

STATE OF CALIFORNIA  
DEPARTMENT OF INDUSTRIAL RELATIONS  
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
2520 Venture Oaks Way, Suite 350  
Sacramento, California 95833  
(916) 274-5721

In the Matter of a Petition by: )  
)  
) PETITION FILE NO. 531  
) DECISION  
)  
Bryan Crabb, Executive Director )  
California Solar Energy Industries )  
Association (CALSEIA) )  
1107 9th St. )  
Sacramento, CA 95814 )  
)  
Applicant. )

The Occupational Safety and Health Standards Board hereby adopts the attached PROPOSED DECISION.

OCCUPATIONAL SAFETY AND HEALTH  
STANDARDS BOARD

\_\_\_\_\_  
DAVID THOMAS, Chairman



\_\_\_\_\_  
DAVE HARRISON, Member



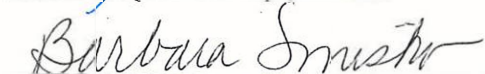
\_\_\_\_\_  
WILLIAM JACKSON, Member



\_\_\_\_\_  
HANK MCDERMOTT, Member



\_\_\_\_\_  
PATTY QUINLAN, Member



\_\_\_\_\_  
BARBARA SMISKO, Member



\_\_\_\_\_  
LAURA STOCK, Member

By:   
\_\_\_\_\_  
Marley Hart, Executive Officer

DATE: 4/18/2013  
Attachments

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350  
Sacramento, CA 95833  
(916) 274-5721  
FAX (916) 274-5743  
Website address: [www.dir.ca.gov/oshsb](http://www.dir.ca.gov/oshsb)



**PROPOSED PETITION DECISION OF THE  
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
(PETITION FILE NO. 531)**

INTRODUCTION

The Occupational Safety and Health Standards Board (Board) received a petition on October 25, 2012, from Bryan Crabb, Executive Director, California Solar Energy Industries Association (Petitioner). The Petitioner requests the Board to amend Title 8, California Code of Regulations, Section 3212 of the General Industry Safety Orders, concerning the requirements for working within six feet of a roof opening or skylight.

Labor Code section 142.2 permits interested persons to propose new or revised regulations concerning occupational safety and health and requires the Board to consider such proposals, and render a decision no later than six months following receipt. Further, as required by Labor Code section 147, any proposed occupational safety or health standard received by the Board from a source other than the Division of Occupational Safety and Health (Division) must be referred to the Division for evaluation, and the Division has 60 days after receipt to submit a report on the proposal.

SUMMARY

Petitioner states that the provisions of Section 3212 apply to solar installers even though the standard was not designed with the specific fall protection challenges of the solar industry in mind. He states that as currently enforced, Section 3212 prohibits, as a means of compliance, skylights designed to meet the loading requirements for skylight covers. It also fails to recognize skylight screens installed below the skylight assembly, which meet the loading requirements for skylight covers, as suitable means for fall protection. He questions the wisdom of using personal fall protection to protect against falls through glass skylights. Finally, the Petitioner states that compliance using flexible skylight nets, which meet the loading requirements of skylight covers and provide a means of fall protection where other methods are impractical, is disallowed.

DIVISION'S EVALUATION

The Division's evaluation report dated March 1, 2013, addresses two of the Petitioner's requests stated above. With regard to skylights designed to be as strong as covers, the Division "concludes that the use of fall protection equipment, where required by location, would not be exempted by the design or materials used in the construction of a skylight, unless the design clearly demonstrates, and documents, the capability to support the minimum of 400 pounds on any one square foot or twice the anticipated load, as required by Section 3212(b)."

The Division is silent in regard to the use of screens below skylights and the use of personal fall protection around glass skylights. In regard to skylight netting, the Division states that the changes suggested by the Petitioner would reduce protection against falls through skylights or skylight openings. The Petitioner's suggested changes would reduce the level of protection provided to employees. Furthermore, adoption of the Petitioner's recommended changes would have the effect of rendering the State's occupational safety regulations less protective than the Federal counterpart regulations. 29 CFR 1926.501(b)(4)(i) regarding construction contains the following requirements:

“Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above the lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.”

29 CFR 1910.23(a)(4) regarding general industry contains similar requirements:

“Every skylight floor opening and hole shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides.”

The Division recommends that the petition be denied.

#### BOARD STAFF'S EVALUATION

The fall prevention requirements of Section 3212 were last updated in 2004. Since then, several new materials have been used as glazing in skylights in addition to glass. Skylights are also becoming more prevalent on structures in efforts to reduce energy consumption.

Board staff contacted various groups and individuals to discuss the potential amendments of the fall prevention requirements of Section 3212 proposed in the petition. Unanimously, they stated interest in attending an advisory committee to discuss more options for preventing falls while working on or around skylights.

Board staff's evaluation of the Petitioner's request reveals the following facts:

1. The Petitioner proposes to allow a screen to be placed under a skylight for compliance. The screen below the skylight would not prevent the skylight from breaking, but it would prevent an employee from falling past the standing level of the roof, similar to a personal fall protection system.
2. A second point that the Petitioner makes is that skylight material that is as strong as a cover should be accepted in place of a cover. The Final Statement of Reasons for the 2004 update of Section 3212 and the ANSI standard, upon which the federal standard is based, support this form of protection.

3. The Petitioner's proposal regarding skylight netting used as a personal fall protection system is problematic. Although the idea may have merit, the technology is untested to the extent that it has not been designed in accordance with any recognized consensus standards or applicable scientific principles and has conflicts with current federal requirements for fall protection.
4. The final element of the proposal is to disallow the use of a personal fall protection system when the skylight glazing is made of glass. Although there is a hazard from falling through a glass skylight and being cut by glass, this hazard was present when an advisory committee considered amending Section 3212 to allow for the use of a personal fall protection system. The Petitioner stated in his application that most skylights were made of glass at the time these amendments were adopted by the Board, and it is reasonable to assume that the committee was aware of same. However, the minutes of the advisory committee do not contain this discussion; therefore, Board staff believes that an advisory committee could be convened specifically to address the matter.
5. While the Petitioner's suggestions may differ from federal requirements, the suggestions are not necessarily less effective, and this issue, among others, merits discussion.

In conclusion, certain elements of the Petitioner's proposal might have merit and should be discussed further. Board staff notes that it is contradictory to allow a screen or cover to be employed for fall protection as long as the glass below is not broken and to also allow a personal fall arrest system to be employed, with no concern about broken glass. Allowing glass to be broken with one type of protection, but not others, is inconsistent. Additionally, many newer skylights are made of plastic and vinyl materials that do not pose the same hazards as glass. Discussion of the currently-available technologies for fall protection should take place through an advisory committee to determine whether safety can be enhanced through the use of the new materials.

#### CONCLUSION AND ORDER

The Board has considered the Petition and the recommendations of the Division and Board staff. For reasons stated in the preceding discussion regarding the Board staff evaluation, the petition is hereby GRANTED to the extent that a representative advisory committee be convened. The Petitioner shall be invited to participate in this advisory committee.