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FINDING OF EMERGENCY
GOVERNMENT CODE SECTION 11346.1
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
ADOPTION OF EMERGENCY AMENDMENTS TO TITLE 8
CALIFORNIA CODE OF REGULATIONS
SECTION 3395 OF THE GENERAL INDUSTRY SAFETY ORDERS
(Alternative 2)

The Occupational Safety and Health Standards Board (Board) hereby finds that the above-referenced emergency standard in Title 8 California Code of Regulations, as described in the Informative Digest below, constitutes an emergency standard pursuant to Government Code Section 11346.1. The objective of the emergency standard is to significantly reduce both the frequency and the severity of occupational heat-related illness in all outdoor places of employment. Labor Code Section 142.3 authorizes the proposed emergency standard, which for the reasons stated here is necessary for the continued and immediate preservation of public health and safety and general welfare. This finding is based on the following:

1. Since August 2005, employers in the State of California have been required by regulation to protect outdoor employees from the hazard of heat illness. This regulation was promulgated in response to unusually hot summer temperatures over a wide area of the state which led to a greatly elevated number of cases of serious heat illness in the workplace, including a number of deaths. This regulation, codified at 8 CCR section 3395, came about first by adoption of an emergency temporary standard and was followed by adoption of a permanent standard in 2006. However, the state continues to see preventable deaths and serious injuries in employees who work outdoors due to heat exposure. While it may never be possible to eliminate all deaths and serious injuries due to heat exposure, existing statistics suggest that adoption and enforcement of the existing standard has had a significant impact on deaths of outdoor workers due to heat, yet can be clarified to increase its effectiveness in preventing heat-related deaths and illnesses.

   The table immediately below compares occupational heat-related deaths in California, second column, to “resident” heat-related deaths in California, third column, a category that may or may not include the deaths also listed in the first column.

   These data show a downtrend since 2005, from 12 heat-related deaths of outdoor workers in 2005 to 5 such deaths in 2008. Conversely, the numbers of California resident deaths appear to be trending up, with the number of 42 recorded for 2007, the latest year for which these data are available, being the second largest.

Year	All California Resident Deaths	Outdoor Occupational Deaths[1]
2005	36	12
2006	122	7
2007	42	1
2008	n/a	5

While the above-shown trends indicate that the heat standard is having an impact on occupational heat-related deaths, Division of Occupational Safety and Health (DOSH) reports that enforcement statistics just collected from the brief periods of hot weather experienced in the state this year, i.e., weather causing significant areas of the state to experience temperatures during the day exceeding 85 degrees F, dry bulb, have demonstrated an unexpected increase in noncompliance that requires immediate clarifying and substantive changes to section 3395 to ensure that employers have the guidance they need to protect employees from exposure to heat while working outdoors.

DOSH reports that, in the two week period of May 11 through May 22, 2009, it issued Orders Prohibiting Use (OPU's) to a total of 8 employers, requiring them to cease their operations because of significant non-compliance with section 3395 in temperatures substantially exceeding 90 degrees F (dry bulb), creating an imminent hazard to employees. During the short heat wave in June, 2009 DOSH issued one more OPU. The primary violation found in these inspections was absence of shade, due to what appeared to be a poor understanding of the shade requirement. As mentioned above, this increase in noncompliance was unexpected because the number of cases with such noncompliance in this year's first two-week period of sustained hot weather was more than double the number found in all of 2008, and this followed an extensive campaign by DOSH to train employers on the heat standard and on the shade requirement in particular during the two months preceding May 11.

The Board believes progress has been made with many employers as a result of its public education and outreach efforts, and these efforts should continue, but these recent inspection results indicate that a significant number of employers remain out of compliance. Preventable heat-related deaths and illnesses are likely to occur as a result if the proposed changes to section 3395 are not made. Accordingly, the Occupational Safety and Health Standards Board believes it is necessary to bring more specificity to the standard, focusing on the provisions that govern when and how to provide shade, high heat procedures, and related issues, to require those measures most likely to be feasible to implement and effective in protecting workers.

[1] The industries primarily represented by outdoor heat-related deaths are the agriculture and construction industries, although deaths have also occurred in the oil drilling, landscaping, utilities, trucking, delivery, and autowrecking industries. In addition, one indoor heat-related death occurred in 2006 and one in 2008.

2. Statistical information from the California Division of Workers' Compensation on the only two industry categories in which work takes place primarily outdoors indicates that the following numbers of heat illness cases were recorded by employers or generated workers' compensation claims:

Industry description	year 2004	year 2005	year 2006	year 2007	year 2008
Agriculture, Forestry, Fishing	25	26	113	66	96
Construction	46	57	119	66	99

The apparent uptrend in these numbers may reflect growing public awareness of heat illness, leading to increased reporting, and not necessarily growing incidence of the disease itself. However, these numbers are of great concern, and the Board believes that most of these cases should be preventable.

3. A significant potential for heat illness occurs when temperatures exist in excess of 85 degrees F. For example, according to the National Weather Service (NWS) Heat Index, a temperature of 95 degrees even at little or no humidity and in the shade calls for a warning of "extreme caution" for heat illnesses such as sunstroke, heat cramps, and heat exhaustion. According to the NWS exposure to direct sunlight can add as much as 15 degrees to that index reading. Accordingly, the Board believes it is critical that employers have shade actually present and readily accessible when the outdoor temperature exceeds 85 degrees.

Unfortunately, the Division enforcement statistics described above indicate that a significant number of employers are not ensuring that shade is actually present when the weather exposes workers to high heat, and the Board believes that lack of clarity in the existing provisions that pertain to shade in section 3395 are contributing to this problem. Section 3395 states in relevant part that "employees…shall have access to an area of shade…".

Despite DOSH's extensive efforts to provide training to the employer community on its interpretation of the shade requirement, some employers are continuing to interpret this provision to mean that shade need only be provided upon request as opposed to being actually present. The proposed emergency amendments will clarify this provision to specifically describe the circumstances under which shade must actually be present, along with related issues such as how much shade must be present as and how close it must be to the employees who are working.

The Board, based on DOSH's advice, finds that whether shade must be actually present is a temperature-dependent issue that must be addressed as such. Therefore, the proposed regulation provides for a temperature trigger of greater than 85 degrees F (dry bulb) for shade to be actually present, and also provides for allowing for shade to be provided upon request for lower temperatures. In addition, the Board finds that it is necessary to revise the standard to require that shade be available to at least 25% of workers present at all times when the temperature exceeds 85 degrees. For the purpose of adequate cooling, the space for shade provided must be required to be sufficient to allow employees to sit in a natural posture fully in the shade without having to come into physical contact with each other.

4. DOSH inspection and outreach experience for the current standard has indicated that additional precautions are needed when the temperature exceeds 95 degrees. A recent review of inspection data on heat-related fatalities and severe illness cases from 2005 to 2008 has shown that a high percentage of such cases occurred when worker protections were inadequate and the temperature was over 95 degrees.

Therefore the Board finds that it is necessary to add new provisions to the existing regulation to address the hazard of "high-heat" conditions, i.e., weather exposing employees to temperatures that reach or exceed 95 degrees F (dry bulb), by specifying procedures to be followed to ensure that affected workers have additional protections during these conditions. Therefore, it is necessary to revise the standard to require employers to do the following:

--ensure that employees have capability of contacting a supervisor when necessary,
--use a buddy system,
--observe employees for alertness and signs or symptoms of heat illness,
--remind employees throughout the workshift to drink plenty of water, and
--closely supervise new employees who are unacclimatized, as defined, for the first 14 days of their employment.

In addition, the Board finds it is necessary to require employers to do the following, in light of the foregoing changes:

--make sure training is provided before employees and supervisors do work for which training is required,
--include in training procedures for designating a person to be available to respond to emergencies,
--include in training information on the heat burden added by exertion, clothing, and personal protective equipment, and
--train supervisors on how to monitor weather reports and respond to heat advisories.

INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW

The Occupational Safety and Health Standards Board proposes to adopt emergency amendments to Title 8 of the California Code of Regulations, Section 3395 of the General Industry Safety Orders. These proposed amendments are authorized by Labor Code Section 142.3.

Currently, section 3395 requires that in outdoor places of employment, employees suffering from heat illness or believing a preventative recovery period is needed are required to be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Existing section 3395 also provides that access to shade as required by the regulation shall be permitted at all times. There is also an exception to the existing requirement for shade for employees other than in the agriculture industry, that allows for provision of cooling measures other than shade (e.g., use of misting machines) if the employer can demonstrate that these measures are at least as effective as shade in allowing

employees to cool. Existing section 3395 also includes a definition of "preventative recovery period" as well as training requirements related to prevention of heat illness.

The amendments proposed in this emergency rulemaking would require ongoing provision of shade at temperatures above 85°F in outdoor places of employment, unrelated to an employee request. This requirement would be subject to exceptions for infeasibility, and for use of cooling measures other than shade (e.g. use of misting machines) in other than agricultural workplaces. The amendments would also require that additional precautionary measures to prevent heat illness be taken when the temperature of outdoor places of employment is at or above 95°F. Additionally the proposed amendments would add several new elements to existing requirements for employee training and would eliminate the definition of "preventative recovery period."

The effects of the proposed amendments are outlined below:

Section 3395 Heat Illness Prevention in Outdoor Places of Employment.

Section 3395(a)

Existing section 3395(a) contains an advisory note specifying that the requirements of section 3395 may be integrated into the employer's written Injury and Illness Prevention Program as required by Title 8 section 3203. It is proposed to amend this note to clarify that the measures to comply with the requirements of section 3395 can also acceptably be maintained in a separate document. Because it is only an advisory note that is being amended, there is no regulatory effect from this action.

Section 3395(b) Definitions

Existing section 3395(b) includes a definition for the term "Preventative recovery period." It is proposed to delete this definition as this term would no longer be included in the amended language of the regulation as one of the bases upon which an employee would need to request employer provision of access to shade as specified in existing section 3395(d). The definition proposed to be deleted only has the effect of specifying the meaning of a term used later in the existing regulation and does not have any regulatory effect of its own. Therefore there is no regulatory effect from the proposed amendment.

Existing section 3395(b) includes a definition for the term "Shade." The existing first sentence of this definition specifies that shade for the purposes of the regulation may be provided by means of canopies, umbrellas, and other temporary structures or devices. It is proposed to relocate this first sentence of the existing definition of shade from the beginning to the end of the definition and to add that natural or artificial sources of shade may be used to provide shade, and that shade may be provided by any combination of these sources. The effect of this amendment is to clarify that, subject to the existing requirement of the definition that shade be adequate to allow the body to cool, shade may be provided from natural or artificial means that do not expose employees to unsafe or unhealthy conditions.

Existing section 3395(b) does not include a definition of the term "Temperature." It is proposed to add a definition of "Temperature" specifying that this term, as used in the regulation, applies to measurement in degrees Fahrenheit using a thermometer in an area where there is no shade, and that this measurement should be done with the bulb or sensor of the device shielded from direct contact with sunlight. The effect of this proposed amendment is to specify the technique for obtaining the workplace temperature used as the basis for several proposed new requirements of the regulation as detailed below.

Section 3395(c) Provision of water

Existing section 3395(c) details requirements for provision of drinking water to employees covered by the regulation. It is proposed to amend the existing language of this section to clarify that employees' required access to drinking water is both continuous and ready during the workshift, and that the drinking water provided shall be fresh, pure, and suitably cool. Additionally, to accommodate the addition of a new subsection to the existing regulation, it is proposed to amend the existing reference to the subsection of the regulation addressing training employees on the importance of frequent consumption of small quantities of water. The effect of these amendments is to clarify that the required access to drinking water of employees covered by the regulation shall be both continuous and ready throughout the workshift and that the water provided by the employer shall be fresh, pure, and suitably cool. The amendment of the existing reference to subsection (f)(1)(C) of the regulation is without regulatory effect.

Section 3395(d) Access to shade

Existing section 3395(d) requires employers with outdoor places of employment to provide access to shade, for a period of no less than 5 minutes, to employees suffering from heat illness or believing a preventative recovery period is needed. Existing section 3395(d) also provides that for employers other than those in agriculture, cooling measures other than shade may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

It is proposed to amend section 3395(d) to require that when the temperature of an outdoor workplace exceeds 85°F the employer shall have and maintain one or more shade areas sufficient to accommodate 25 percent of the employees on the work shift at any time, located as close as practicable to where employees are actually working. It is further proposed to amend section 3395(d) to require that in outdoor workplaces when temperatures do not exceed 85°F, that employers shall either provide shade as required where temperatures exceed 85°F, or in a timely manner in response to an employee's request for shade. The effect of these amendments is to require that in all outdoor workplaces, timely access to shade shall be provided upon the request of an employee, and that in outdoor workplaces when temperatures exceed 85°F a shaded area able to accommodate up to 25 percent of the employees on the workshift is maintained as close as practicable to the work area.

It is further proposed to amend section 3395(d) to add a new requirement that employers with outdoor workplaces encourage employees to take a cool-down rest in the shade for a period of no less than 5 minutes if they feel they need to do so to protect themselves from overheating. The

effect of this newly proposed requirement is to require employers with outdoor workplaces to encourage employees to rest in the shade for at least 5 minutes if they feel the need to do so to avoid developing a heat illness.

Section 3395(e) High-heat procedures

It is proposed to relocate the existing language of section 3395(e) to a new section 3395(f) and replace it with new requirements for procedures to reduce risk of heat illness in outdoor workplaces when the temperature equals or exceeds 95°F. The newly proposed procedures, required to be implemented by employers in outdoor workplaces when practicable, are for ensuring the capability of contacting a supervisor when necessary, for use of a buddy system, for observing employees for alertness and signs or symptoms of heat illness, for reminding employees throughout the workshift to drink plenty of water, and for close supervision of new employees for the first 14 days of their employment unless they provide specified information to support that they may be acclimatized to work in heat in excess of 95°F. The effect of this proposal is to require of employers with outdoor workplaces, additional steps to reduce risk of heat illness when temperatures exceed 95°F.

Section 3395(f) Training

It is proposed to renumber existing section 3395(e) covering employee training, to 3395(f) and to add several additional requirements. It is proposed to add language clarifying that no employee or supervisor shall begin outdoor work to which section 3395 applies unless they have received the training required by the regulation. It is also proposed that an additional element of training be added on the burden of heat load on the body caused by exertion, clothing, and personal protective equipment. It is also proposed to add to the existing elements for training on the employer's procedures for responding to symptoms of possible heat illness a requirement to include in these procedures designation of a person to be available to ensure that emergency procedures are invoked when appropriate. And it is proposed to add to the current procedures on which supervisors are required to be trained an element on how to monitor weather reports and how to respond to hot weather advisories. The effect of the proposed amendments to the existing training requirements of section 3395 is to renumber them to subsection (f), clarify that the required training must be provided before an employee or supervisor begins outdoor work, and to add several new elements for required training of both employees and supervisors covered by the regulation.

DOCUMENTS RELIED UPON

United States Department of Commerce, National Oceanic and Atmospheric Administration, Heat Index Chart. www.noaawatch.gov/themes/heat.php.

Copies of these documents are 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.

DOCUMENTS INCORPORATED BY REFERENCE

None.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed regulation does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendment will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this regulation does not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental

function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed regulation does not require local agencies to carry out the governmental function of providing services to the public. Rather, the regulation requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed regulation does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed regulation does not impose unique requirements on local governments. All - state, local and private employers - will be required to comply with the prescribed standard.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendment may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendment to this regulation will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.