



Memorandum

To: Christina Shupe, Executive Officer
Occupational Safety and Health Standards Board

March 23, 2021

From: Eric Berg, Deputy Chief of Health *Eric Berg*
Division of Occupational Safety and Health

Subject: Evaluation of Petition No. 586 to Amend title 8 section 3449

1.0 INTRODUCTION AND BACKGROUND

On September 23, 2020, the Division of Occupational Safety and Health (Cal/OSHA) received a petition from Mr. and Mrs. Rex and Judy Barton (Petitioners) to amend title 8. The Petitioners are owners of LunarGlo LLC, which is a small private company founded in 2012 that manufactures solar lights and fans for portable restrooms. The Petitioners request changes to title 8 section 3449(a) Outdoor Agricultural Operations During Hours of Darkness (Between Sunset and Sunrise).

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. Labor Code section 147 requires the Standards Board to refer to Cal/OSHA for evaluation any proposed occupational safety or health standard.

2.0 PETITIONER'S REQUEST TO AMEND SUBSECTION 3449(a)

Title 8 subsection 3449(a) currently requires certain illumination levels for agricultural work conducted at night. The illumination levels required depend on the operation, task, or location. This regulation requires 5 foot-candles (53.83 lux) in restrooms.

The petitioners request a change to subsection 3449(a) because the restroom light the petitioner sells does not meet the 5 foot-candle requirement.

The petitioners want one of the following changes made to make the regulation conform to their light:

- Change the location where illumination levels are measured from approximately 30 inches above the floor to 34 inches from the light source, or
- Change the illumination level required for restrooms from 5 foot-candles to 2.9 (31.22 lux) foot candles.

In addition, the petitioners propose that restrooms be continuously lit from dusk to dawn.

The petitioners proposed changes to subsection 3449(a) are shown below in underline strikethrough format:

Subchapter 7. General Industry Safety Orders

Article 13. Agricultural Operations

§3449. Outdoor Agricultural Operations During Hours of Darkness (Between Sunset and Sunrise).

(a) Illumination. Outdoor agricultural operations taking place between sunset and sunrise shall be illuminated at levels no less than the levels stated in Table 1. Illumination levels for task lighting shall be measured at the task/working surface, in the plane in which the task/work surface is present. Illumination levels for area lighting shall be measured at approximately ~~30 inches above the floor or other horizontal, vertical or sloped surface on or through which the employee walks, works or gains access to a work area~~ 34 inches from the light source.

NOTE: The illumination levels required in Table 1 may be provided by one or more light source (e.g. lamp mounted on equipment, vehicles, or personal hands free portable lighting) or a combination of methods.

(1) The employer shall provide and maintain hands-free portable personal lighting or area lighting or both to employees.

Table 1 - Illumination Levels

<i>Foot-candles</i>	<i>Lux</i>	<i>Operations, Areas or Tasks</i>
0.09-0.19	1-2	Poultry harvesting or catching operations.
3	32.29	Meeting area and meal/rest area.
5 <u>2.9</u>	53.82 <u>31.22</u>	Outdoor agricultural operations except where otherwise specified in this table.
		Pathways leading to and around restrooms and drinking water.
		Inside restroom facilities <u>(must remain lit continuously between dusk and dawn).</u>
		Storage areas accessed by employees.
* * * * *		

3.0 APPLICABLE FEDERAL OSHA REGULATIONS

Federal OSHA regulations do not address illumination for agricultural operations conducted during the hours of darkness.

4.0 APPLICABLE CONSENSUS STANDARDS

No consensus standards were identified that address lighting for agricultural operations during hours of darkness. The 2013 edition of the Nighttime Lighting Guidelines for Work Zones published by the American Traffic Safety Services Association was utilized for guidance for illumination levels during the rulemaking for section 3449. This publication includes a recommendation of 5-foot candles for all work zones but does not include a specific recommendation for restrooms.

5.0 PETITIONER'S BASIS FOR AMENDMENTS TO SECTION 3449

5.1 Section 3449(a) Requirements Should be Reduced to Allow for Existing Solar Lights on the Market

The petitioners state that, in addition to their own product, many other competing solar lights on the market do not meet the minimum illumination requirements of subsection 3449(a). According to the petitioners, thousands of solar lights are already in use in portable restrooms and the regulation exposes California agricultural employers to fines for non-compliance. The petitioners believe the 2.9 foot candles provided by their product is adequate because they have not received any complaints in seven years of manufacturing the product.

5.2 Section 3449(a) Should Require Lights be Consistently Lit from Dusk to Dawn

The petitioners state that solar lights turn on at dusk and turn off at dawn and can reliably deliver their designed illumination levels consistently only if the lights are powered continuously. According to the petitioner, switching the lights on and off can shorten the lifespan of the lighting units or cause them to fail.

6.0 ANALYSIS

6.1 Product Performance is not a Valid Basis for Amendment of Title 8 Regulations

The inability of the petitioners' and their competitors' products to provide 5 foot-candles for restrooms as required by subsection 3449(a) is not a valid basis to change the regulation. The regulation exists to provide employee health and safety protection and not to conform to a specific product.

The petitioners were present during the during the 2015 advisory meeting preceding the rulemaking for section 3449 when the 5-foot candle requirement was presented and discussed. The petitioners did not comment on the 5 foot-candle requirement for illumination in restrooms. The petitioners also did not comment on lighting for restrooms during the 45-day comment once formal rulemaking began.

6.2 Reduction of Illumination Requirement Does Not Preclude Use of the Petitioners' Product

Although the petitioners' lights may not provide the illumination level required by section 3449, the regulation does not preclude use of the petitioners' product. Employers may use multiple solar lights in a restroom or may supplement solar lights by providing workers with headlamps. The use of

headlamps was discussed during the 2015 advisory committee as an effective means for providing illumination in restrooms and other areas without fixed lighting or with limited fixed lighting. The note in subsection 3449(a) expressly allows for multiple light sources including hands-free portable lighting. Given the nature of agricultural work, portable lighting will be necessary in many if not most operations.

6.3 Proposed Requirement for Continuous Lighting is not Necessary and Would Create and Unnecessary Burden

The petitioner's request that restrooms lights be lit continuously from dusk until dawn is not necessary. Section 3449 already requires restrooms be illuminated whenever occupied by an employee. There is no benefit to employee safety and health by requiring restrooms remain lighted when unoccupied.

Furthermore, section 3449 does not require lighting in restrooms to be switched off when the restroom is not in use. Solar lights may remain powered on continuously if so desired.

Finally, the requirement for constant illumination in restrooms would create an unnecessary burden on the regulated community. Although the petitioners allude in their proposal for continuous lighting in restrooms to apply to solar lighting, the proposed change would apply to any method of illumination. Therefore, if an employer elects to utilize a means of illumination other than solar lights, they would be obligated to operate the lights at all times, increasing the need to replace batteries, bulbs, or entire units to keep the lights on when restrooms are unoccupied. The proposed change would also preclude the use of portable lighting such as headlamps which, by their nature, cannot provide illumination when the restroom is not occupied.

7.0 CONCLUSION

Cal/OSHA reviewed the petitioner's proposed changes to title 8, section 3449. The review included information provided in the petitioner's application, discussions with the petitioner, and a research of existing regulations and consensus standards. Cal/OSHA recommends that the petition be DENIED.