

LIABILITY LOSS CONTROL MANAGEMENT PREVENTING ACCIDENTS ON STAIRWAYS, RAMPS, & OTHER ELEVATED SURFACES

STAIRWAYS

Tripping and falling down stairs are accidents that can lead to serious injuries. In fact, one in seven individuals will be hospitalized as a result of a stairway fall. Older individuals are more likely to be hospitalized as a result of a stairway fall. Older individuals are more susceptible to falls due to poor eyesight, infirmities and other physical incapacities. These injuries can be minimized and even prevented through the use of a self-inspection program.

Trips, slips, and falls on stairwells are primarily attributed to:

- Accumulation of ice, snow, mud or water during inclement weather
- Poor maintenance resulting in uneven or damaged tread surface
- Improper illumination
- Anything that creates a visual distraction
- Inadequate or improper stair design
- Loose, damaged or missing steps

Stairways, ramps and other elevated surfaces need to be carefully maintained during inclement weather. The periodic inspection and maintenance is an effective way to prevent slip, trip and fall accidents. These items should be included in self inspection activities as part of ongoing loss control programs aimed at minimizing trip and fall accidents.

STAIRWAY CONSTRUCTION

Safe stairways are those constructed and installed utilizing substantial and sound techniques. Stairs should be constructed with a minimum 44 inch width, be clear of all projections, and be designed for a 30-35 degree slope. Stair risers should be no higher than 7½" but no less than 6¼" high. Keep horizontal tread a minimum of 12" deep and vertical distances between landings at no more than 12'.

Any stairway located in a multi-floor building, such as those found in an office, should be constructed with an entry door at each level. Entry doors should not be locked or restrict access from the stairs to any floor. If security is a concern, install alarm devices on doors leading to the stairways. Doors should not be arranged to open directly onto stairs without a landing.

HANDRAILS

Stairways with two or more risers need handrails. Locate the handrail between 30" to 34" from the surface of the horizontal stair tread directly below. Construct handrails at least 2" in diameter when using wood and 1½" if metal is used. The handrail should have at least 1½" clearance from walls, with a mounting capable of withstanding a force of at least 200 pounds per linear foot. If the width of the stairway exceeds 88", an intermediate handrail in the center of the stairwell is necessary.

STAIR TREADS

Stairs should have uniform treads and risers, be slip resistant, and be free of any condition creating a projection or lip that could trip stair users. If rounded edges are present on individual rise treads, apply non skid/slip surfacing such as pressure sensitive friction strips.

ILLUMINATION

Provide at least ten lux (1 foot candle) illumination in the stairway. It is necessary to provide emergency lighting in stairwells where natural lighting is not available.

Install signs at every landing indicating the floor level. Highlight the egress travel path and floor with illuminated exit signs.

VISUAL ACUITY

Avoid visual distractions such as open risers, floral patterns on carpet, a lot of advertising around stairs, short transitions between stairs and a different type of floor surface (carpeted stairs to tile floors, for example).

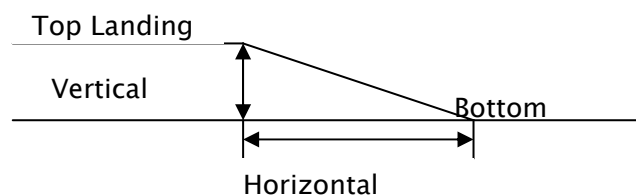
RAMPS

Ramps serve an important function to the handicapped and disabled, but many slip and fall injuries occur on them. Their inherent design provides the opportunity for such accidents. The main cause of falls on ramps is attributed to slick surfaces.

To rectify this condition, apply non-slip surfaces such as:

- Brushed concrete abrasive coating
- Cross cleats
- Pressure sensitive adhesive friction strips

In addition to slick ramp surfacing, other design deficiencies can contribute to ramp accidents. Ramps should be designed at least 44" wide and have no greater than 14° slope. This is a slope ratio of 1:4 (vertical rise: horizontal travel)



All landings should be level. Handrails are also necessary as previously outlined in the stairway section.

ELEVATED SURFACES

Open sided floors or platforms over 48" above the floor or ground are considered elevated surfaces. A fall from this height can result in a serious injury.

Whenever an elevated surface is constructed, it needs to be guarded by a 42" high railing. If a long rail assembly is used this railing should include a vertical support at eight foot intervals. Construct a handrail if children or machinery are anticipated in the area. In addition, if stock is to be transferred within the area, the guardrail should include a 4" toeboard. The railing assembly needs to be capable of withstanding a force of at least 200 pounds per linear foot.

If the elevated surface is used as a loading dock and the rail must be removed due to operations, chains can be substituted for fixed rails, provided the final assembly meets the dimensional requirements outlined above. In addition, a bright yellow border should be painted on all dock edges to highlight the elevation change.

SELF INSPECTION PROGRAM

Self-inspection programs are one of the best methods available to minimize potential trip and fall accidents. The degree of the self inspection program is dependent on hazard, use, and facility size. It is recommended that self-inspection programs include an examination of stairs, ramps, and other elevated surfaces at least quarterly for small occupancies and monthly for large facilities.

The use of a checklist for self-inspections serves as an excellent guide to reduce the possibility of overlooking important items. The checklist should be developed to meet the needs of each facility.

Reviewing prior accident reports to identify areas where accidents have occurred is a good starting point in the development of a checklist. Other areas to evaluate are identified using a common sense approach and includes areas with high pedestrian traffic and injury potential. Keep the self-inspection checklist open-ended to allow inclusion of new items as they are recognized.

Management should review all self-inspection reports and be notified when prompt corrective actions are necessary.

Proactive loss control efforts, aimed at correcting unsafe conditions, will consistently reduce the potential of accidental injury to your guests, customers, or employees.

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