

Memorandum

To : Marley Hart, Executive Officer
 Occupational Safety and Health Standards Board
 2520 Venture Oaks Boulevard, Suite 350
 Sacramento, CA 95833

Date December 2, 2013

From : Juliann Sum, Acting Chief 
 Department of Industrial Relations
 Division of Occupational Safety and Health

Subject : **Request for Amendment of Title 8, CCR, Section 3441(g) Lighting for Night Work in Agricultural Operations**

Appended is a Division proposal to amend Title 8, California Code of Regulation, General Industry Safety Orders, Section 3441(g) to augment and clarify the requirement to provide work area lighting about agricultural equipment operations and trucking operations during agricultural field operations.

Presently this vertical regulation only requires:

" All tractors or self-propelled farm equipment used between an hour after sunset or an hour before sunrise shall be equipped with at least one headlight that will illuminate the area in front of the equipment at least 50 feet. There shall be at least one rear light to illuminate equipment at the rear. Additional lighting shall be provided where the operation requires field adjustment or the operator's attention."

The Division has investigated a number of accidents occurring in agricultural operations during nighttime work activities, including serious injuries and at least one fatality. The Division is proposing that increased work area lighting about agricultural equipment in use in night time work activities, supplemented by employee use of high-visibility garments, will have the beneficial effect of reducing the probability and frequency of worker injuries that result from run over and caught-in type accidents.

This proposed amendment would require work area lighting about operating tractors, self-propelled implements, towed equipment and truck loading operations in and adjacent to field work areas during nighttime operations. The increased lighting requirement specified is a minimum of 10 footcandles within 25 feet of covered operations. The use of high-visibility garments would increase the likelihood of workers on the ground being observed by equipment operators.

The implementation of these protective measures is commensurate with the protections required for workers exposed to close interaction with vehicular traffic in the construction industry. While the equipment speeds are typically much slower in the agricultural industry, the worker proximity and interaction with mobile equipment is much closer in many instances and work zone protections are not practicable. It is this proximity and level of interaction that dictates the need for additional lighting of nighttime work areas and the need for high visibility garments.

Cal/OSHA 9
REQUEST FOR NEW, OR CHANGE IN EXISTING, SAFETY ORDER

1. **Date:** December 2, 2013
2. **Eng/IH:** Patrick Bell
3. **Region/District/Unit:** _____

4. Industry (Include industrial sector and SIC Code. Provide employer name and address when appropriate):

Title 8, California Code of Regulation, General Industry Safety Orders

PART I - NEW SAFETY ORDER

5. Hazard Description (include process, condition, machinery, or product involved):

n/a – See Part II

6. Recommended New Safety Order Language (Use any guidelines, standards, codes, or safe work practices. Attach additional pages as needed):

n/a – See Part II

PART II - CHANGE IN EXISTING SAFETY ORDER

7. Reason(s) for request (Employer's appeal granted, advice of Legal Unit staff, Safety Order needs clarification, or other) :

- a. Fatal injury accident involving Agricultural worker harvesting grapes at night.
- b. Improved work area lighting and worker use of high-visibility apparel would be consistent with provisions for protection of workers in other industry sectors with substantially equivalent exposures.

Proposed amendment for GISO 3441(g) to clarify and augment the requirement for work area lighting already provided by the existing rule for agricultural night work. Night work in Agricultural Operations is common in high heat geographical regions of California such as the inland and coastal valleys, and in crops where night harvesting is advantageous, e.g.: table and wine grapes.

8. Section/Subsection reference to existing Title 8 Safety Order:

Title 8, Chapter 4, Subchapter 7. General Industry Safety Orders
Article 13. Agricultural Operations, Section 3441

Cal/OSHA 9
REQUEST FOR NEW, OR CHANGE IN EXISTING, SAFETY ORDER

9. Suggested change(s) to existing Safety Order Language (provide exact new wording):

Subchapter 7. General Industry Safety Orders, Group 3. General Plant Equipment and Special Operations, Article 13. Agricultural Operations, §3441. Operation of Agricultural Equipment.

Amend section 3441 as follows:

(g) All tractors, ~~or~~ self-propelled farm equipment, and trucks used between ~~an hour after sunset or an hour before and sunrise~~ shall be equipped with at least one headlight that will illuminate the area in front of the equipment at least 50 feet. There shall be at least one rear light to illuminate equipment at the rear.

(h) ~~(g)~~ Additional lighting shall be provided where the operation requires field adjustment or the operator's attention. Lighting shall also be provided in areas where workers may be on the ground within 25 feet of operating tractors, trucks, self-propelled or towed equipment. The minimum illumination in these work areas shall be 10 footcandles.

~~(i)(2)~~ The employer shall provide, and require workers to wear Class 2 high visibility garments meeting the requirements of Section 3380(e) and conforming to the specifications of ANSI/ISEA 107-2004 for work activities conducted between sunset and sunrise.

~~(j)-(h)~~ Adequate means of access shall be provided so that employees can safely reach the top of the load for manual loading or unloading of high loads.

10. _____
Signature of Requestor

11. _____
Signature of Supervisor

Accident: 201107612 - Employee Run Over By Grape Harvester

Accident: 201107612 -- Report ID: 0950624 -- Event Date: 09/08/2005					
Inspection	Open Date	SIC	Establishment Name		
300822061	03/23/2006	0172	Pacific Agri Lands Inc.		
Employee #1, a field supervisor, was walking in front of a grape harvester at night. He lost his balance, fell, and the grape harvester ran over him. Employee #1 was hospitalized for treatment of fractures.					
Keywords: struck by, harvester, run over, poor visibility, work surface, lost balance, chest, fracture					
Inspection	Age	Sex	Degree	Nature	Occupation
1 300822061			Hospitalized injury	Fracture	Supervisors, farm workers

Accident: 201106416 - Grape Harvester Is Killed When Struck By Equipment

Accident: 201106416 -- Report ID: 0950624 -- Event Date: 08/31/2005					
Inspection	Open Date	SIC	Establishment Name		
300819588	09/01/2005	0761	Vicente Lopez Fic #6168		
At approximately 10:00 p.m. on August 31, 2005, Employee #1 was harvesting grapes with a grape harvester and two gondolas that were being pulled by tractors. At the end of a row, he repositioned the grape harvester for the next row, while his coworkers went to unload the gondolas and tractors. When they returned, they found Employee #1 lying face-up on the ground. He had sustained bruises, contusions, and abrasions to his head, and he had been killed. There were no witnesses to the accident. Following an autopsy, the determination given in the coroner's report is that Employee #1 was struck by a wheel of one of the tractors or gondolas.					
Keywords: struck by, farm machinery, agriculture, contusion, abrasion, head					
Inspection	Age	Sex	Degree	Nature	Occupation
1 300819588			Fatality	Bruise/Contus/Abras	Supervisors, farm workers

Accident: 201105665 - Employee Suffers Head Injury Riding Grape Harvester

Accident: 201105665 -- Report ID: 0950624 -- Event Date: 09/10/2004					
Inspection	Open Date	SIC	Establishment Name		
125722009	01/12/2005	0761	Vicente Lopez, Fic #6168		
At approximately 5:30 a.m. on September 10, 2004, Employee #1 was riding on a grape harvester. The employees were moving from one field to another. The harvester was traveling on a county road. As the harvester was being driven over a bridge crossing, Employee #1 (the passenger), was leaning on a railing. As the harvester reached the bridge structure, Employee #1 turned and struck his head against the bridge structure. Employee #1 sustained a serious head injury and was hospitalized.					
Keywords: struck against, head, bridge, agriculture, harvester					
Inspection	Age	Sex	Degree	Nature	Occupation
1 125722009			Hospitalized injury	Other	Farm workers