

State of California
Department of Industrial Relations
Division of Occupational Safety and Health

Memorandum

Date: July 11, 2024

To: Autumn Gonzalez, Acting Executive Officer & Chief Counsel
Amalia Neidhardt, Principal Safety Engineer
Occupational Safety and Health Standards Board
2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833

From: Stacey Christian, Senior Safety Engineer
Kevin Graulich, Principal Safety Engineer
Eric Berg, Deputy Chief of Health
Division of Occupational Safety and Health

Subject: Evaluation of Petition 604 to amend title 8 section 3395, to require drink holders that attach to aerial devices.

1.0 Introduction

On March 25, 2024, the Division of Occupational Safety and Health (Cal/OSHA) received a petition from Landon Dees (Petitioner), representing himself as a concerned lineman proposing a change to title 8 section 3395. The petitioner is a utility lineman who works from aerial devices in hazardous environments and is exposed to hot and humid conditions.

The petitioner is requesting a change to title 8 subsection 3395(c) "Heat Illness Prevention in Outdoor Places of Employment" to require an adequate drink holder that attaches to aerial devices be made available to workers while working in an aerial device.

Labor Code section 142.2 permits interested persons to propose new or revised standards concerning occupational safety and health and requires the Occupational Safety and Health Standards Board (Standards Board) to consider such proposals. California Labor Code section 147 requires the Standards Board to refer to Cal/OSHA for evaluation of any proposed occupational safety and health standard.

2.0 PETITIONER'S PROPOSED AMENDMENT TO TITLE 8 REGULATIONS

The petitioner requests changes to Title 8, section 3395 of the California Code of Regulations to require drink holders attachable to aerial devices be provided to ensure access to potable drinking water while working aloft. The changes proposed by the petitioner are as follows:

Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
Article 10. Personal Safety Devices and Safeguards

§3395. Heat Illness Prevention in Outdoor Places of Employment.

(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 employees free of charge. 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. 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.

3.0 PETITIONER'S BASIS FOR AMENDMENT OF TITLE 8 REGULATIONS

The petitioner states that the requested change addresses a critical safety concern regarding access to potable drinking water for outdoor workers, particularly those working from aerial devices in hazardous environments. Aerial devices, as referenced by the petitioner, include man lifts, crane lifts, bucket trucks, scissor lifts, and cable trucks. The petitioner states that the platforms he works from are 24 inches by 24 inches or 24 inches by 48 inches, with one or two employees working from the platform. Typically, water is not provided in the aerial device due to space limitations and consequently employees do not drink water at a frequency as prescribed by title 8 section 3395. In support of this concern, the petitioner cites several sources regarding incident rates of heat illness and recommendations for the provision of drinking water for workers.

3.1 References to Heat Illness and drinking water in Federal OSHA and the Tree Care Academy

According to the petitioner, [OSHA.gov/heat](https://www.osha.gov/heat) states "Every year, dozens of workers die and thousands more become ill while working in hot or humid conditions". Additionally, in the aerial lift safety training material produced by Tree Care Academy under OSHA grant SH-26301-SH4, workers should "drink water every 15 minutes" and either "use a water bottle or bladder systems when aloft." In a letter from OSHA on October 17, 2001, to Mr. Chip Terhorst, OSHA specified that an "acceptable method...to reduce heat stress hazards in the workplace..." is "permitting workers to drink water at liberty." None of the above referenced materials were included in the petitioner's application.

3.2 Lack of drinking water accessibility options for compliance with Cal/OSHA Regulations

The petitioner states that the California Code of Regulations, title 8, section 3395 mandates that "employee shall have access to potable drinking water" and "the water shall be located as close as practicable to the areas where employees are working." Furthermore, there is a requirement that employees are to have "one quart [of water] per employee per hour." The petitioner asserts that water storage options are a challenge in aerial devices which affects their accessibility and hinders compliance.

3.3 Information from Cal/EPA, OEHHA, and Weather.gov

The petitioner quotes from Preparing California for Extreme Heat: Guidance and Recommendations, developed by the California Climate Action Team that "California faces temperature increases throughout the state over the next 80 years that will pose considerable health risks to our population, especially to a number of vulnerable groups." Furthermore, the petitioner provides another quote from OEHHA California Office of

Environmental Health Hazard Assessment that states “Extreme heat events have also become notably hotter in the last decade and are happening more often across the state.” According to weather.gov, the petitioner states that temperatures in the 80-90 degrees range can cause fatigue while temperatures in just the 90-103 degrees range can cause heat stroke, heat cramps or heat exhaustion. Finally, the petitioner asserts that depending on the humidity levels and work exertion, these temperatures can feel 15 degrees higher than the actual temperature.

3.4 Cupholders are necessary for access to water in aerial devices

The petitioner states that a lack of water for outdoor workers can pose significant dangers to their health and wellbeing. Outdoor workers, such as construction workers, agricultural workers, and utility workers, often face challenging conditions and physical exertion in their jobs. Access to safe and clean water is essential for maintaining hydration, preventing heat-related illnesses, and ensuring proper sanitation practices. The petitioner provides additional information on dehydration causing heat related illnesses and impaired cognitive function which can increase the likelihood of accidents.

From personal experience, the petitioner spends 3-6 hours in aerial devices without accessible water storage provisions. Since water storage provisions are not present, most workers resort to carrying water bottles which are either placed 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. Additionally, the petitioner asserts that water is provided on the ground or on the truck of the aerial device or tossed up to employees on the aerial device. It can take anywhere from 30 seconds to six minutes to stop work and descend to obtain water, which is a hindrance or deterrent for employees. As a result, most employees do not drink water frequently as prescribed by title 8 section 3395 nor is it encouraged by the employer.

Furthermore, the petitioner asserts that the practical implementation of recommendations from Federal OSHA and the Tree Care Academy and requirements of title 8 section 3395 is hindered by the lack of accessible water storage options within aerial devices. Existing solutions such as bladder systems pose logistical challenges and additional safety risks due to their weight and impracticality.

The petitioner states that access to potable drinking water aloft means that the water needs to be present in the aerial device itself. The use of a bladders system is not only costly to the company, however, also adds extra weight to the heavy (FR Rated) work attire an employee is required to wear, which also adds to the exertion of energy on the body. Therefore, a lot of companies do not use this option. The petitioner asserts that adequate drink holders that securely attach to the aerial device would be the ideal solution. The water bottles will be kept out of the control box and off the floor and will provide lifesaving potable drinking water in their workspace. Additionally, this holder will be visible to supervisors who can ensure that employees have drinking water while in aerial devices. This solution not only ensures convenient access to water during working hours but also mitigates potential hazards associated with improvised storage methods. This implementation aligns with OSHA’s commitment to reducing heat stress hazards in the workplace, as outlined in OSHA’s letter dated October 17, 2001, which emphasizes the importance of permitting workers to drink water at liberty.

4.0 APPLICABLE TITLE 8 REGULATIONS

Title 8 section 3395 of the General Industry Safety Orders covers heat illness prevention for employees working outdoors. Subsection 3395(c) describes requirements for the quality, amount, and location for drinking water that must be provided by the employer.

Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
Article 10. Personal Safety Devices and Safeguards

§3395. Heat Illness Prevention in Outdoor Places of Employment.

(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 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.

Title 8 section 3363 of the General Industry Safety Orders covers employee drinking water. Subsection 3363(b) requires drinking water to be maintained in a clean and sanitary condition. Subsection 3363(c) includes requirements for portable drinking water dispensers to be equipped with a faucet or fountain, be capable of being tightly closed and designed, constructed, and serviced so that sanitary conditions are maintained.

Subchapter 7. General Industry Safety Orders
Group 2. Safe Practices and Personal Protection
Article 9. Sanitation

§3363. Water Supply.

(b) All sources of drinking water shall be maintained in a clean and sanitary condition. Drinking fountains and portable drinking water dispensers shall not be located in toilet rooms. (Title 24, Part 5, Section 5-1001; Exception No. 2: (c))

(c) Portable drinking water dispensers shall be equipped with a faucet or drinking fountain, shall be capable of being tightly closed and shall be otherwise designed, constructed and serviced so that sanitary conditions are maintained. Such dispensers shall be clearly marked as to their contents.

Title 8 section 3457 covers field sanitation in agricultural operations. Subsection 3457(c)(1) addresses the requirements for potable drink water to be readily accessible to all employees, to be fresh and suitably cool in sufficient amounts, and ensure that water quality is maintained.

Subchapter 7. General Industry Safety Orders
Group 3. General Plant Equipment and Special Operations
Article 13. Agricultural Operations

§3457. Field Sanitation.

(c) Requirements.

Agricultural operations not involving hand-labor operations shall meet the requirements of Sections 3360-3368.

All other agricultural operations shall meet the following requirements:

(1) Potable drinking water.

(A) Potable water shall be provided during working hours and placed in locations readily accessible to all employees. Access to such drinking water shall be permitted at all times.

(B) The water shall be fresh and pure, suitably cool, and in sufficient amounts, taking into account the air temperature, humidity, and the nature of the work performed, to meet the needs of all employees.

(C) The water shall be dispensed in single-use drinking cups or by fountains. The use of common drinking cups or dippers is prohibited.

NOTE: For the purposes of this section, the term "common use," when applied to a drinking receptacle, is defined as its use for drinking purposes by, or for, more than one person without its being thoroughly cleansed and sterilized between consecutive uses thereof by methods prescribed by or acceptable to the State Department for Health Services.

(D) Drinking water containers shall be constructed of materials that maintain water quality, and shall be provided with a faucet, fountain, or other suitable device for drawing the water.

Title 8 section 3648 covers the safe operation of aerial devices. Subsection 3648(k) prohibits alteration of insulated aerial devices that may reduce the device's insulating value.

Subchapter 7. General Industry Safety Orders
Group 4. General Mobile Equipment and Auxiliaries
Article 24. Elevating Work Platforms and Aerial Devices

§3648. Operating Instructions (Aerial Devices).

(k) When an insulated aerial device is required, the aerial device shall not be altered in any manner that might reduce its insulating value.

Title 8 section 3273 addresses the hazards of employees' working areas. Subsection 3273(a) addresses the hazard of dangerous projections or projections on permanent floors and platforms. Subsection 3273(e)(1) includes the requirements for protecting employees from the hazard of falling objects.

Subchapter 7. General Industry Safety Orders
Group 1. General Physical Conditions and Structures Orders
Article 4. Access, Work Space, and Work Areas

§ 3273. Working Area.

(a) Permanent floors and platforms shall be free of dangerous projections or obstructions, maintained in good repair, and reasonably free of oil, grease, or water. Where the type of operation necessitates working on slippery floors, such surfaces shall be protected against slipping by using mats, grates, cleats, or other methods which provide equivalent protection. Where wet processes are used drainage shall be maintained and false floors, platforms, mats, or other dry standing places provided.

(e) Protection from falling objects:

(1) Where there is employee exposure below an elevated work area, one or more of the following safeguards shall be implemented:

(A) Provide toeboards, screens, or guardrail systems in accordance with Article 2 of these Orders to prevent objects from falling from higher levels; or,

(B) Provide a canopy structure to protect employees from falling objects; or,

(C) Provide a physical barrier such as, but not limited to, fencing, barricades or other equivalent means or methods, to prevent entry into the area to which objects could fall.

(2) Where the type of process or operation, exclusive of repair and maintenance, is such that there are hazards to employees from materials falling through platform or runway openings, the openings shall be limited to a size that prevents materials falling through the openings.

(3) Where platform or runway gratings are used as work areas during repair or maintenance, there shall be provided at such areas suitable safeguards to prevent tools or materials falling on employees below. Such safeguards may be netting suspended below the work area, canvas, planking on the surface of the grating, or barricaded or sheltered areas below the work area.

Title 8 section 3203 requires employers to establish, implement, and maintain an effective written Injury and Illness Prevention Program (IIPP). In particular, subsection 3203(a)(4) includes requirements for an employer to identify workplace hazards and subsection 3203(a)(6) requires employers to correct the hazards identified in a timely manner.

Subchapter 7. General Industry Safety Orders
Group 1. General Physical Conditions and Structures Orders
Introduction

§3203. Injury and Illness Prevention Program.

(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). The Program shall be in writing and, shall, at a minimum:

(4) Include procedures for identifying and evaluating work place hazards including scheduled periodic inspections to identify unsafe conditions and work practices.

Inspections shall be made to identify and evaluate hazards:

(A) When the Program is first established;

Exception: Those employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with previously existing section 3203.

(B) Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard; and

(C) Whenever the employer is made aware of a new or previously unrecognized hazard.

(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:

(A) When observed or discovered; and,

(B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

5.0 APPLICABLE FEDERAL OSHA REGULATIONS

Federal OSHA regulations currently do not include requirements in 29 CFR for heat illness prevention including the provision for water to be as close as practicable as required by title 8 subsection 3395(c). However, federal OSHA is in the rulemaking process to establish a heat illness prevention regulation.¹

The provisions for providing potable water maintained in sanitary conditions are addressed by Federal OSHA regulations in 29 CFR subsections 1910.141(b)(1)(i) and 1910.141(b)(1)(iii).

1910 Occupational Safety and Health Standards

Subpart J. General Environmental Controls

§1910.141 Sanitation

§1910.141(b)(1)(i)

Potable water shall be provided in all places of employment, for drinking, washing of the person, cooking, washing of foods, washing of cooking or eating utensils, washing of food preparation or processing premises, and personal service rooms.

§1910.141(b)(1)(iii)

Portable drinking water dispensers shall be designed, constructed, and serviced so that sanitary conditions are maintained, shall be capable of being closed, and shall be equipped with a tap.

Federal OSHA regulations address the requirements for vehicle-mounted elevating and rotating work platforms (aerial lifts) under 29 CFR 1910.67. Subsection 1910.67(c)(2)(xi) prohibits alteration of insulated aerial devices that may reduce the device's insulating value.

1910 Occupational Safety and Health Standards

Subpart F. Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms

§1910.67 Vehicle-mounted elevating and rotating work platforms.

§1910.67(c)(2)(xi)

The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

Federal OSHA regulations address the general requirements for walking-working surfaces under 29 CFR 1910.22. Subsection 1910.22(a)(3) requires walking-working surfaces to be maintained free of hazards such as protruding objects. Federal OSHA regulations address the requirements for fall protection and falling object protection in 29 CFR 1910.28. Subsection 1910.28(c) includes the requirements for protecting employees from the hazard of falling objects.

1910 Occupational Safety and Health Standards

Subpart D. Walking-Working Surfaces

¹ Federal OSHA's heat rulemaking proposal is available at: <https://www.osha.gov/heat-exposure/rulemaking>

§1910.22 General Requirements

§1910.22(a)(3)

Walking-working surfaces are maintained free of hazards such as sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, and ice.

§1910.28 Duty to have fall protection and falling object protection.

§1910.28(c)

Protection from falling objects. When an employee is exposed to falling objects, the employer must ensure that each employee wears head protection that meets the requirements of subpart I of this part. In addition, the employer must protect employees from falling objects by implementing one or more of the following:

§1910.28(c)(1)

Erecting toeboards, screens, or guardrail systems to prevent objects from falling to a lower level;

§1910.28(c)(2)

Erecting canopy structures and keeping potential falling objects far enough from an edge, hole, or opening to prevent them from falling to a lower level; or

§1910.28(c)(3)

Barricading the area into which objects could fall, prohibiting employees from entering the barricaded area, and keeping objects far enough from an edge or opening to prevent them from falling to a lower level.

Federal OSHA covers field sanitation in agricultural operations in 29 CFR Subpart I. Subsection 1928.110(c)(1) includes requirements for potable drinking to be readily accessible to all employees, be suitably cool and in sufficient amounts, and dispensed in single-use cups or by fountains.

1928 Occupational Safety and Health Standards for Agriculture

Subpart I. General Environmental Controls

1928.110(c)(1). Potable drinking water.

1928.110(c)(1)

Potable drinking water.

1928.110(c)(1)(i)

Potable water shall be provided and placed in locations readily accessible to all employees.

1928.110(c)(1)(ii)

The water shall be suitably cool and in sufficient amounts, taking into account the air temperature, humidity and the nature of the work performed, to meet the needs of all employees.

1928.110(c)(1)(iii)

The water shall be dispensed in single-use drinking cups or by fountains. The use of common drinking cups or dippers is prohibited.

Although Federal OSHA regulations do not include requirements for the development and implementation of an effective and written IIPP, similar protections are offered by the general duty clause of the OSHA Act of 1970.

OSHA Act of 1970
SEC.5. Duties

(a)Each employer --

(1)shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

6.0 APPLICABLE CONSENSUS STANDARDS

The American National Standards Institute and American Society of Safety Professionals addresses heat illness for the construction and demolition industries in ANSI/ASSP A10.50. The 2024 edition of this standard includes requirements for the provision of potable drinking water in section 6.2.1 to be in close proximity to the areas where employees are working.

ANSI/ASSP A10.50-2024 Standard for Heat Stress Management in Construction and Demolition Operations

6.2 Heat Stress Risk Controls

6.2.1 Water. Employees shall have access to potable (drinking) water including, but not limited to, the requirements that it be suitably cool and provided to employees free of charge. 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.

7.0 RECOMMENDATIONS FROM CDC and NIOSH

CDC and NIOSH address the provision for water to be near the work area in subsection 1.7.3(1)(g) of the Criteria for a Recommended Standard, Occupational Exposure to Heat and Hot Environments².

1.7.3 (1)(g)

Providing adequate amounts of cool (i.e., less than 15°C [59°F]), potable water near the work area and encouraging all workers that have been in the heat for up to 2 hours and involved in moderate work activities to drink a cup of water (about 8 oz.) every 15 to 20 minutes.

²Jacklitsch B, Williams WJ, Musolin K, et al. Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments: Revised Criteria 2016. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH). February 2016; DHHS (NIOSH) Publication 2016-106. <https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf?id=10.26616/NIOSH PUB2016106I>

8.0 HAZARDS TO WORKERS

Employees working outdoors are at risk of heat illness. Failure to address the risks associated with heat exposure can lead to serious health consequences including heat exhaustion and heat stroke, which can be life threatening. Ensuring water is located as close as practicable to employees is crucial in preventing dehydration which can exacerbate heat related illnesses. Proper hydration by drinking water frequently is essential in preventing heat-related illnesses. Employees suffering from dehydration may suffer from serious and fatal conditions including, but not limited to, the following:

- Heat cramps
- Heat exhaustion
- Heat syncope
- Heat stroke

9.0 ANALYSIS

9.1 Water is already required by section 3395 to be on aerial devices

Pursuant to title 8 subsection 3395(c), water must be as close as practicable to workers. The terms “as close as practicable” were clarified by the Occupational Safety and Health Appeal Board (Appeals Board) in the Rios Farming Company, LLC Decision and subsequent Decision After Reconsideration. The Appeals Board held that 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 considering the specific job site conditions.

In the Rios Farming Company, LLC Decision, trellises in the field were considered an obstacle that discouraged the frequent drinking of water by employees. As a result of the obstacle, employees took it upon themselves to bring water bottles with them, which demonstrated that it was feasible to provide water closer to where employees were working.

Similarly, water stored in vehicles or on the ground below employees working aloft from aerial devices would require employees to stop work and descend thereby creating an obstacle that would discourage the frequent drinking of water. To address this obstacle, the petitioner states that water bottles are often tossed up or carried up by employees to the work platform or bucket of the aerial device. This demonstrates that it is feasible for water to be present on the aerial device platform. The Board held that employees should not be required to cross obstacles to obtain water and employers must provide water where employees are working if it is reasonable to accomplish. Since employees are able to bring water on aerial devices, it is also reasonable for employers to provide water on aerial devices.

Additionally, the petitioner conveyed that there are commercially available water holders that can be easily attached to the aerial device platform or bucket and would not encroach on the already limited platform space.

Title 8 subsection 3395 requires water to be on aerial lifts in most cases since cup holders are commercially available and employees have already demonstrated that it is feasible to bring water on lifts through their own practices.

9.2 Amending section 3395 with an additional prescriptive language requiring cup holders in aerial devices is not necessary

As discussed in part 9.1 of this evaluation, section 3395 requires water to be as close as practicable to workers. Additionally, based on the Rios Farming Company LLC Decision, employers are already required to provide water on the platform of aerial lifts with employees. In addition to cup holders proposed by the petitioner, this can be accomplished by various other methods depending on the size of the platform, including, but not limited to providing an ice chest containing water bottles, a water cooler, water bottle waist pack, personal hydration backpacks, or other portable water dispensers. Therefore, the requirements of title 8, subsection 3395(c) for water to be as close as practicable can be accomplished by various alternatives, and not exclusively with a cup holder as argued by the petitioner.

Additionally, the specific requirement to provide cup holders proposes a singular prescriptive pathway to compliance which is not the preference when adopting regulations. The Administrative Procedures Act requires performance standards (such as existing subsection 3395(c)) be used in lieu of prescriptive standards (such as mandatory cup holders as proposed by the petitioner) if the performance standard is equally effective.³

9.3 Water and water dispensing devices must be maintained in a sanitary condition

Pursuant to title 8 subsection 3395(c) which references section 3363(b) and (c), water and portable drinking water dispensers shall be maintained in a clean and sanitary condition. The condition described by the petitioner of water bottles laid on the floor of the aerial device could represent an unsanitary condition pursuant to title 8 subsections 3363(b) and (c). Placing water bottles inside a cooler would eliminate this unsanitary condition in addition to the fall (trip) hazard expressed by the petitioner and discussed further in part 9.4 of this evaluation.

9.4 Cup holders on aerial devices may pose hazards

Installing cup holders on the railing or bucket of an aerial device may present hazards to employees. Depending on the material of the cupholder and mounting hardware, the cupholder itself could be electrically conductive, creating a potential arc and/or arc flash hazard to employees who come into proximity to energized electrical lines and related components. Additionally, drilling holes or altering the insulated buckets of aerial devices could alter the insulating properties of the equipment, which is prohibited by title 8, subsection 3648(k). Lastly, cup holders installed on the top rail or bucket and frequently accessed may create a falling object hazard for employees working below from the water container or the cup holder itself if not adequately secured.

9.5 Hazard associated with water bottles stored on platforms and in control boxes on aerial devices

The petitioner asserts that cup holders should be required because a current practice is to store water bottles in the control boxes of the aerial device. Cal/OSHA agrees that this is an unsafe practice as it could hinder the

³ See California Government Code sections 11340.1(a), 11346.2 (b)(1), and 11346.2(b)(4)(A).

proper function and operation of the aerial device controls. Therefore, storing water bottles that could affect the safe operation of the aerial device would be prohibited by title 8 regulation, pursuant to section 3203.

Furthermore, the petitioner states that laying water bottles on the floor of an aerial device is common practice and poses not only a fall (trip) hazard but also renders the water bottles inaccessible during critical moments of work. Placing water bottles on the floor of the platform of an aerial device that presents a trip hazard is prohibited pursuant to title 8 subsection 3273(a). Cal/OSHA does not agree that water would be considered inaccessible if cup holders were not provided. If water is present in a safe accessible location within the aerial device, it would be considered as close as practicable pursuant to title 8 subsection 3395(c).

9.6 Cup holders not expressly prohibited by title 8 regulations

Title 8 regulations do not expressly prohibit the use of cup holders in aerial devices. Installing cup holders would be permissible if compliant with manufacturer's requirements and recommendations. Cal/OSHA staff reviewed several common aerial device manufacturer's manuals and did not find any prohibition on the use of cup holders. If cup holders are used, they must be designed, manufactured, and installed in a manner that would not present hazards to employees.

10.0 CONCLUSION

Cal/OSHA recommends that Petition file No. 604 be DENIED.

cc: Debra Lee, Chief