

TECH SHEET

EMC Insurance Companies®

Preventing Falls from Bleachers

Thousands of people are seriously injured each year in falls from or through bleachers onto the surface below. Eighty percent of these cases involved children under the age of 15.

Many of the bleachers used today pose a fall hazard. This is due in part to the fact that they were built and installed before building codes required guardrails and prohibited large openings that allow a child to fall through. To address bleacher deaths and injuries, the Consumer Product Safety Commission (CPSC) has issued voluntary guidelines for retrofitting bleachers to prevent these types of falls.

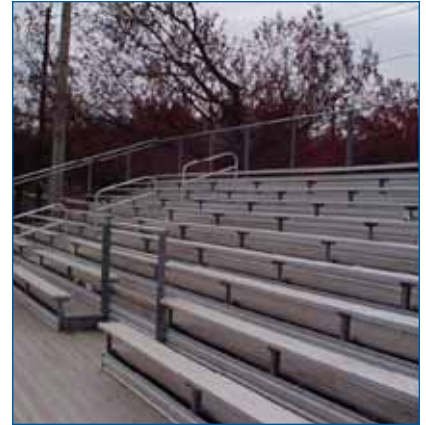
Falls from bleachers can occur when guardrails are missing from the backs or open sides of bleachers, or when openings exist between seating components or guardrails that are big enough to permit a person to pass through. These dangerous openings are shown in the illustration on the other side.

Guardrail Recommendations

To prevent falls from bleachers, CPSC recommends that guardrails and openings meet the following recommendations:

- Guardrails should be present on the backs and portions of the open ends of the bleachers where the footboard, seat board, or aisle is 30 inches or more above the floor or ground below.
- The top surface of the guardrails should be at least 42 inches above the leading edge of the footboard, seat board, or aisle, whichever is adjacent.
- When bleachers are adjacent to a wall that is at least as high as the recommended guardrail height, the guardrail is not needed if a 4-inch diameter sphere fails to pass between the bleachers and the wall.

- Any opening between components of the guardrail or under the guardrail should prevent passage of a 4-inch sphere.



- The preferable guardrail design uses only vertical members as in-fill between the top and bottom rails to discourage climbing. If chain-link fencing is used on guardrails, it should have a mesh size of 1.25-inch square or less.

Seating Component Recommendations

Any opening between the components in the seating, such as between the footboard, seat board, and riser, should prevent passage of a 4-inch diameter sphere where the footboard is 30 inches or more above the ground, and where the opening would permit a fall of 30 inches or more.

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In addition to meeting the above recommendations, bleachers should be thoroughly inspected at least quarterly by trained personnel, and problems should be corrected immediately. Records of inspections and repairs should be retained. A licensed professional engineer, registered architect or company that is qualified to provide bleacher services should inspect the bleachers at least every two years and at such time provide written certification that the bleachers are fit for use.

For Additional Information

- **Consumer Product Safety Commission:** www.cpsc.gov
 - ▶ Guidelines for Retrofitting Bleachers pdf
- **Bleacher Safety:** www.mars-bleachers.com
- **National Specialty Underwriters, Inc.:** www.nsui.com
 - ▶ Bleachers & Grandstands: Managing Hospitality Risk

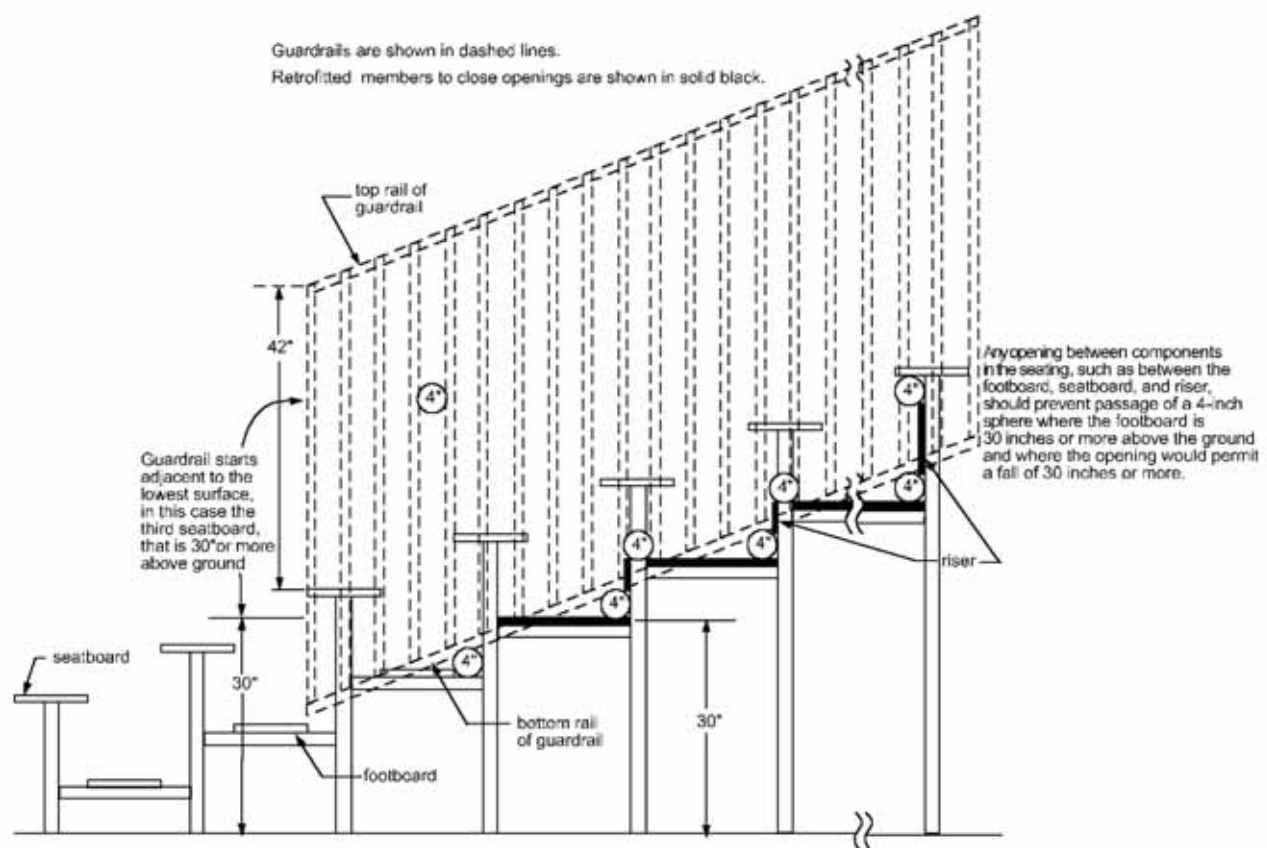


Figure 5: Recommendations for retrofitting guardrails and rigid components on bleachers where the top row exceeds a nominal 30-inch height above the ground.