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OSHA requirements are set by statute, standards and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <http://www.osha.gov>.

October 13, 2009

Letter #20070920-8088

Re: Whether compliance with an updated ANSI standard on gate strength for carabiners and snaphooks is required.

Question: ANSI has recently revised its gate strength standards for carabiners and snaphooks (Z359.1-2007). Specifically, ANSI Z359.1-2007 §4.3.1.1.2 increased the load that a gate face must be able to withstand from 220 pounds to 3,600. Similarly, ANSI Z359.1-2007 §4.3.1.1.3 increased the load that the side of the gate must be able to withstand from 350 pounds to 3,600. Does OSHA intend to enforce the revised ANSI gate strength standards?

Answer: In 29 CFR 1926 Subpart M, section 1926.502(d) provides:

- (3) Dee-rings and snaphooks shall have a minimum tensile strength of 5,000 pounds(22.2 kN).
- (4) Dee-rings and snaphooks shall be proof-tested to a minimum **tensile** load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation. [Emphasis added].

Note that these requirements are for "tensile" load. Subpart M does not contain any provision addressing the risk of a dee-ring or snaphook failing due to inadequate **compressive** strength.

In contrast, ANSI Z359.1-2007 4.3.1.1.2 does address the compressive hazard. It calls for a minimum compressive load strength under different load magnitudes.¹ In sum, although there is an OSHA standard that addresses the hazard of a snaphook or dee-ring failing due to tensile load, this hazard is separate and distinct from the one addressed in section 4.3.1.1.2 of ANSI Z359.1, which addresses failure due to compressive load.

Section 5(a)(1) of the OSH Act ("General Duty clause") states that each employer:

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.

Section 4.3.1.1.2 of ANSI Z359.1 is evidence that the industry has recognized a hazard of snaphooks or dee-rings failing from inadequate compressive load strength and that there is a feasible means to abate this hazard - use of equipment designed to withstand at least 3,600 pounds of compressive load. Therefore, use of such equipment is required under the General Duty clause.

Sincerely,

Richard E. Fairfax, Acting Director
Directorate of Construction

¹ ANSI 4.3.1.1.2, "Gate Face Testing of Snaphook and Carabiner" provides: "Position the snaphook or carbine in the clamping fixture such that the outside face of the gate is generally parallel to the test bed and the gate's motion is perpendicular to the test bed. Using a rigid bar as shown in Figure 22, apply a load perpendicular to the face of the gate at a point as close to the nose of the hook body as possible. The load shall be applied increasingly until the required test load of 3,600 pounds (16 kN) is reached...." [\[back to text\]](#)

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