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SAME LEVEL FALL PREVENTION – FLOOR CLEANING

When diagnosing a slip/fall problem within an organization, there are a variety of factors to look at that may be affecting the level of risk. Of those factors, floor cleaning, while usually not overlooked completely, is often not given enough attention. Many assess the frequency with which floors are swept and mopped, and ignore the efficiency of the cleaning process.

A study published in 2008 tested the effectiveness of the cleaning procedures employed by 10 fast food restaurants. 7 out of the 10 restaurants used neutral cleaners, rather than alkaline degreasers which tend to be more efficient at removing the oils and greases so commonly found on the floors of commercial kitchens. The three restaurants that were using the more effective degreasers, were found to be over-diluting the product, reducing its efficiency at breaking down and removing targeted contaminants. And, as is unfortunately all too common in the food service industry, each of the restaurants utilized a single-step mopping method. This tends to spread contaminants around the floor and leave a residue that makes any subsequent liquid spill substantially more slippery than it would be otherwise.

All 10 of the restaurants had opportunities to improve the friction of their flooring by altering their cleaning procedures. The researchers found that over-diluting a degreaser and single-step mopping quarry tile contaminated with oil, yielded a coefficient of friction of .37. Under the same conditions, two-step mopping with the degreaser mixed to the manufacturer recommended concentration produced a coefficient of .77, providing more than twice the frictional force that is so vital for preventing slips.

Consider the fact that another 2011 restaurant study found that for each .1 decrease in the average kitchen coefficient of friction, the rate of slipping increased by 21%. A restaurant over-diluting their degreaser and single-step mopping could stand to reduce their rate of slipping by as much as 84% by making two minor adjustments to their cleaning process! Here are 3 floor cleaning tips for maximizing the friction that a floor surface provides.

1. SELECT THE RIGHT CLEANER FOR THE JOB

Choosing the right cleaner can have a drastic impact on the efficiency of your cleaning process. Here are the four basic types of cleaning agents and their typical uses.

Alkaline Cleaners (degreasers) - These are higher pH cleaners that are efficient at removing fats, oils and greases by converting them to soap. If not adequately rinsed away from the floor after application, alkaline cleaners will leave a soapy residue that becomes highly slippery when wetted by a spill.

Acidic Cleaners - Break down mineral deposits like hard water stains.

Neutral Cleaners - Typical “all-purpose” cleaners. They are best suited for lightly soiled or dusty surfaces.

Enzymatic Cleaners - Use various bacteria and their enzymes to target and break down contaminants. Each product will be specific to a particular contaminant. There are enzyme based cleaners for proteins, fats and starches.



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2. FOLLOW MANUFACTURER GUIDELINES

Manufacturers provide usage guidelines for their products to optimize their efficiency. Ignoring them can lead to wasted product at best and reduced floor friction at worst. Common mistakes involve water temperature, dilution ratio and reaction time.

Water temperature - Most workers understandably presume that their floor cleaner should be mixed with warm or hot water. This is not the case for enzymatic cleaners, which contain living bacteria that are neutralized by anything but cool or room temperature water. A 2011 study found that 62% of restaurant workers responsible for using enzymatic cleaners reported doing so with hot or warm water.

Dilution ratio - Many workers either don't take the time to measure out the recommended cleaning agent dilution or purposefully deviate from the recommended ratio. This is often driven by the mistaken belief that they can adequately clean a floor and also save solution by skimping, or boost efficiency by over-concentrating. Pre-measured chemical mixing dispensers can be a great way to ensure workers adhere to the manufacturer's suggested water to solution ratio.

Reaction time - Cleaning agents produce chemical reactions that result in the breakdown of contaminants so they can be more easily removed. Adequate time must be provided for these reactions to run their course. Some manufacturers prescribe several minutes of reaction time before mopping, scrubbing or rinsing the contaminants away.

3. ESTABLISH HIGH EFFICIENCY PROCEDURES

Single step mopping is the method of choice for many establishments. While this method does remove some contaminants, it also spreads them out all over the floor surface, leaving a contaminant/cleaner residue that can make the floor substantially more slippery when wet. It also tends to provide little time for the cleaner to act upon the contaminants. When mopping is the chosen cleaning method, it is recommended that a two-step process is utilized. This involves liberally spreading the cleaning solution over a section of flooring, allowing time for the cleaning agent to break down the contaminants, and then utilizing a wrung out mop to remove the solution.

Deep Cleaning - Power scrubbers, squeegees, deck brushes, hoses, spray applicators and wet shop vacs are effective tools that may be necessary when your standard mop and bucket aren't able to sufficiently break down and remove heavy contaminants. Some environments may require a periodic deep cleaning. This is especially true for commercial kitchens where the triglycerides in vegetable oils can polymerize over time to create a hard grease film that the typical mop and bucket won't be capable of removing. For an establishment that has historically employed less efficient procedures, a deep clean is usually a good starting point.

REFERENCES

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