



SLIP, TRIP, AND FALL PREVENTION PROGRAM

Falls are the second leading cause of accidental death, nationally, and a major cause of debilitating injuries. In service operations falls are the primary source of injuries. This program is designed to protect employees, and visitors from slip-fall injuries.

A. SCOPE

This program applies to all employees, contractors, vendors, and visitors. The principal cause of falls are stepping on slippery surfaces, stepping onto material and debris, elevation changes on walkways, poor lighting, and carrying excessively large or heavy loads. Essentially the momentum of motion pushes the person off balance and a fall results.

B. REFERENCES

American National Standard, (ANSI) A 1264.1-1995 for stairs and steps design, and A1264.2 for slip-resistance measurement.

American Society for Testing and Materials (ASTM) D2047-93 F1240-89, and F802-83 for the recommended slip resistance of flooring.

Americans with Disabilities Act (ADA) recommendations for floor friction coefficients.

OSHA 29CFR1910.21, 22, and 23 sets the national standard for walking-working surfaces in the industrial environment.

C. DEFINITIONS

Coefficient of friction – This is the measure of how slippery a floor is under dry conditions. Stated formally, it is the magnitude of the horizontal force required to start an object slipping divided by the weight of the object. The generally accepted value is greater than 0.5 for most general use floors.

Friction – The resistance between shoes and the walking surface. The loss of traction, or increase in friction can result in a fall.

Handrail – Horizontal, sloping, or vertical member normally grasped by hand for support. It may be part of the railing system. Every set of steps having three treads and four or more risers shall be equipped with stair railing. Stairways which are less than 44 inches wide shall have at least one handrail, preferably on the right side descending. Stairways in excess of 88 inches wide shall have one handrail on each side, and an intermediate stair rail midway in the width of the stairway.

Hazardous location – These include any opening in the walking surface, open sided floors, and any location where a predictable walking routine may be interrupted. Principal hazards include uneven walking surfaces, holes, stairways, and wet areas.

Level or elevation changes – Unexpected changes in the walkway or sidewalks which create hazards for walkers.

Pit, trap door, and manhole floor openings – Every opening shall be guarded by a load-bearing cover. When the cover is not in place, the opening shall be protected by a removable railing system.

Proper ladder use – Ladders are required to be maintained in good condition and appropriate for the job at hand. Makeshift ladders, stacks of materials, and ladders which are not suited for the job at hand should not be used.

Ramps – Should not be steeper than 30 degrees from the horizontal, and if steeper than 20 degrees, the ramp should be equipped with handrails.

Slip-fall – The loss of balance caused by insufficient friction between the feet and the walking surface.

Slip resistance – All treads and nosing shall be of slip resistant material. Employees are encouraged to wear shoes with slip resistant soles.

Slope – Fixed stairs and steps shall be installed at angles to the horizontal of 30 to 50 degrees, with the preferred slope being 30 to 35 degrees. Heavier use areas should have lower slopes to reduce the chance for stumbling.

Stair design – Standardization of steps and ramps is needed to prevent accidents. Pedestrians need to have stairs and steps which are predictable in construction to avoid falling. Walkways which change in slope and have unmarked single steps should be avoided. Risers and treads should be uniform and have uniform dimensions to avoid tripping.

Trip-Fall – A loss of balance caused by poor lighting, walking on loose surfaces, and uneven footing.

Uniformity of risers and treads - Riser height and tread depth shall be uniform throughout any flight of stairs or steps. Stairs should also be constructed to be comparatively uniform at UNM

buildings. Sidewalks should be free of unexpected level changes, holes, slopes, obstructions, and single steps.

D. RESPONSIBILITIES

Management –will monitor slip-fall accident occurrences and determine physical areas which need improvement or modifications. GM will also inspect buildings for hazards and inform building coordinators and the Physical Plant Department of hazards which are identified. Floor surfaces will be checked, as requested, for friction to assure the surface is not slippery.

Team Paragon –shall be notified to correct floors that have less than a 0.5 coefficient of friction. Staff members must place barricades when the floor they are working on is wet. "Wet Floor" signs are preferred, and the entire work area should be visible from either end. These signs must be taken down when the work is complete, so pedestrians will understand that the signs notify them of actual hazards. Non-skid mats should be placed at entrances during inclement weather.

Security – The attached self-inspection form is designed for use by security officers to identify hazards and to document corrective action..

Supervisors – Supervisors and managers should assure that this policy is followed, and that employees are also instructed in this policy and in the tenets of the General Housekeeping Program. Employees must take the initiative to clean spills promptly, to avoid carrying heavy loads, and to be diligent in keeping debris from the walk areas.

Employees – Employees have a general obligation to clean up spills, pick up debris, and take precautions that other persons are not injured on Grossmont property. Employees are expected to use ladders properly. Employees also must report hazards to supervisors or managers for repairs.

E. PRACTICES

Slip-fall accidents include falls incurred in buildings, and on the grounds, but are usually falls on the same floor level or simple falls to the ground, floor, and stairs.

1. Housekeeping procedures prevent the majority of slip-fall accidents.
 - "Ice walking" is the practice of taking short steps when walking on slippery surfaces to keep the center of balance under the body and on the feet.
 - Close file drawers when leaving the area. Open cabinets account for many falls in the office environment.
 - Clean up spills immediately. Most persons do not expect spills, and as such, spills become hazardous.
 - Electric cords should not be placed in walking areas. If necessary, purchase a rubber step-over strip to cover the cords. Persons can fall when their feet become entangled in the cords.
 - Mats should be placed at the doors during rain and inclement weather so that moisture is not spread in the hallways.

- Mats and non-slip coatings are recommended for food service preparation areas.
- Aisles should be marked in warehouse and storage areas and should be maintained free and clear of material.

2. Innovative methods also prevent slip-fall accidents.

- Floors in medical facilities should be finished with non-skid waxes and finishes. Slip-resistant cleaners and polishes can raise the coefficient of friction to .8 on dry flooring and .5 on wet flooring. ADA recommends a .6 coefficient of friction for floors and .8 for ramps.

3. Proper shoes help to prevent accidents. An efficient way of increasing the coefficient of friction is to wear shoes appropriate for the conditions.

- Shoes having neoprene soles are used on most surfaces, but are not recommended for oily conditions.
- Crepe soles are recommended for wet or dry rough concrete, but are not suggested for tile, smooth concrete or wood surfaces.
- Leather soles can become slippery if wet, and are not recommended for dry smooth concrete or tile.
- Soft rubber soles are preferred for dry surfaces, but are not suggested for wet surfaces or greasy concrete.
- Hard rubber soles are best for greasy concrete and wood. They are not recommended for ceramic tile, dry or wet concrete and dry wood.

4. Uniformity in design and use helps prevent accidents.

- Ramps should be constructed to have a different texture from the floors around them.
- Holes around construction areas should be securely covered. Barricades should be used to keep pedestrians out of construction areas. Barricades should be checked periodically to assure they are in place.
- Debris should not be left outside construction sites.
- Pedestrians expect uniformity in the sidewalk working surfaces. Holes and irregularities should be repaired promptly.
- Night time campus lighting should be maintained to assure that all walkways are illuminated, without shadows.

The included self-inspection form is provided as a guide for building inspections. Hazards which are noted should be corrected or repaired to prevent accidents. If necessary, submit work orders to GM.