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The Evolution of Green Floor Care: Eco-Friendly Floor Cleaning on the Rise

Written by Robert Kravitz

That's when I remembered something that may somehow have started me on my career in the professional cleaning industry. I recalled the day the school's custodian showed me how using a magic marker, he placed colored dots between each coat of floor finish as it was applied in certain hallways. If I remember correctly, he used a red dot after the second coat of finish, a blue dot after the third, and a yellow dot after the fourth.

What was the reason for these dots? As time went on and the finish wore away, the dots told him how many coats of finish were still left on the floor. If the blue dot was visible, it meant there were still three coats of finish on the floor—a durable number of coats that still produce a shine. However, once the red dot became visible, it meant that the finish was wearing off. The custodian would then have to either scrub and recoat the floor or perform a complete strip and refinish. For more on floor finishing, see the sidebar "How Many Coats of Finish Are Necessary?"

Surprisingly, this old-fashioned procedure is now employed as a part of many green floor care programs. Of course in those days, school floors were often stripped and refinished on a set schedule, whether they needed it or not. This was costly, time consuming, and because conventional floor care chemicals (including strippers, cleaners, glosses, and finishes) are some of the most powerful and potentially harmful chemicals used in the cleaning industry, also environmentally unfriendly. Our custodian, however, knew exactly how many coats of finish remained on the floor, which allowed him to recoat/refinish only as necessary. This saved the school money, created time for other cleaning tasks to be performed, and helped to reduce floor care's impact on the environment.

Why Choose Green Floor Care?

While there are many different definitions of green cleaning, Stephen Ashkin, CEO of the Green Cleaning Network and long considered the “father of green cleaning,” defines it as “the use of cleaning tools, products, and procedures that have a reduced impact on the environment and our natural resources when compared to similar tools, products, and procedures used for the same purpose.”

What does this mean when it comes to floor care? Some conventional cleaning products (especially many conventional floor care chemicals) can contribute to indoor air quality problems. This is because they often contain high levels of volatile organic compounds (VOCs) that can be released and recirculated through a building’s ventilation system. Depending on an individual’s sensitivity, VOCs can cause irritation to the eyes, nose, and throat. Headaches, nausea, and nerve problems may also occur. Studies by the Vermont Department of Health have even found that inhaling high levels of VOCs for prolonged periods of time can possibly cause cancer in some animals.

Many conventional strippers also contain 2-butoxyethanol, a potential human carcinogen that can be absorbed through the skin. And floor finishes often contain zinc and other heavy metal ingredients. While these ingredients do provide a high-gloss, durable shine, they are also known to be potentially harmful to the user, as well as to aquatic life if they enter waterways.

However, floor care chemicals that are green certified by third-party agencies like Green Seal, contain little or no VOCs, heavy metals, or other dangerous ingredients, which means they have a reduced impact on one’s health and the environment.

Along with transferring to environmentally preferable floor care chemicals, many facility managers are now stretching floor refinishing cycles, either delaying or minimizing how often floors have to be scrubbed and recoated or stripped and refinished. This both reduces the high costs of floor care and protects the environment. Some managers are taking this a step further, choosing not to apply a finish to floors at all. This choice, which is becoming more and more common, can have benefits, but it also poses significant drawbacks:

• An unfinished floor has a dull appearance; in certain settings, this is not appropriate.

• Finished floors may be safer – using a finish with a high coefficient of friction (COF) can help reduce the possibility of slip-and-fall accidents.

• Unfinished floors are more vulnerable to damage and wear and tear. Finishes both make floors shine and protect them from damage.

• Unfinished floors can be harder to clean – finished floors tend to be easier to clean and maintain.

Stretching floor refinishing cycles is typically accomplished by ensuring that the following is performed:

ÉAn effective matting system is in place at all key entries

ÉFloors are cleaned frequently or daily, including sweeping or preferably vacuuming, as well as damp mopping

ÉCleaning efforts are concentrated on high-traffic areas

ÉAutomatic scrubbers are used wherever and whenever possible.

The Role of Automatic Scrubbers

According to Michael Schaffer, a senior executive with Tacony's Commercial Floor Care division and president of Tornado Industries, the development of automatic scrubbers was nothing less than a life saver for cleaning professionals. A large floor area that might take a day to clean manually can often be cleaned in an hour or two using an automatic scrubber. *

Says Schaffer, "The machine agitates the floor to help loosen and remove soils, then vacuums, cleans, rinses, and dries the floor all in one pass. These machines also perform these functions more thoroughly than can typically happen when manually cleaning a floor. This is important for green cleaning because it helps stretch floor finishing cycles, helping to reduce floor care's impact on the environment."

Until recently, a drawback of automatic scrubbers has been their size. However, a new generation of floor machines, sometimes referred to as "micro scrubbers" or "micro burnishers," has eliminated this issue. "While they may not be as fast as their larger counterparts, [these smaller machines] are still much faster than manually mopping a floor," adds Schaffer. "And again, they are much more effective at keeping floors clean, which is key to a green floor care program."

A Slower Progression

When green cleaning first began to take hold, many cleaning professionals believed switching to green-certified products would be the end of the story. Many of these products were comparably as effective as conventional products, and they were cost effective as well. However, making that switch has not been as easy when it comes to green floor care. The metals contained in many finishes have been hard to green-replicate. And while there have definitely been improvements, some users still complain that many environmentally preferable floor care products do not perform as well as conventional ones.

Despite these obstacles, the greening of floor care is slowly taking hold in all types of facilities. In fact, as with green cleaning in general, it seems certain that incorporating ways to make floor care healthier, greener, and more sustainable will soon become the new norm.

**According to studies by the cleaning association ISSA, a 17-inch floor scrubber can clean nearly 13,000 square feet in an hour, while a 16-ounce mop cleans about 4,000 square feet in the same amount of time, making automatic scrubbers more than three times faster than mopping.*

Robert Kravitz is a former building service contractor and frequent writer for the professional cleaning industry.