

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 7, Article 2, Section 3214 and Figure E-1 to Section 3231 of the General Industry Safety Orders and Subchapter 4, Appendix B, Plate B-17 of the Construction Safety Orders

Stair Railing Design**SUMMARY**

Existing Section 3214 contains standards pertaining to the design of stair rails and handrails in permanent buildings. This proposal would amend certain portions of Section 3214 of the General Industry Safety Orders (GISO).

This proposal is based on a Division of Occupational Safety and Health (Division) Form 9 Request for New, or Change in Existing, Safety Order, to correct an oversight in Section 3214(c). Section 3214(c) became effective on April 3, 1997. The purpose of Section 3214(c) was to require the tops of stair rails to be 34-38 inches in height. Section 3214(c) was intended to apply to new installations, but the existing standard lacked wording to that effect. Therefore, this proposal corrects this oversight by providing a reasonable limitation based on the April 3, 1997 effective date. In addition, this proposal clarifies other portions of Section 3214 and two related figures/diagrams.

Any references to Title 24 in the text are proposed for deletion. Prior to September 30, 2002, the Board was mandated by Health and Safety Code Section 18943(b) to submit Title 8 building standards to the California Building Standards Commission for their approval and adoption into Title 24, the California Building Code. Assembly Bill 3000 (Stats. 2002. c. 1124) repealed Labor Code Section 142.6 and Health and Safety Code Section 18943(b), thus exempting the Board from the building standard requirements contained in those statutes.

This proposed rulemaking action also includes non-substantive revisions such as editorial, grammatical, and re-formatting which includes replacing the term "stair rail(s)" with the term "stair railing(s)" which is defined in Section 3207 of the GISO. These non-substantive revisions are not all discussed in this Initial Statement of Reasons but are clearly indicated in the

regulatory text in underline and strikeout format. In addition to these non-substantive revisions, the following actions are proposed:

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 3214. Stair Rails and Handrails.

Section 3214 contains standards that address required location and placement of stair rails and handrails. In addition, this section establishes requirements on the design of intermediate railings, number of required handrails and stair rails based on stairway width and number of risers, use of stairways to provide access to portable work stands less than 30 inches high, exotic applications for stairways such as on cylindrical tanks or spherical structures, use of guardrails, construction and design of stair rails including required height above the nosing of treads of stairways, and the use of midrails and spacing of intermediate vertical members. Also, this section provides an exception for situations where handrails and stair rails may deviate from the required specifications for handrails and stair rails in basements and cellars.

In addition, Section 3214 describes what constitutes a compliant handrail design, addresses handrails that project from a wall and the mounting of handrails, and requires that the completed structure be capable of withstanding a 200 pound load applied in any direction at any point on the rail (strength requirement).

Subsection (b).

Existing subsection (b) requires stair railings be of construction similar to a guardrail and the vertical height comply with Section 3214(c). Subsection (b) contains an informative “Note” which states that local building standards may require 9 inch spacing of midrails.

Amendments are proposed to subsection (b) to require a midrail located halfway between the top and the steps for railings on open sides that are 30 inches or more above the surface below. In addition, it is proposed in the “Note” to replace the “9”-inch spacing of “midrails” with “4”-inch spacing of “intermediate vertical members.”

The proposed amendments to subsection (b) are necessary to ensure that stair railings and handrails installed in California provide the necessary protection to prevent a person from falling through the stair railing to the level below or getting caught in between intermediate vertical members, consistent with the current California Building Code enforced by local jurisdiction building officials and the Division.

The “Note” in this subsection is informational only. Therefore, the proposed amendments to the “Note” are necessary to be consistent with intermediate railing spacing width and terminology contained in the 2001 California Building Code, Section 509.3 enforced by the local jurisdiction building authorities.

Subsection (c).

Existing subsection (c) requires the top of stair rails, handrails and handrail extensions to be placed not less than 34 inches or more than 38 inches above the nosing of treads and landings. This subsection also addresses requirements that stair rails and handrails be of continuous full length design with the exception of private stairways where the stair rail and handrail shall extend in the direction of the stair run not less than 12 inches beyond the top of the riser nor less than 12 inches beyond the bottom riser. This subsection also addresses ends returning and terminating in newel posts or safety terminals so as to not create a projection hazard. An “EXCEPTION” is included that excludes handrails and stair rails on stairs serving basements or cellars that are covered by a trap door, removable floor or grating when not in use.

Amendments are proposed to subsection (c) to require handrails, stair railings and handrail extensions installed on or after April 3, 1997 be at a vertical height between 34 and 38 inches above the tread nosing and landings, and for stairs installed before April 3, 1997, be at a vertical height between 30 and 38 inches.

These proposed amendments to subsection (c) are necessary to ensure that Title 8 is consistent with current building standards for new installations and will provide the employer with stairways installed prior to April 3, 1997 an option to comply with a broader stair railing and handrail extension specification. The broader handrail specification is necessary to encompass existing extension dimensions found with older installations in California and would avoid imposing a burden upon California employers with older installations.

Figure E-1, Section 3231 of the General Industry Safety Orders.

Figure E-1 of Section 3231 provides an illustration of stairs, tread, riser, rail, nosing, stairway angle and distance between the top of the stair riser to the rail. Figure E-1 follows Section 3231 which contains standards addressing circular stairways, landings, the rise and run of stairways, headroom, enclosure construction of exit stairways, and openings into enclosures. This section also contains a reference to the stair rail and handrail requirements of Section 3214.

Amendments to Figure E-1 are proposed in order to be consistent with the proposed amendments of Section 3214. This amended figure shows a midrail installation along the stairway diagram and updates the railing to stairway surface dimension to 34 to 38 inches with a written caption indicating the dimension applies to stairways installed on or after April 3, 1997.

Appendix B, Plate B-17 of the Construction Safety Orders.

Appendix B of the Construction Safety Orders contains mathematical construction data, sanitation of personal safety device information, measures, weights of metal per square foot, rules of thumb, scaffold plank information, and other reference information helpful to employers involved in construction operations. Existing Plate B-17 contains criteria for stairs, ramps, ladders or inclines and is essentially identical to existing Figure E-1. Plate B-17 consists of an illustration of stairway angles in degrees, location of rail, riser, nosing, and tread.

Amendments to Plate B-17 are proposed to be consistent with those made to Section 3214 and Figure E-1, to update the illustration to show a midrail and a revised rail to surface of tread distance of 34 to 38 inches.

DOCUMENTS RELIED UPON

1. Memorandum to the Occupational Safety and Health Standards Board from the Division of Occupational Safety and Health, Division Form 9, dated May 31, 2001, with Attachments.
2. California Regulatory Code Supplement, Register No. 97, No. 10 (Attachment to Division Form 9, dated May 31, 2001.)
3. 2001 California Building Code, Title 24, Part 2, Volume 1, Based on the 1997 Uniform Building Code, Effective November 1, 2002, Section 509.3, Openings (Intermediate Railings).
4. 2001 California Building Code, Title 24, Part 2, Volume 1, Based on the 1997 Uniform Building Code, Effective November 1, 2002, Section 1003.3.3.6, Handrails.

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action. Title 8 standards require handrails and stair railings to comply with the 34-38 inch height requirement since the standard went into effect on April 3, 1997 without regard to whether or not the building was new construction. This proposal provides a grandfather feature which allows the handrails and stair railings installed prior to April 3, 1997 to comply with a 30-38 inch height requirement.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this standard does not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

This proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, this proposed standard does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

This proposed standard does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standard.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendments to this standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.