers on scaffolding. Placing water stations on scaffolding could cause major safety concerns and put employees at risk with obstacles that would have to maneuver at great heights. Also the proposed requirements for shade within 700 feet from employees' workstations would be difficult to implement for workers on scaffolding or on physically-constrained work sites where shade structures may not physically fit on the site. They add that their jobsites have physical dimensions that may limit their ability to comply with these proposed changes, and that this may also pose further obstacles to safety on the jobsite.

Response: Both distance limits and related exceptions have been removed from the proposals. Please see responses to comments #BT2, #BT3, #BT6 and #BT7.

Comment #HBE3: There are several ambiguous requirements in the proposed changes. Examples of this are the terms "suitably cool" in regards to water temperatures, and "fresh and pure" in regards to the water provided by the employer. Without giving a direct temperature measurement, their worksites are subject to the opinion of an enforcement official and can vary

from official to official or location to location. The “fresh and pure” terms are also left to the employer to guess as to what an official is looking for that day. “Pure” is a relative term and with no standard measurement or definition. Their members cannot create enforceable policies to implement and comply with the proposed standard. Their intent is to always provide their employees with appropriate access to clean water, but to regulate without clarification leaves them guessing as to what it actually is that that they must provide to our employees.

Response: With regard to all of these terms and related enforcement practices, please see responses to comments #BT4 and #MF11.

Comment #HBE4: Another item of ambiguity is the proposed change as to who is to take the temperature reading. By changing it from an official reading by NOAA, it is now in the hands of differing instruments that may or may not perform effectively every time and may give different readings at different spots on the jobsite. Having an agreed upon authority reading for the temperature of our jobsites allows them to all consistently enforce when to engage in High Heat Procedures. Furthermore, it does not require additional man hours and costs associated with taking readings and the documentation of those records.

Response: Please see response to comment #PT4.

Comment #HBE5: The employee is now given the sole discretion in determining if s/he needs a break from work due to heat, with no limit on the number of breaks. While they never want an employee to overheat, there is no recourse built into the proposed changes for employers to be able to manage an employee who takes advantage of this standard. Leaving the determination squarely with the employee will hamper the employers' ability to manage and supervise staff and those who would look to take advantage of the intention of the proposed regulation. They also have concerns with the number of potential labor and worker's compensation claims that will arise out of this proposed change because the validation of conditions is left with only one party. At the very minimum, the more than 270 member companies of HBE ask that the Board consider carving out the construction industry from these changes until staff can truly work out the problems they have outlined that have the potential to cause unintended consequences and new safety concerns on their jobsites.

Response: Please see response to comment #PT5. The Board thanks Ms. McWilliams and the Humboldt Builders Exchange for their comments and acknowledges their participation in this rulemaking process.

Jelger Kalmijn, University Professional and Technical Employees (UPTE CWA 9119), letter dated September 22, 2014

Comment #JK1: The University Professional and Technical Employees — UPTE-CWA 9119 — expresses their support for most of the proposed revisions to the Heat Illness Prevention Standard and urges the Board to address heat hazards in indoor work settings. The commenter's letter, concerns and recommendations are the same as those presented in Nino Maida's Worksafe letter.

Response: Please see comments and responses to #NM1 through #NM16. The Board thanks Mr. Kalmijn and UPTE-CWA 9119 for their comments and participation in this rulemaking process.

Rudy Avila, Jaguar FLC, email dated September 23, 2014

Comment #RA1: Mr. Avila provided total costs estimates for additional shade structures (@ \$100 each) for 58 crews and shade trailers (@ \$3000 each) for 10 crews; one 10 gallon water jug each (@ \$60) for 30 crews and two 5 gallon jugs each (@ \$35) for 38 crews; and an additional rest period for 2,250 employees at an effective rate of \$13.00 per hour, estimating a one-time total cost of \$58,060 and yearly replacement cost of \$28,060.

Response: It is not clear how Jaguar FLC is currently equipped or the basis used for calculating a yearly replacement cost. The unit costs are consistent with the Board's estimates; and Avila appears to have a very large operation as well as a lower effective pay rate than the one used for this proposal. It is also noted that these potential costs may have been mitigated by the removal of distance limits for the availability of water and shade and the clarification of the break requirement for working overtime on a very hot day. Consequently, the Board does not see a basis for changing its own cost estimates. See also responses to comments #GS5, #GS11, and #RQ3.

Comment #RA2: Additional shade structures will cause congestion in the fields as well as logistical and safety problems in terms of trucks and tractors having to move the items around; emergency vehicles having to navigate their way through all of the additional items; and employees having to park their personal vehicles farther away from the work area.

Response: The Board notes the proposal does not necessarily require more shade structures, since the obligation is to accommodate all employees *on break* and that number can be limited by rotating breaks. The Board also notes that in the Division's experience, employers are able to take necessary and appropriate precautions to prevent against heat illness, consistent with this proposal, without creating other safety hazards. The Board thanks Mr. Avila for his comments and participation in this rulemaking process.

Robert Harris, Communications Workers of America (CWA) Local 9588, letter received at Public Hearing September 25, 2014

Comment #RHA1: The commenter thanks the Division for their work on the proposed changes and expresses his support for the most of the revisions. They have had two member fatalities in the last 10 years attributed to heat illness or the effects heat illness had on their members' existing health conditions. The commenter personally has suffered heat stress while working in the Coachella Valley, and one of the most important ways to prevent heat illness is by implementing a work rest schedule. Leaving the scheduling of breaks to workers allows for ignorance. CWA agrees with changing the trigger point for provisions of shade and breaks to 80 degrees, but feel that this section does not go far enough. There should be a mandated work rest schedule in this regulation for all industries with a minimum of one break of at least 10 minutes

per hour when temperatures are over 85 degrees for strenuous work or while wearing protective gear such as Tyvek suits or respirators, and 90 degrees for all other work in order to fully protect workers in extreme heat.

Response: The Board thanks Mr. Harris for his general support of the proposal. With regard to why the mandatory breaks are specific for agricultural workers, please see responses to comments #MF20 and #SA2. The Board does not believe that workers in other industries have the same disincentives against taking preventative breaks; and if, as the commenter suggests, the problem is worker ignorance of a right that is under their control, then that would appear to call for better education and training rather than another requirement of which they might remain equally ignorant.

Comment #RHA2: CWA states that the provisions under section (e) of the regulation, should apply to all industries, not just the five listed, especially because only two of the five industries are spelled out in the definitions section. They ask where telecommunication workers fall and note that it certainly is dangerous enough to be listed on par with transportation or delivery of agriculture or construction products. They add that this protection should be based on the high heat hazard itself, not on what sector the person works in.

Response: Please see responses to comments #JF1 and #GB3. The Board notes that the term "telecommunications worker" encompasses a broad range of work (see comment #RHA4 below), while the high heat procedures are focused on strenuous work performed extensively or exclusively outdoors in direct sunlight. Interested parties can petition the Board to adopt specific rules governing other sectors.

Comment #RHA3: CWA supports adding the language that "the water provided shall be fresh, pure and suitably cool and shall be provided to employees free of charge." They note that the original language was not strong enough, and they give an example where employees complained about the water quality and the testing results showed that the water "was potable," although it had "such high organic content that it was unaesthetically pleasing to the palette."

Response: The Board thanks CWA for its support of this aspect of the proposal.

Comment #RHA4: CWA urges the board to apply these regulations to indoor environments as well as outdoor. Their members work in confined spaces such as attics, crawl spaces, C-Trane containers and manholes, all of which are indoors and often 15 to 25 degrees hotter than outside because of lack of ventilation. Heat illness does not discriminate upon where the worker is physically located, nor should the regulation.

Response: Please see response to comment#AK22. The Board thanks Mr. Harris and CWA for their comments and acknowledges their participation in this rulemaking process.

Guy Bjerke, Western States Petroleum Association (WSPA), letter received at Public Hearing September 25, 2014

Comment #WSPA1: WSPA is a member of the Heat Illness Prevention Coalition and supports the California Chamber of Commerce testimony and statements. In order to avoid duplication, WSPA will cover three areas of particular concern to their industry. WSPA recommends that a distinction between mobile field work and fixed facility work be made, as this will impact how water and shade can be provided and recognizes that the same requirements are not feasible for both.

Response: The Board appreciates WSPA's comments. Although not expressed in the first recommendation, the Board believes that WSPA may see for a distinction relative to the distance limits in the initial proposals. Distance limits have been removed from the water and shade provisions, leaving both with a performance standard of "as close as practicable" to where employees are working. Please see responses to comments #BT2, #BT3, #BT6, and #BT7. The Board believes this standard necessarily takes into consideration the contours of whatever work environment is involved and therefore does not require further modification to distinguish between mobile and fixed work.

Comment #WSPA2: With regard to supplying water "located within 400 feet," this requirement would create a compliance issue in fixed facilities where plant operators walk the facility doing daily operator rounds. The requirement to always keep those operators within 400 feet of water is not practical and potentially creates additional workplace hazards. If the Board intends to keep the "400 feet" standard, WSPA requests that an exception be included for employees walking to perform routine duties inside a fixed facility.

Response: Please see response to comment #WSPA1.

Comment #WSPA3: The commenter states that requiring shade "be sufficient to accommodate ALL employees on break ..." would be difficult to nearly impossible to comply with in certain circumstances - for example, when a facility is shut-down or in a turnaround for planned work and large teams of specialty contractors - often between 300-500 additional individuals are on-site. They add that staggering breaks is not always possible as there are a lot of simultaneous operations occurring; further, the facilities themselves do not always have the spare room or footprint available to accommodate the volume of shade required in the proposed standard. WSPA recommends that the Board insert the phrase "where feasible" into the amount of shade required during breaks mirroring the feasibility exception already proposed in the 700 foot proximity to shade requirement.

Response: Please see response to comment #MF15.

Comment #WSPA4: Rules must recognize the differing environments in which they are intended to apply. The oil fields in California offer varying environments, such as production fields versus fixed facilities; and each environment has its own characteristics. This means that what is feasible in one scenario may not be in another. WSPA urges the Board to return this

rulemaking to Cal/OSHA staff for additional review of the necessity for these changes; for additional clarity in the wording and meaning of the proposed language; and for the exploration of possible exceptions and exemptions that recognizes the real environments in which the rules will be applied.

Response: Please see responses to comments #BT1, #MF1, #MF4 and #WSPA1. The Board thanks Mr. Bjerke and WSPA for their comments and acknowledges their participation in this rulemaking process.

Deborah Moser, City of San Diego, Letter received at Public Hearing September 25, 2014

Comment #DM1: They support the comments made by PASMA and have two additional concerns: (a) No data exists from their accident or Workers Compensation records to justify changes to the existing regulations. If these exist for non-agriculture settings please let them know so that they can be addressed. (b) No provisions are made for Personal Protection Equipment use. Last week the National Safety Council was in the San Diego area, where vendors with products addressing heat and environment were on display. It is possible to address an employee's safety with those devices, particularly for employees who are in unusual settings such as Park Rangers, Public Utilities workers, etc. in back county and canyons. The City of San Diego does not see the need for these proposed changes, and the existing requirements have served them well.

Response: The Board notes that the language does not preclude the use of equipment that can help ameliorate the risk of heat illness. However, the use of this equipment alone cannot replace essential preventive cooling measures such as the frequent drinking of water, access to shade, preventative cool-down rest in the shade, close supervision, and adequate emergency response when needed. With regard to necessity, please see response to comments #BT1 and #MF1. The Board thanks Ms. Moser and the City of San Diego for their comments and participation in this rulemaking process.

Felicia Gomez, California Immigrant Policy Center (CIPC), letter dated September 25, 2014

Comment #FG1: The commenter expressed overall support for most of the proposed revisions, but urged the Board to address heat hazards in indoor work settings.

Response: The Board acknowledges and thanks CIPC for its general support for the proposals. With regard to indoor work, please see response to comment #AK22.

Comment #FG2: The commenter wants to ensure that all workers have quick and easy access to water and supports the language that "the water provided shall be fresh, pure, and suitably cool, and shall be provided to employees free of charge", believing it necessary because it is not always available and is a key part of overall strategies to prevent heat illness and death.

Response: The Board thanks CIPC for its support of this aspect of the proposal.

Comments #FG3: CIPC supports the requirement that drinking water be as close as practicable to where employees are working and at the same time specifying a maximum distance that workers must walk.

Response: The Board thanks CIPC for its support of this aspect of the proposal, while noting that the distance limit was removed in response to numerous comments, including a concern expressed by worker representatives that it would be treated as a default compliance standard, even when it was practicable to place water closer to workers.

Comment #FG4: CIPC also supports improved access to shade, paid rest breaks, as well as first aid and emergency medical care.

Response: The Board acknowledges CIPC's support for these aspects of the proposal and thanks Ms. Gomez and the California Immigrant Policy Center for their comments and participation in this rulemaking process.

Victor Esparza, International Union of Operating Engineers, Local 12, letter dated August 11, 2014 (received at Public Hearing)

Comment #VE1: If employers do it all right, then the rules that are in place have worked. Enforcement needs to have teeth.

Response: The comments are not specific to the proposed text, and therefore will not be addressed here. The Board thanks Mr. Esparza for his comments and acknowledges his participation in this rulemaking process.

Larry Pena, Southern California Edison (SCE), letter received at Public Hearing September 25, 2014

Comment #LP1: SCE wishes to express both support and concern about specific language in certain provisions. For some provisions they have suggested alternative language for the Board's consideration that will resolve these concerns, improve the clarity and consistency of the standard, and not alter the level of protection for employees afforded by the current proposal.

Response: The Board welcomes SCE's recommendations and support for the proposal.

Comment #LP2: SCE believes that the inclusion of the word "pure" in the provisions of water is problematic, not necessary, and may be an unintended endorsement of consumer products. SCE supports the exception for when an employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance, as this flexibility is essential for workers at remote worksites which are geographically inaccessible, e.g., on mountain slopes, cliffs or over bodies of water.

Response: The Board notes that it is not the intent of the proposed language to endorse a particular consumer product. With regard water quality and term "pure," please see responses to comments #BT4, #MF11, BT2, #BT3 and #MJ3.

Comment #LP3: SCE supports the inclusion of an exception when the employer can demonstrate that terrain or other conditions prohibit locating the shaded area within the prescribed distance. SCE routinely sends employees to remote sites where it would be impractical or even dangerous to erect shade structures nearby. The proximity to the road and power lines could cause an erected shade structure to become a physical hazard to the employees and vehicle traffic, and could become a fire or electrical hazard, if the structure were dislodged by wind.

Response: The Board acknowledges SCE's support for this aspect of the proposal and notes that the proposed distance limit and exception for access to shade were removed, leaving in place the existing performance standard of "as close as practicable to the areas where employees are working. Please see responses to comments #BT6 and #BT7.

Comment #LP4: The term "monitor" may be viewed as implying that the employer must provide competent medical supervision of employees exhibiting signs or reporting symptoms of heat illness, even though such medical expertise is not an area of competence for employers and would therefore be problematic. SCE recommends that the Board use the term "observe" instead of the term "monitor" which would not alter the protective qualities of the provision.

Response: Please see response to comment #BT8.

Comment #LP5: In subsection (g), the phrase "and ten degrees Fahrenheit or more above the average high daily temperature in the preceding five days," is confusing, fraught with opportunities for error, and will be difficult to implement and to enforce. SCE recommends that it be deleted from the proposal. SCE believes that the regulation will provide sufficient protection from heat illness by requiring written procedures when temperatures are expected to reach 80 degrees Fahrenheit or above, in addition to the proposed high-heat procedures. They believe it would be onerous and would provide no additional protection to require employers to track whether daily temperatures will exceed 10 degrees above the previous five day average high temperature. SCE recommended similar (identical) language to the proposed text.

Response: The Board notes that based on this and numerous other comments about this acclimatization trigger, the proposed language was modified to improve clarity and moved into its own subsection. Please see response to comments #LS2, #BT11, and #ET8.

Comment #LP6: SCE is concerned with subsection (h) and the phrase "the supervisor shall take immediate action commensurate with the severity of the illness." It is unreasonable to expect supervisors without medical training to gauge the severity of an employee's heat illness. SCE recommends the Board change the language in the first sentence to read: "the supervisor shall take immediate action to offer or provide appropriate first aid and/or emergency medical services in accordance with the employer's procedures." This alternative language does not weaken the protective effects of the provision and would provide an appropriate and clear directive for

supervisors to implement. The language is also similar to other provisions in the proposed standard, including provisions within subsection (h).

Response: The Board notes that it is not the intent of the proposal for supervisors to be medically trained. Please see response to comment #BT8. However, based on this and numerous other comments, the proposed language was incorporated into a separate subdivision on emergency response procedures and modified to improve clarity. The Board thanks Mr. Pena and SCE for their comments and participation in this rulemaking process.

Linda Delp, University of California, Los Angeles (UCLA) Labor Occupational Safety and Health Program (LOSH), letter received at Public Hearing September 25, 2014

Comment #LDE1: In 2010 LOSH partnered with other UC organizations to support the DIR/Cal-OSHA Heat Illness Prevention Campaign, and they applaud Cal/OSHA for being the first in the country to recognize the need for a standard to protect workers.

Response: The Board acknowledges and thanks LOSH for its comments.

Comment #LDE2: With regard to subsection (a)(2), LOSH urges the Board to expand the scope of the high heat procedures to cover all occupations and industries, enumerating examples of workers regularly exposed to high heat conditions who are excluded from the high heat protections in subsection (e).

Response: Because other aspects of the standard that apply to all injuries were broadened, the Board decided not to modify subsection (a)(2) or change the scope of subsection (e). Please see also responses to comments #PU2, #MF19, and #JF1.

Comment #LDE3: The balance of LOSH's concerns and recommendations are the same as those stated in Mark Day's letter.

Response: Please see comments and responses to #NDLON2 through #NDLON7. The Board thanks Ms. Delp and LOSH for their comments and participation in this rulemaking process.

Chris Walker, California Association of Sheet Metal and Air Conditioning Contractors' National Association (CAL SMACNA), letter received at Public Hearing September 25, 2014

Comment #CW1: CAL SMACNA associates itself with and supports the California Chamber of Commerce letter submitted on Friday, September 19, 2014. However, these comments and questions below are submitted separately to address additional CAL SMACNA concerns. DOSH's recently proposed revisions, if adopted, will lead to confusion, higher costs and difficulties in implementation. Furthermore, CAL SMACNA members strongly believe that these revisions will not provide workers any significant increased level of protection over the existing rule and have been frustrated with DOSH's inability to identify objective data to support alleged problems or deficiencies with the current standard. Instead, it appears that DOSH has taken the concerns by some stakeholders in the agricultural labor sector and simply translated

these into a proposal for new and overly prescriptive standards to be swept into the broader regulation affecting other industries including construction.

Response: The Board disagrees that the existing regulation is sufficient to prevent heat illness. Please see responses to comment #BT1 and #BT8.

Comment #CW2: The proposed language "Not discourage access" in subsection (b) is too subjective and open to interpretation for consistent enforcement and compliance. Could a DOSH inspector or employee file a citation or complaint, respectively, against an employer because the shaded area had a bad smell, was too dirty, was too loud, or too close to ongoing work to discourage an employee to access the shade?

Response: The Board notes that it made a clarifying modification to this definition. Please see response to comment #MF10. With regard to enforcement, the Division will be looking at the particular conditions present at the site and make a determination as to whether or not reasonably the employees can actually use or access the shade. Please also see the examples of situations that would discourage or deter access or use that are cited in the Initial Statement of Reasons and in comment #TD1.

Comment #CW3: The new language -- "Fresh, pure and suitably cool" is too subjective and open to interpretation for proper and consistent enforcement and compliance. They believe it will lead to significant new costs for construction employers. They question if a DOSH inspector or employee could file a citation or complaint, respectively, against an employer because the potable municipal tap water provided had a bad smell, had a relative lack of clarity, had an off-color, or was even tepid or room temperature. They also ask if municipal water supplies would be compliant. CAL SMACNA believes the only way to safely and reliably comply with this proposed requirement is to no longer rely upon municipal water supplies and instead install jobsite filtration and refrigeration systems, or provide commercially available bottled water that is refrigerated. The costs for labor and equipment to install and maintain filtration and refrigeration systems or procure sufficient quantities of bottled water as well as maintain ice supplies and ensure proper recycling of plastic bottles is significant. Both methods of compliance are extremely costly and would increase energy and resource consumption on the worksite.

Response: The Board notes that the terminology is drawn from existing standards and the language has been revised to more clearly reflect that fact. The Board also notes that nothing in the regulation mandates filtered or bottle water. Please see responses to comments #BT4, #MF11, and #CEA2.

Comment #CW4: CAL SMACNA has concerns with subsection (c)'s prescribed distance of 400 feet. Subcontractors don't always control the worksite to ensure placement of water within 400 feet. These jobsites are also subject to constant and dynamic change and are frequently dangerous. These elements taken together make confident compliance with an arbitrary distance requirement extremely difficult. DOSH has not provided any guidance or determined how an employer is to reliably demonstrate that various "conditions prohibit locating the drinking water

within the prescribed distance." They question how a CAL SMACNA contractor can confidently comply with the distance requirement.

Response: The Board notes that based on this and numerous other comments, the distance limit and exception were removed, leaving a performance standard of "as close as practicable to the areas where employees are working." Please see responses to comments #BT2, #BT3, and #MF12.

Comment #CW5: CAL SMACNA has concerns with subsection (d)'s access to shade requirements with regard to both sufficiency of coverage and proximity. Subcontractors don't always control the jobsite to ensure enough physical shade for 100% of workers at one time nor within 700 feet of all workers at all times. A typical worksite can have hundreds of employees from dozens of subcontractors present at any given time. They do not arrive and depart at the same time nor do they take breaks or meal periods at the same time necessarily. Thus, to ensure compliance, a redundant number of tents or temporary structures will need to be purchased, erected and placed throughout the jobsite for the maximum number of workers and possible worksites at all times. This is extremely costly and in fact may not even be possible or advisable due to construction site restrictions and safety reasons. Who would be liable for citation in a multi-employer setting, or how would a subcontractor predict how many people will be taking recovery or rest periods in order to have enough shade erected on the site?

Response: The proposal has been revised to remove the distance limit and related exception. Please see responses to comments #BT6, #BT7, #MF15, and #MW4.

Comment #CW6: CAL SMACNA believes the proposed 700 feet requirement conflicts with the proposed changes to the definition of shade, and repeats its question in comment #CW2. DOSH has not provided compliance guidance for employers as to how to reliably demonstrate to them that "terrain or other conditions prohibit the shaded area within the prescribed distance." Lastly, they ask how a CAL SMACNA contractor would confidently comply with the distance requirement given the dynamic conditions described in the examples above.

Response: The Board again notes that the proposal has been revised to remove the distance limit and related exception. Please see responses to comments #BT6, #BT7, and #CW5.

Comment #CW7: With regard to subsection (d), 80 degrees Fahrenheit is too low a trigger for provision of shade, and the new lower threshold is considered to be fairly mild by many contractors and in fact does not take into account jobsite circumstances (i.e. natural shade) and actual sun exposure (i.e. cloud cover, marine layer, etc.). CAL SMACNA believes that this change will be significant in the increased number of days that shade is required to be provided at significant cost to employers without any corresponding worker benefit.

Response: Please see response to comment #BT5. The Board also notes that natural shade that blocks direct sunlight is an option as long as it otherwise fits within the definition of shade set forth in subsection (b).

Comment #CW8: With regard to subsections (d)(3) and (4) CAL SMACNA believes it is harmful to the employer and employee for non-medically trained personnel to be required and liable to make a determination that "any signs or symptoms of heat illness have abated" before ordering an employee back to work. They ask how an employer would know when it is safe to order their employee back to work. They note that the employee privacy rights and decisions are violated and that DOSH's proposal would require an employer to follow an employee at all times during their break to medically monitor their condition. This would preclude an employee from going to their car or to another area on the jobsite during their break. It also seemingly compels the employer to force first aid or emergency medical services upon the employee upon a subjective decision by a non-medically trained individual even if it is against the employee's will.

Response: The Board notes that management is not expected to make medical decisions or force emergency medical services upon the employee. Please see responses to comments #BT8, #MF17, and #BR2.

Comment #CW9: CAL SMACNA has concerns with proposed subsections (e) and (e)(2) which reduce the temperature trigger for high-heat procedures from 95 to 85 degrees Fahrenheit and require employee monitoring and supervision. CAL SMACNA notes that this 10 degree threshold reduction will trigger far more frequent and unnecessary requirements for increased supervision, communication, and medical observation of employees, and will create new liability for employees and their supervisors. DOSH did not consider increased costs to employers and owners of construction projects (including public agencies) which will be consequential as employers' labor costs increase in order to comply with this supervisory requirement. They note that where direct observation or communication is not possible, one-man jobs will now become two-man jobs for no apparent reason. Additionally, CAL SMACNA would like DOSH to provide answers or guidance to questions such as: How would an employer staff these requirements; what if the "buddies" don't talk to one another, would the employer be in violation; what is "regular" communication; and whether employers need to call their employees once an hour, or every 15 minutes or twice a day?

Response: The Board notes that it has withdrawn the proposed reduction to the trigger temperature for High Heat Procedures. Please see responses to comments #PU2 and #MF18. Concerning employee observation/monitoring, please see response to comments #UCON9. With regard to additional guidance, the Division may provide additional guidance in the form of answers to frequently asked questions; and Cal/OSHA Consultation also provides assistance to employers on these kinds of issues.

Comment #CW10: Subsection (f)(1)(D)'s requirement for training on acclimatization creates confusion as to whether or not DOSH intends for the duties and obligations of employers to extend from a simple training requirement to now being responsible for the individual employee's acclimatization to the actual jobsite conditions. They add that employers cannot know the health condition or lifestyle of each employee to ensure proper and accurate acclimatization, nor is an employer able to demand this information from the employee.

Response: Other commenters expressed the same confusion over substantive requirements being placed in a subsection on training. They are intended to be substantive requirements, i.e. the employer is supposed to take special measures to make sure employees have a chance to be acclimated under the specified conditions. Therefore, in response to this and other comments, the acclimatization provisions were clarified and separated out into their own subsection(g), while acclimatization methods and procedures remain a required element of training under new subsection (i)(4). Please also see response to comment #BT9.

Comment #CW11: CAL SMACNA also finds the provisions in subsection (g) confusing. They support the concerns outlined in the Heat Illness Advisory Committee Letter, as submitted by the California Chamber on September 19, 2014. CAL SMACNA contractors conclude that these proposed changes to the Heat Illness Prevention standard are not only unworkable in the construction industry but do not provide any additional increase in protection for their workers. This proposal deviates from the current standard in terms of clarity, necessity and ease of implementation and compliance. CAL SMACNA requests the Board to reject the current proposed changes.

Response: With regard to written procedures, please see response to comment #MF22. The Board thanks Mr. Walker and CAL SMACNA for their comments and participation in this rulemaking process.

William Jackson, Member OSHSB, email dated September 24, 2014

Comment #WJ1: There is no explanation about what parts of the existing standard are unclear, unspecific or weak, and no supporting documentation to demonstrate why these amendments are necessary. In order to evaluate whether any of these proposed amendments are necessary, evidence that the Division used to develop the proposal, specifically the enforcement and illness data, will be needed. He believes it is necessary for the Division to provide detailed information for each of the industries identified in subsection (a)(2) (agriculture, construction, landscaping, oil and gas extraction and transportation or delivery of agricultural products, construction materials or other heavy materials) including the number of heat illness inspections, the number of alleged violations of Section 3395, the number of those alleged violations that have become final orders of the Appeals Board, the number of diagnosed heat illnesses, the number of employees exposed and the rate of heat illness cases per 100 full time employees. Without this information it is impossible to make an informed determination about whether any of the Division's proposed amendments are necessary. [These general comments are followed by nineteen specific requests for metrics or data for each proposed revision to the existing standard.]

Response: The basis for making these proposals was set forth in the Initial Statement of Reasons. Included within the Initial Statement of Reasons are documents and studies relied upon, which are part of the rulemaking record available to the public and the Board. The Board is confident that the requirements of the Labor Code and the Government Code have been met with respect to this rulemaking; and the Division lacks the time and resources needed to extract and compile the information sought in the commenter's specific data requests, as part of the

rulemaking process. The Board also notes that in response to numerous comments from both employer and employee representatives, several modifications have been made to the proposals to improve their clarity and pare down prescriptive text. Please see responses to comments #BT1, #MF1 and #MF4.

Comment #WJ2: The commenter asks what specific metrics the Division will use to measure whether the shade that is provided discourages access and how these will be communicated to the regulated community.

Response: The phrase has been further modified in response to comments. The Division will use observation, interviews and professional judgment on a case-by-case basis to enforce this provision similar to other performance oriented requirements. Please see also responses to comments #MF10 and #CW2. The Board thanks member Jackson for his comments and participation as an individual in this rulemaking process.

The Board thanks member Jackson for his comments and participation as an individual in this rulemaking process.

II. Oral Comments Received at the Public Hearing held on September 25, 2014 **Elizabeth Treanor, Phylmar Regulatory Roundtable (PRR)**

Comment #ET12: PRR supports the provisions for access to drinking water, as well as the provisions that will allow employers to demonstrate that conditions prohibit locating the drinking water within 400 feet walking distance from where employees are working.

Response: The Board thanks PRR for their support of these aspects of the proposal and notes that the 400 foot distance limit and related exception were removed from the proposal. Please see responses to comments #BT2 and #BT3.

Comment #ET13: The commenter expressed the same points raised in their written comments.

Response: Please see responses to comments ET2 through ET10.

Comment #ET14: The commenter also asked the Division to make the studies and data that they relied upon available for stakeholders to review.

Response: Please see response to written comment #WJ1.

Terry Thedell, San Diego Gas and Electric

Comment #TT1: The commenter echoed Ms. Treanor's comments.

Response: Please see responses to comments #ET12 through #ET14.

Larry Pena, Southern California Edison

Comment #LP7: The commenter echoed Ms. Treanor's comments and added that they support

the exception when due to terrain conditions or nature, ready access could not always be accessible.

Response: Please see responses to comments #ET12 through #ET14.

John Gless, Gless Ranch Citrus Farming

Comment #JG1: He is opposed to the ag-only mandatory break requirement, which is unfounded and inflicts a greater challenge on employees. He is also opposed to distance requirements for shade and water. Most of his groves are 1,320 feet in size and are hedge-like and he does not have room to put water and shade in the middle of the narrow rows. Water and shade are currently located at the end of the rows and are easily accessible, and employees know where they are located. The constant moving of shade and water to the proximity of employees would be impossible to communicate, difficult to execute, and difficult for employees to access.

Response: With regard to the break requirements, please see response to comments #MF8 and #MF15. With regard to shade, the Board notes that the end of 1,320 foot rows would have met the proposed 700 foot limit for shade. Nevertheless, the referenced provisions were revised to remove distance specifications, and there may be alternatives to placement at the end of a row, particularly for water. Please see responses to written comments #TD1, #BT2, #BT3, #BT6, #BT7, and #RA2.

Michael Kelley, Central California Almond Growers Association

Comment #MK7: In order to comply with the proposal, his organization would have additional costs and need to hire additional employees to monitor all of the water stations. There is no definition for the term “coolness” in the standard, which creates a trap that could get employers in trouble. He is not aware of any instances that have occurred since the last update to the standard that prove a change to the current standard is necessary, and asked the Division to provide information if there has been one. The commenter also said that lowering the mandates from 95 degrees to 85 degrees is impractical and cumbersome to employers and urged the Board to keep the current standard as is.

Response: With regard to the issue of water stations and the definition of cool, please see responses to written comments #BT4 and #MF11. For the balance of these concerns, please see responses to written comments # MK1 through #MK6.

Maribel Nenna, CCH Citrus

Comment #MN1: Complying with the distance requirements for shade and water is impossible without placing them directly in the middle of the citrus grove because they would not fit in the middle of the row. That would make it difficult for employees to access the shade and water because employees would have to walk between the hedge-like groves to get there. This may require them to walk under ladders, across rows where forklifts are being used to transport bins, or encounter other dangerous situations to access the shade and water. Having access to water and shade at the end of the row is ideal in order to keep employees safe. Plus if the shade structure is in the middle of the field instead of at the end of the row, and an injured or sick

employee went there to get emergency help, it would be very difficult for paramedics and first responders to reach them in the middle of the field. The commenter also stated that the ag-only requirement for mandatory breaks is unnecessary because employees know that they are allowed to take breaks whenever necessary.

Response: Please see responses to comments #BT2, #BT3, #BT6, #BT7, and #MF20.

Laura Brown, California Citrus Mutual

Comment #LB1: California Citrus Mutual opposes the ag-only rule that implements mandatory breaks because there is no evidence to prove that it is necessary, and there is no reason to have it single out agriculture. The organization also opposes the required distances for water and shade. Although there is an exception to this requirement, it will leave too much room for interpretation on the part of the inspector, and this unclear regulation will lead to countless appeals. The commenter asked the Board to consider the unintended consequences that will arise as a result of this proposal being implemented.

Response: With regard to the break rule, please see response to comment #MF20. The required distances and related exceptions have been removed. Please see responses to comments #BT2, #BT3, #BT6, and #BT7.

Guadalupe Sandoval, California Farm Labor Contractors Association (CFLCA)

Comment #GS1: A new standard for heat illness prevention is not needed and will only make enforcement by the Division more difficult. Employers have embraced and implemented the current standard, and as a result, the fatality rate for heat illness has decreased, and reported serious injuries can be mediated against with proper treatment. The current heat illness prevention standard is enough and needs to be properly enforced by the Division.

Response: Please see responses to comments #BT1 and #MF1.

Felicia Gomez, California Immigrant Policy Center (CIPC)

Comment #FG5: The commenter expressed the same points raised in their written comments.

Response: Please see responses to written comments #FG1 through #FG4.

Juvenal Reyes, farm worker in Coachella Valley

Comment #JR1: The commenter stated that he suffered a heat illness episode 2 months ago, and at that time, no shade was provided, and that at times only 1 or 2 chairs were provided for the employees to rest in. It is possible for employers to provide shade close to the workers, and there should be enough shade and chairs provided to accommodate all of the workers.

Response: Please see response to comment #AK9.

Brenna Reyes, farm worker in Coachella Valley

Comment #BReyes1: The commenter stated that there are times when her employer runs out of water for the workers, and it can take them 20 minutes or more to replenish it. She also stated that the water provided does not always taste good. She asked the Board to consider adding a provision to have employers provide shaded areas inside the fields when possible.

Response: Please see responses comments #NDLON2 and #NDLON3. The Board has left the shade standard at “as close as practicable to the areas where employees are working” which could include inside the field, if practicable for a particular worksite.

Saul Reyes, farm worker

Comment #SR1: Water and shade needs to be closer to workers. If a worker needs help it is hard to move him/her closer to the shade. Water needs to be closer than just at the end of the rows, and that yes, it is possible to place it the middle of the rows. In citrus orchards, shade can't be placed in the middle, but at both ends. Water and shade are very important, and thus they want it within one minute.

Response: Please see responses to comments #AK6 and #BReyes1.

Cipriano Capistran, farm worker

Comment #CC1: The commenter agreed with Saul Reyes' statements.

Response: Please see comment and response to #SR1.

Katia Rodriguez, Interfaith Community Services

Comment #KR1: The commenter supported and agreed with Saul Reyes's statements.

Response: Please see comment and response to #SR1.

Jose Gonzales, Frente Indigena de Oranizaciones Binacionales (FIOB)

Comment #JGonzales1: There are many indigenous people that do not speak Spanish, and the Board should consider these issues. He added that they support the proposal which improve the working conditions with regard to water and shade and informing workers of their rights.

Response: The proposal specifies that the plan must be in a “language understood by a majority of the employees,” which could be a language other than Spanish. The Board agrees that it is necessary that all employees regardless of language are aware and understand the control measures including emergency procedures the employer will use to prevent heat illness; and this will have to be addressed in training even if the plan cannot be translated into multiple languages. The Board acknowledges Mr. Gonzales’s and FIOB’s support for the other aspects of the proposal.

Erica Navarette, United Farm Workers (UFW)

Comment #EN1: The commenter stated that the UFW supports the proposed changes.

Response: The Board acknowledges the UFW's support for this proposal.

Helio Delgadillo, Communication Workers of America (CWA) Local 9509

Comment #HD1: CWA Local 9509 supports the proposed changes but believes the high heat procedures should also include communication workers. They would like to have a buddy system particularly during high heat, as not all employees have trucks with AC.

Response: Please see responses to comments #JF1, #GB3, and #RHA2. The Board notes that the term "communication worker" encompasses a broad range of work, while the high heat procedures are focused on strenuous work performed extensively or exclusively outdoors in direct sunlight. Interested parties can petition the Board to adopt specific rules governing other sectors. Though not required by this standard, employers may still adopt a buddy system or other effective system for staying in touch with outdoor workers, and are encouraged to do so wherever conditions warrant, as a heat illness preventative measure.

Peter Kuchinsky, Association of California Water Agencies Joint Powers Insurance Authority (ACWA/JPIA)

Comment #PK1: The current heat illness prevention standard is adequate, and no changes are necessary. He asked the Division if there is data or experience related to specific industries or exposures versus general industry, specifically regarding public utilities and agencies. Additionally, if the data or experience shows that heat illness injuries or fatalities are related to specific industries, then it may be more effective to impose additional standards related to those specific industries, rather than to apply additional standards across all industries.

Response: Please see responses to comments #BT1 and #MF1. Certain requirements in the standard and this proposal are limited to particular industries. Aside from these exceptions, however, the Board has not been made aware of information or circumstances that call for less or greater prevention measures against heat illness based on what industry employees are in.

Comment #PK2: The commenter recommends that the Division impose host employer or multi-employer standards for heat illness prevention. This approach has been effective in areas such as lockout-tag out, process safety management, confined space injury, and others and feels this will work just as well for heat illness prevention.

Response: The Division has regulations for Multi-Employer Worksites at 8 CCR sections 336.10 and 336.11.

Aida Sotelo, United Farm Workers

Comment #AS1: The commenter supports the proposed changes and notes that trees are not acceptable as shade because of snakes, spiders and pesticides. She said that farm workers have to push themselves, keep working or they won't get paid, and that they can work 10 hours.

Response: The Board acknowledges Ms. Sotelo's support for this aspect of the proposal. With regard to the issue of trees as adequate shade, please see responses to comments #AK3 and #AK11.

Manuel Cunha, Nisei Farmers League

Comment #MC6: In various meetings his organization asked the Division to show them the data that indicates that there are problems with the current heat illness standard, but the Division never showed them the data. It is not possible to put shade or water in the middle of the field because vineyards have vines, irrigation lines, wires and posts. Placing water and shade at the end of the rows is no problem, and everyone is trained on heat illness prevention. When an ambulance is called for a sick worker, employees use flags on the ends of the rows to direct emergency personnel to the location of the sick worker. Ms. Quinlan (Board member) asked Mr. Cunha if the provision stating "unless the employer can demonstrate that conditions prohibit locating the drinking water within the prescribed distance" would solve the problem. Mr. Cunha stated that it will not solve the problem, because it will make growers have to submit proof in each individual circumstance as to why they cannot comply, and the person from the Division who is making the determination may not understand how agriculture works.

Response: With regard to shade and water placement, please see responses to comments #BT2, #BT3, #BT6, #BT7, and #BReyes1. With regard to other comments, please see responses to comments #MC1 through #MC5, including other responses referenced within those responses.

Barry Bedwell, California Fresh Fruit Association

Comment #BB1: The commenter echoed previous comments. In the fields, there is no way to place an 8-by-10-foot shade structure in the middle of the vineyard, and workers cannot get to it in the middle of the vineyard because the vines are in the way. He also stated that it is impossible to provide shade for 100% of the workers. The commenter added that in the last 5 years, there has been only one confirmed heat illness-related fatality. The current heat illness prevention standard is working just fine, and the proposed standard will only lead to more non-compliance. All the Division needs to do is review the current standard and correct the issues that are not working.

Response: With regard to shade structures, please see responses to comments #BT6, #BT7, #MF15, and #MC6. With regard to need for modification of current standard, please see responses to comments #BT1 and #MF2.

George Rodriguez, California Cotton Ginners and Growers Associations (CCGGA) and the Western Agricultural Processors Association (WAPA)

Comment #GR1: Placing water in the middle of the grape vineyards will be too difficult for his organization to do, and there is no way for employees to cross the rows to access it if it is in the middle of the vineyard. He said that he has seen workers try to cross the rows, and some have tripped over irrigation systems or other objects and injured themselves trying to cross the rows to access the water. His organization keeps plenty of water and shade on the ends of the rows to keep employees safe. Employees are trained in heat illness prevention, are reminded constantly

to drink water, and work in pairs to monitor each other for signs of heat illness. Ms. Stock (Board member) asked Mr. Rodriguez how long the rows are. Mr. Rodriguez stated that the rows are each ¼ mile long.

Response: Please see responses to comments #BT2, #BT3, #BT6, #BT7, and #JG1.

Marti Fisher, Chamber of Commerce and Heat Illness Prevention Coalition (CalChamber/HIPC)

Comment #MF24: The commenter summarized the points raised in CalChamber/HIPC's written comments and stated that the proposal is very complex, lacks clarity, creates challenges and obstacles for employers to comply, will lead to numerous citations and penalties on employers who are making a good faith effort to comply, and will diminish employee protections.

Response: Please see responses to comments #MF1 through #MF23.

John Robinson, CAPA

Comment #JR5: The commenter echoed Ms. Fisher's comments and added that the proposal should be sent back to the Division. He stated that this proposal affects all outdoor workers, yet not all of these workers face the same conditions as in agriculture.

Response: Please see responses to comments #MF1 through #MF23.

Tim Schmelzer, Wine Institute

Comment #TS1: The commenter echoed the Chamber of Commerce's comments and added that they are opposed to the expansion for shade to cover 100% of employees.

Response: Please see responses to comments #MF1 through #MF23, and with regard to shade coverage in particular, see response to comment #MF15.

Bill Taylor, PASMA

Comment #BT1: The commenter echoed the Chamber's comments and added that a lay person is not a medical professional.

Response: Please see responses to comments #MF1 through #MF23, and with regard to medical comment, please see response to comment #BT8.

Kevin Bland, on behalf of Western Steel Council, California Framing Contractors Association, and Residential Contractors Association

Comment #KBI: The commenter echoed the Chamber's comments.

Response: Please see responses to comments #MF1 through #MF23.

Greg Colgate, New Era Ancient Art, Tile and Stone

Comment #GC1: The commenter echoed Ms. Fisher's comments. He said that this proposal will

impose significant costs for small businesses. He stated that employers and employees will be better served by the Division providing thoughtful and targeted enforcement of the existing regulations, rather than adding more regulation to an already-effective program.

Response: Please see responses to comments #MF1 through #MF23. No specific cost information was provided, so this does not persuade the Board to change its own cost estimates for this proposal.

Yaa Asantwea, United Parcel Service

Comment #YA1: Employees at her organization work 9.5 to 12-hour shifts in the heat, with trucks that have no air conditioning, and because of poor ventilation, even when the doors to the cargo area are open, the temperature inside the cargo area can be 20 degrees hotter than the outdoor temperature. Her organization does educate their employees on heat illness prevention, and if an employee experiences symptoms of heat illness, they are told to cool off and rest in the shade. But she said that although her organization documents all injuries and illnesses that occur on the job and sends employees to the company doctor for treatment, this is not done for employees experiencing heat illness symptoms. This proposal will help to protect drivers from heat illness but it needs some improvements. She said that the proposal needs to state when it is okay for an employee to simply rest in the shade when experiencing heat illness symptoms, and when further action needs to be taken by the employer to help the employee experiencing heat illness symptoms. She said that resting in the shade helps to prevent heat illness, but once someone is experiencing heat illness symptoms, more help is needed. She also said that the standard needs to require employers with unique situations, such as employees driving a delivery truck to remote locations, to address in their heat illness prevention plans how the employee is to communicate to them that they are experiencing heat illness symptoms, how employees can access water, shade, and first aid, and should require proper ventilation in the cargo area of the truck. She also stated that all outdoor workers, including delivery drivers, should be covered by the High Heat Procedures, as it is unclear if delivery drivers are covered under the description of the transportation sector.

Response: The Board believes that all of these concerns have been addressed in the standard and proposal, generally through performance standards that require employers to address their specific and unique worksite conditions in a heat illness prevention plan and communicate it to employees via training. The one exception is that the high procedures do not apply to all industries for reasons noted in the response to comment #JF1. Nevertheless, certain delivery drivers are covered by the high heat procedures as specified in subsection (a)(2).

Jose Cantu, J.G. Boswell Company

Comment #JCantu1: The current standard works very well when it is followed and does not need to be changed. If employers are not complying, people need to report them so that the Division can take action against them. The proposal lacks clarity and data needs to be provided to justify the changes that were made. He said that the change in the high heat temperature trigger to 85 degrees does not make sense.

Response: Please see response to comments #BT1 and #MF2. With respect to the high heat procedures trigger temperature, the Board decided to leave it at 95 degrees for reasons noted in the response to comment #PU2.

Chris Walker, California Association of Sheet Metal and Air Conditioning Contractors (CALSMACNA)

Comment #CW12: CAL SMACNA is opposed to the proposed changes. The distances for water and shade are difficult to implement and they need a standard that makes sense. It is unclear in the proposal how employers would be able to demonstrate that it is not possible to provide water and shade within the prescribed distances, and if citations are issued, who would be held responsible at construction sites where multiple people are in charge. The phrase "does not discourage access" is unclear. With regard to acclimatization, the employer's role is unclear; it looks like they are now responsible for looking case by case but they don't have access to medical records.

Response: With respect to distance limits, please see responses to comments #BT2, #BT3, #BT6, and #BT7. With regard to responsibility at multi-employer sites, see 8 CCR sections 336.10 and 336.1. With regard to discouraging access to shade and acclimatization, see responses to comments #MF10 and #LS2 respectively.

Victor Esparza, International Union of Operating Engineers Local 12

Comment #VE2: The commenter echoed Mr. Cantu's comments and added that bad employers should be taken to jail.

Response: Please see response to comment #JCantu1.

Clark Peterson, Skanska and Association of General Contractors (AGC)

Comment #CP1: The commenter echoed Mr. Cantu's comment, that they are opposed to the proposed changes and that these do nothing for safety. He added that the standard should apply to any outdoor worker and should not be by industry.

Response: Please see response to comment #JCantu1. With regard to the standard's application, it currently applies "to all outdoor places of employment" (a)(1), and the Board did not propose to change this scope. Certain requirements are limited to specific industries for reasons noted in the response to comment #RHA2.

Monte Bridgewater, Hensel Phelps and AGC

Comment #MB1: The commenter echoed Mr. Cantu's and the CalChamber/HIPC comments. He noted that enforcement will change bad employers.

Response: Please see response to comments #JCantu1 and #MF1 through #MF23.

Chuck Herrin, Sunrise Farm Labor

Comment #CH1: The commenter echoed Mr. Cantu's comment. Existing regulation is OK, need to weed out bad people.

Response: Please see response to comment #JCantu1.

Troy Schofield, Excel Mechanical Systems

Comment #TScho1: The commenter agreed with Mr. Cantu's comments. Current regulation is just fine, just needs enforcement. Proposal is confusing.

Response: Please see response to comments #JCantu1 and #BT1.

Matthew Allen, Western Growers Association

Comment #MAllen1: The commenter echoed Mr. Cantu's comments, stating that this proposal lacks clarity, and it gives employers three options to choose from for providing water and shade: 1) As close as practicable to where employees are working; 2) Not more than 400 feet away for water, and 700 feet away for shade, from where employees are working and 3) Water can be located more than 400 feet, and shade can be located more than 700 feet, from where employees are working if the employer can demonstrate that locating them within the prescribed distance is not feasible. He said that this is too broad, and that even if employers use their best judgment and pick the option that will work best for them, the Division may deem that they are not in compliance and cite them anyway.

Response: Please see response to comment #JCantu1. With regard to distances and exceptions for water and shade, please see responses to comments #BT2, #BT3, #BT6, and #BT7.

Guy Bjerke, Western States Petroleum Association (WSPA)

Comment #WSPA5: The commenter echoed Ms. Fisher's comments and summarized specific points raised in WSPA's own written comments.

Response: Please see responses to comments #MF1 through #MF23 and #WSPA1 through #WSPA4.

Lorena Martinez, California Rural Legal Assistance Foundation

Comment #LMA1: The commenter stated that the reason there is not a lot of data regarding heat illness is because a lot of workers who experience heat illness are sent home and do not go to the doctor or get medical attention because they cannot afford it or are afraid that they will lose their job if they report it. A 700-foot walking distance to access shade is too far away from the worker. Employees often work 8-12 hour shifts in the heat while in the fields and are under a lot of pressure from their employers to harvest enough crops to meet the employer's daily quota. If the water and shade are not close by, they will not take advantage of them because it takes too long to access them, resulting in them being less productive and possibly losing their job. The ends of the rows can be 600 – 1,200 feet away from the workers, and if the water and shade are at the ends of the rows, it is too hard for tired workers to access them. She has seen companies provide

shade closer to their employees than 700 feet, and she has also seen companies provide water under an umbrella both in the middle of the fields and at the end of the row. Lastly, Ms. Martinez asked that the Division and Board staff consider the temperatures mentioned in the proposal, and that they factor in how humidity affects heat too.

Response: With regard to distances, please see responses to comments #BT2, #BT3, #BT6, #BT7, #AK6, and #AK10. With regard to factoring in humidity to the measurement of temperature, please see responses to comments #AK17, #LD6, and #GB4.

Deborah Moser, City of San Diego, Risk Management Department

Comment #DM2: Her organization supports Bill Taylor's comments submitted to the Board in his letter for PASMA, especially his comments regarding the fact that there is no data that shows necessity for the changes made to the heat illness prevention standard. There are low-cost solutions that can be implemented to keep employees cool and place water near where they are working, and there are products and personal protective equipment available to address these issues. There needs to be discussion on personal protective equipment, and on shade and water to have workable solutions.

Response: Please see response to comments #BT1 through #BT12. On the use of personal protective equipment, see response to comment #DM1.

Art Franco, Communications Workers of America Local 9509

Comment #AF1: His organization supports the proposal. They feel that the 85 degree high heat temperature trigger is a great idea. They would like to be considered as part of the High Heat provisions, especially the buddy system as they work alone. They would like to see a provision added to the proposal to allow employees time to acclimate.

Response: With regard to the high heat procedures trigger temperature, the Board decided to leave it at 95 degrees for the reasons noted in the response to comment #PU2. With regard to applying high heat procedures and a buddy system to communications workers, please see response to comment #HD1. Finally, the Board notes that the proposal allows employees time to acclimate through the application of acclimatization requirements that were clarified and separated out into their own subsection (g).

Robert Harris, CWA Local 9588

Comment #RHA5: The commenter reiterated the points raised in his written comments.

Response: Please see responses to comments #RHA1 through #RHA4.

Roger Isom, California Cotton Ginners and Growers Associations and Western Agricultural Processors Association

Comment #RI5: The commenter stated that it seems that the main problem is not the distance in which water and shade must be placed, but with employers not following the current standard. He said that the proposal will not help make these employers comply, and no data has been

provided that proves that these changes are necessary. He stated that placing water within 400 feet, and shade within 700 feet, of where employees are working is possible, but it is not practical or feasible to do so. He also said that the exception that allows employers to demonstrate why they are unable to comply creates a situation where the employer has to go through an appeal process to prove that he cannot comply, which is subjective rather than objective. Additionally, he noted that the provision adding another break during periods where temperatures are 95 degrees or higher will be burdensome and will not provide employees with any additional protection from heat illness. He said that it will require supervisors to carry thermometers with them to keep track of the current temperature so they will know when the temperature reaches 95 degrees or higher, as well as extra time sheets to ensure that employees take that extra break.

Response: With regard to the distance limits and related exceptions, please see responses to comments #BT2, #BT3, #BT6, and #BT7. With regard to the break in high heat for agriculture workers, please see response to comments #MF8, #MF15, and #MF20.

Brian Little, California Farm Bureau Federation

Comment #BL6: The commenter echoed the CalChamber/HIPC comments. Mr. Little added that using the terms ‘cool-down break’ and ‘recovery break’ interchangeably throughout the proposal will cause confusion for employers because it is unclear what they will be legally required to do in order to comply. He added that the provision requiring a 10 minute break every 2 hours for employees when the temperature is 95 degrees or higher is appreciated, but there are some problems because employers do not know when the temperature will hit 95 degrees or higher, and in order to prove that employees took the extra break, employers will have to keep records of when employees take it. Mr. Little stated that the provision requiring employers to provide shade for 100% of employees that are on break is impractical. He said that employers may not have enough space to do that, and even if they do, employees may decide to take their breaks elsewhere, which will leave the shade area unused.

Response: Please see responses to comments #MF1 through #MF23 both in general and in response to each of the specific points raised in these comments.

Jennifer Bonilla, California Rural Legal Assistance Foundation

Comment #JBO1: The current standard needs to be strengthened. The distance requirements for water and shade in the proposal are better than those in the current standard, but they can still be placed even closer to where the employees are working. In the letter submitted to the Board, CRLAF recommended a closer distance. Data regarding heat illness does not exist because many workers do not report it. Medical conditions such as a heart attack may not be considered heat-related, but heat and working conditions may be a contributing factor when they happen.

Response: Please see responses to comments #AK1 through #AK22 in general and #AK6 and #AK10 with respect to distance limits.

Mr. McDermott, Board Member

Action needs to be taken against employers who are not complying with the current standard, and more regulations will not make things better. The Division needs to present the information to the public and the Board that shows that a change to the current standard is necessary, especially in areas where employers are in compliance, but a health risk is still present. When Division inspectors find a big gap in a regulation, there is a form that the Division can fill out and a process that it can go through to address it, but this is missing in the Division's presentation of the proposal. He also stated that there are some gaps in the current standard that need to be addressed and areas that need to be clarified and tightened up.

Response: Please see response to comment #WJ1.

Peter Tateishi, Sacramento Regional Builders Exchange

Comment #PT7: The commenter echoed the CalChamber/HIPC comments and stated that it is unclear how the exceptions for shade and water will be implemented. He asked if the demonstration portion of the exception will have to be done for each site, by the employer before or after they follow the exception. There are unique situations in construction regarding scaffolding, and adding water and shade to scaffolding creates other safety hazards. This proposal appears to have a one-size-fits-all approach with exceptions, and he is not sure that will work for all industries.

Response: Please see responses to comments #MF1 through #MF23. With regard to Mr. Tateishi's specific comments, please see also responses to comments #BT2, #BT3, #BT6, BT7, and #PT1.

Ben W. Laverty III, California Safety Training Corporation and Kern County Farm Bureau

Comment #BWL1: The commenter echoed Ms. Treanor's comment and stated that the proposal needs to take into consideration how humidity plays a factor in high heat. He said that lowering the high heat temperature trigger from 95 degrees to 85 degrees is a big jump. He also stated that he wants to see the data from the Division to justify that changes need to be made to the current standard.

Response: Please see responses to comments #ET1 through #ET11, and #ET12 through #ET14. With regard to factoring in humidity to trigger temperatures, please see response to comments #AK17, #LD6, and #GB4. With regard to the high heat procedures trigger temperature which has been left at 95 degrees, please see response to comment #PU2.

Joel Sherman, Grimmway Farms

Comment #JS1: There is no explanation why this proposal is necessary, and it is very confusing. One of the items his organization is concerned about is the provision requiring increased supervision during high heat. It is unclear where supervisors are supposed to go when employees under their watch are experiencing heat illness symptom, and asks if they are required to stay and supervise the other employees under their care, or do they go to the shade with the employee to

provide additional supervision and monitoring. This provision may require his organization to hire an additional person to remain in the shade area at all times waiting for an employee to experience heat illness symptoms and come in the shade so that they can provide the increased supervision and monitoring that this proposal requires. It is also unclear at what temperatures this will be required to be done. The current standard works very well, and with only 75-80% of employers complying with the current standard, it is not a good time to increase regulation. The Division and stakeholders should come together and come up with creative ways to catch employers who are not complying with the current standard.

Response: With regard to the need for the proposal and improving its clarity, please see responses to comments #BT1 and #MF2. With regard to the specific concerns over supervising employees exhibiting signs or symptoms of heat illness, please see response to comment #BR2.

Bruce Wick, CALPASC

Comment #BW17: The commenter echoed Mr. Sherman's comments and added that he submitted a letter opposing these changes.

Response: Please see responses to comments #BW1 through #BW16 and #JS1.

Anne Katten, CRLAF

Comment #AK24: The commenter supports a majority of the proposal, but has concerns about the areas that need further revision for enforceability and effectiveness. The commenter reiterated many of the points raised in her letter.

Response: Please see responses to comments #AK1 through #AK22.

Dan Leacox, Greenberg Traurig representing the California Solar Energy Industries Association

Comment #DL1: Subsections (d)(3) and (d)(4) regarding assessment of an employee's medical condition create tremendous confusion about the nature of a break, and it is unclear if someone indicates that they need a break, that should be interpreted to be a symptom of heat illness. Additionally, the commenter echoed the Chamber's comments and said that the requirements for acclimatization procedures have been expanded, and that computing the formula for acclimatization could be a worker-by-worker chore because workers may have been in various places over the previous five days and in different micro climates. He noted that the acclimatization procedures have been moved out of the high heat procedures and are now in the written procedures, which apply to all industries without a mention of this expansion in the written procedures in the Initial Statement of Reasons. He stated that the heat illness prevention standard is very prescriptive, and the proposed changes make it even more prescriptive. The commenter also said that there are places where there is uncertainty regarding compliance, which will lead to more citations being issued.

Response: In response to these comments and others, subsections (d)(3) and (4) were revised and clarified; and the acclimatization requirements were clarified and also separated out from the

written procedures and placed in their own subsection (g). Please see responses to comments #MF7 and #BT9 respectively. It should be clear from the modifications that acclimatization is a group process in “heat wave” conditions and only done on an individual basis for new employees who have not been working in high heat. Please also see generally responses to comments #BT1 and #MF1 through #MF23.

Christopher Lee, UCON

Comment #UCON17: The commenter echoed Mr. Cantu's comment and stated that the temperature triggers in the proposal overlap each other and will cause confusion for employers who try to comply. He also stated that in section (f)(1)(D), it is unclear whether or not employers are required to acclimatize their employees. If they are required to acclimatize their employees, then the proposal needs to state what types of training are needed in this area, who will determine when an employee has been properly acclimatized, and how acclimatization is to be done. He stated that acclimatization is a personalized process that is affected by the employee’s risk factors, and these risk factors must be considered when discussing the process of acclimatization.

Response: With regard to Mr. Lee’s comment, please see response to comment #JCantu1. With regard to trigger temperatures, please see response to comment #MF5. With regard to acclimatization, see responses to comments #BT9 and #DL1. The Board is not prescribing precise ways to acclimatize workers because no specific requirements have been proposed, most industry representatives have expressed a strong preference for performance standards over prescriptive ones, and employers should have flexibility to address the particular circumstances of their industry and worksites.

Dave Duncan, Cal Fire

Comment #DD1: The commenter stated that he is a subject matter expert regarding heat illness prevention and is familiar with the evidence regarding heat illness, but not with any evidence in the area of firefighting to support the changes being presented in the proposal. This proposal requires lay people to make medical decisions, which is illegal. He stated that these decisions are being made by observing the signs and symptoms of heat illness that an employee is experiencing, as well as acclimatization, and this is not even in the scope for public safety first aid providers, so lay people should not be making these decisions. The commenter recommended that the Board and Division staff bring in subject matter experts and medical directors to observe and review these changes before the proposal moves any further along. He also stated that there are as many as 20 characteristics that contribute to heat illness, and all of those factors need to be considered.

Response: It appears that the commenter may be confusing the need for any employer to respond appropriately to a job place illness and injury, including by calling for emergency medical services such as an ambulance if warranted, with making a medical decision that requires medical expertise. The Board takes notice of the fact that CAL FIRE and other firefighting agencies are often called upon as first responders for medical emergencies; that they respond to many of these emergencies because someone has called 911; and that often the person who makes that call is not relying on medical expertise or making what would be regarded as a

medical decision when deciding that the situation is serious enough to call 911. The main thrust of the proposal is to have employers do what is necessary and appropriate to avoid having heat illness develop in the first place. However, if symptoms develop and do not abate quickly, then someone needs to make that 911 call. In the Division's experience investigating heat illness cases, workers have died precisely because no one knew what to do and so no one did anything.

Dave Teter, Cal Fire

Comment #DT1: There are three common themes in the testimony given today that also ring true for firefighters: 1) a lack of data to justify the changes; 2) both the current standard and the proposal have areas that are ambiguous, and the ambiguous areas in the current standard have caused them to be cited by the Division; and 3) the proposal contains a lot of subjective interpretation. For firefighters, there will be logistical issues with providing water within 400 feet, and shade within 700 feet of where employees are working, as well as shade for 100% of the employees. The commenter said that this proposal will have a significant cause and effect relationship on all general industries, and his organization wants to work with the Division and stakeholders to make the standard better.

Response: The Board acknowledges the commenter's general remarks. With regard to the specific items on distances and shade coverage, please see the responses to comments #BT2, #BT6, and #MF10.

Dough Pharaoh, Cal Fire

Comment #DPI: The commenter asked the Board to come up with a heat illness prevention standard that is unique to their industry. Unlike other industries, the environments where firefighters work change constantly and are beyond their control. He added that firefighters do 72 hour shifts. Having a standard for their industry that incorporates controlled and uncontrolled environments would be much better for them.

Response: The Board notes that all outdoor workers regardless of their industries are at risk of suffering heat illnesses, and all employers are required to preplan and address their specific worksites when establishing and implementing an effective heat illness prevention plan. The Board and the Division has not been provided with specific information upon which to create different requirements for controlled and uncontrolled environments. However, as noted in the response to comment #TC1 any employer can apply for a variance from the standard if they have another approach which provides equivalent safety.

Gail Bateson, WORKSAFE and SoCalCOSH

Comment #GB14: The commenter submitted written testimony and reiterated many of the points in her written statement. She added that her organization attended both advisory committees where there was a lot of open discussion and an opportunity for stakeholders to weigh in on this proposal. The health department and the Division provided data to justify the changes made to the current heat illness prevention standard, and her organization has provided that data to the Board in their letter. She also made the point that heat illness also involves injuries such as burns, skin cancer, and exposure to toxic chemicals that are absorbed into the

body due to heat, but there is nothing in the proposal to address and prevent these types of injuries.

Response: Please see responses to comments #GB1 through #GB12. With regard to injuries such as burns, skin cancer, etc., these items are outside the scope of the standard and this proposal, which are focused on preventing heat illness and responding appropriately when symptoms develop or persist, but not on medical treatment of resulting injuries.

Linda Delp, UCLA Labor Occupational Safety and Health Program

Comment #LDE4: The commenter reiterated points and recommendations made in her written comments.

Response: Please see responses to comments #LDE2, #LDE3, and #NDLON2 through #NDLON7.

Rudy Avila, Jaguar FLC

Comment #RA3: The commenter echoed Mr. Sherman's comment, and stated that the temperature triggers for shade need to take into consideration the time of day when that temperature trigger happens. As the proposal stands, it only requires employers to "shade up" based on the current temperature, not the time of day. He also stated that the acclimatization process differs from industry to industry, and the proposal should reflect that. Making all the changes that are noted in the proposal will be costly for employers.

Response: Please see response to comment #JS1. With regard to shade, the Board notes that the standard's definition of shade must be taken into account, and that it does not require shade at times of the day when direct sunlight is blocked by the earth's rotation. See response to comment #PU1. With regard to acclimatization, the proposal requires only a plan with specific triggers, while leaving it to employers to address the specific needs of their industry and worksite. See response to comment #UCON17. With regard to costs, please see responses to comments #BW3 and #RA1.

Mr. Harrison, Board Member

Board Member Harrison stated that there is a lot of work still left to do. He said that if the exceptions regarding shade and water access, as well as the other exceptions that are in the current standard, are clarified and fine-tuned, this will address a lot of the issues that have been raised today. He encouraged the Division to work with stakeholders to come to a consensus on those and to also address the issues raised regarding necessity for the changes.

Response: The Board agrees that further clarifications are necessary and has modified the proposal in response to comments.

Ms. Stock, Board Member

Board Member Stock stated that she would like to see the Board and Division staff look into heat illness regarding indoor heat situations, as well as outdoor heat. She said that the current

proposal seeks to make things clearer and easier to comply with, but more specificity is needed so that it is easier for employers to comply with. She stated that it is very important to have water nearby and available for employees to drink whenever they need it, and she asked the Division to focus very hard on addressing that issue.

Response: With regard to the indoor issue, please see response to written comments #CRLA22 and #NM1. The Board agrees that further clarifications are necessary and has modified the proposal in response to comments. With regard to water in particular, please see responses to comments #BT2 and #AK6.

Mr. Jackson, Board Member

Board Member Jackson stated that he submitted written comments to the Board about this proposal. He said that he was unable to find a rationale or any evidence in the Initial Statement of Reasons or other supporting documents to prove necessity for this proposal, and the record does not support the changes. He stated that the Division needs to take this proposal back, respond to all of the comments, and then decide if it wants to move forward from there.

Response: Please see responses to comments #WJ1 and #WJ2.

Ms. Quinlan, Board Member

Board Member Quinlan stated that it appears that the Division did try to be clear and specific in the proposal, and she understands the justification behind the changes. She said that the Division can address this by being more specific and giving more information to stakeholders when responding to comments.

Response: The Board agrees that further clarifications are necessary and has modified the proposal in response to comments.

Ms. Smisko, Board Member

Board Member Smisko stated that this issue has had the most written and public speaking comments in the time that she has been a Board member, and there are many different perspectives on this issue. She said that more work is needed to come to a common understanding at the table about how to effectively address this issue.

Response: The Board agrees that further clarifications are necessary and has modified the proposal in response to comments.

Mr. Thomas, Chairman

Chairman Thomas stated that the language in this proposal needs to be cleaned up and made more straightforward. He said that the problem appears to be that it is not understandable, but this can be cleared up, and the Division and stakeholders can come to a decent resolution.

Response: The Board agrees that further clarifications are necessary and has modified the proposal in response to comments.

Summary of and Responses to Written Comments Following First 15-Day Notice:

Marti Fisher, California Chamber of Commerce – Heat Illness Prevention Coalition, emailed December 8, 2014 (along with 12 other comments that supported the Chamber)
The following commenters submitted comments expressing their support of the California Chamber of Commerce comments:

Mike Carson, Vice President, Kahn Air Conditioning, Incorporated

David Keefe, President, Trilogy Plumbing, Inc.

Dave Teter, Contract Administrator, Johnson Air

Ken Tavoda, X-Act Finish & Trim, Inc.

Gary Pack, Chairman, Mark Company

Ken Phillips, V.P. Magik Glass and Door

Paul Frankel, President, Wm. M. Perkins Company Inc.

Trevais Wilson, Estimator, Homestead Sheet Metal

Cathy Johnson, Director of Administration, Frontier Mechanical, Inc.

Steve Lancaster, President, Silver Wood

Bernadette Reyes, Office Manager Wirtz Quality Installations, Inc.

John Mohns, President, Benchmark Landscape

Adam Gabler, Executive Vice President, SDS Insurance Services

Stacy Littrell, Vice President of Operations, Taylor Trim & Supply, Inc.

Dawn Geiger, Co-Owner & CFO, PPC Enterprises, Inc.

Jon Parry, General Manager, Bemus Landscape

Comment #MF25: The Heat Illness Prevention Coalition (Coalition) thanks the Division for acknowledging the compliance challenges posed by provisions in the original proposed revised regulation, and modifying those provisions. The revisions have provided some needed clarity and addressed many of their concerns, but urge the Board to request that the Division make several further revisions to provide clarity and consistency, as well as make minor revisions to enable compliance. Additionally, the Coalition reiterates their concern that the appropriate data and rationale has still not been provided to justify changes to the regulation. California has many years of experience implementing its heat illness regulation, which has not been shared with the public to substantiate or demonstrate the need to change to the current regulation.

Response: The Board acknowledges and thanks the Coalition for its participation in this rulemaking process. With regard to the issue of data or rationale, please see items relied on the Initial Statement of Reasons as supplemented by first 15-day notice, comment #AK2, and responses to comments #BT1 above and #MF26 below.

Comment #MF26: The Coalition has reviewed the study CDC MMWR “Heat Illness and Death Among Workers-United States, 2012-2013” and concludes that it is not a relevant comparison to California and therefore not appropriate to rely on its findings and assertions for this rulemaking. This report should not be relied upon because: 1) there is no federal heat illness prevention rule; 2) CDC reports on 13 cases of outdoor workers across the country, none of them agricultural workers; 3) the intent of the report is to “understand the effectiveness of existing heat illness prevention campaigns and tools,” it is not specific to California and does not consider the impact

of the state's heat illness prevention rule on the incidence of heat illness; 4) most employers involved in the cases reviewed in the study had no overall heat illness prevention program; and 5) the important elements of a heat illness prevention plan as discussed in this report are in California's heat illness prevention regulation.

Response: The Board disagrees because the importance of factors such as the lack of acclimatization and worker hydration among others, which play a critical role in heat illness prevention, are further substantiated by the finding of this study. The Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #MF27: The Coalition has identified several concerns, but will limit their comments to five areas. First, with regard to subsection (d)(1), Access to shade, duty-free meal periods are not counted as hours worked, during which an employee's activities are not controlled by the employer. Generally, employees take meal periods without supervision and are free to leave the work area, go to their cars or off site during these breaks. Employers should not be compelled to provide excess, unused amounts of shade during meal periods. However, the Coalition believes employers can reasonably provide shade for those employees on rest breaks and for preventative cool-down rests. Rest periods can be more easily rotated among smaller groups of employees than can meal periods and this will reduce the amount of shade that must be provided to accommodate all employees on a rest period or a preventative cool-down rest at any given time. To provide clarity and consistency, as well as to create a rule with which employers can realistically comply, the Coalition suggests the following revision:

(1) Shade required to be present when the temperature exceeds ~~85~~80 degrees Fahrenheit. When the outdoor temperature in the work area exceeds ~~85~~80 degrees Fahrenheit, the employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling. The amount of shade present shall be at least enough to accommodate ~~25%~~ of the number of employees on the shift at any time ~~meal, recovery~~ preventive cool-down rest or rest periods, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The ~~shaded area~~ shade shall be located as close as practicable to the areas where employees are working ~~but no farther than 700 feet walking distance from the area where any employee is working unless the employer can demonstrate that terrain or other conditions prohibit locating the shaded area within the prescribed distance.~~

Response: The Board does not believe it is appropriate to completely exclude meal periods from this requirement because at many worksites there is no nearby place to go to get out of the sun. However, the proposal was further modified so that the requirement to provide shade for employees during meal periods applies only to the number of employees on a meal break who remain onsite.

Comment #MF28: The Coalition recommends the following revisions to subsections (h)(1)(D) and subsection (i)(4) to improve their clarity and consistency and tie all the elements together:

Subsection (h)(1)(D) Training (Coalition proposed change)

(D) The concept, importance, *and* methods of acclimatization, ~~and pursuant to the~~ employer's procedures under subsection (g)(3)(i)(4).

Subsection (i)(4) Heat Illness Prevention Plan (Coalition proposed change:)

(4) Acclimatization *methods and* procedures in accordance with subsection (g).

Response: The Board incorporated these revisions into the proposal.

Comment #MF29: Subsection (f) requires a supervisor, based on observation or an employee report of symptoms, to make a medical determination as to the severity of heat illness and take appropriate action based on his/her determination of severity. Symptoms of heat illness can be as subtle as tiredness or may be confused with the symptoms of other serious medical conditions, and supervisors and designated employees are not qualified to make those determinations, which may be difficult even for medical professionals to make. They proposed the following change:

(A) If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness.

Response: The Board did not accept the change and notes once more that the Division does not expect supervisors or employees to have medical expertise, but only that they be appropriately trained and increase their vigilance towards the presence of heat related symptoms. Medical decisions including whether or not the signs or symptoms of an ill employee are due to heat illness or a different one should be left entirely to the medical professionals. Please see also responses comments #BT8 and #DD1.

Comment #MF30: The Coalition notes that the proposed modified language in subsection (c) implies that all requirements for provision of water meet the requirements of Section 3457. In order to clarify that each industry sector is required to comply with applicable provisions, and to further clarify the quality of the water, the language be changed as follows:

(c) Provision of water. Employees shall have access to potable, *clean and sanitary* drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable, ~~including but not limited to the requirements that it be fresh, pure, suitably cool,~~ and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. ~~The water provided shall be fresh, pure and suitably~~

cool, and shall be provided to employees free of charge. The frequent drinking of water, as described in subsection ~~(f)~~(h)(1)(C), shall be encouraged.

Response: The Board does not believe that further revision of this provision is necessary or appropriate. “Clean and sanitary” are not good substitutes for “fresh, pure and suitably cool,” which are necessary as descriptive qualitative factors to encourage the frequent drinking of water.

Comment #MF31: The Coalition supports the agriculture industry coalition’s proposed revisions to subsection (e)(6) high heat procedures to address rest breaks for workdays exceeding eight hours.

Response: Please see response to comment #KSC3 below.

Comment #MF32: While the Coalition appreciates the attention to their concerns to the original proposed revisions, serious concerns remain with those provisions, even as modified. They have provided recommended revisions to the language in order to address their concerns and provide clarity and consistency to the regulation if it is to be revised at all.

Response: The Board acknowledges and thanks the Coalition for its suggestions, many of which were incorporated into the proposal.

Bill Taylor, Public Agency Safety Management Association (PASMA), emailed December 8, 2014

Comment #BT13: PASMA has concerns over the absence of data from the Division which would justify changes to the current Heat Illness Prevention Standard. To their knowledge, there has been no showing by the Division that either the frequency or severity of heat illness cases has increased substantially, or would necessitate the changes outlined in the proposed regulation.

Response: Please see response to comment #MF25.

Comment #BT14: PASMA notes that while changes were made to subsection (c), there are still several items that are problematic and may be unenforceable due to ambiguity. The Division has not established a temperature range for what is considered to be “suitably cool” water, and there is no definition as to what is considered “fresh or pure.” The implication is that to assure compliance, there would be a duty for the employer to take random water samples to have them tested periodically and to take temperature readings of the water at each worksite, which could have significant costs. These proposed changes are unnecessary, and the requirements in Section 3363 adequately cover the standards for drinking water.

Response: The Board does not believe that additional revisions are necessary. Please see response to comment #MF30. Please also see responses to comments #BT4 and #MF11.

Comment #BT15: The proposed modification to subsection (d) still includes the requirement that shade be present if the temperature exceeds 80 degrees. They find no evidence or rationale for lowering the shade up requirement from 85 to 80 degrees. The temperature alone is not an accurate indication of the risk of heat illness. During the winter in Southern California, the temperature can be in the 80's with low relative humidity which requires minimal heat illness prevention and planning.

Response: This comment does not address the modifications the 15-day notice, and does not require further response.

Comment #BT16: PASMA believes that the requirements of subsection (d)(3) are not feasible and remain problematic. PASMA questions how an employer would distinguish between a preventative cool-down rest, a preventative cool-down rest period, or a regularly scheduled break, and whether this requires asking each employee every time a break is taken. Depending on the answer, monitoring might be required, but there still is no explanation on what type of monitoring is required or a definition of monitoring. Most supervisors do not have the medical expertise to conduct this level of employee monitoring, and requiring them to take on the additional responsibilities of providing medical advice and making medical decisions is setting them up for failure and increasing the employee's exposure to serious heat illness. Employees should be trained in the signs and symptoms and should be responsible for hydrating and seeking shade when necessary.

Response: The term "preventative cool down rest" was accepted and standardized in the proposal at the suggestion of CalChamber/HIPC (also referred to as Coalition above), and the word "individual" was added to distinguish cool-down breaks taken when needed on an individual basis from the periodic rest breaks that employers must provide to all workers in accordance with long-standing legal requirements. With regard to the continuing concern over the term "monitoring," please see responses to comments #BT8 and #DD1.

Comment #BT17: With regard to the new requirements proposed in subsection (f), several of the signs or symptoms describe someone who is intoxicated or under the influence of drugs, and a supervisor's response should be quite different in a situation involving an employee suffering from heat illness vs. an employee who may be under the influence of drugs. These proposed modifications appear to require supervisors to make medical decisions which could adversely affect the employee's health.

Response: The Board agrees that medical decisions should be left entirely to the medical professionals. The Board disagrees that supervisors should differentiate or respond to employees exhibiting signs or symptoms in different ways, precisely because these are medical decisions that must be made by a medical professional. Thus the proposal requires supervisors to respond to observed or reported signs and symptoms, not diagnose an ill employee, and to initiate the employer's emergency response procedures. Please see also responses to comments #BT8 and #DD1.

Comment #BT18: The decision to define a heat wave with a trigger of 80 degrees and at least 10 degrees higher than the average daily temperature appears arbitrary and does not seem to be based on any scientific evidence or peer-reviewed research. “High heat” is not defined anywhere in the standard, and this appears to be unenforceable and problematic. Subsection (g) appears to deal specifically with monitoring employees and a more appropriate title would be “Monitoring of Employees.” PASMA questions the necessity of an acclimatization plan for every employer in every industry. An employee’s susceptibility to heat illness may be more likely if they have a pre-existing medical condition rather than whether they were included in acclimatization or an employee monitoring plan. They believe that employer’s working with their occupational health physicians should be able to develop their own medical protocols for pre-placement screening, and then make the determination if it is appropriate for each position and whether an acclimatization plan is necessary.

Response: The Board notes that this comment is largely a reiteration of concerns with the “acclimatization” provisions of the original proposal and does not focus on how the language was revised in the 15-day notice. These concerns have been addressed in the responses to comments #BT9 and #BT11, and do not require a further response.

Comment #BT19: PASMA opposes the requirement that a heat illness prevention plan be available at each worksite. The Division has provided no data or evidence to indicate whether having similar plans or a Heat Illness Prevention Program available at the worksite would result in fewer cases of heat illness. Given the number of worksites involved in a municipality, county or special district, there could be hundreds of employees scattered over a wide area and each would be required to have their own copy of this plan with them. Many employees work alone and under the new changes would be required to keep a copy of the heat illness plan in their vehicles, which seems unenforceable and impractical for many employers. This new requirement is unnecessary and has the potential to create significant administrative burdens, especially for the vast majority of organizations that have employees who either work alone or in small groups of two or three employees.

Response: The Board notes that this comment is largely a reiteration of concerns with the written procedures provisions of the original proposal and does not focus on how the language was revised in the 15-day notice. These concerns have been addressed in the response to comment #BT10, and do not require a further response.

Comment #BT20: PASMA appreciates the opportunity to provide comments on the proposed modifications. Despite some of the changes, PASMA believes that the proposed modifications are still overly prescriptive and unnecessary. In addition, there are numerous sections which are not feasible for many industries and organizations which would result in additional costs to public agencies while doing little to reduce the incidence of heat-related illnesses in the workplace. They urge the Board to OPPOSE the proposed modifications to Section 3395.

Response: The Board acknowledges and thanks PASMA for their comments and participation in this rulemaking process.

Brenda M. Coleman, California Association of Winegrape Growers (CAWG), emailed December 8, 2014

Comment #BMC1: CAWG appreciates the effort of the Board to respond to employers' concerns and thanks the Division for making changes to the original proposed regulation. Despite several positive changes, they remain concerned that the appropriate data and rationale to justify these changes has not been provided and urge the Board to thoroughly analyze all relevant data in order to determine what if any deficiencies exist in the current regulation before moving forward with proposed changes.

Response: The Board acknowledges and thanks CAWG for their comments. Because this comment does not address the modifications the 15-day notice, it does not require further response.

Comment #BMC2: CAWG joins in comments submitted by the Coalition and strongly urges their consideration. CAWG generally agrees with the Coalition's comments but deviates from their position on the access to shade requirements based upon logistical implementation concerns for vineyard workers. Their proposal's requirements on access to shade, subsection (d)(1), fail to take into account practical considerations in the vineyard environment and note that the stated presumption that break periods can be rotated or staggered throughout the day is infeasible for vineyard employees and creates a logistical burden. Staggered breaks raise a host of problems, including misalignment of breaks where supervisory personnel will be on a break while other workers will be working in the vineyard, and it would do real harm to the camaraderie and social cohesion that exists among workers. In addition, the proposed rule is impractical and creates significant problems for supervisory personnel responsible for moving and setting up these structures due to space limitations in vehicles and in vineyards. Vineyard supervisors may not have personal vehicles large enough to handle such equipment and many vineyards can't afford a fleet of pick-up trucks to ensure that each supervisor has his or her own truck. The 100% shade requirement poses a real challenge for mobility of the workforce. Work productivity of both supervisors and ultimately the workforce would be adversely affected with supervisors required to spend significant time constructing and deconstructing shade structures as crews move around throughout the day. This process leaves crews without supervision, which in turn results in lost productivity for the workforce, which would ultimately be costly to employers. Also, when crews are moving from one vineyard to the next and before shade structures can be erected onsite, 100% of the idled crew will not have access to shade; this may leave the vineyard owner exposed to enforcement action. If supervisors must spend 15 to 20 minutes erecting, collapsing and siting structures as the workforce moves from one location to the next during the course of the workday, this requires the vineyard workforce to remain idle until those structures are properly positioned and erected. Idled workers will be paid (as required by law), but this inefficiency is bad for workers and costly to agricultural employers. CAWG proposes the following change for subsection (d):

(1) Shade required to be present when the temperature exceeds 8580 degrees Fahrenheit. When the outdoor temperature in the work area exceeds 8580 degrees Fahrenheit, the

employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling. The amount of shade present shall be at least enough to accommodate 25% of the number of employees on the shift at any time ~~meal, recovery or rest periods~~, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other. The ~~shaded area~~ shade shall be located as close as practicable to the areas where employees are working ~~but no farther than 700 feet walking distance from the area where any employee is working unless the employer can demonstrate that terrain or other conditions prohibit locating the shaded area within the prescribed distance.~~

Alternatively, they propose that the requirement to provide access to shade for 100% of the workforce would kick-in when temperatures reach the high-heat trigger of 95 degrees or above. This requirement would therefore be implemented as part of the high-heat procedures. Incorporating this provision as a high-heat procedure provides clarity and consistency.

Response: The Board notes that this comment does not specifically address the modifications the 15-day notice, but instead argues for retaining the preexisting standard for shade coverage, or alternatively for a higher trigger threshold if the 100 percent coverage requirement is retained. The issues of extent of shade coverage and reasons for lowering rather than raising the trigger for having shade available have been addressed in the responses to comments #BT5 and #MF15. The issue of logistics are been addressed in the responses to comments #TD1 and #RA2. The Board also notes that this proposal has been further modified so that the requirement to provide shade for employees during meal periods applies only to the number of employees on a meal break who remain onsite, as noted in the response to comment #MF27.

Comment #BMC3: CAWG supports the comments of other agricultural organizations who have argued persuasively about the lack of data or demonstrated need to support the provision that applies exclusively to agricultural employers and employees. CAWG supports the agricultural organizations' alternative proposal and requests consideration of such approach to help provide clarity and a more workable solution for both employees and employers.

Response: The Board further revised subsection (e)(6) to address these concerns. Please see responses to comments #MF8 and #MF20 above and #KSC3 below.

Comment #BMC4: CAWG remains concerned with the revised modified language and urges the Board's consideration of their comments and in the Coalition comment letter.

Response: The Board thanks CAWG for their comments and participation in the rulemaking process.

Mitch Seaman, California Labor Federation, AFL-CIO, emailed December 8, 2014

Comment #MS4: The California Labor Federation supports the proposed modifications to Section 3395, which will strengthen and clarify our state's outdoor heat illness prevention standard. While the current standard has proven effective, a lack of specificity has just as often

complicated enforcement and left too many workers unprotected. The additional language, as outlined in this proposal, gives law-abiding employers a better heat illness prevention framework while creating better tools for inspectors to target unsafe employers.

Response: The Board acknowledges the Labor Federation's support for the proposal.

Comment #MS5: A few amendments to this second draft would strengthen its ability to protect workers while presenting minimal expense to employers. In the absence of a requirement that water be kept within a certain distance from workers at all times, a standard that water be provided in shaded areas during rest and meal breaks would be a sensible compromise. Additional language along the lines of keeping water "readily accessible" could also help minimize the risk of employers placing water so far away as to be of little use to workers.

Response: The issue about requiring water in shaded areas has been addressed in the response to comment #AK7. The Board believes that "as close as practicable" provides the necessary context for determining how accessible water must be, and that adding the word "readily" as a point of emphasis is unnecessary and could have the unintended effect of deemphasizing other aspects of the standard where that modifier is not used.

Comment #MS6: Subsection (f)(2)(C) could be improved by adding language requiring that workers demonstrating signs and symptoms of heat illness be monitored and not be left alone. This change would better reflect the available medical evidence confirming that workers suffering initial signs of heat illness can quickly progress into a life-threatening condition if not adequately cared for and observed.

Response: The proposal was further modified to incorporate this suggestion.

Comment #MS7: The high heat procedures should be expanded beyond the five industries outlined in the current regulation, and the department is strongly urged to explore creating an *indoor* heat illness standard as well.

Response: These suggestions were addressed in the responses to comments #BC1 and #JF1.

Gail Bateson, Executive Director, Worksafe, letter emailed December 8, 2014

Comment #GB14: Worksafe appreciates the time and attention that the Board and staff have invested in reviewing and responding to testimony and written comments on proposed modifications to the Heat Illness Prevention Standard. However, some of the proposed revisions are not advisable or supported by the record. In general, they support the comments submitted by the California Rural Legal Assistance Foundation and its allies.

Response: The Board acknowledges and thanks Worksafe for their comments and support for the proposal.

Comment #GB15: Worksafe supports the revisions to the definition of shade and agrees that this more clearly expresses the concept that shade must not be located in an area where workers are unable to use the shade because of unsafe location.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal.

Comment #GB16: Worksafe strongly recommends adding this requirement for ready access: The water shall be readily accessible and located as close as practicable to the areas where employees are working and provided in shaded areas during rest and meal breaks. The most practical and efficient time for workers to hydrate is during rest and meal breaks, so it is very important to also require in the regulation that drinking water be provided in the shade during rest and meal periods.

Response: Please see response to comment #AK7.

Comment #GB17: Worksafe strongly supports the decision to retain the proposed requirements that drinking water shall be fresh, pure, suitably cool, and provided free of charge.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal.

Comment #GB18: Worksafe strongly supports the decision to retain the proposed requirements to reduce the threshold for having shade present to 80°F and to provide enough shade to accommodate all employees who take a rest or meal break at the same time.

Response: The Board acknowledges Worksafe's support for these aspects of the proposal while noting that the shade accommodation provision was further modified with respect to meal periods to require coverage only for the number of employees who remain at the worksite during a meal period. Please see response to comment #MF27.

Comment #GB19: Worksafe also supports most of the revisions to subsections (d)(3) and (4), which are vital for preventing serious heat illness.

Response: The Board acknowledges Worksafe's support for this aspect of the proposal.

Comment #GB20: Worksafe disagrees with the deletion of the maximum distance from the work area for the location of shade. They note that it is practicable to provide shade closer at hand than sanitary facilities because shade structures are smaller and more portable. While some sources of natural shade, such as shade trees, provide safe and adequate shade, the standard should specifically prohibit using crop plants.

Response: The Board acknowledges Worksafe's comments and notes that distance limitations were opposed by both industry and employee representatives, albeit for different reasons; and "close as practicable" may be closer than sanitary facilities. Please see responses to comments #AK10 and #AK11.

Comment #GB21: Worksafe is disappointed that the standard continues to only apply to five industries and that the trigger for high heat procedures has been raised back to 95°F. Implementation of these procedures at a lower temperature would significantly help prevent heat illness. In addition, with the exception of mandatory cool down rest periods and possibly buddy systems, these provisions are common sense basic safety requirements, which should be in place all the time. Given the limitation of restricting strong protective measure only to five industries, they strongly recommend that subsection (e)(3), which designates employees authorized to call for emergency medical services, needs to be in place for all workplaces and so should be moved to Section 3395(f).

Response: With regard to leaving the trigger temperature at 95 degrees and not expanding high heat procedures to all industries, please see responses to comments #PU2 and #JF1 respectively. Important considerations behind leaving the trigger temperature at 95 include limiting confusion over overlapping requirements and concerns about having too many daily procedural protocols in regions where 85°F+ days are commonplace, and also to encourage the practice of some employers to stop work rather than follow those protocols when the temperature reaches 95. The Board also does not believe that it is necessary to restate or move high heat precautions to other subsections, which may have the unintended effect of deemphasizing the importance of reviewing, implementing, and reminding everyone of those precautions on high heat days. However, employers are not precluded from following high heat protocols on other days.

Comment #GB22: Worksafe appreciates the explanation that the designation of the “pre-shift” and “before the commencement of work” refer to the timing of the meeting and do not override laws requiring employees to be paid for time under the employer’s control.

Response: The Board acknowledges Worksafe’s support for this aspect of the proposal.

Comment #GB23: Worksafe strongly supports the requirement for mandatory 10 minute recovery periods for agricultural workers when the temperature reaches or exceeds 95°F.

Response: The Board acknowledges Worksafe’s support for this aspect of the proposal and notes that it was further revised to state its requirements as clearly as possible. Please see responses to comments #MF8 and #MF20 above and #KSC3 below.

Comment #GB24: Worksafe supports the proposed changes which place emergency procedures in a separate subsection and improve clarity and comprehensiveness. However, they continue to have concerns about section (f)(2)(B) because severe heat illness is an unacceptably high threshold for providing emergency medical services, and less severe heat illness symptoms can rapidly progress to life-threatening heat stroke. Early emergency response is particularly critical in remote rural areas where it may take considerable time for an ambulance to reach the worksite. In addition, workers with less severe heat illness may suffer a severe injury if they return to work in the heat after a rest period and become dizzy or faint. Worksafe strongly recommends that the Federal OSHA webpage on Heat Illness Emergency Response be adapted

as described below and included as a non-mandatory Appendix to provide guidance to employers. The current OSHA webpage states that workers suffering symptoms of heat exhaustion should be taken for medical evaluation at an emergency room or clinic if their symptoms do not resolve after one hour of cooling, and that workers suffering from heat exhaustion should not return to work that day. However, given the difficulty of cooling a heat illness victim outdoors and potential for delay in emergency response, particularly in remote areas, observing heat exhaustion victims for one hour poses an unacceptable risk, and therefore the OSHA web page standard should be amended to specify that the employer must take immediate action to obtain emergency medical services for all cases of suspected heat illness, except heat rash and possibly heat cramps. Worksafe also recommends the following addition, because a symptomatic worker who is not monitored and is left alone may develop severe, life-threatening symptoms:

(f)(2)(C) An employee exhibiting signs or symptoms of heat illness shall be monitored and not be left alone and shall not be sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer's procedures.

Response: The Board agrees that heat illness symptoms can rapidly progress to life-threatening heat stroke, thus the need for supervisors to increase vigilance to recognize as soon as possible signs and symptoms of affected workers. The Board notes that in the Division's field experience, it is essential to identify and highlight for supervisors the critical signs or symptoms that require taking action to implement emergency response procedures rather than offering nebulous or imprecise directions which will not help supervisors ascertain when emergency medical services will be necessary. The Board does not believe it would be appropriate to incorporate a Federal OSHA webpage into the standard, inasmuch as the Board has no jurisdiction to amend OSHA web page or guideline, as the commenter is suggesting, and webpages can quickly become obsolete. The Board notes that all comments have been responded to in this Final Statement of Reasons. Finally, the Board has incorporated the suggested modification of subsection (f)(2)(C) into the proposal.

Comment #GB25: Worksafe disagrees with the comment response that the proposal to require an employee with first aid training in heat illness at every worksite where the temperature reaches 75°F is overly broad and prescriptive and not tied to an identified need. First aid will be provided more competently if there is a trained person on site. 75°F was chosen as a threshold because work heat illnesses have been documented at temperatures of 75°F and greater in California.

Response: Please see response to comment #AK21. Because this comment does not address the modifications in the 15-Day notice, it does not require a further response.

Comment #GB26: Worksafe supports the proposed revisions and reorganization of subsection (g) on acclimatization. They appreciate all the time and hard work that has gone into developing

and revising this proposal and urge the Board to finalize this standard as soon as possible so outdoor workers will have an additional protection from heat stress next summer.

Response: The Board acknowledges Worksafe's overall support for the proposal.

Comment #GB27: Worksafe notes that the Board should also begin to consider proposing a heat standard to cover indoor workers.

Response: This comment does not address the modifications in the 15-day notice and does not require a further response.

Louie Brown, Attorney at Law, Kahn, Soares & Conway, LLP, on behalf of coalition of California Agricultural Organizations, emailed December 8, 2014

Comment #KSC1: The organizations submitting this comment represent a substantial portion of California's agricultural producers and agricultural employers. Cal/OSHA provided a CDC study to justify its need for change, and unfortunately, this study uses data from industries regulated only under the 'general duty' clause of the Federal OSH Act. In addition, it looks at indoor and outdoor incidents. The conclusion reached is one California reached when it first adopted a heat illness prevention regulation: employers that provide education, training, water and shade to employees working outdoors during the heat of the season can reduce heat illness. This study was better suited to justify the original need for the regulation rather than the proposed modifications, and it should not be given any weight now in this rulemaking action.

Response: The Board acknowledges the comments of this coalition. Please see response to comment #MF26.

Comment #KSC2: The agency has failed to demonstrate the need for its proposed revisions; it cannot justify why a change is necessary; and it has failed to produce data or information illustrating deficiencies in the existing standard. This could have been done by providing information about incidents where employees suffered illness or death in spite of an employer's substantial compliance with the current Heat Illness Protection Standard. In addition, the agency has failed to satisfy the legal requirements set forth in the Government Code to support revisions to the existing regulation.

Response: These comments do not address the modifications in the 15-day notice, and do not require further response. Please also see response to comment #BT1.

Comment #KSC3: The requirements of proposed subsection (e)(6) are unworkable. There is neither data nor demonstrated need for this requirement in the agricultural workplace, or why agricultural workplaces are different from other outdoor workplaces to require this particular regimen of breaks. As written, this new requirement will result in significant enforcement actions due to its impracticality. As an alternative, their coalition proposes the following:

(6) For employees in agriculture, the following shall also apply, ~~When temperatures reach 95 degrees or above and When the workday exceeds eight hours,~~ the employer shall ~~ensure~~ authorize and permit ~~that the an~~ employee to take a minimum ten minute net ~~preventative cool-down~~ rest period ~~every two hours~~ as near as practicable to the middle of the time period beginning at the resumption of work after the second rest period required by Industrial Welfare Commission Wage Order 14 and the end of the workday. ~~The preventative cool-down rest period required by this paragraph may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 if the timing of the preventative cool-down rest period coincides with a required meal or rest period. For purposes of this section, preventative cool-down rest period has the same meaning as "recovery period" in Labor Code Section 226.7(a).~~

Response: The Board continues to believe that this break rule is necessary and appropriate for the reasons noted in the response to comment #MF20. However, in response to this comment and others about the language of subsection (e)(6), the proposal was further modified to add clarity and lessen any potential impacts with respect to related wage and hour requirements.

Comment #KSC4: The proposal to provide shade to all employees taking a meal period or rest break at any given time remains impractical due to space limitations along field edges or other locations where shade might be provided. It will also become very costly for most employers. The agency's proposal to add meal periods is not reasonable, because employees are unpaid for that time and will not be under the supervision of the employer; therefore the employer could not ensure that employees use the provided shade. In addition, they inquire as to the issue that this change is seeking to address and the deficiency in the current regulation.

Response: Based on this and other comments, this subsection has been further modified so that it will apply only to the number of employees on a meal break who remain onsite. Please see response to comment #MF27.

Comment #KSC5: Subsection (d)(4) and other provisions of the proposed regulation require employers and their supervisors to make medical assessments of employees.

Response: The Board disagrees. Please see responses to comments #BT8, #DD1, and #BT17.

Comment #KSC6: The commenter remains concerned about a number of provisions to which they initially raised objections in comments on the agency's original proposal. The agency has not addressed those concerns in its November 19, 2014, 15-day Notice of Proposed Modifications. They urge the Standards Board to decline to approve the proposed amended Heat Illness Prevention Standard and to direct the agency to offer specific justifications for its proposals and revise those proposals to avoid unsupported and unworkable regulatory requirements.

Response: The Board thanks Mr. Brown and the coalition he represents for their comments and notes that this Final Statement of Reasons contains responses to all comments.

Chris Walker, Senior Policy Advisor CAL SMACNA, emailed December 8, 2014

Comment #CW13: CAL SMACNA is pleased to have the opportunity to provide comments to the Board and notes that it is also a co-signatory to the Heat Illness Prevention Coalition letter submitted by the California Chamber of Commerce on Monday, December 8th. CAL SMACNA aligns itself with the coalition's comments on acclimatization, training, and emergency response procedures.

Response: Please see responses to the Chamber of Commerce initial 45 day-period written letter and to the 15 Day-period written letter from the Chamber of Commerce.

Comment #CW14: CAL SMACNA has concerns with regard to Section 3395(d) Definition of "Shade" and believes that the proposed modifications to the additional qualifiers for shade do not serve to reduce subjectivity of the proposed standard. It is simply too open to interpretation for consistent enforcement and compliance. CAL SMACNA proposes retaining the preexisting definition without any of the modifications made in this proposal.

Response: Please see responses to comment #CW2. The Board believes that the revisions being made to the definition provided needed clarity, and are understood and supported by most stakeholders.

Comment #CW15: The modifications to subsection (c) do not address the clarity concerns with these new water qualifiers for the heat illness standard, and instead simply rely upon it existing elsewhere in other safety orders. These qualifiers for the provision of water remains too subjective for these purposes and open to interpretation for proper and consistent enforcement and compliance in the construction industry. Furthermore, this will lead to significant new costs for construction employers to safely comply in this broader context. CAL SMACNA submitted several questions as to whether a DOSH inspector or employee could file a citation or complaint under various conditions or whether insulated coolers or bottled water stored in the shade would comply with the standard. CAL SMACNA proposes the following changes to the revised language:

(c) Provision of water. Employees shall have access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable, ~~including but not limited to the requirements that it be fresh, pure, suitably cool, and provided to the employees free of charge. The water shall be located as close as practicable to the areas where employees are working.~~ Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. ~~The water provided shall be fresh, pure and suitably cool, and shall be provided to the employees free~~

~~of charge~~. The frequent drinking of water, as described in subsection ~~(f)(h)~~(1)(C), shall be encouraged.

--OR--

(c) Provision of water. Employees shall have access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable, including but not limited to the requirements that it be fresh, pure, suitably cool, and provided to the employees free of charge. Potable and sanitary water shall be deemed fresh and pure. Water stored in insulated coolers, and bottled water stored in shade and not exposed to direct sunlight shall be deemed suitably cool. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. ~~The water provided shall be fresh, pure and suitably cool, and shall be provided to the employees free of charge.~~ The frequent drinking of water, as described in subsection ~~(f)(h)~~(1)(C), shall be encouraged.

Response: The Board does not believe that further revision of this provision is necessary or appropriate. Because the proposal's terminology is drawn from and tied to existing standards, it is already well-understood for compliance and enforcement purposes; while the suggested revisions would introduce subjective and interpretive problems by altering or limiting that existing terminology. Please also see responses to comments #BT4, #CEA2, #CW3, and #MF30.

Comment #CW16: The 15-Day language and revisions to the proposed changes to the Heat Illness Prevention standard do not provide additional clarity nor provide any additional increase in protection for our workers. CAL SMACNA requests that the Board reject the 15-Day language and instead: 1) direct DOSH to demonstrate necessity for any additional changes to the current standard; 2) work with stakeholders to arrive at proposed changes that specifically address deficiencies in the current standard, if any; and 3) ensure clarity in the final regulatory language for regulated employers to fully understand and be able to perform reliable compliance.

Response: The Board notes that the 15-day notice modifications were based largely on the suggestions of stakeholders, from industry and labor alike, and other public comments indicate that these modifications did meet the objective of providing greater clarity. The Board acknowledges and thanks CAL SMACNA for their additional comments and participation in this rulemaking process.

Michael Walton, CEA, letter emailed December 8, 2014

Comment #CEA8: CEA thanks the Board and DOSH for their efforts in revising the proposed changes to Heat Illness Prevention and urges the Board to make further revisions.

Response: The Board acknowledges and thanks CEA for their comments and participation in this rulemaking process.

Comment #CEA9: The proposed terms for the Provision of Water “Fresh, pure, and suitably cool” are subjective and create ambiguity for both employers and DOSH personnel.

Response: Please see responses to comments #BT4 and #CEA2. Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #CEA10: Due to the nature of construction, staggered meal and rest periods are not always an option. Although building contractors make every effort to provide shade for their entire crew, providing shade for a hundred or more craftsmen during meal and rest periods is not always feasible, particularly in densely populated metropolitan areas. The proposed language is still problematic without any form of exception.

Response: Please see responses to comments #MF15, #MJ2, and #MF30. In response to this and other comments, further modifications were made to limit the shade coverage requirement during meal periods to only the number of employees who remain onsite during the meal period.

Comment #CEA11: CEA states that there is no medical, scientific or technical data justifying the reduction in lowering the temperature requirement for shade from 85 degrees to 80 degrees.

Response: Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #CEA12: The new emergency response procedures are unnecessary. They add that not only are emergency response procedures adequately addressed in the current language of Section 3395, emergency response procedures are already required by Sections 1512, Emergency Medical Services and 3400, Medical Services and First Aid. Employers currently respond to and treat medical emergencies, including those involving heat illness, according to severity. CEA appreciates the modifications that have been made and hopes that DOSH and the Board will make additional revisions to address the above stated concerns.

Response: Please see response to comment #CEA7.

Guadalupe Sandoval – California Farm Labor Contractor Association (CFLCA), emailed December 8, 2014

Comment #GS14: CFLCA echoes the sentiments of the Coalition of the California Agricultural Organization and expresses the same concerns, recommendations and objections with the proposal as Mr. Brown’s letter on behalf of the coalition, with one exception noted in the next comment.

Response: The Board acknowledges and thanks CFLCA for its comments and participation in this rulemaking process. Please see responses to comments #KSC1 through #KSC4.

Comment #GS15: As an alternative for the language of subsection (e)(6), CFLCA proposes the following:

6) For employees in agriculture, the following shall also apply,
~~When temperatures reach 95 degrees or above and~~ *When the workday exceeds eight hours,*
the employer shall ensure ~~that the an~~ employee *to* takes a minimum ten minute
net ~~preventative cool-down rest period every two hours~~ *as near as practicable to the*
middle of the time period beginning at the resumption of work after the second rest period
required by Industrial Welfare Commission Wage Order 14 and the end of the
workday. ~~The preventative cool-down rest period required by this paragraph may be~~
~~provided concurrently with any other meal or rest period required by Industrial Welfare~~
~~Commission Order No. 14 if the timing of the preventative cool-down rest period~~
~~coincides with a required meal or rest period. For purposes of this section, preventative~~
~~cool-down rest period has the same meaning as “recovery period” in Labor Code Section~~
~~226.7(a).~~

Response: Please see response to comment #KSC3. The Board notes that CFLCA would retain the word “ensure” in the first sentence rather than changing it to “authorize and permit,” as suggested by the Coalition. The distinction is important. The words “authorize and permit” are taken from Wage Order 14, and they require employers to make the break available but not ensure that it is taken. The Board has chosen to retain the word “ensure” in subsection (e)(6) in order to make sure that these breaks are actually taken as a preventative safety measure and not just offered as a purported employee benefit. Though they disagree on the causes, industry and worker representative alike assert that farmworkers tend to continue working through rest breaks, thus making it necessary to use the word “ensure” to achieve the intended purpose of this provision.

Guy Bjerke, Western States Petroleum Association (WSPA), emailed December 8, 2014

Comment #WSPA5: WSPA wishes to thank the Department of Industrial Relations and the Board for the recent modifications made to the proposed changes to Section 3395. WSPA supports the comments of the Heat Illness Prevention Coalition. In order to avoid duplication, WSPA will only cover areas of particular concern to their industry.

Response: Please see generally responses to comments #MF25 through #MF32.

Comment #WSPA6: The term “Pre-shift” in subsection (e)(5) is confusing and could have labor and wage implications. They recommend striking “pre-shift” and leaving the remaining text calling for “Meetings before commencement of work...”

Response: Please see response to comment #AK16. The Board notes that no modifications to subsection (e)(5) were proposed in the 15-day notice, and therefore further response is not

required.

Comment #WSPA7: The monitoring requirement found in subsection (d)(3)(A) is impractical for lone worker scenarios typical in their industry. This language could be interpreted to require lone workers to contact supervision every time a break is taken, which may actually discourage workers from taking preventative cool-down rest breaks. They recommend that a lone worker exception be included in this section.

Response: The Board notes that it is critical that all employees, including lone workers be monitored for signs or symptoms of heat illness. The Division's field experience and review of heat cases including fatalities found incidents where lone workers collapsed due to heat stroke and were not found until several hours later precisely because they were not in communication with the employer.

Comment #WSPA8: The observation required in subsection(g)(1) for acclimatization is already clearly spelled out under section (e) – High Heat Procedures. Adding a new observation trigger defined as a “heat wave” based on current and average calculated temperatures is simply confusing to administer and enforce. WSPA recommends that this section be removed from the proposed regulations.

Response: These subsections address distinct situations and circumstances and thus are not duplicative. Acclimatization requirements apply to all employers and all employees under the defined circumstances of heat wave conditions (temperature of 80 degrees or more *and* at least 10 degrees higher than average high in the preceding five days) or for employees who are new to a high heat area. The high heat procedures in subsection (e) apply whenever temperatures reach or exceed 95 degrees, but they only apply to the five industries specified in subsection (a)(2). The Board cannot combine the requirements or eliminate one or the other without unduly broadening or narrowing the scope of what the Board believes is necessary. Thus, the Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #WSPA9: WSPA hope these final recommendations are considered and incorporated into final language proposed for Board adoption in the near future.

Response: The Board acknowledges and thanks WSPA for their comments and participation in this rulemaking process.

John Robinson, California Attractions and Parks (CAPA), emailed December 8, 2014

Comment #JR5: CAPA commends the Board for many of the revisions made to the initial proposed regulations. The current proposal is far more reasonable and effective in providing protection from heat illness for both workers and employers. Specifically CAPA agrees with the removal of mandatory required distances to shade and water which are impracticable and unnecessary in a theme park environment. Many of their employees are highly mobile, and shade and plumbed water are close by.

Response: The Board welcomes CAPA's comments and acknowledges their support for this part of the proposal.

Comment #JR6: CAPA supports the comments made by the California Chamber of Commerce's Heat Illness Coalition. More specifically, they request that the requirement for shade be changed to shade available for "the number of employees on a preventative cool-down rest or rest period." They add that employees are free to go where they want during their meal and rest breaks, often away from their work site. Not all employees can be monitored during their breaks as to provision shade.

Response: Please see response to comment #MF27.

Comment #JR7: CAPA has concerns with section (f)(2)(A) and proposes that the words "... commensurate with the severity of the illness" be stricken from the phrase, as it requires employees to make a medical evaluation as to the severity of the illness.

Response: Please see response to comment #MF29.

Comment #JR8: It is CAPA's desire to obtain clear regulations that provide sensible protection for our employees while addressing the unique work environment and requirements found at theme and amusement parks. CAPA looks forward to working with the Board as well as Cal/OSHA in the formation and implementation of any new Heat Stress Illness standard. In the past, questions on the interpretation of Heat Stress regulations on their industry were clarified through an industry-specific enforcement Q&A document issued Cal/OSHA. While this may not be necessary with the newly proposed regulations, it is an approach which worked well in the past. CAPA thanks the Board for the opportunity to comment and will offer additional comments at the appropriate meeting of the Board.

Response: The Board thanks CAPA for their comments and participation in this rulemaking process.

Jorge Cabrera, SoCalCOSH, emailed December 8, 2014

Comment #JCabrera1: SoCalCOSH's comments are identical to the ones submitted by Worksafe.

Response: Please see comments and responses to #GB14 through #GB27. The Board acknowledges thanks SoCalCOSH for its comments and participation in this rulemaking process.

Laura Brown, California Citrus Mutual (CCM), emailed December 8, 2014

Comment #LB2: There is a lack of evidence to support that the current standards are inadequate, and the resource cited in their request for justification was a CDC study which outlines the need for Heat Illness Prevention (HIP) standards, which California has already satisfied. Although some changes were adopted in the second draft of the proposal, there remain several revisions

that are unsubstantiated in addition to being overly burdensome for employers to comply with.

Response: Please see responses to comments #MF25 and #MF26.

Comment #LB3: The shade requirements are not feasible. There is no evidence that demonstrates the prevention of heat-related illnesses by lowering the trigger temperature for shade to 80°F from 85°F. The current requirement practice of making shade available at all times is being followed every day in their fields. With regard to acclimatization, CCM understands that if an individual is not accustomed to working outside in higher temperatures, their body will need time to acclimate. Providing shade and breaks to employees when they request either is an important aspect of the HIP education program that is presented to employees regularly. CCM requests that the trigger temperature for shade remain at 85°F.

Response: The shade trigger temperature is addressed in the response to comment #BT5. Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #LB4: The proposal to provide shade for an entire crew at all meal, rest and recovery periods is onerous and could provide safety hazards. Many growers do not have the space to accommodate that amount of shade. As the shade structures are placed on the perimeter of the fields, that is also where machinery passes by. Growers would not wish to place their employees near trucks, tractors, forklifts, etc. Additionally, having a large number of employees leaving the field at the same time would create distractions for the machinery drivers. It is unrealistic to expect workers to remain in a designated shade area for their meal break. The meal period is unpaid and therefore the employees have the liberty to go where they wish to eat a meal. In agriculture if the temperature escalates to a point where all of the crew needs a shade break at the same time, growers would end the work day. They request that the shade requirement remain at coverage for 25% of the crew.

Response: Please see responses to comments #MF15 and #MF27.

Comment #LB5: The Ag-specific break requirements are unjustifiable. There has been no research or evidence to demonstrate that the agricultural industry places its employees at more exposure to heat illness than employees who work in other outdoor industries. By mandating a break for the employees, they take away their ability to choose when to take their breaks. In addition, the proposal set forth by Cal/OSHA will undoubtedly create confusion as to when and how often a break should be given while still complying with Wage Order 14. They respectfully request that the Subsection (e)(6) be deleted from the proposal due to the lack of justification for an agricultural only break requirement.

Response: This requirement is being mandated as a safety measure and precaution so that employees working in 95 degree or higher heat will periodically take time to cool down, even if their preference is to continue working. Please see also response to comment #GS15. Based on this and other comments expressing continuing over how this break rule would apply in relation

to Wage Order 14, the language of subsection (e)(6) was further modified. Please see response to comment #KSC3.

Comment #LB6: CCM heard testimony at the September Standards Board hearing of workers who had undesirable working conditions. The examples cited demonstrated that their employers were out of compliance with the current regulations. They would encourage Cal/OSHA to penalize those who are not in compliance and have put their employees in danger. Ultimately, an entire industry should not be persecuted for the ills of a few bad apples. CCM has voiced these same concerns previously in meetings with Cal/OSHA staff, in formal written comments, and in public comment before the Standards Board. Although some important changes have occurred between the first and second drafts of Cal/OSHA's proposed revisions, CCM requests that consideration be made of their points.

Response: The Board acknowledges and thanks California Citrus Mutual for their comments and participation in this rulemaking process.

Rob DeLucia and Mark Millam, Airlines for America (A4A), and Stacey Bechdolt, Regional Airline Association, (RAA) letter emailed December 8, 2014

Comment #RD1: A4A and RAA's main concerns are consistent with the Heat Illness Prevention Coalition. In addition, A4A submitted separate comments to highlight the incompatibility of the proposed standard in an airport operational environment along with information not specific to the text describing the nature of airport operations.

Response: The Board welcomes A4A and RAA's comments and acknowledges their participation in this rulemaking process. Please see also responses to comments #MF1 through #MF32.

Comment #RD2: A4A and RAA have concerns with subsection (c)'s requirement that water provided to employees be "fresh, pure, and suitably cool." On its face, the proposal can be read as setting higher standards than those established for local water utilities by the EPA and other agencies responsible for regulating the quality of the water provided to passengers and workers inside the terminal. A4A and RAA can discern no reason why the water provided outside the terminal needs to be any more – or less – "fresh or pure" than the water available inside the terminal. Accordingly, A4A and RAA would recommend that Cal-OSHA either: (a) delete the reference to "fresh, pure and suitably cool," or (b) specifically state that water supplied by the local municipal water utility will be presumed to satisfy the "fresh, pure and suitably cool" standard.

Response: It is not the Board's intent to set different standards for water provided inside or outside the terminal, but rather to collect and reiterate existing standards in a way that will be understood as encouraging the frequent drinking of water by employees working outside in direct sunlight. Please see response to comments #BT4, #MF11, and #MF30.

Comment #RD3: A4A and RAA have concerns with subsection (d) Access to Shade and subsection (g) Acclimatization. They echoed the comments of the California Chamber, that there is no scientific basis for lowering the trigger from 85 to 80 degrees. This will require extensive tracking and record keeping of daily average high temperatures – both actual and forecast. They add that all airports in the relatively temperate and often chilly San Francisco Bay area will be subjected to far more “heat wave” alerts using the lower heat trigger point of 80 degrees. On the issue of “closely supervising” employees, A4A and RAA emphasize that the nature of airport operations requires that the Ramp/Fleet Services/Cargo and Mechanic employees relocate constantly within the airport property and operate independently, using their own judgment with minimal direct supervision. However, as written, the proposed regulation is open to an interpretation that a supervisor must closely monitor or hover over rank and file employees whenever one of the heat thresholds is triggered. Implementation of such a requirement would be operationally and financially prohibitive as it would require hiring larger number of additional supervisors. Accordingly, A4A and RAA urge Cal-OSHA (a) not alter the existing temperature trigger of 80 degrees, and (b) clarify that the proposed standards on close observation by a supervisor or designee can be accomplished by either the mandatory buddy system, regular communication via radio or cellular phone, or other effective means of communication, as in proposed subsection (e)(2).

Response: The commenters appear to be conflating the trigger temperature for shade, which is being lowered from 85 degrees to 80, with the generally applicable acclimatization procedures, which have not had prescribed parameters outside the high heat context of subsection (e), but now will be triggered by the combination of a jump in temperature of at least 10 degrees from the average high in the preceding five days to an overall temperature of 80 degrees or higher. In other words, acclimatization procedures will not be required every time the thermometer reaches 80, but rather only after five days in which the average daily high temperature was at least 10 degrees cooler.* With regard to the issue of close supervision, the proposed language specifically states “closely observed by supervisor or designee,” which could be accomplished by implementing a buddy system or other effective means of communication. Thus, the Board does not believe that further modification to the proposal is necessary as a result of this comment.

Comment #RD4: A4A and RAA appreciate the revisions made to the original proposed standards. However, they share the continuing concerns of the California Chamber and ask that the agency take into consideration the particular needs of airline and airport operations before issuing final standards.

Response: The Board thanks A4A and RAA for their comments and participation in this rulemaking process.

Matthew Antonucci, CSATF, and Melissa Patack, MPA, letter emailed December 8, 2014

Comment #MA6: CSATF notes that the Board did address some of their concerns, however there are still areas of the proposed standard that remain problematic.

*In other words, for acclimatization requirements to apply at 80 degrees, the average daily high temperature during the preceding five days must have been 70 degrees or less.

Response: The Board welcomes CSATF comments and acknowledges their participation in this rulemaking process.

Comment #MA7: Lowering the trigger temperature for shade from 85 degrees to 80 degrees has not been substantiated by data to suggest that this will result in increased worker safety. Furthermore, the revised language states that shade must be present when the temperature does not exceed 80 degrees and available when the temperature exceeds 85 degrees. These terms create compliance difficulties as employers will struggle to predict when shade is required. Maintaining the 85 degree threshold will lead to a uniform Standard which will result in greater compliance.

Response: As revised by this proposal, subsection (d)(1) will require shade to be present when the temperature exceeds 80 degrees, and subsection (d)(2) will require shade to be available when the temperature does not exceed 80 degrees. Both triggers are being lowered from 85 degrees for reasons noted in the response to comment #BT5.

Comment #MA8: The proposed modifications to subsection (f)(2)(A) have retained language that requires the supervisor to take actions commensurate with the severity of the illness. Again, this requirement places a medical evaluation duty on supervisors who may not have had medical training, and as such the language should be removed from the Standard.

Response: Please see response to comment #MF29.

Comment #MA9: The definition of how to determine if a “heat wave” is occurring in subsection (g) is still overly complex and subjects employers to citation without increasing worker safety. Also, a “high heat area” is not defined nor referenced anywhere else in the Standard, and so adhering to this section is especially problematic. Since their industry frequently changes locations, trying to determine what a “high heat area” is and what is not, would be impractical.

Response: In the initial comments, most of the confusion centered on the belief that acclimatization was required whenever the temperature reached 80 degrees. The term “heat wave” was incorporated to connote the need for both a spike in temperature plus an overall high of at least 80 degrees in order for this requirement to kick in. The term “high heat area” was not defined because it is a relative term that focuses on a new employee coming from a cooler to a hotter area (or from air conditioned indoor work to outdoor work) and consequently is not yet acclimatized to working outside in hotter weather. The Board believes that these revisions have brought the clarity sought by most commenters, but also anticipates that the Division will provide additional guidance documents to help employers comply. Please see also response to comments #BT11.

Comment #MA10: CSATF appreciates the Boards’ decision to issue this 15-day Notice of Proposed Modifications and thanks the Board for the opportunity to provide comments on this important issue.

Response: The Board thanks CSATF for their comments and participation in this rulemaking process.

C. Bryan Little, California Farm Bureau Federation (CFBF), emailed December 8, 2014

Comment #BL6: CFBF welcomes the opportunity to comment on proposed revisions to the Heat Illness Prevention standard, and commends the agency for making improvements to its original regulatory proposal. However, CFBF is still concerned that a comprehensive justification for the proposed regulatory action has not been provided, nor have the legal requirements to support regulatory action been satisfied. In addition a number of the problems presented by some of the substantive provisions of the proposed revisions have not been adequately addressed.

Response: The Board acknowledges and welcomes CFBF's comments. With regard to overall justification for the proposal, please see response to comment #MF25.

Comment #BL7: CFBF stands by its initial assertion that no information demonstrating the necessity for this regulatory proposal has been furnished to the regulated community with respect either to the proposal in its entirety or to specific proposals included in it, such as, lowering the trigger temperature for provision of shade at all times from 85⁰ to 80⁰ Fahrenheit and creating a new break requirement solely for agricultural employers.

Response: These comments do not address the modifications in the 15-day notice, and do not require further response. Please also see responses to comments #BT1, #BT5, #MF20, and #KSC3.

Comment #BL8: CFBF believes that the legal requirements imposed by the Government Code for regulatory action have not been satisfied. The Farm Bureau's concerns in this regard are described in detail in its September 9, 2014, letter.

Response: Please see responses to comment #BT1.

Comment #BL9: The requirement for shade for all employees taking rest, recovery, or meal breaks will be very difficult to implement, particularly for large crews. In many instances there will not be sufficient space in these areas to provide shade in the amount apparently required by the proposed regulation in reasonable proximity to work areas. In addition, CFBF suggests the agency consider eliminating the requirement to provide shade to all employees on meal breaks, while continuing to require provision of shade to employees on rest periods and recovery breaks. Rest periods and recovery breaks can be more easily rotated among smaller groups of employees than can meal periods, reducing the overall amount of shade that must be provided to accommodate all employees on a rest period or recovery break at any given time.

Response: In response to this and other comments, subsection (d)(1) was modified with respect to meal periods, to require only that employers have enough shade to accommodate employees who remain on site during meal periods. Please see response to comment #MF27.

Comment #BL10: The requirement that the method of providing shade should not “deter or discourage use” offers no guidance on what that prohibition would entail. CFBF is concerned that this will result in non-compliance by employers who are not being provided clear guidance on how to comply.

Response: Please see responses to comments #MF10, #AK3, and #CW14. Examples of placements that would deter or discourage use, such as adjacent to portable toilets or across a highway, were provided in the Initial Statement of Reasons, and employers should have no difficulty complying if they provide shade which they personally would have no reluctance to use.

Comment #BL11: The proposed revision to subsection (e)(6) will greatly reduce the flexibility agricultural employers now have in scheduling breaks required under Industrial Welfare Commission Order 14. Depending on when the temperature exceeds 95⁰, employers may or may not be able to coordinate rest and meal periods required to be provided under IWC Order 14 with these new mandatory recovery periods. It is possible that employees would have to be permitted to take an Order 14 rest period (which they may choose to take or skip) only to have a recovery period imposed on them shortly before or after the rest period, or shortly before or after a meal period. CFBF suggests the agency revise its approach for providing additional break time when the temperature exceeds 95⁰ as follows: When conditions trigger the High Heat provisions of the standard (the temperature equals or exceeds 95⁰ Fahrenheit), agricultural employers would authorize and permit employees working more than eight hours in a workday to take a net 10 minute rest period. This break would occur as near as practicable to the midpoint between the end of the second rest period required by Industrial Welfare Commission Wage Order 14 and the end of the workday. This will vastly simplify management of rest periods and breaks while accomplishing the agency’s aim of ensuring employees take additional rest when the temperature exceeds 95⁰.

Response: In response to this and other comments, subsection (e)(6) was further modified to add clarity to allow for these breaks to be aligned with the breaks required by Wage Order 14. Please see responses to comments #MF8, #MF20, and #KSC3.

Comment #BL12: While the agency has made welcome improvements in its original regulatory proposal, the requirements set forth in the Government Code to demonstrate “necessity” for any amendment have not been met because it has not been shown how the proposal addresses any specific failure of the current regulation. The proposed regulation will create new mandates for agricultural employers that will be difficult and burdensome to implement.

Response: Please see response to comments #BL7. The Board thanks Mr. Little and CFBF for their comments and participation in this rulemaking process.

Tim Cromartie, League of California Cities, emailed December 8, 2014

Comment #TC2: The Fire Chiefs’ Department for the League of California Cities has significant

concern about how this proposed regulation will affect local fire agencies – particularly with respect to requirements such as providing shade to deployed personnel in the non-urbanized areas of active firefighting. On its face, the proposed regulation does not appear to affect fire agencies based on the language of Section 3395(a)(1) and 3395(a)(2). However, based on a phone conversation with Amy Martin, Chief Counsel for Cal-OSHA, it is apparent that fire agencies will be held to the same requirements as general agriculture and construction workers in spite of what the regulation says. Thus, they find themselves compelled to document their concerns and possible solutions in writing. Their view is that the proposed regulation should not apply to their agencies and add that firefighting, in and of itself, is an occupation that requires its members to work with significant additional layering of protective equipment as compared to any other industry, in conditions much hotter than ambient air temperature, and in situations where staffing levels must be fully committed first to life safety actions before they are able to address lower priority logistical needs. Therefore, regulations that are developed primarily to address routine hazards within the construction, agricultural and landscaping-type industries cannot be reasonably equated to the firefighting industry that has a much different and complex level of risk. Firefighters often do not have the luxury of ceasing their efforts to contain or extinguish a wildfire. Firefighters may barely complete the suppression work on one fire and be summoned immediately to another incident without the ability to meet all the specific requirements within the proposed regulation. Simply put, firefighters are sometimes called to put themselves at risk to save a life, whereas most other industries are not. Given the choice between complying with the regulation and saving lives and property, fire agencies are going to defer to the expedient needs of the community first. Additionally, the levels of fitness and training required to perform as a firefighter creates a demographic within the candidate pool and workforce that is much more acclimated to adverse working conditions (hot, cold, humid, etc.) and adjusts its tactics and strategies based, in part, on climatic conditions. Local fire agencies already make plans and preparations through good Incident Command System practices for rehabilitation, cooling and hydration of their personnel on emergency scenes and during training. The methods and techniques of providing for rehabilitation are well established and proven effective, but may not always meet the exact requirements of the proposed regulation. The proposed regulations could create a situation where the local agency may be providing a better level of cooling than required by regulation, but may nonetheless technically be in violation due to the difference between the best practice/industry standard and the proposed regulations written for traditional environments, rather than emergency work environments.

Finally, all agencies are required to maintain an Illness and Injury Prevention Program (IIPP) which addresses workplace hazards. This specific regulation, while well-intentioned, if applied to the fire services will actually hamper their ability to perform safely and effectively. Based on these facts, the Fire Chiefs' Department of the League of California Cities believes it more appropriate and/or expedient that local fire agencies and first responders have an outright exemption to the proposed rule, or at a minimum, that they be granted a variance under existing procedures so that their current practices in this area shall be deemed compliant with the new rule. They enclosed a sample Standard Operating Procedure to show one example of how heat illness prevention is already proactively addressed among the fire services.

Response: The Board notes that these comments are outside of the scope of the 15 Day notice. This letter, however, becomes part of the rulemaking process. Please see also response to comment #TC1, which addresses the applicability of this standard to fire agencies and the opportunity for any employer to apply for a variance from the standard if it has another way to provide equivalent safety. The Board acknowledges and thanks the League of Cities and Mr. Cromartie for their comments and participation in this rulemaking process.

Edward J. Klinenberg, California Industrial Hygiene Council (CIHC), emailed December 7, 2014

Comment #EK13: CIHC believes the regulation has merit in California and applauds Cal/OSHA for its continued effort in the prevention of heat illness.

Response: The Board acknowledges CIHC's general support for the proposal.

Comment #EK14: CIHC finds the addition of “deter or” to the addition of the proposed phrase, “and that does not discourage access” an improvement, but believes “discourage access” to be vague, unclear, and not defined. They propose the Board consider eliminating the phrase, “or discourage” from the newly revised proposed change.

Response: The phrase “that does not deter or discourage access or use” is intended to be read together, and in that context can be readily understood and applied with a common sense understanding. Please see responses to comments #MF10, #AK3, #CW14 and #BL10.

Comment #EK15: CIHC remains in agreement with the addition of the phrase “shall be provided to employees free of charge” and agrees with the addition of “cool” to define the temperature of water, but believe “fresh” and “pure” to be superfluous and redundant since water must be “potable.” Also, they are in agreement with the elimination of the phrase initially proposed that would define a specific distance for the water.

Response: The Board acknowledges CIHC support for the noted aspects of the proposal. With regard to the terminology, please see responses to comments #BT4, #MF11, #MF30, and #RD2.

Comment #EK16: CIHC is in agreement with the changes made to subsections (d)(1) and (d)(2).

Response: The Board acknowledges CIHC support for this aspect of the proposal.

Comment #EK17: CIHC believes that the proposed changes in subsection (d)(3), regarding cool-down rest, are a reasonable addition. However, they recommend combining (b) and (c) to read as follows, “shall be encouraged to remain in the shade and not ordered back to work until 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 shade.”

Response: The Board believes that last part of subsection (d)(3) is easier to read as structured in the proposal and therefore declines the suggestion to combine items (B) and (C).

Comment #EK18: CIHC is in agreement with the proposed changes for subsections(d)(4), for maintaining the trigger temperature in subsection (e) at 95 degrees as well as the changes in (e)(2), and the changes in subsection (f).

Response: The Board acknowledges CIHC support for these aspects of the proposal.

Comment #EK19: CIHC disagrees with the definition of a “heat wave” in (g)(1). The phrase is confusing and incorrect. “Heat wave” is measured relative to the usual weather in the area and relative to normal temperatures for the season, and applies to extraordinary spells of heat. For the purposes of this standard, humidity will also need to be considered. We therefore find this new subsection to be scientifically incorrect, see no added value to the overall intent of the standard, and propose its removal.

Response: In this case the term “heat wave” is being used as a legal term of art that applies only to this section. The term is essentially an understandable shorthand reference to the combination of factors (spike in temperature plus at least 80 degrees) that trigger the need for acclimatization. Please see responses to comment #WSPA8 and #MA9.

Comment #EK20: CIHC appreciates the opportunity to comment.

Response: The Board thanks CIHC for their comments and participation in this rulemaking process.

Emily Cohen and Christopher Lee, United Contractors (UCON), Eddie Bernacchi, NECA & CLC, Kate Mergen, SCCA, David K. Jones, AGC of California, and Frank E. Nunes, WACA, letter emailed December 5, 2014

Comment #UCON18: The commenters appreciate the efforts of the Division and the Board to address problematic elements of the proposed revisions by making several changes, and they advocate that the Division undertake additional revisions/modifications that will provide clarity and foster compliance. They believe that the Centers for Disease Control (CDC) document “Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report Heat Illness and Death Among Workers – United States, 2012-2013” study is not relevant to California and not appropriate for consideration under this proposed rulemaking.

Response: Please see response to comment #MF26.

Comment #UCON19: The commenters continue to believe this latest proposed text for subsection (b) is vague, does not meet the stated intent of the Board on this specific change, and is unnecessary. It remains unclear how or in what manner this change offers greater protection on the issue of shade.

Response: Please see responses to comments #MF10, #AK3, #CW14, and #BL10.

Comment #UCON20: The commenters have concerns with the proposed changes for subsection (c). They note that Sections 1524, 3363, and 3457 all refer to potable water, with no further requirement regarding freshness, purity or temperature. Their members believe that this new proposed language is unnecessary. Additionally, the addition of this language might result in potential challenges in the field by compliance officers that the water is not fresh, not pure or not suitably cool. Under this scenario, a compliance officer's determination that an employer has failed to meet one or more of these elements could be subjective.

Response: Section 3457(c)(1)(b) expressly states that potable drinking water "shall be fresh, pure, and suitably cool[.]" Please see responses to comments #BT4 and #MF11.

Comment #UCON21: Member companies provide water to employees free of charge, and therefore do not have a concern about not charging employees for potable water. Additionally, they applaud the Board for recognizing the wisdom of supporting a "performance requirement" rather than specifying a particular distance on this particular issue. This is a practical approach that takes into account the constantly changing nature of construction job sites.

Response: The Board acknowledges UCON's support for this aspect of the proposal.

Comment #UCON22: UCON remains unaware of any medical, scientific or technical data that justifies the trigger temperature change in subsection (d).

Response: This comment does not address the modifications in the 15-day notice, and does not require further response. Please also see response to comment #BT5.

Comment #UCON23: The commenters have concerns with the requirement that shade present be enough to accommodate the number of employees on rest or recovery periods. They believe that there will likely be uncertainty about whether an employee on break is taking a meal, recovery or rest break. Proposed changes to Section 3395 would seemingly require supervisors to observe and monitor employees while on meal and rest breaks should they combine them and it becomes a recovery or cool down period. They believe the existing language is sufficient.

Response: Please see responses to comments #MF27, #BT16, and #BMC2.

Comment #UCON24: The commenters commend the Board for its wisdom in affording the employer community the latitude and flexibility to place shade as close as practicable, rather than imposing a strict distance requirement.

Response: The Board acknowledges UCON's support for this aspect of the proposal.

Comment #UCON25: The commenters have concerns with the proposed changes for subsection (d)(3). Supervisors/foremen are already expected to encourage employees to take cool down rest breaks as appropriate. Management representatives are not medical professionals, and as such, should not be expected to make decisions regarding the medical status of their employees. On

many construction job sites, particularly medium to large scale projects, the foreman or supervisor may be moving around the site and may not always be proximate to employees who have opted for a preventative cool-down rest period. How would they know whether an employee electing to take a preventative break is in need of monitoring?

Response: Please see responses to comments #BT8 and #BT16.

Comment #UCON26: The commenters concur with the Board's decision to leave the high-heat trigger temperature at 95 degrees Fahrenheit.

Response: The Board acknowledges UCON's support for this aspect of the proposal.

Comment #UCON27: With regard to subsection (e)(2)'s requirement for observation of employees, the commenters believe that a performance-oriented approach such as in the current regulation, versus a specification approach, gives our employers the flexibility to implement those methods and means they deem appropriate to observe employees.

Response: Please see response to comment #UCON9. Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #UCON28: This new requirement that an employee, in addition to onsite supervisor/foremen, be designated to summon emergency medical services is duplicative and unnecessary.

Response: Please see response to comment #UCON10.

Comment #UCON29: The commenters believe the proposed changes for subsection (e)(5) are unnecessary and unclear. The proposed revision is unclear as to the frequency of such pre-shift meetings and whether they need to be held every shift of every day. This would create a bifurcated schedule between Section 1509(b) which requires such meetings at least every 10 days, versus the revised Section 3395 requirement, which may or may not require meetings on a more frequent basis.

Response: Please see responses to comments #LS1 and #JA10. Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #UCON30: The new requirements proposed under subsection (f) Emergency Response Procedures are duplicative. There is some value in locating in one section of the standard all requirements concerning emergency response. However, with regard to the new subsection (f)(1), the existing language implies that if a cell phone or text messaging device does not provide effective communications because reception is not dependable, then an alternative must be found. This is overly prescriptive. With regard to the new subsection (f)(2) concerning providing first aid services, they believe that the existing language at subsection (f)(G) already requires "Employer's procedures for responding to symptoms of possible heat illness..." They

believe that the provision of first aid is a part of those procedures, and job site supervisors and foremen have been trained to respond accordingly. The September revision requires spelling out what is already a part of the job site response. Furthermore, the new section (B) which delineates specific types of signs/symptoms which require the activation of emergency response procedures, does not need to have these spelled out in the revised standard. They believe that the new subsection (f)(2)(B) is redundant to the requirements at the new (f)(2)(A). With regard to new subsection (f)(2)(C), they note that they are not aware of this scenario in the construction industry. They state that the new requirement annotated at (3) reflects the current language found in (f)(1)(H) and that the new requirement annotated at (4) reflects the current language found in (f)(1)(I).

Response: The predominant view expressed by others, including the Heat Illness Prevention Coalition and CRLAF, and a view the Board found persuasive, was that the emergency response procedures are substantive requirements that should be placed in their own subsection and not buried within protocols for training or having written procedures. The Board disagrees that the elements in subsection (f) are either duplicative or overly prescriptive in light of the range of other comments suggesting that having a grasp of how to respond in an emergency is beyond the expected knowledge or expertise of most supervisors. Please see also responses to comments #MF22, #MF28, #BT17, #GB24, and #AK34.

Comment #UCON31: With regard to the 14-day observation requirement in subsection (g), an employee ought to be able to qualify for an exemption from the observation if they can demonstrate that they have been doing similar outdoor work as stated in the current language. With regard to the “heat wave” threshold that would require observation, supervisors and foremen will now have a weather monitoring responsibility to determine if, in fact, their crews will be working in a “heat wave” environment.

Response: The Board notes that the critical issue with acclimatization is whether or not an employee has been given the opportunity to adjust to the outdoor temperatures where he or she is assigned to work (for instance, whether a worker is being relocated from coastal to inland areas); and not whether the worker has been doing similar work. With regard to the term “heat wave,” since its inception, the heat illness regulation has required awareness of the outdoor temperature, so weather monitoring is not a new requirement. Thus, the Board does not believe that further modification to the proposal is necessary as a result of this comment. Please see also responses to comments #MA9 and #EK19.

Comment #UCON32: UCON believes that the existing language of 3395(f) Training sufficiently addresses the responsibilities and required actions by supervisors and foremen.

Response: Because this comment does not address the modifications in the 15-day notice, it does not require further response.

Comment #UCON33: The new language in subsection (i) requiring that the heat illness prevention plan be both in English and the language understood by the majority of the employees

makes sense given the diversity of their workforce. However, the current requirement for a written plan addressing (f)(1)(B), (G), (H), and (I) satisfactorily covers the most critical issues that should properly be included in a plan. It is important for employers to have the option of creating a separate plan, or incorporating the currently required elements into their IIPP plan.

Response: The Board acknowledges their support for this aspect of the proposal. However, the Board does not agree that having a plan which only includes three elements would satisfactorily cover all the essential preventive measures needed to reduce heat illnesses. The Board does not believe that further modifications are needed as a result of this comment.

Comment #UCON34: UCON wholeheartedly supports steps that have been taken to reduce and hopefully eliminate employee illnesses due to heat exposure and believes that a number of these proposed revisions are unnecessary, or are overly prescriptive. They appreciate the consideration of these comments and the opportunity to participate in this critically important proceeding.

Response: The Board thanks United Contractors and their colleagues for their comments and acknowledges their participation in this rulemaking process.

Michael Donlon, Department of Water Resources, emailed December 5, 2014

Comment #MD9: Comments were submitted regarding proposed subsection (e)(5)'s requirement for daily pre-shift meetings, and no response or rationale was given in the 15-day notice for not incorporating or even considering the comment. The commenter agrees with the response to subsections (d)(3) and (4) that "heat illness is like any other job illness or injury." It would be logical to treat the communication of the hazards of heat illness like any other job illness or injury. Section 1509(e) of the Construction Safety Orders requires communication of construction hazards through tailgate meetings every ten working days, and this has been shown to be effective through decades of actual practice. If this is sufficient for serious construction hazards such as falls, cave-ins and overhead loads then it should be adequate for the hazard of heat illness. Many parts of California see high heat conditions for weeks or even months at a time. This would mean daily briefings on heat illness. Based on 24 years as a safety educator, he sees no benefit to daily briefings. The Initial Statement of Reasons or the Notice of Proposed modifications does not show the necessity of pre-shift meetings through facts, studies, or expert opinion. The commenter recommends that the time tested practice of safety briefings every ten working days be applied to heat illness.

Response: The Board welcomes DWR's comments and notes that all comments have been responded to in this Final Statement of Reasons. With regard to the "pre-shift" issue, the Board notes that the requirement applies only to five industries when temperatures reach or exceed 95 degrees and concern a temporary situation at the time it occurs in contrast to construction hazards which may be present throughout the project. Please see response to comments #LS1. The Board acknowledges and thanks Mr. Donlon and DWR for their comments and participation in this rulemaking process.

Anne Katten, CRLAF, Michael Meuter, Cynthia Rice, and Jennifer Bonilla, CRLA, Virginia Ruiz, Farm Worker Justice, and Dori Rose Inda, Salud Para La Gente, letter emailed December 4, 2014

Comment #AK25: CRLAF appreciates the time and attention that the Board and staff have invested in reviewing and responding to testimony and written comments on proposed modifications to the Heat Illness Prevention Standard. For the most part these revisions retain important improvements in the standard that are vital for prevention of heat illness at outdoor work sites in California. However, some of the proposed revisions are not advisable or supported by the record.

Response: The Board acknowledges CRLAF's general support for the proposal.

Comment #AK26: CRLAF supports the revision to the definition of shade which specify that shade must be provided in a manner that "does not deter or discourage access or use" and agrees that this more clearly expresses the concept that shade must not be located in an area where workers are unable to use the shade because of unsafe location. However, it would be helpful to add specific examples to the text modified by the phrase "including but not limited to" to clarify that the list is not complete or exhaustive.

Response: The Board acknowledges CRLAF's support for this part of the proposal. The Board does not believe it is necessary or appropriate to add examples to the text for the reasons stated in the response to comment #AK3.

Comment #AK27: At the September hearing, farmworkers, UFW representatives and a CRLA community outreach worker provided compelling testimony about the impossibility of maintaining adequate hydration unless drinking water is within an easy reach in the fields, much closer than 400 feet. They concur with the comment response that drinking water can and should be closer at hand and more readily available than shade or sanitary facilities. It is very troubling that so many agricultural employer representatives commented that it was not always practicable to place drinking water within 400 feet of workers. This suggests that they are not complying with the field sanitation standard (T8 section 3457(c)) which requires drinking water to be placed in locations readily accessible to all employees. For all these reasons, CRLAF disagrees with the proposal to delete the specific distance to water requirement in the regulation and believes this change will compromise worker safety and make the regulation more difficult to enforce. But if this change is made, at minimum they strongly recommend adding this requirement for easy access: The water shall be readily accessible and located as close as practicable to the areas where employees are working and provided in shaded areas during rest and meal breaks. The most practical and efficient time for workers to hydrate is during rest and meal breaks so it is very important to also require in the regulation that drinking water be provided in the shade during rest and meal periods.

Response: The Board believes that the proposal as modified establishes an enforceable performance standard that judicial bodies will understand as requiring water at a closer distance than 400 feet, whenever it is practicable to do so. The Board does not believe that the additional

language suggested by CRLAF will improve either the clarity or enforceability of the standard and therefore declines to make those modifications. Please see also responses to comments #AK7 and #MS5.

Comment #AK28: CRLAF strongly supports the decision to retain the proposed requirements that drinking water shall be fresh, pure, suitably cool, and provided free of charge.

Response: The Board acknowledges CRLAF's support for this part of the proposal.

Comment #AK29: CRLAF strongly supports the decision to retain the proposed requirements to reduce the threshold for having shade present to 80 F and to provide enough shade to accommodate all employees who take a rest or meal break at the same time. They also support most of the revisions to subsections (d)(3) and (4) which require that the worker taking a cool down period be asked if they are experiencing heat illness symptoms and require the employer to provide appropriate first aid or emergency medical response. These requirements are vital for preventing serious heat illness.

Response: The Board acknowledges CRLAF's support for this part of the proposal.

Comment #AK30: CRLAF disagrees with the deletion of a maximum distance from the work area for the location of shade. They also note that it is practicable to provide shade closer at hand than sanitary facilities because shade structures are smaller and more portable. While some sources of natural shade, such as shade trees provide safe and adequate shade, the standard should specifically prohibit using crop plants, such as grape and tomato vines as shade. Crop plants do not provide an adequate or safe source of shade because of limited air circulation and risk of exposure to pesticide residues, spiders, and snakes.

Response: Please see responses to comments #AK11 and #GB20.

Comment #AK31: CRLAF is disappointed that the trigger for high heat procedures has been raised back to 95 F. Implementation of these procedures at a lower temperature would significantly help prevention of heat illness. In addition, with the exception of mandatory cool down rest periods and possibly buddy systems, these provisions are common sense basic safety requirements which should be in place all the time. In particular, subsection (e)(3) which designates employees authorized to call for emergency medical services needs to be in place all the time and should be moved to subsection (f), and subsection (e)(1) and (e)(4) are requirements that should be in place at all times and thus should be moved from subsection (e) to separate stand-alone sections elsewhere in the regulation.

Response: Please see response to comment #GB21.

Comment #AK32: CRLAF appreciates the explanation that the designation of "pre-shift" and "before the commencement of work" refer to the timing of the meeting and do not override laws requiring employees to be paid for time under the employer's control.

Response: The Board acknowledges CRLAF's support for this part of the proposal.

Comment #AK33: CRLAF continues to strongly support (e)(6), the requirement for mandatory 10 minute recovery periods for agricultural workers when the temperature reaches or exceeds 95F and find proposed revisions to be acceptable. They understand the reference to Labor Code Section 226.7 is to be intended to ensure that workers taking a preventative cool down rest period are afforded the same protections as workers taking a rest period or recovering period. However they think the following revision should improve clarity: ...For purposes of this section, preventative cool down rest period has the same meaning as a "recovery period" as defined in Labor Code Section 226.7(a).

Response: The Board acknowledges CRLAF's support for this part of the proposal. The Board also notes that while CRLAF's amendment was not accepted, subsection (e)(6) has been further modified in response to other comments. Please see responses to comments #MF20 and #KSC3.

Comment #AK34: CRLAF supports the proposed changes in subsection (f) which place emergency procedures in a separate section and improve clarity and comprehensiveness. However, they continue to have concerns about subsection (f)(2)(B) because severe heat illness is an unacceptably high threshold for providing emergency medical services. Less severe heat illness symptoms can rapidly progress to life-threatening heat stroke. Early emergency response is particularly critical in remote rural areas where it may take considerable time for an ambulance to reach the work site. In addition, workers with less severe heat illness may suffer a severe injury if they return to work in the heat after a rest period and become dizzy or faint. The Federal OSHA webpage on Heat Illness Emergency Response, which they recommend adopting as an Appendix, recommends immediately calling an ambulance for workers suffering heat stroke symptoms and that workers suffering symptoms of heat exhaustion should be taken for medical evaluation at an emergency room or clinic if their symptoms do not resolve after one hour of cooling and that workers suffering heat exhaustion should not return to work that day. Given the difficulty of cooling a heat illness victim outdoors and potential for delay in emergency response, particularly in remote areas, the delay involved in observation of heat exhaustion victims for one hour poses an unacceptable risk. The regulation should therefore specify that the employer must take immediate action to provide first aid in the shade if a supervisor observes or any employee reports any signs or symptoms of suspected heat illness and must take immediate action to obtain emergency medical services for all cases of suspected heat illness except heat rash and possibly heat cramps. In addition, they recommend the following additions because a symptomatic worker who is not monitored and is left alone may develop severe, life-threatening symptoms:

(f)(2)(C) An employee exhibiting signs or symptoms of heat illness shall be monitored and not be left alone and shall not be sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer's procedures.

Response: Please see response to comment #GB25. The suggested amendment to subsection (f)(2)(C) was incorporated into the proposal.

Comment #AK35: CRLAF disagrees with the comment response that the proposal to require an employee with first aid training in heat illness at every worksite where temperature reaches 75 F is overly broad and prescriptive and not tied to an identified need. First aid will be provided more competently if there is a trained person on site. 75° F was chosen as a threshold because work heat illnesses have been documented at temperatures of 75° F and greater in California.

Response: Please see response to comment #AK21. Because this comment does not address the modifications in the 15-day notice, it does not require a further response.

Comment #AK36: CRLAF supports the proposed revisions of subsection (g) and reorganization of this section.

Response: The Board acknowledges CRLAF's support for this part of the proposal.

Comment #AK37: CRLAF appreciates all the time and hard work that has gone into developing and revising this proposal. It should be finalized as soon as possible so that outdoor workers will have additional protection from heat stress next summer.

Response: The Board acknowledges and thanks CRLAF and its colleagues for their comments and participation in this rulemaking process.

Kurt Jordan, RND Construction, Inc. , emailed December 4, 2014

Comment #KJ1: RND fully supports the comments in the CalChamber/Heat Illness Prevention Coalition letter dated December 3, 2014, and the comments in the CALPASC letter dated December 3, 2014.

Response: Please see responses to comments #MF25 through #MF32 above and #BW18 through #BW20 below.

Comment #KJ2: RND fully supports CALPASC's assertion that the current trigger temperature for shade requirements of 85 degrees F is appropriate and effective as is. They have not had any heat illness related incidents since the implementation of the program, and they work throughout the high heat areas of California. The current regulations are quite effective and when properly implemented can prevent the vast majority of heat illness incidents. Enforcement of the current regulations should be stepped up prior to enacting further regulations. It is their belief that the majority of heat illness related incidents are due to improper employee training or an employer not following the regulations regarding shade, water, rest and other requirements.

Response: Because this comment does not address the modifications in the 15-day notice, it does not require further response. The Board thanks Mr. Jordan for his comments and acknowledges his participation in this rulemaking process.

Timothy J. Hicks, President – Magik Enterprises, Inc. DBA Magik Glass and Door, emailed December 4, 2014

Comment #TH1: Magik Enterprises fully supports the comments in the CalChamber Heat Illness Prevention Coalition letter dated December 3, 2014, and the comments in the CALPASC letter dated December 3, 2014. They are proud that they have never had a heat or heat illness incident. Don't pass more regulations that penalize the majority of employers who manage their responsibilities. Stricter regulations will have no effect on the underground and uncaring employers who are the most likely to neglect their responsibilities to their employees.

Response: Please see responses to comments #MF25 through #MF32 above and #BW18 through #BW20 below. The Board thanks Mr. Hicks for his comments and acknowledges his participation on this rulemaking process.

Bruce Wick, California Professional Association of Specialty Contractors (CALPASC), emailed December 4, 2014

The following commenters submitted comments expressing their support of CALPASC's comments:

Mike Carson, Vice President, Kahn Air Conditioning, Incorporated

David Keefe, President, Trilogy Plumbing, Inc.

Dave Teter, Contract Administrator, Johnson Air

Ken Tavoda, X-Act Finish & Trim, Inc.

Gary Pack, Chairman, Mark Company

Ken Phillips, V.P. Magik Glass and Door

Paul Frankel, President, Wm. M. Perkins Company, Inc.

Trevais Wilson, Estimator, Homestead Sheet Metal

Cathy Johnson, Director of Administration, Frontier Mechanical, Inc.

Steve Lancaster, President, Silver Wood

Bernadette Reyes, Office Manager Wirtz Quality Installations, Inc.

John Mohns, President, Benchmark Landscape

Adam Gabler, Executive Vice President, SDS Insurance Services

Stacy Littrell, Vice President of Operations, Taylor Trim & Supply, Inc.

Dawn Geiger, Co-Owner & CFO, PPC Enterprises, Inc.

Jon Parry, General Manager, Bemus Landscape

Comment #BW18: CALPASC fully supports the proposed changes from the Heat Illness Prevention Coalition letter. CALPASC strongly disagrees with the reduction in trigger temperature for shade and for heat waves from greater than 85 degrees F to greater than 80 degrees F. Per the Heat Illness Prevention Coalition letter, the CDC document relied upon does not provide anywhere near clear enough information to make such a significant change. The document entitled "Anderson, FB and Bell, ML; (2011) Heat Waves in the United States: Mortality Risks during Heat Waves and Effect Modification by Heat Wave Characteristics in 43 U.S. Communities;" describes a heat wave as two or more consecutive days in a local community at the 95 percentile or higher of the temperatures for that community. The proposal by Cal/OSHA is significantly different, "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.” The threshold of 80 degrees F should be increased to at least 85 degrees F. Cal/OSHA has continued to refuse to show California’s own data and statistics to back up any proposed change. Additionally, CALPASC submitted additional comments about the significance of reducing the trigger temperature for shade to greater than 80 degrees F, from 85 degrees F.

Response: With regard to the CDC study, please see response to comment #MF26. The term “heat wave” is used as a legal term of art in subsection (g)(1) for the reasons explained in the response to comment #EK19, and should not be equated with the use of that term in any other setting. With regard to retaining the shade trigger temperature at 85 degrees, this part of the comment does not address modifications made in the 15-day notice and therefore does not require a further response.

Comment #BW19: CALPASC makes the following comments regarding the response to questions included with the Proposed Modifications. The first response listed is inaccurate, and needs to be changed to reflect the reality of the situation. The response advises that “These proposals were developed over a period of years devoted to examining the issues, holding public advisory meeting, and consulting with interested parties on all sides.” The accurate response would be: “These proposals were developed over a period of time, there was some, but limited opportunity for public input, and there was no version of the typical Cal/OSHA advisory committee type of meeting to arrive at a consensus standard.” A consensus standard achieves a much higher compliance rate than a non-consensus standard. It is not clear why such a supposedly important regulatory review would be relegated to a non-consensus standard. The description in the response of “holding a public advisory committee meeting” is far from accurate. The difference between a typical Cal/OSHA public advisory committee meeting and the two public meetings Cal/OSHA held on heat illness prevention is dramatic.

Response: The comments are not specific to the proposed text and do not require a response.

Comment #BW20: CALPASC reiterates the need for Cal/OSHA to provide information and work with labor, management, and others with expertise, to prepare consensus regulations. They believe that the highest percentage possible of compliance by employers, not a high number of citations, is the best strategy for keeping California’s workers safe.

Response: The Board thanks Mr. Wick and CALPASC for their comments and acknowledges their participation in this rulemaking process.

Greg Wegis, Kern County Farm Bureau (KCFB), letter emailed December 8, 2014

Comment #KCFB1: The most illogical and unreasonable change can be found in the “Placement of Water,” which was changed to “as close as practicable to the areas where employees are working.” The issue here is the normal layout of agricultural fields. Many crop plantings make it impossible to cross rows. Their fields are typically a quarter mile long. With this in mind, we

would propose a more reasonable change as follows: “as close as possible but never more than 1000 feet.” They find the same situation in regards to the shade portion.

Response: The Board notes that the proposed text allows the placement of drinking water as close as possible to workers to ensure frequent drinking, while taking into consideration the physical layout of the site or terrain-conditions. The Board also notes that while in many circumstance it may not be possible to cross crop rows, it is usually possible to bring and place water within rows. The Board further notes that “as close as practicable” has been and will remain the standard for shade. Thus, the Board does not believe that further modifications are necessary or appropriate.

Comment #KCFB2: The new requirements for acclimatization cover supervision of all employees during a “heat wave.” There are other strategies that should be considered, such as but not limited to: the buddy system, short days progressing to longer days, and/or periodic checks to those newly hired or assigned employees.

Response: The Board agrees that these may be appropriate strategies to consider as part of an acclimatization plan, provided they are effective. Please see also response to comment #RD3.

Comment #KCFB3: The requirement of a recovery period every two hours for agricultural workers under high-heat conditions is unreasonable. Agriculture and other outdoor industries strongly oppose this change on the grounds that it constitutes an unprecedented comingling of wage and hour requirements with health and safety requirements and would facilitate the use of private attorney general lawsuits to enforce heat illness prevention requirements.

Response: Please see responses to comments #MF8, #MF20, and #KSC3.

Comment #KCFB4: The shade change from 25% to 100% is unreasonable. Their experience suggests the crews will not sit together during meals or breaks. Information and proof should be provided that shows that the present 25% is insufficient.

Response: Please see responses to comments #MF15 and #MF27. The Board further notes that the standard requires that employers make shade available and not force workers to use it or sit together.

Comment #KCFB5: KCFB notes that these changes to Section 3395 will do little to help their workers and will cause many citations to be written by Cal/OSHA Enforcement. Since agriculture is directly impacted and must comply with these proposed changes to the Cal/OSHA standards, they do hope their suggestions to Section 3395 will be considered. Their proposed changes will allow for practical solutions and protect workers in the field.

Response: The Board acknowledges and thanks the Kern County Farm Bureau for their comments and participation in this rulemaking process.

David Shiraishi, MPH, Occupational Safety and Health Administration, letter dated December 5, 2014

Comment #DS2: The proposed occupational safety and health standard appears to be commensurate with the federal standard.

Response: The Board thanks Mr. Shiraishi for his comment and participation in this rulemaking process.

Summary of and Responses to Written Comments Following Second 15-Day Notice:

Bruce Wick, CALPASC, emailed January 5, 2015

Comment #BW21: The commenter restates that CALPASC's requests in previous letters for more data and justification for the proposed changes have not been responded to by Cal/OSHA, and that CALPASC strongly supports the comments of the Heat Illness Prevention Coalition comment letter. CALPASC remains opposed to the expensive and significant regulatory changes. Minor changes in the modifications issued on December 19, 2014 are appreciated, but the changes do not go far enough in making the entire proposal acceptable.

Response: These comments are outside the scope and not specific to the changes proposed in the second 15-Day notice. The Board notes that all comments have been responded to in this Final Statement of Reasons. The Board thanks Mr. Wick and CALPASC for their comments and acknowledges their participation in the rulemaking process.

Marti Fisher, California Chamber of Commerce on behalf of the Heat Illness Prevention Coalition, emailed January 5, 2015

Comment #MF33: The commenter thanks the Division for acknowledging the compliance challenges posed by provisions in the original proposed revised regulation and the first round of proposed modifications and for making further changes in response to comments. Additional clarity has been provided, and while some concerns were addressed, there are still concerns and opposition to numerous new revisions as explained in previously submitted comments. The Coalition urges the Division to conduct collaborative and public meetings to develop compliance guidance for employers should the newly revised regulation be adopted. A thorough discussion between the employers and the Division would be helpful in providing clear understanding of all new rules and how they will be enforced.

Response: The Board welcomes comments from the Chamber of Commerce and Heat Illness Prevention Coalition and acknowledges their support and participation in this rulemaking process. The Board anticipates that the Division will work with employers to provide further guidance on how to comply with the revised standards.

Comment #MF34: Further clarification and guidance for employers regarding the definition for shade is needed. The commenter asks what would specifically deter or discourage access, and what would specifically deter or discourage use. Clarification on the difference between "deter"

and “discourage” is needed, and the commenter also asks what would not deter or discourage access or use, as well as what is required to comply with this particular provision.

Response: Please see response to comment #EK14. Because these comments do not address modifications made in the second 15-day notice, no further response is required.

Comment #MF35: The commenter requests further clarification as to what is considered “onsite,” and whether employees who choose to seek shade outside of the employer’s designated “as close as practicable” area or who choose to take their meal period in their personal air-conditioned vehicle will be considered for calculating area of required shade. There is concern about how the amount of shade provided will be calculated, and how compliance will be determined. The commenter again urges the Division to conduct collaborate and public meetings to develop compliance guidelines for employers should the proposed modifications become law.

Response: The Board does not agree that further clarification is needed and notes that the proposed text is clear that the amount of shade present shall be enough to accommodate the number of employees on recovery or rest periods and with regard to meal periods, enough to accommodate only the employees who remain on site. “Onsite” is a common term indicating “located at the site.” With regard to providing further guidance, please see response to comment #MF33. The Board again thanks the Chamber of Commerce and Coalition for their comments and acknowledges their participation in this rulemaking process.

C. Bryan Little, California Farm Bureau Federation, emailed January 5, 2015

Comment #BL13: The regulation in the current form continues to present compliance and enforceability problems that have not been resolved concerning the agriculture-only heat illness break and requirements for providing shade during breaks.

Response: Please see responses to comments #BL15 and #BL16 below.

Comment #BL14: What would the Agency consider to deter or discourage access to or use of shade? What distinction does the Agency make between “deter” and “discourage,” and under what conditions would access or use not be deterred or discouraged?

Response: Please see response to comment #EK14. Because these comments do not address modifications made in the second 15-day notice, no further response is required.

Comment #BL15: Will the Agency require an employer to furnish shade for all employees at a given workplace who could conceivably use employer-provided artificial shade?

Response: The Board notes that the proposed text is clear that the amount of shade present shall be enough to accommodate the number of employees on recovery or rest periods and, during meal periods, enough to accommodate the number of employees who remain onsite. The Board does not believe that further modification is necessary as a result of this comment but anticipates

that the Division will provide further guidance for employers on how to comply with the revised standard.

Comment #BL16: Further clarification is still needed on several points of the high heat provision. There seems to be an assurance that the Agency will not require agricultural employers to furnish breaks in addition to those required by Wage Order 14, and the regulated community needs to know if that is the case. If so, they suggest it should be clearly stated. Clarification is also needed as to whether the Agency's intention that each agriculture-only preventative cool down rest period required by Section (e)(6) be subject to the employee monitoring requirements specified by Section (d)(3). The commenter also questions if a supervisor will be required to inquire of each employee whether he or she is experiencing heat illness symptoms at every break, including the breaks required by Section (e)(6) or those required by Wage Order 14, and what the trigger is for making inquiries to the employees.

Response: Subsection (e)(6) differs from Wage Order 14 in that it requires employers to ensure that these breaks are taken when high heat conditions are present (and not just make the breaks available); and it requires employers to continue to provide these breaks in two hour intervals if work continues beyond eight hours under these conditions. The language of subsection (e)(6) does not alter the employer's obligation to monitor employees as needed under subsection (d)(3).

Comment #BL17: CFBF continues to have concerns about the provisions highlighted in comments sent previously, and feels that the Agency has not adequately addressed those concerns in its 15-day Notice of Proposed Modifications or its Notice of Further Proposed Modifications. CFBF urges the Standards Board to direct the Agency to further revise the proposed amended Heat Illness Prevention Standard so that the proposals will be supported and workable. CFBF also suggests that the Board direct the Agency to offer specific justification for its proposals, and thanks the Board for considering their views on this matter.

Response: The Board notes that all comments submitted have been responded to in this Final Statement of Reasons. The Board thanks CFBF and Mr. Little for their comments and acknowledges their participation in this rulemaking process.

Matthew Antonucci, CSATF and Melissa Patack, MPA, emailed January 5, 2015

Comment #MA11: CSATF respectfully requests that the Standards Board consider the impracticability of the regulatory text, and reiterate their opposition to the proposed amendments to the Heat Illness Standard.

Response: The Board welcomes CSATF's comments and acknowledges their participation in the rulemaking process.

Comment #MA12: Lowering the trigger temperature for shade from 85 degrees to 80 degrees has not been substantiated by data showing that this will increase worker safety. The revised language about how shade must be present at 80 degrees and available at 85 degrees will cause compliance difficulties as employers will have to struggle to predict when shade is required.

Maintaining the 85 degree threshold will lead to a uniform Standard, which will also result in greater compliance.

Response: Please see response to comment #MA7. Because these comments do not address modifications made in the second 15-day notice, they do not require further response.

Comment #MA13: The requirement of subsection (f) places a medical evaluation duty on supervisors who may not have had medical training and suggests removing this from the Standard.

Response: Please see response to comment #MF29. Because these comments do not address modifications made in the second 15-day notice, they do not require further response.

Comment #MA14: The definition of how to determine a “heat wave” is overly complex and subjects employers to citation without increasing worker safety, and the “high heat area” is not defined or referenced anywhere else in the Standard. They thank the Board for the opportunity to provide comments.

Response: Please see response to comment #MA9. Because these comments do not address modifications made in the second 15-day notice, they do not require further response. The Board thanks CSATF for their comments and acknowledges their participation in this rulemaking process.

Anne Katten, CRLAF, Michael Meuter, Cynthia Rice, and Jennifer Bonilla, CRLA, Virginia Ruiz, Farm Worker Justice, and Dori Rose Inda, Salud Para La Gente, emailed January 5, 2015

Comment #AK38: CRLAF appreciates the time and attention that the Board and staff have invested in reviewing and responding to testimony and written comments on the proposed modifications to the Heat Illness Standard. For the most part, these revisions clarify important improvements to the standard that are vital for heat illness prevention at outdoor work sites in California. They also strongly support the proposed changes to subsection (f)(2)(C) which adds the requirement that a worker exhibiting heat illness signs or symptoms shall be monitored and shall not be left alone.

Response: The Board acknowledges CRLAF’s support for this part of the proposal.

Comment #AK39: The proposed revision to subsection (d) is only acceptable if workers are not pressured to leave the worksite during a meal break. From their observations, agricultural field workers do not typically leave the worksite during meal breaks because fields are often in remote areas. Because an employer will not be able to know with certainty how many employees may leave the worksite during meal periods, the commenter disagrees with the proposed addition at the end of subsection (d) and suggests to add the following sentence in the final regulation to make it clear that enough shade must be provided for all employees during the meal period:

“...to accommodate the number of employees during the meal period who typically remain onsite.”

Response: The text clearly indicates that shade must be provided to the employees on the meal period who remain on site, and the Board does not believe that further modifications are necessary as a result of this comment.

Comment #AK40: CRLAF disagrees with the proposed modification to subsection (e)(6) because it confuses time considerations for preventative cool down rest periods in agriculture. The timing flexibility allowed under Wage Order 14 is not appropriate under the heat stress regulation, and suggests that the possibility of meal or rest periods required by the Wage Order concurrently serving as a subsection (e)(6) preventative cool down rest period should be put in the Statement of Reasons rather than regulation, with the additional explanation that the meal break must be given immediately after 4 hours of work in order to fulfill this obligation. The commenter is concerned that the proposed modification could be interpreted as cancelling out the obligation in subsection (d)(3) to allow and encourage additional voluntary cool down breaks.

Response: The text of the proposal cannot be read as subordinating the requirements of subsection (e)(6) to Wage Order 14; it only permits for one break to serve both purposes if the timing coincides. The Board also notes the regulations, like statutes, must, if at all possible, be construed in a way that gives effect to all their parts and does not allow one provision to cancel out another. The Board has endeavored to state the requirements of subsection (e)(6) as clearly as possible and believes it has done so in the final language.

Comment #AK41: The commenter appreciates all the time and hard work that has gone into developing and revising this proposal, and urges the finalization as soon as possible so that outdoor workers will have additional protection from heat stress next summer.

Response: The Board thanks CRLAF and its colleagues for their comments and acknowledges their participation in this rulemaking process.

Bill Taylor, PASMA, emailed January 5, 2015

Comment #BT21: PASMA was hopeful that the Division would incorporate changes based on the concerns that were previously raised, and states that there has been no showing by the Division that either the frequency or severity of heat illness cases has increased substantially to necessitate the changes outlined in the notice of further modifications to proposed amendments to Section 3395. Despite some of the changes that were made to the proposal, PASMA believes that the proposed amendments to Section 3395 are still overly prescriptive and unnecessary. Numerous sections are not feasible for many industries and organizations, resulting in additional costs to public agencies while doing little to reduce the incidence of heat-related illnesses in the workplace. PASMA urges the Board to oppose the further modifications to proposed amendments.

Response: Because these comments do not address modifications made in the second 15-day notice, they do not require further response. The Board thanks PASMA for their comments and acknowledges their participation in this rulemaking process.

Cindy Sexton, Citadel Premium Design, emailed January 5, 2015

Comment #CS1: The commenter states that they remain opposed to the entire proposal of changes on Heat Illness Prevention and support the comments issued by the CALPASC in its letter dated December 29, 2014.

Response: Please see response to comment #BT21. The Board thanks Ms. Sexton for her comments and acknowledges her participation in this rulemaking process.

Gail Bateson, Worksafe, emailed January 5, 2015

Comment #GB28: Worksafe appreciates the time and effort by the Board and staff to respond to comments made by various stakeholders concerning the proposed modifications to the Heat Illness Standard and to develop the latest set of modifications. They strongly support the proposed change to subsection (f)(2)(C), and feel it is essential given that workers who have reached this state of overexposure to heat are in no position to self-monitor. The emergency response provisions in this revised standard not only provide greater clarity and significantly improved protection for the outdoor workers exposed to heat, it should also serve as a model for a future revision of general industry emergency response requirements.

Response: The Board acknowledges Worksafe's support for this part of the proposal.

Comment #GB29: With regard to subsections (d) and (e)(6), the commenter has reviewed comments sent by CRLAF and CRLA to the Board that express concerns where workers might be pressured to leave the worksite during breaks and concerns regarding preventative cool down rest periods. The commenter defers to their expertise regarding the Wage Orders and knowledge about the practical application of the proposed rule to the agricultural sector.

Response: Please see responses to comments #AK39 and #AK40.

Comment #GB30: The commenter understands that there will always be issues that will not make it into the final standard, but suggests that there is value in the Board and DOSH staff continuing dialogue to identify issues that were not included in the final standard. The commenter suggests including those issues as "best practices" into future heat educational materials and in Policies and Procedures documentation. This will assist in the implementation and enforcement of the revised heat standard. The commenter also suggests providing into those materials examples of outdoor heat exposure that may not be readily apparent. The commenter also urges the Board to initiate rulemaking for an indoor heat standard, and to finalize the revised proposal as soon as possible so that outdoor workers will have additional protection from heat stress next summer.

Response: The Board anticipates that the Division will be providing guidance on compliance, and it encourages all stakeholders to participate in identifying and disseminating best practices. The Board thanks Worksafe for their comments and acknowledges their participation in this rulemaking process.

Louie A. Brown, Jr., Kahn, Soares & Conway, LLP, on behalf of the California Agriculture Heat Illness Coalition, emailed January 5, 2015

Comment #KSC7: The commenter continues to have concerns about the proposal, including the apparent lack of justification for the proposed revisions, as required by the Administrative Procedures Act. The commenter urges the Agency to review previously submitted comments regarding concerns of no demonstration of necessity, failure to satisfy legal requirements to regulate, unworkable ag-specific break requirements, and unworkable shade requirements. The commenter states that problems remain only partially addressed in the Agency's December 19, 2014 proposed further modifications, and he hopes that the Agency will consider further changes to issues that are likely to lead to misunderstanding by those required to comply with the regulation which will hamper compliance efforts and enforcement.

Response: Because these comments do not address specific modifications made in the second 15-day notice, they do not require further response. The Board notes that all comments have been responded to in this Final Statement of Reasons.

Comment #KSC8: The commenter questions what the Agency's expectations are regarding the provision of shade such as, what is considered to deter or discourage access or use of shade? There is also concern as to what the distinction is between "deter" and "discourage" and the kind of conditions in which access or use would not be deterred or discouraged.

Response: Please see response to comment #EK14. Because these comments do not address modifications made in the second 15-day notice, they do not require further response.

Comment #KSC9: The commenter questions the Agency's view of the nature of breaks, particularly meal breaks and the exact definition of "onsite" and what the Agency would consider to be onsite. Clarification is also asked as to whether the Agency will require an employer to furnish shade for all employees at a given workplace who could conceivably use employer-provided shade at that location, or require shade adequate for the number of workers at that location who are actually taking meal periods while remaining at the work location and using employer-provided shade.

Response: Please see response to comment #MF35 and #BL15. The Board anticipates that the Division will work with employers to provide further guidance on how to comply with the revised standards.

Comment#KSC10: Further clarification is still needed on several points in the high heat provision. There seems to be an assurance that the Agency will not require agricultural employers to furnish breaks in addition to those required by Wage Order 14. Further clarification

is also needed as to whether the Agency's intention that each agriculture-only preventative cool down rest period required by Section (e)(6) be subject to the employee monitoring requirements specified by Section (d)(3). The commenter also questions if a supervisor will be required to inquire of each employee whether he or she is experiencing heat illness symptoms at every break, including the breaks required by Section (e)(6) or those required by Wage Order 14, and what the trigger for making inquiries to the employees.

Response: Please see responses to comments #BL16 and #AK40.

Comment #KSC11: The commenter remains concerned about a number of provisions to which they initially raised objections in their comments on the Agency's original proposal to amend Section 3395, and feels that the Agency has not addressed those concerns in the 15-day Notice of Proposed Modifications or in the Notice of Further Proposed Modifications. The commenter urges the Standards Board to decline to approve the amended Heat Illness Prevention Standard, and also suggests that the Agency provide specific justification for its proposals and revise those proposals to avoid unsupported and unworkable regulatory requirements.

Response: Because these comments do not address modifications made in the second 15-day notice, they do not require further response. The Board notes that all comments have been responded in this Final Statement of Reasons. The Board thanks Mr. Brown and the coalition he represents for their comments and acknowledges their participation in this rulemaking process.

John R. McCullough, Wells Fargo Insurances Services, emailed December 30, 2014

Comment #JM5: The commenter has issues with some of the terms used regarding the provision of water. Regarding the language, "including but not limited to..." what other items could one be cited for? They would also like to know what "fresh" means, and instead of using "pure," they suggest "potable" is a better choice as "pure" could mean distilled water. "Suitably cool" is another term that they would like definition on, but they do agree that the water should be "free of charge."

Response: With regard to this terminology, please see responses to comments #BT4, #MF11, #MF30, and #RD2. Because these comments do not address specific modifications made in the second 15-day notice, they do not require further response.

Comment #JM6: The proposed definition of "heat wave," seems overly encompassing. The commenter provides the NOAA's definition of "heat wave" as "a period of abnormally and uncomfortably hot and unusually humid weather. Typically a heat wave lasts two or more days." They express that a heat wave is not a single day event, and they presume that the proposed definition has been analyzed to see how many days that a "heat wave" in the proposed definition occurs in different parts of the State. They suggest that once a definition of "heat wave" is agreed upon, then it should be properly placed in section (b) Definitions.

Response: Please see response to comment #MA9. Because these comments do not address specific modifications made in the second 15-day notice, they do not require further response.

Comment #JM7: Does “an employee who has been newly assigned to a high heat area” include new hires? Additionally, “high heat area” is not defined. They would like clarification on whether the term refers to an area where the temperature does equal or exceed 95 degrees F at the time, or an area that can have temperatures equaling or exceeding 95 degrees F.

Response: An employee who has been newly assigned to a high heat area would definitely include a new hire, unless it is someone who has been working under the same conditions (temperature and tasks) immediately prior to being hired. While the Board believes that meaning of terminology used in subsection (g) is clear from the text, the Board also anticipates that the Division will be providing additional guidance on these and other questions.

Comment #JM8: Shade is required when the temperature is under 80 degrees F down from under 85 degrees F, and in reading the existing and proposed modifications, there is no noticeable change made. With the language, shade could be asked for at 40 degrees or 0 degrees as both are under 80 or 85 degrees, and they would like clarification.

Response: The Board anticipates that the Division will be providing additional guidance on these and other questions. The Board thanks Mr. McCullough for his comments and acknowledges his participation in this rulemaking process.

11. Jamil Shamoon, Symons Fire Protection, emailed December 30, 2014

Comment #JShamoon1: The commenter remains opposed to the entire proposal of changes on Heat Illness Prevention regulations in Section 3395 and support the comments issued by the CALPASC in its letter dated December 29, 2014.

Response: Please see responses to comments #BW18 through #BW20. The Board thanks Mr. Shamoon for his comments and acknowledges his participation in this rulemaking process.

Stacey Litrell, Taylor Trim & Supply, Inc., emailed December 31, 2014

Comment #SL1: The commenter remains opposed to the entire proposal of changes on Heat Illness Prevention and support the comments issued by the CALPASC in its letter dated December 29, 2014.

Response: Please see responses to comments #BW18 through #BW20. The Board thanks Ms. Litrell for her comments and acknowledges her participation in the rulemaking process.

Greg Colgate, New Era Tile & Stone, emailed December 31, 2014

Comment #GC2: The commenter remains strongly opposed to the entire proposal of changes on Heat Illness Prevention regulations in Section 3395.

Response: The Board acknowledges and thanks Mr. Colgate for his comments and participation in this rulemaking process.

Cathy Johnson, Frontier Mechanical, Inc., emailed December 31, 2014

Comment #CJ1: The commenter remains opposed to the entire proposal of changes on Heat Illness Prevention regulations in Section 3395 and support the comments issued by the CALPASC in its letter dated December 29, 2014.

Response: Please see responses to comments #BW18 through #BW20. The Board thanks Ms. Johnson for her comments and acknowledges her participation in the rulemaking process.

Emily Cohen and Christopher Lee, United Contractors (UCON), Eddie Bernacchi, NECA & CLC, David K. Johns, AGC of California, Kate Mergen, SCCA, and Frank E. Nunes, WACA, letter emailed January 5, 2015

Comment #UCON35: The wealth of information from the Division does not appear to have been utilized as justification for any of the proposed changes. The CDC document is not relevant to California nor appropriate for consideration. UCON respectfully urges the Board to reconsider the basis upon which Section 3395 should be revised.

Response: Because these comments do not address specific modifications made in the second 15-day notice, they do not require further response.

Comment #UCON36: With regard to the proposed revisions for subsection (d), the two terms “require” and “Shall” have equivalent meaning.

Response: The Board agrees. This was a grammatical change only.

Comment #UCON37: They reiterate their opposition to the reduction from 85 degrees to 80 degrees as no medical, scientific or technical data has been offered to warrant this change.

Response: Because these comments do not address specific modifications made in the second 15-day notice, they do not require further response.

Comment #UCON38: With regard to the amount of shade which separate out meal breaks, these changes will undoubtedly create confusion and prove problematic. Foremen and supervisors will need to monitor the amount of shade for employees on rest or recovery periods, and then assess how many employees have not left the site for a meal break and who will need access to shade. They believe a more workable and reasonable approach is to retain the existing language with the 25% requirement.

Response: The distinction between meal breaks and rest breaks, as noted by many industry representatives, is that meal breaks are longer and employees are free to leave the premises and often do leave the premises if they have that opportunity. Employers who rely on portable shade structures would prefer not to have to erect shade that would go unused during a meal break. Nevertheless, an employer who maintains enough shade for the entire workforce will not have a compliance issue. The problem with the 25% requirement is that for workforces where everyone takes their breaks at the same time and there is nowhere else to go, it leaves 75% of the

employees without shade during those breaks. Please see responses to comments #MF15, #MF27, and #BL15.

Comment #UCON39: The existing original language which charged the employer with training supervisory staff and having procedures in place when an employee exhibits symptoms is more than adequate for construction employers. They are aware of some isolated cases in the agricultural industry where employees symptomatic of heat illness were either left alone or instructed to go home without the benefit of first aid or emergency medical attention. This is not the case for the construction industry.

Response: The Board disagrees that the existing regulation is sufficient particularly in light of the severe heat illness cases and fatalities that have occurred in various industries including construction. Thus, subsection (f)(2)(c) has been modified to specify that an employee exhibiting signs or symptoms of heat illness shall be monitored and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer's procedures.

Comment #UCON40: The changes proposed in Acclimatization (h)(1)(D) are not necessary, as it is clearly implied that the training is expected to cover the subject-what it is, how to manage it, and how to ensure that employees new to a hot outdoor working environment are properly and safely acclimated. They advocate retaining the original language.

Response: The Board notes that these non-substantive changes are necessary to add clarity to the language and connect the subsections that address acclimatization.

Comment #UCON41: The changes proposed in Acclimatization (i)(4) are not necessary, as the employer community understands that it is clearly implied that those procedures are to include methods for accomplishing such acclimatization. They believe that the original language accomplishes the goal of properly acclimatizing employees by training on the importance of the subject.

Response: The Board notes that these changes are necessary to clarify that the Heat Illness Prevention Plan must include acclimatization "methods and procedures". The specific modification made in the second 15-day notice was suggested by industry, and the Board does not believe that the modification is any way redundant or problematic, particularly since it points to the acclimatization standards in subsection (g).

Comment #UCON42: A number of the proposed revisions are unnecessary or are overly prescriptive.

Response: The Board notes that with the exception of the grammatical change in the first line of subsections (d)(1) and (2), all of the revisions were based on requests for modification or further clarification of specific requirements. The Board thanks UCON and its colleagues for its comments and acknowledges its participation in this rulemaking process.

ADDITIONAL DOCUMENTS RELIED UPON

Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report “Heat Illness and Death Among Workers — United States, 2012–2013” August 8, 2014/63(31); 661-665

This document is available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

ADDITIONAL DOCUMENTS INCORPORATED BY REFERENCE

None.

DETERMINATION OF MANDATE

This standard does not impose a mandate on local agencies or school districts as indicated in the Initial Statement of Reasons.

ALTERNATIVES DETERMINATION

The Board invited interested persons to present statements or arguments with respect to alternatives to the proposed standard. No alternative considered by the Board (1) would be more effective in carrying out the purpose for which the action is proposed; (2) would be as effective as and less burdensome to affected private persons than the adopted action; or (3) would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law. Board staff were unable to come up with any alternatives or no alternatives were proposed by the public that would have the same desired regulatory effect.