

**FINDING OF EMERGENCY  
GOVERNMENT CODE SECTION 11346.1  
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
PROPOSED EMERGENCY STANDARD, SECTION 3395, TITLE 8,  
CALIFORNIA CODE OF REGULATIONS**

The Occupational Safety and Health Standards Board (Board) hereby finds that the above-referenced proposed emergency standard for inclusion 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 proposed 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:

1. The occurrence of sustained extreme hot temperature conditions in the state in the month of July 2005 has been accompanied by an unusual number of reports of occupational heat-related illnesses and deaths. Since July 12, 2005 when a farm laborer in Modesto was admitted to the hospital for heat-related illness, seven other possible cases of heat-related illness have been reported to the Division of Occupational Safety and Health (Division), including five fatalities. Of these eight cases of possible heat-related illness, three have been deemed as being due to exposure to work in heat based on a preliminary evaluation, with the remainder being possible cases. All eight cases occurred in outdoor occupations, specifically agriculture and construction. All eight cases remain under investigation by the Division. In a July 20, 2004 (sic) memorandum of support for a new emergency standard from John Rea, Acting Director of the Department of Industrial Relations a list of heat related fatalities in the past 10 years showed that a majority of the cases involved employees in outdoor occupations. Prior to 2005, the largest annual total of possible heat-related investigations by the Division in the last 10 years was for the entire year of 1998 when there were four possible fatalities and three non-fatal cases investigated. Of the cases in 1998, six were in agriculture and one case in construction.
2. Statistical information from the California Division of Workers Compensation's report on occupational injuries in heat-related illness from 2000 – 2004 find that at least 300 hundred cases of heat-related illness annually are recorded by employers or are the subject of claims for Workers Compensation Insurance. These cases occur in a wide range of industries and occupations.
3. Several governmental agencies and nationally recognized organizations including the federal Occupational Safety and Health Administration, Environmental Protection Agency, National Institute of Occupational Safety and Health, American Conference of Governmental Industrial Hygienists, and the American Red Cross recognize that exposure to heat in outdoor work, especially under extreme conditions of high temperature and lack of water, shade and training, can contribute to illnesses and possibly fatalities. All of these governmental agencies and organizations recommend that employees at risk of heat illness be provided adequate water, a shaded area to recover from the heat, and training. However, none of these recommendations are specifically required by existing state or national occupational heat illness prevention standard.

## INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW

The Occupational Safety and Health Standards Board proposes to adopt an emergency standard for inclusion in Title 8 of the California Code of Regulations as Section 3395 of the General Industry Safety Orders. These proposed amendments are authorized by Labor Code Section 142.3. This emergency rulemaking is being initiated at the request of the Division of Occupational Safety and Health as a response to a recent, significant increase in the number of heat-related illnesses and fatalities in California resulting from exposure to environmental heat.

Currently, a number of existing Title 8 sections address related requirements with respect to key factors in control of heat-related illness, including the development of an injury and illness prevention plan, provision of drinking water, and emergency first aid and medical response preparedness. These sections, for various industry sectors, include sections 1230, 1512, 1524, 3203, 3363, 3400, 3439, 3457, 6251, 6512, 6969, 6975, 8420 and 8602. The proposed standard includes a reference to the existing requirements of these standards along with specific control and training measures to reduce the risk of heat-related illness.

There is no existing federal OSHA standard that specifically and comprehensively addresses prevention of heat illness. Similar to related Title 8 requirements discussed above, there are federal OSHA standards for drinking water and first aid that would apply to the issue.

The effects of the proposed standard are outlined below:

### **Section 3395. Heat Illness Prevention**

The proposed new section is added to Article 10 Personal Safety Devices and Safeguards prior to the related section 3400 Medical Services and First Aid.

### **Section 3395(a) Scope and Application**

This proposed subsection would provide that the requirements of the standard apply to all work outdoors where environmental risk factors for heat illness are present.

The proposed language includes two clarifying notes that are without direct regulatory effect and do not add any additional regulatory requirements. The first Note clarifies that employers may, if they choose, integrate the requirements of the proposed standard into their Injury and Illness Prevention Program that is required by section 3203. The second Note reaffirms the authority of the Division to enforce the proposed standard and references sections of the Labor Code that prohibit discriminating against employees for exercising their rights provided by this and other occupational safety and health standards.

The effect of the proposed language for Scope and Application is to limit the requirements of the proposed standard to the subset of employers with workers operating outdoors to prevent heat illness when environmental risk factors warrant. The proposed limitations on Scope and Application has the effect that employers not conducting outdoor work operations would not be covered by this standard. Also, employers with employees who were working outdoors but not affected by environmental risk factors would not be covered by the requirements for addressing

heat illness prevention. The scope and application also states that related sections like section 3203 Injury and Illness Prevention Program, and other applicable Title 8 standards such as for the provision of drinking water and emergency medical services would not be superceded by this new standard.

### **Section 3395(b) Definitions**

The proposed language includes definitions for six terms used in the standard. A definition is proposed for the term “acclimatization.” The effect of the proposed definition is to clarify the topic to be addressed in the employee training requirement of proposed subsection (e).

A definition is proposed for the term “heat illness.” The definition gives examples of some of the forms of heat illness that are intended to be prevented by the proposed standard. The list is not all-inclusive and there are other conditions that can result from excessive exposure to work in heat. The effect of this definition is to indicate the types of illnesses intended to be prevented by the proposed standard and thereby clarify the risk factors required to be controlled by the employer.

A definition is proposed for “environmental risk factors for heat illness.” The definition describes the major environmental and work factors that need to be controlled in order to effectively reduce the risk of occurrence of heat illness. The list is comprehensive, but not all-inclusive, and there are other factors that can in some circumstances increase risk of occurrence of heat illness. The effect of this definition is to indicate the workplace factors that employers must assess and control as part of determining if the proposed section applies to their outdoor places of employment.

A definition is proposed for “personal risk factors for heat illness.” The definition describes major personal factors that need to be controlled in order to effectively reduce the risk of occurrence of heat illness. The list is comprehensive, but not all-inclusive, and there are other factors that can in some circumstances increase risk of occurrence of heat illness. The effect of this definition is to indicate the factors that employees and supervisors must be aware of through training required by subsection (e).

A definition is proposed for “recovery period.” The definition describes the reason for providing access to shade in subsection (d) in order to effectively reduce the risk of occurrence of heat illness. The effect of this definition is to indicate the reasons for providing access to shade in their outdoor places of employment.

A definition is proposed for “shade.” It is proposed to define shade as meaning blockage of direct sunlight. The definition clarifies that the devices or structures used to provide shade need not be of a permanent nature and can include canopies, umbrellas, and other temporary structures or devices. The proposed definition further clarifies that materials that allow passage of direct sunlight do not necessarily satisfy the definition for shade and that an indicator of effective shade is that objects do not cast a shadow when placed in the shaded area. Finally the definition clarifies that structures or objects that may block the sun but which also can contain heat, such as an automobile without the air-conditioning turned on, would not satisfy the definition of shade.

### **Section 3395(c) Provision of Water**

Proposed subsection (c) details requirements for provision of drinking water as a control measure for heat illness. The effect of this proposed subsection is to reference existing drinking water requirements and ensure exposed employees are provided with a suitable quantity of drinking water to prevent heat illness.

#### **Section 3395(d) Access to Shade**

Proposed subsection (d) details a requirement for employees performing outdoor work to have access to a shaded area when a recovery period or preventative recovery period is needed from the heat for a period of no less than five minutes. The effect of the proposal is to ensure that employees suffering from heat illness or needing a preventative recovery period have a suitable place to get out of the direct sun and reduce their exposure to heat.

#### **Section 3395(e) Training**

Proposed subsection (e) details topics on which employees and supervisors are to be trained with respect to prevention of, and response to, heat illness and risk factors for heat illness. The effect of this proposed subsection is to clarify and make specific the training required to be provided to employees and supervisors with respect to prevention of, and response to, heat illness.

#### **Section 3395(f) Review**

Proposed subsection (f) specifies the date by which the Board shall review the feasibility of providing shade for all rest periods at outdoor places of employment. The effect of this proposed subsection is to require the Occupational Safety and Health Standards Board to review the feasibility of providing shade for all rest periods at outdoor places of employment by January 1, 2006.

## DOCUMENTS RELIED UPON

1. Memorandum regarding Emergency Standard from John Rea, Acting Director, California Department of Industrial Relations dated July 20, 2004 (sic).
2. OSHA Fact Sheet on Working Outdoors (2003) US Department of Labor Occupational Safety and Health Administration.
3. OSHA Heat Stress Card, Publication 3154 (2002) US Department of Labor Occupational Safety and Health Administration.
4. EPA Guide to Heat Stress in Agriculture, EPA publication 750 (1993) US Environmental Protection Agency.
5. NIOSH Criteria for a recommended standard: Occupational exposure to hot environments. NIOSH Pub 86-113 (1986) US Department of Health and Human Services, Centers for Disease Control, National Institute for Occupational Safety and Health, Part VI. Control of Heat Stress.
6. ACGIH Criteria document for a heat stress and strain threshold limit value. (2001) American Conference of Governmental Industrial Hygienists.
7. California Division of Workers Compensation Table of heat related illness claims from 2000 to 2004.
8. Special Order for the California Department of Forestry and Fire Protection #00-2803 as amended by the Division of Occupational Safety and Health on August 8, 2001.

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.

## STRIKEOUT/UNDERLINE DRAFT PROPOSAL

See Attachment No. 1.

## COST ESTIMATES OF PROPOSED ACTION

### Costs or Savings to State Agencies

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting state agencies. The cost associated with providing suitable protection from heat illness, as required by the proposal, is expected to be offset by improved productivity, improvement of employee health, and saving lives.

There is no additional cost of providing water since water is already required by existing Title 8 standards. Specifying an amount of 1 quart per hour is consistent with national consensus recommendations and industry practice and is not anticipated to be an additional cost.

The cost of providing shade is considered insignificant. Existing standards require personal protection when necessary to protect employees from harmful exposures. The additional cost of providing shade is estimated to be minimal for those few outdoor places of employment that do not already have shade where employees could potentially need a recovery period. Typical state agencies with a significant number of employees working outdoors include: Department of Forestry and Fire Protection (CDF), Department of Transportation, California Highway Patrol,

Department of Corrections and Rehabilitation, and the Environmental Protection, and Resources agencies. The CDF is already complying with a Special Order to protect their employees from heat illness so no additional cost is anticipated for that agency. Employees of the other state agencies who work outdoors typically have access to shade. So very few, if any, would need to purchase canopies or other forms of additional shade. Temporary shade structures can be purchased for approximately \$100, and can be erected in minutes. However, for those few locations that need additional shade, this additional cost would be more than offset by the increased productivity, improvement of employee health and saving lives associated with the cooling benefits of shade. Therefore any additional cost associated with providing shade to employees, as required by the proposal, is estimated to be insignificant to none.

The proposed employee training requirements are performance based and do not mandate a specific amount of training time. Training is already required by Section 3203, Injury and Illness Prevention Program, and therefore should not be considered an added cost of this proposed standard.

#### Impact on Housing Costs

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

#### Impact on Businesses

The Board has made an initial 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. See the cost to State Agencies.

#### Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impact that a representative private person or business would necessarily incur in reasonable compliance with the proposed action; however, the cost impact that businesses would necessarily incur in reasonable compliance with the proposed action is described above.

#### 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."

### Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies. See the cost to state agencies.

### DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard 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 standard will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this standard 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.)

This proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, this proposed standard 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.)

This proposed standard does not impose unique requirements on local governments. All state, local and private employers who perform agricultural operations will be required to comply with the prescribed standard.