

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board

Petition File No. 604

Board Staff Evaluation
Submitted by Mike Nelmidia, Sr. SE

June 17, 2024



State of California
Gavin Newsom, Governor

INTRODUCTION

Petition 604 (Petition) was submitted by Landon Dees (Petitioner) on March 24, 2024. The Petition seeks changes to the *Maria Isabel Vasquez Jimenez Heat Illness* standard (title 8, section 3395(c)). Specifically, the Petitioner seeks to require employers to make available, drink holders to employees who work aloft on aerial devices to improve access to water.

REQUESTED ACTION

- The Petitioner requests to amend title 8, section 3395(c) as follows (in strikeout and underline format):

(c) Provision of water. [...]The water shall be located as close as practicable to the areas where employees are working, and if in an aerial device, an adequate drink holder that attaches to the aerial device shall be made available to all workers[...].

The Petitioner seeks to amend subsection 3395(c) by adding a requirement to provide aerial devices with securely attached drink holders for employees who work aloft (in the air or overhead). The Petitioner's proposal is narrow and not intended to impact the other provisions within section 3395 (e.g. shade, training, etc.). See *Petitioner's Assertions*.

BACKGROUND/HISTORY

The outdoor heat illness standard spans four revisions (see summary below). The Board adopted a performance-based requirement under subsection 3395(c), "*The water shall be located as close as practicable to the areas where employees are working*", which the Petitioner seeks to add language specifically pertaining to aerial devices.

According to the Final Statement of Reasons (FSOR) the intent of the 2015 amendment to subsection (c) was, in part, for "*employers to evaluate their worksites to determine where to provide water to employees with the understanding that the location of water may create a barrier to frequent drinking.*"

The Occupational Safety and Health Appeals Board (OSHAB) Decision After Reconsideration Rios Farming Company, LLC., 1336276, DAR (Feb. 6, 2023) addresses access to water through the affirmed Oct. 12, 2022 decision¹. The Oct. 12, 2022 decision provides a summary and relevant perspective regarding access to water:

Section 3395 was first issued as an emergency regulation in 2005, made a permanent regulation in 2006, and amended in 2010 and 2015. During the 2015 amendment process, there was a proposed amendment of section 3395,

¹ Rios Farming Company, LLC. 1336276, Decision (Oct 12, 2022)

subdivision (c), to add language requiring that water be located within 400 feet of employees unless it was not possible to place water within that distance due to worksite conditions[.]

[...]

The Standards Board specifically identified the “as close as practicable” requirement to be a performance standard. California Government Code section 11342.570 defines “performance standard” as “a regulation that describes an objective with the criteria stated for achieving the objective.” The Appeals Board has held that performance standards intentionally lack specificity, which “establishes a goal or requirement while leaving it to employers to design appropriate means of compliance under various working conditions.”

There are several statements in the regulatory history that shed light on the goal of the “as close as practicable” standard and what employers must take into consideration when determining water location. In one such statement, while not in response to a comment concerning water location, but nonetheless useful here, the Standards Board explained 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.” (FSOR at p. 67.) Based on this statement, it is evident that the Standards Board intended for employers to evaluate their worksites to determine where to provide water to employees with the understanding that the location of water may create a barrier to frequent drinking.

Appeals Board included the following:

Based on the foregoing regulatory history, a reasonable interpretation of the “as close as practicable” standard is that employers are required to locate water as close to the areas where employees are working as can be reasonably accomplished in order to encourage frequent water consumption, while taking into consideration the specific jobsite conditions.

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (Cal/OSHA) EVALUATION

Cal/OSHA evaluation was not available at the time of drafting this report.

PETITIONER’S ASSERTIONS

According to the Petitioner, access to water while aloft is critical to preventing dehydration. The Petitioner states that their amendment seeks to require “the provision of adequate drink

holders securely attached to the aerial devices.” The Petitioner adds “This solution not only ensures convenient access to water during working hours but also mitigates potential hazards associated with improvised storage methods.” Working aloft limits access to ground-based sources of water. To offset this limit to the access to water, the Petitioner highlights different container options employees bring with them aloft to decrease the frequency of lowering the lift, and the hazards these containers create when placed on the ground or control box when not secured from tipping or falling. The proposal intends to ensure:

1. employees have potable water within reach, and easily accessible;
2. water containers are readily visible to supervisors from the ground; and
3. containers are protected from falling to ground level to avoid tripping or breaking/puncturing while stowed.

On April 4, 2024, Board Staff discussed the Petition with the Petitioner. The discussion is summarized as follows:

- Although the Petitioner focused on aerial devices used outdoors, they were open to addressing those used indoors. The Petitioner primarily sought to cover aerial construction work, including electrical, telecommunications, and line clearance tree work. The Petitioner also discussed jobs performed by millwrights, pipefitters, welders, and municipal workers who frequently utilize aerial devices.
- The Petitioner, a lineman, has had to aid other employees in instances of heat-related illness and dehydration. The Petitioner recounts an incident in 2019 (in another state) that required emergency intervention. The Petitioner was working aloft with an employee who was undergoing symptoms of heat stress. To rescue the employee, the Petitioner had to perform an emergency descent of the aerial device.
- According to the Petitioner, Although lineman can work up to 8 hours aloft in a day, they typically work up to 4 hours aloft with an average of 1 to 2 hours being uninterrupted. Within the Petition, the Petitioner states “During my approximately 3-6 hours spent in the aerial device, the absence of accessible water storage becomes particularly concerning. Most workers resort to carrying water bottles, which are either put in the control box (equivalent to having a water bottle under your brake pedal in your car), laid on the floor of the aerial device (posing a fall hazard), or left on the ground, rendering them inaccessible during critical moments of work.”
- The Petitioner uses the term “aerial devices” generically but describes the intent to cover vehicle-mounted mobile work platforms, including elevating work platforms, cranes, high lift vehicles, cable trucks, and bucket trucks.

- The Petitioner uses the term “drink holders” deliberately. The Petitioner believes drink holders can be placed where supervisory personnel can confirm the presence of containers of water. The Petitioner delineates “drink holders” from “dispensers” in that dispensers, such as 5-gallon coolers, would be cumbersome and/or heavy when aloft. The Petitioner prefers the prescriptive “drink holders” to a performance-based goal such as, “Employees shall have ready access to a water source while working aloft.”
- According to the Petitioner, water bottles are often stored in workbags where they are subject to puncturing or being buried under equipment. The Petitioner is concerned that water bottles (or containers) stored on the floor may fall or become a tripping hazard. The Petitioner identifies the “control guard” as an appropriate place to hang drink holders and hang drink holders from the bucket lip.
- As stated in the Petition, the Petitioner disfavors the use of bladder systems. Bladder systems load the employee with the extra weight of water, fatiguing them more, and may not be readily recognized by supervisory staff when carried.
- The Petitioner states that another option is repeatedly descending the lift to access water from a dispenser on the vehicle. The Petitioner also believes there is a disincentive to repeatedly lowering the aerial device to seek water based on a workforce culture. According to the petitioner, keeping water while aloft reduces the frequency of lowering the lift to ground level.
- When asked how aerial devices with multiple employees would be provided with the same safeguard, the Petitioner suggested that multiple drink holders could be supplied and mounted on the aerial device.

STAFF EVALUATION

Board Staff reviewed the Heat Illness Prevention Standard records (2004 emergency standard, 2005 permanent standard, 2011 amendments, and 2015 amendments), the Federal rulemaking file for heat illness (86 FR 59309), and OSHA’s state plan heat illness standards.

Additionally, Board Staff with the Petitioner and sought the opinions of labor and management stakeholders.

Construction Employers Association

The Construction Employers' Association (CEA) opined that the proposal was unnecessary and overly prescriptive. CEA highlighted options such as keeping water bottles on employee tool belts, wearing a hydration pack, keeping the bottle in the bucket of tools or tethering the bottles to the basket. CEA also explained that the safety vest could hold two bottles of water. Moreover, workers are to lower their lifts and seek water at ground-level sources when necessary.

International Brotherhood of Electrical Workers, Local 1245

International Brotherhood of Electrical Workers, Local 1245 opined that past practice has been to lower the bucket to the ground to obtain water. IBEW raised concerns that items placed in proximity to the control panel (such as a cup holder) could limit the controls of the aerial devices.

Pacific Gas and Electric

Pacific Gas and Electric (PG&E) opined that the proposal was well-intentioned but neither necessary nor addressing an industry-recognized problem. PG&E supplies their workers with ice chests full of iced bottled water. Moreover, PG&E added that there already exist several locations other than a cup holder where water may be stored and made available to employees. PG&E gave examples such as employee equipment belts, soft-sided coolers, and grunt bags that hang from the sides of a bucket. PG&E further opined that a cup holder provides no value as an additional regulatory mandate.

Operating Engineers, Local 3

Operating Engineers Local 3 (OE3) opined that modern heavy construction equipment manufactured within the last two decades commonly feature standard cup holders. However, aerial devices often lack an adequate cup holder. The proposed amendment holds promise in significantly enhancing worker safety with minimal financial implications. According to OE3, premium cup holders, whether magnetically or mechanically attachable, are readily accessible at a modest cost, typically under \$40. OE3 agreed with the Petitioner that having a secure location to hold water bottles, mitigates potential hazards such as bottles rolling on the floor and inadvertently obstructing the pedals and brake, and helps prevent slips, trips and falls, particularly when operating platforms or aerial devices.

OE3 included an alternative proposal:

(c) Provision of water. [...]The water shall be located as close as practicable to the areas where employees are working, and an adequate means of securing provided water shall be made available to an employee who is stationed at mobile equipment controls or while in an aerial device. 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. [...]

Relevant Standards

California Labor Code and Legislation

Labor Code 6721 pertains to heat illness prevention but does not address the Petitioner's request.

In 2022, two Assembly Bills (AB), AB 1643 and AB 2243, regarding the heat illness standards were signed by the Governor into law.

AB 1643 established an advisory committee to study and evaluate the effects of heat on California's workers, businesses, and the economy. The advisory committee has met four times since its inception. Meeting records, agendas, and draft study recommendations are located on the Cal/OSHA website: [AB 1643 - California Heat Study: Advisory Committee](#).

AB 2243 required Cal/OSHA to submit a rulemaking proposal to the Standards Board amending section 3395 to add provisions regarding the distribution of the heat illness prevention plan to all employees.

Neither legislation addresses the Petitioner's request.

Federal Standards

On October 26, 2021, Federal OSHA posted the Advance Notice of Proposed Rulemaking for *Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings*. (Federal Register of October 27, 2021 (86 FR 59309)). However, it does not contain specific changes to the Federal Regulations but explains how federal OSHA addresses heat illness:

Although OSHA does not have a specific standard governing hazardous heat conditions at workplaces, the agency currently enforces Section 5(a)(1) (General Duty Clause) of the OSH Act against employers that expose their workers to this recognized hazard. Section 5(a)(1) states that employers have a general duty to furnish to each of their employees employment and a place of employment free from recognized hazards that cause or are likely to cause death or serious physical harm to employees (29 U.S.C. 654(a)(1)). [Federal Register / Vol. 86, No. 205, pp 59314]

Federal OSHA further explains the limitation of the existing federal regulations:

The agency's Sanitation standards (29 CFR 1910.141, 29 CFR 1915.88, 29 CFR 1917.127, 29 CFR 1926.51, and 29 CFR 1928.110) require employers to provide potable water readily accessible to workers. While these standards require that drinking water be made available in "sufficient amounts," it does not specify what those amounts are, and employers are only mandated to encourage workers to frequently hydrate on hot days. [Federal Register/Vol. 86, No. 205, pp 59315]

The Petitioner's request is not addressed in the federal document.

California Standards

Title 8, California Code of Regulations Section 3395(c) states:

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 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 frequent drinking of water, as described in subsection (h)(1)(C), shall be encouraged.

For construction, the heat illness standard also relies upon title 8, section 1524. Under the Construction Safety Orders 1524(a)(2)(B - D):

(2) The employer shall take one or more of the following steps to ensure every employee has access to drinking water:

[...]

(B) Supply single-service cups. Where single-service cups are supplied, a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

(C) Supply sealed one-time use water containers. Where sealed one-time use water containers are supplied, a receptacle for disposing of the used containers shall be provided.

(D) Ensure re-usable, closable containers are available for individual employee use. Where re-usable containers for individual use are relied upon for compliance with this section, the employer shall ensure the containers are marked to identify the user and maintained in a sanitary condition.

Section 1524(a)(2)(B - D) identifies three types of containers to hold water: single-service cups, sealed one-time use water containers and re-usable, closable containers. The drink holder serves to secure these types of containers while the employee is raising and lowering the aerial device as well as remaining stationary aloft. The Appeal's Board highlights that *"The water bottle or container would not be the source of water, rather the vessel used to get and drink the water from the water source."* Section 1524(a)(2)(B - D) does not directly address measures for ensuring that containers of water or vessels, are protected from damage, visibly monitored and maintained sanitary – the core concern of the Petitioner.

Other State Standards

Oregon Administrative Rules. 437-002-0156 Heat Illness Prevention.

Oregon's standard does not address the Petitioner's request.

Washington Administrative Code (WAC) WAC 296-62-09540

Washington's standard does not address the Petitioner's request.

Other OSHA State Plans

According to the Federal rulemaking for heat illness:

[S]ince 2020, three more states, Colorado, Maryland, and Nevada, have passed laws requiring state health and safety administrators to promulgate rules related to hazardous heat in the workplace. Virginia's Safety and Health Codes Board is also considering a standard on this topic.

Similarly, Board Staff could not identify any proposal in the three identified states that address the Petitioner's request.

² Rios Farming Company, LLC. 1336276, Decision (Oct 12, 2022), page 11.

Consensus Standards

On February 26, 2024, the American Society of Safety Professionals (ASSP) developed a consensus standard for heat stress management:

ANSI/ASSP A10.50-2024 Heat Stress Management in Construction and Demolition Operations, offers guidance on protecting workers; explains how to acclimate workers to high heat conditions; and provides requirements for training employees and supervisors. The standard contains checklists and flowcharts designed to help companies develop clear and effective heat stress management programs that bridge the regulatory gap.³

The ANSI/ASSP 10.50-2024 section 6.2.1 is similar, but not identical to the California regulation:

6.2.1 Water. [...] The water shall be in close proximity to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity to provide approximately one quart (~1 liter) per employee for drinking each hour over the entire shift.

Employers may begin the shift with smaller quantities of water if they have effective procedures to replenish the supply during the shift, as needed, to allow employees to drink one quart per hour[...].⁴

The ANSI/ASSP consensus code does not address the use of cup holders or mobile equipment.

Staff Analysis

1. Requiring drink holders is prescriptive and undermines the performance-based approach to the regulation.
2. Drink holders are not the only option for providing access to drinking water.
3. Drink holders may create additional hazards.

³ <https://www.assp.org/news-and-articles/assp-publishes-first-standard-on-heat-stress-in-construction>

⁴ AMERICAN NATIONAL STANDARD A10.50-2024 pp 20-21.

Prescriptive vs Performance

[...]It is the intent of the Legislature that agencies shall actively seek to reduce the unnecessary regulatory burden on private individuals and entities by substituting performance standards for prescriptive standards wherever performance standards can be reasonably expected to be as effective and less burdensome, and that this substitution shall be considered during the course of the agency rulemaking process[...] [Government Code section 11340.1]

The Petitioner's request prescribes that employers provide employees who work from aerial devices with drink holders. However, section 3395(c) is performance-based, as previously noted, "establishes a goal or requirement while leaving it to employers to design appropriate means of compliance under various working conditions." Furthermore, as stated in the 2015 Final Statement of Reasons, the intent is for employers to evaluate their specific jobsite conditions and identify potential barriers or obstacles (such as location, cleanliness, etc.) that might discourage the frequent consumption of water."

Options

The Petitioner's intent to protect and keep within reach containers of water while aloft with cup holders is laudable. However, Board Staff notes that cup holders are not the only option. The Petitioner's requirement for providing drink holders indiscriminately favors one option over other options available. It is not the role of the Board to endorse products, such as drink holders, but to ensure that potable water is readily available to employees. Drink holders are not the only option to ensure drinking water is accessible to aloft employees without hazards. Stakeholders outlined different accessories and methods to keep water accessible while aloft.

Additional Hazards

Several stakeholders highlighted that the placement of cup holders could impede the safe use of the controls of aerial devices. Board Staff is concerned that if a drink holder and an accompanying container are mounted at a location that obstructs clear access to the control of an aerial device, it may pose a hazard. Additionally, if a drink holder is placed in a manner in which a container may fall out while the employee is aloft, the falling container can cause serious injuries to employees below - a prominent hazard. The placement of the cup holder is not specified in the Petitioner's proposal.

Although drink holders may be useful for employees to have readily accessible water and reduce the number of times employees need to descend while working aloft, they are not the only option. Other options for placing water containers while aloft are vest pockets, tool belts, grunt bags that hang from the device, soft-sided coolers, among other options. Furthermore, employees have the option to descend to ground level to access water. Although there may be practices or workplace culture that keeps or encourages employees to stay aloft, employees have rest periods where they can descend to the ground level to rest, get water while under a shaded area.

STAFF RECOMMENDATION

Board Staff recommends Petition File No. 604 be DENIED.