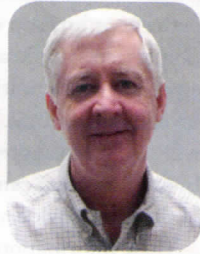


by Gary Pelphrey



An accident waiting to happen

The Wild, Wild West of floor care safety

Among the many concerns of long-term care professionals, there is one problem that does not always get the attention it deserves. Every year in the United States, more than 20,000 people die as a result of slip and fall accidents. These occur in the home, in retail stores, in doctor's offices, and in long-term care and other types of senior care facilities. Slip and fall accidents are the leading cause of emergency room visits in this country and the leading cause of death for those over the age of 65.

Research indicates approximately half of all slip and fall accidents are in one way or another related to the quality of the maintenance of the floor. For instance, some estimates indicate that as many as 80% of slip and fall insurance claims occur because the floor was wet or otherwise "contaminated," meaning it was soiled or slippery (see sidebar).

Further, the high-gloss shine that medical locations traditionally favor may, in some situations, be a contributing factor in the slip and fall, particularly if the floor is marble or a similar stone. The problem is that the gloss on the floor can potentially reduce traction and mask wet spots—especially on a stone floor—resulting in a slip and fall.

The floor care industry is well aware of these problems and has taken actions to help address them. The National Floor Safety Institute (NFSI) and the American National Standards Institute (ANSI) have worked together to introduce a new set of standards. ANSI B101.1 is designed to be universally accepted by floor manufacturers as well as chemical/floor finish manufacturers to reduce the number of slip and fall accidents. The new standards identify methods to test traction levels of many floor types such as vinyl, ceramic tiles, laminates, and concrete—all of which are commonly installed in long-term care.

More facts on slip and falls

According to the Centers for Disease Control and Prevention (CDC), approximately 20,000 people die annually following slip and falls. Additionally, falls account for approximately 15% of all job-site accidents and 12-15% of all workers' compensation payments.

Further, the CDC estimates that of the million people injured in a slip and fall each year, as many as 30% will suffer moderate to severe injuries, such as:

- broken bones
- head injuries
- fractures
- bruises
- death



The floor care free-for-all

Prior to the release of ANSI B101.1, there really was no one set of floor safety criterion in the United States. According to NFSI president Russ Kendzior, this means that one floorcovering manufacturer develops or follows one way to measure floor traction levels and performance characteristics, while another company uses an entirely different system. Even though the new ANSI B101.1 standards are voluntary, it is hoped they will bring some order for flooring and floor care manufacturers. After all, Kendzior says, what we have now has been “like the Wild, Wild West of floor care safety.”

A benefit of the new testing methods is that they can be used in a real-life situation, testing floors that are already installed, cleaned, and finished in a facility, a laboratory, or at the manufacturer's own testing site.

The system measures the “wet static coefficient of friction,” or the risk of slipping while walking from a complete stop onto a wet floor.

The new standards split traction levels into three ranges:

- **High**, when floors measure a wet static coefficient of 0.6 or greater, which is the most desirable rating;
- **Moderate**, with a rating of 0.4 to 0.6; and
- **Low**, indicating traction levels of less than 0.4.

To make it easy for facility managers and custodial crews to identify the coefficient rating of a floor care cleaning product, a gas-gauge type emblem will be posted on its label. When the gauge points to green, it indicates the **high** or safest rating; yellow, the **moderate** rating; and red, the **low** and most dangerous rating as far as the traction abilities of the product.

As to testing products for their traction potential under this system, the NFSI and ANSI follow a similar program used by Green certification organizations. The products will be tested by independent, third-party, accredited laboratories.

As hopeful as this might sound in reducing the number of slip and fall accidents in the United States and especially in senior-type facilities, it must be pointed

out that the evaluation procedure is entirely voluntary. Manufacturers are not required to have their floor and floor care products tested. However, what may prove to be a shot in the arm for the program is that some of the major home improvement companies are requiring the ANSI labeling to be on some of the floor care cleaning products and finishes they market.

Proper floor maintenance

When it comes to floor care, most facilities must focus on the here and now: “What type of floor do we have and how is it being maintained?” There is not much we can do about the type of floor installed unless the building is being renovated or a new one is under construction, but there are many preventive measures we can take related to the overall maintenance of the floor.

The first step is simply common sense: Floors should be monitored and patrolled by staff and custodial crews. Spills, wet areas, debris, and the like should be attended to as quickly as possible. Another step that is often undervalued is the installation of matting systems throughout a facility, not just at key entries.

A matting system outside and inside a building entry, of about 15 ft. in total length, should capture 70% or more of all soil and moisture on shoe bottoms. Mats should also be located in front of elevators and stairs, especially in a long-term care facility. They help capture soil/moisture and provide a safe, dry, and secure step off the elevator or stairs.

As to chemicals, polishes, and finishes used on floors, NSFI already certifies many of these products and awards those that have proven safest with a “high traction” rating. In many cases, these ratings now comply with the new ANSI standards.

The other key component when it comes to floor care is the equipment used to maintain the floor. Managers and custodial crews should look for automatic scrubbers that clean and polish floors all in one pass, with the following attributes:

- **Low moisture.** Although the goal of a low moisture machine is to be environmentally friendly, the fact that less

moisture is used or left on the floor ensures that it dries faster, helping to prevent a slip-and-fall accident.

- **Battery operated.** Some floor machines have 50-foot or longer electrical cords. This may allow the user more flexibility but a long cord across a floor is an accident waiting to happen. Battery-operated machines do not pose the same tripping hazard.
- **Low profile.** Operators of the machine should have unobstructed views of the area being cleaned and the machine should be designed so that it can fit in tight areas and clean under tables and obstructions with minimal trouble.
- **Ergonomic handle.** The handle used by the operator should be adjustable to fit different users, be ergonomically designed to prevent injury and fatigue, and have easy access to all controls and levers.
- **Quiet.** A problem that often does not come up until after an automatic scrubber is selected is noise. Because floor work in a long-term care facility may need to be done while staff and residents are present, the quieter the machine, the less intrusive it will be. A machine with a low decibel rating, about 68, should work well.

We probably will not know how effective the new standards are for a few years. We first must see how they are met by floorcovering/floor care manufacturers. But hopefully, if all goes well, they will achieve what they were designed to accomplish: significantly decrease slip and fall accidents, injuries, and deaths in the United States. ■

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