

designed to move vertically while occupied.

(c) An access ladder or equivalent safe access shall be provided.

(d) All exposed surfaces shall be prepared and cleared to prevent injury due to laceration, puncture, tripping, or falling hazard.

(e) All scaffold design, construction, and repair shall be completed by competent individuals trained and knowledgeable about design criteria, intended use, structural limitations, and procedures for proper repair.

(f) Manually propelled mobile ladder stands and scaffolds shall conform to the following:

(1) All manually propelled mobile ladder stands and scaffolds shall be capable of carrying the design load.

(2) All ladder stands, scaffolds, and scaffold components shall be capable of supporting, without failure, displacement, or settlement, its own weight and at least four times the maximum intended load applied or transmitted to that ladder stand, scaffold, or scaffold component.

(3) All exposed surfaces shall be free from sharp edges or burrs.

(4) The maximum work level height shall not exceed four times the minimum or least base dimensions of any mobile ladder stand or scaffold. Where the basic mobile unit does not meet this requirement, suitable outrigger frames shall be employed to achieve this least base dimension, or equivalent provisions shall be made to guy or brace the unit against tipping.

(5) The minimum platform width for any work level shall not be less than 20 inches for mobile scaffolds (towers). Ladder stands shall have a minimum step width of 16 inches. The steps of ladder stands shall be fabricated from slip resistant treads.

(6) Guardrails and midrails shall conform to the requirements listed in paragraph (a) of this section.

(7) A climbing ladder or stairway shall be provided for proper access and egress, and shall be affixed or built into the scaffold and so located that in its use it will not have a tendency to tip the scaffold.

(8) Wheels or casters shall be capable of supporting, without failure, at least four times the maximum intended load

applied or transmitted to that component. All scaffold casters shall be provided with a positive wheel and/or swivel lock to prevent movement. Ladder stands shall have at least two of the four casters and shall be of the swivel type.

**§214.111 Personal protective equipment, generally.**

With the exception of foot protection, the railroad or railroad contractor shall provide and the bridge worker shall use appropriate personal protective equipment described in this subpart in all operations where there is exposure to hazardous conditions, or where this subpart indicates the need for using such equipment to reduce the hazards to railroad bridge workers. The railroad or railroad contractor shall require the use of foot protection when the potential for foot injury exists.

[67 FR 1908, Jan. 15, 2002]

**§214.113 Head protection.**

(a) Railroad bridge workers working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be provided and shall wear protective helmets.

(b) Helmets for the protection of railroad bridge workers against impact and penetration of falling and flying objects, or from high voltage electrical shock and burns shall conform to the national consensus standards for industrial head protection (American National Standards Institute, Z89.1-1986, Protective Headwear for Industrial Workers). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 1120 Vermont Avenue NW., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/](http://www.archives.gov/federal_register/)