

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**PROPOSED PETITION DECISION OF THE  
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
(PETITION FILE NO. 522)****INTRODUCTION**

The Occupational Safety and Health Standards Board (Board) received a petition on April 22, 2011, from Dave Feerst, Director of Safety, Winco, Inc., (Petitioner). The Petitioner requests the Board to amend Title 8, California Code of Regulations, Section 1905(b) to delete the requirement for grounding helicopters and their fuel source before and during fueling operations.

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**

The Petitioner is a safety director for a Portland, Oregon based company that provides transmission line construction services for the electric utility industry. The Petitioner stated that in the past it was accepted practice to ground the aircraft and the fuel supply to a grounding rod prior to fueling. In addition to bonding\* (i.e., being mechanically and electrically connected to maintain the same potential), the aircraft and fuel truck or fuel source were also grounded\* (i.e., connection to the earth or to some extended body that serves instead of the earth).

The Petitioner notes that in a recent Federal Aviation Administration (FAA) states in a safety alert for aircraft operators (SAFO) published November 23, 2010, that:

Before fueling, the aircraft must be bonded to the fuel source to equalize static electricity between the fuel source and the aircraft. Grounding of the aircraft and/or fuel truck is no longer recommended because it does not prevent sparks at the fuel source, and the grounding cable may not be sufficient to discharge the electrical current.

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\* As defined by the Institute of Electrical and Electronics Engineers.

The National Fire Protection Association (NFPA) 407-2007, “Standard for Aircraft Fuel Servicing,” requires bonding the aircraft and fueling equipment to equalize charges and prohibits grounding during fueling operations. According to the Petitioner, research has shown that the bond from aircraft to the fuel truck brings both vehicles to the same potential eliminating any chance of a spark which is caused by a difference in potential. The Petitioner also states that other studies suggest that a secondary connection from the truck to the ground actually may increase the likelihood of a spark. Therefore, the petition was submitted to address the concerns raised by these studies.

#### DIVISION’S EVALUATION

The Division’s evaluation dated June 29, 2011, states that the most recent addition of NFPA Standard 407 addresses the requirement for bonding of aircraft and fueling vehicles and states, “Grounding during aircraft fueling shall not be permitted.” This prohibition regarding grounding reflects current safety practices, in that additional grounding of the vehicles may lead to inadvertent potential differences between the vehicles, resulting in a static electricity discharge. Construction Safety Orders, Section 1905(b) does not reflect current accepted safety practices as required by the FAA, nor does it comply with the current NFPA Standard 407. The Division supports the petitioner’s request to delete the phrase “and grounded” from Section 1905(b).

#### STAFF’S EVALUATION

Board staff concurs with the Division’s evaluation. Bonding provides a conductive path to equalize the different static charges before they can build-up to a high enough potential to create a spark; by reducing the potential for an electrical charge, the possibility of a spark which could lead to fire and explosion is minimized. It is also noted that Section 1905 has not been updated since 1985.

Board staff contacted several area helicopter flying services to determine current fueling practices regarding the practice of grounding and bonding the aircraft and fuel source. The operations contacted indicated that they are not grounding either the aircraft or the fuel source but strictly bonding the aircraft to the fuel supply.

#### CONCLUSION AND ORDER

The Board has considered the subject petition and the recommendations of the Division and Board staff. For the reasons stated in the preceding discussion, the petition is granted, and the Board staff shall develop, for presentation to the Board at a future public hearing, proposed amendments to Section 1905(b), consistent with the NFPA 407-2007 standard and the November 23, 2010 FAA SAFO, regarding the grounding requirement.