

## **Standards of Care Guidelines For Commercial Floor Maintenance**

The concept of Standard of Care as it pertains to floor maintenance is a seemingly simple, yet somewhat complex, concept that is not strictly defined in law. In other words, the law does not provide a set of firm rules or a road map to guide property owners and those who maintain properties. There are many elements to maintaining a standard of care, and the more of these embodied in any floor maintenance program, the less the likelihood a property owner or maintainer will experience a floor-related slip and fall accident or be accused of not maintaining a reasonable standard of care.

The idea of keeping a standard of care or meeting the standard for reasonable care embodies the legal concept of a property owner acting “reasonably” in his efforts to keep a “safe place” for invitees. So, even though a property owner is not a guarantor of invitee safety, he must act reasonably to keep invitees from being injured. What actually constitutes one acting reasonably can be as confounding as the statement that a property owner must “keep his place as safe as a place such as his can reasonably be expected to be.” That is partly because a property owner’s commitment to reasonableness is not judged on a firm set of criteria, but rather interpretation of what reasonableness might constitute for the type of facility owned or maintained.

The general elements of a floor care program required for a property owner to be judged as acting reasonably in the prevention of slip and fall accidents are outlined in this document.

### **Slip Resistance Standards – ASTM D-2047**

Use coatings that meet the slip resistance standard outlined in ASTM D-2047. Virtually all coatings today meet this standard, but ask the supplier of your floor care products to make this assurance available to you. The ASTM D-2047 standard is the defining standard for declaring a walkway slip resistant. There are many floors today that are not maintained with a floor coating. There are no official defining standards for bare or uncoated walkways. However, if a bare walkway meets the coated floor standard as outlined in ASTM D-2047, it can also be declared slip resistant. In order for the standard to be valid, it must be measured in strict conformance with the methodology outlined in ASTM D-2047. Of the three industries associated with walking safety – the flooring industry, the shoe industry and the floor coatings industry, only the floor coatings industry holds itself to a slip resistance standard.

### **The Use of Floor Coatings**

Floor maintenance coatings are most often a necessary and desirable element of good floor maintenance. They provide a cleanable and renewable slip resistant walking surface as well as abrasion resistance for many types of floors that would be destroyed in a relatively short period without the protection coatings afford. This is particularly applicable to vinyl flooring and, most specifically, vinyl composition tile (VCT). VCT has very poor abrasion resistance and would wear out quickly in high traffic areas without the benefit of a protective coating. For reference, 2 average coats of a floor finish providing a protective barrier are roughly equivalent in film thickness to the thickness of one human hair. Coatings also make floors easier to clean, make buildings more attractive, and reduce the amount of electricity necessary to illuminate an area. How shiny the floor may appear, how many coats may have been applied to the floor, by what means or how skillfully the coating was applied to the floor, or whether the floor is buffed or burnished has no bearing on floor safety.

### **Self-Conducted Slip Measurement**

Portable slip testers, of which there are many types, are not necessary to judge whether a floor is satisfactory for slip resistance. Pedestrians generally do not fall because dry floors are intrinsically too slippery to support non-hazardous walking. They fall for a variety of other reasons outside the realm of usefulness of a portable slip tester. Portable slip testers represent a substantial investment in money and time and do not prevent accidents. If they have one outstanding element to their existence, it would be to promote litigation, not floor safety.

### **Keep Foreign Materials Off of Walkways**

Wet or contaminated floors can be hazardous. Make sure that all walkways are kept clean and free of hazards such as liquids, lubricants, hard surface polishes, powders, food items and solid debris such as packaging material, paper clips or coins. Some types of contamination are difficult to detect. Make sure areas, especially around areas where these suspect items are used or sold, are cleaned thoroughly. Contaminants serve to reduce friction of walkways and are responsible for more than 50% of all slip and fall accidents. There are no slip resistance standards for wet or contaminated walkways.

### **Textured/Abrasive Flooring**

There are no standards of performance for textured or abrasive-containing flooring which is primarily designed to be slip resistant under contaminated conditions. This type of flooring is used sparingly in public areas and more often in areas where floor contamination is prevalent, such as food preparation areas. Most of these floor types do not require a coating, but in some cases it is recommended by the manufacturer. Flooring that is expected to be contaminated most of the time should likely not be coated. Coatings can mask the texture that gives the floor its slip-resistant-when-wet performance. These floors can lose their viability over time due to the abrasive wear of foot traffic. There are no slip resistance standards for these types of floors, either for initial slip resistance performance or to judge when replacement might be necessary. Cleaning of these types of floors is the same as for other conventional types with the exception that a brush should

be used for scrubbing. Pads and mops become more difficult to use with increasing abrasiveness of the floor.

### **Floor Inspections**

Floors should be inspected during the business day regularly. Walkthroughs once each one to two hours during business hours is good. More often is better. In larger facilities it is difficult for one person to perform this job. It helps if each employee or department manager of a business is trained and made responsible for inspecting floor areas, particularly in the areas in which they work, as an integral part of their job duties. This allows for any contamination to be noticed and cleaned up earlier than if just one person was performing normal periodic inspections. If a building service contractor is performing day porter services, they become responsible for this job. It is better for everyone concerned if the business owner works in concert with the contractor to inspect for floor contamination, especially during business hours when the contractor is not present. Floor inspection policy should be articulated in a building maintenance contract or business maintenance policy statement, depending on assigned responsibility. If it is decided to keep a "sweep log," the log must be diligently followed and signed off at each inspection interval. Gaps in the sweep log, or obvious attempts to sign all the time slots at the end of the day, are unacceptable and represent a liability rather than an asset in any litigation.

### **Once Notice is Received of a Hazardous Condition**

If a business owner is given "notice" of a potentially dangerous floor condition by a visitor, customer or employee, it imperative that it be addressed promptly. Promptly to a "reasonable" person might mean no longer than 10-15 minutes. Longer times are harder to excuse if an accident occurs after notice but before cleanup. If the business owner is not given notice of a potentially dangerous condition created between reasonable inspections, he would not necessarily be responsible if an accident occurred. All notices of potentially dangerous conditions not specifically related to an obvious cleanup situation should be logged as to when and what action was taken, even if nothing was found and no action was taken. This log should be kept in a file for possible future reference.

### **Creating Your Own Hazardous Condition**

Contrary to the classic or ordinary “notice” situation where one needs notice of a hazardous situation, or where the hazard should be discovered during reasonable inspections, a hazard created by an employee or agent of the business owner that leads to a visitor being injured does not fall under ordinary notice. Because the property owner should have known about this defect, there is no defense in this instance. Make sure if an employee creates a hazardous floor condition, it is promptly cleaned up.

### **Employee Training**

All business and contractor employees should be trained in the proper use of common maintenance products. These include, but may not be limited to, such products as vinyl surface treatments, furniture polish, stainless steel polishes, plant leaf polishes, mop treatment and various lubricants. These products can easily and unknowingly get onto floor surfaces during normal use, are hard to remove, and can make floors unsuspectingly slippery.

### **Spill Cleanup**

Spill cleanup procedures should be documented and taught to employees charged with this responsibility. Training should include the following: 1) Proper use of cleanup equipment such as buckets, mops and other equipment; 2) Proper use of warning signs and blockades used to isolate spill during cleanup and during drying; 3) Proper cleaner needed to remove various spill contamination; 4) Proper use of spill cleanup kits and their limitations, if employed; 5) Inspection prior to reopening the area.

### **Remove Clutter from Walkways**

Aisles and walkways should be kept free of clutter, including items ready for stocking, deliveries or items misplaced by customers. Pallets and boxes allowed to impinge into the walkway, although sometimes necessary, can be trip hazards.

### **Walk-Off Matting**

Walk-off matting at every entrance to a building is an important part of keeping a reasonable standard of care. In high traffic areas, matting should be capable of absorbing large quantities of water during inclement weather. Ideally, a pedestrian entering a building should be able to take 4-5 steps in any direction before leaving the mat and encountering regular flooring. Size of matting selected for any building application is dependant on entrance architecture and space limitations. Highly absorbent floor matting can hold a gallon and a half of water per square yard. Additionally, 85% of all soil that enters a building comes in through entrances. Most of that soil can be prevented from entering a building through the use of a good matting system. The use of matting will mean less money spent on recoating or replacing floors worn from soil abrasion and less money spent on removing soil from the facility. Lighter weight matting is often laundered and exchanged regularly if it is rented. Otherwise, it may be power washed on site. Larger, more absorbent matting is permanent enough so that is it rarely moved. It must be regularly vacuumed and periodically extracted as part of its normal maintenance. Good matting will always pay for itself.

### **Electing to Not Use Matting At All Times**

There exists the option to use matting only in inclement weather situations. This option does not allow the business owner to take advantage of abrasion reduction to floors and soil reduction in the facility. If this option is employed, it is imperative to have a person responsible to install needed matting at entrances at the first sign of moisture. If a visitor would fall at a wet entrance where no matting was available, it would not be defensible.

### **Cart Storage and Safety**

In situations where carts are used by customers to take groceries and other goods to their cars in inclement weather, carts can become wet. It is a good idea to return them to a staging area where they can drain and dry of accumulated water before allowing them back onto the business floor. Another way to accomplish this is to park them on a matted area to keep water from forming puddles if stored on the business floor. Also, associates who retrieve carts from parking lot cart collection areas should retrieve only

a manageable number at one time. Customer accidents have occurred when it was determined that they were injured by an employee pushing too many carts or more carts than his employer designated could be retrieved safely.

### **The Use of Wet Floor Signs at Entrances**

Available wet floor warning signs or cones are an integral part of entrance safety. These signs, when put to use on wet days, reduce slips and falls. Signs should be employed only when needed and be put where they can easily be seen by people entering the building. In this way, visitors can be warned about the potential danger of encountering water on the floor or possible residual water on their shoes after leaving the carpeted area. They may also be warned that they may still have water on their feet, even after walking on a carpet. Carpeting likely will not remove all water from shoe bottoms, thus leaving the possibility that slipping could still occur if flatter, shorter steps are not employed by the pedestrian immediately after leaving the carpeted area. Water, whether on a heel or on a floor surface, has the same ability to cause slipping.

### **Maintenance When Visitors are Present**

Often, floor maintenance must be accomplished while there are people other than maintenance personnel in the area. This is always the case in 24 hour retail stores where customers are present during floor maintenance operations. The same rules will apply that apply to normal late evening/early morning floor maintenance. That is, barricades and signs should be in place to keep people out of areas where coating and/or stripping operations are underway. Barricades are required because a wet floor sign will not adequately warn of the slip hazard of a floor wet with a stripper or a coating. Where damp mopping or autoscrubbing operations are being conducted, signs without barricades are acceptable.

### **The Necessity of Regular Floor Cleaning**

In high traffic business, such as discount and food retail stores, minimal nightly floor maintenance should consist of cleaning the entire floor surface. This procedure serves to clean accumulated dust, soil and contaminants from the floor, enhance floor appearance, and preserve the floor coating. This procedure can be done with a mop and bucket with or without the addition of a rotary floor machine, but is preferably done with an autoscrubber and an appropriately diluted cleaning solution and cleaning medium (pads or brushes). Depending on the type of facility, the severity of floor traffic and soil should control the cleaning schedule. In other words, in contrast to the needs of heavy retail, a floor area in a building where few walk and which does not get contaminated can be dust mopped to remove surface dust and only cleaned as needed. Most commercial building floors, however, will benefit from regular nightly cleaning. Trail mopping to remove excess water left from autoscrubbing should be done along with the autoscrubbing process and not left to dry on its own.

### **Be Careful When Painting Outdoor Concrete**

If outdoor concrete areas such as curbs or wheeled access areas are to be emphasized through the use of yellow paint, make sure the paint used contains abrasive to render it slip resistant when wet. The addition of paint can severely diminish the wet slip resistance characteristics of outdoor concrete which is normally slip resistant when wet.

### **In the Event of an Accident**

In the event of an accident the following should be done, if possible: 1) Make the victim comfortable; 2) Call appropriate medical personnel; 3) Search area of the fall for surface contamination; 4) Make note of victim's clothing and footwear; 5) Ask victim what they thought happened and make sure to write it down verbatim; 6) Photograph floor area around accident after the victim has been moved from the area; 7) Search for witnesses and obtain statements; 8) Do not speculate publicly or in any report what is felt might have caused the fall; 9) Fill out accident report recording only factual information; 10) Notify your insurance company, if applicable.

## **Accident Log**

For each installation a contractor would be charged to maintain, they should consider keeping an accident log that outlines when, where and how falls occur in any given facility. This helps in efforts to find areas that may be particularly prone to accidents and aids remedial improvement measures. As an example, in most buildings the front entrance is the most accident prone. This is also good advice for individual building owners.