

The Components of Green Cleaning

by Stephen Ashkin

Although Green Cleaning is sweeping (excuse the pun) the professional cleaning industry, there is still a considerable amount of confusion as to what it is and how it differs from the traditional cleaning methods and practices used for decades to clean facilities.

Green Cleaning is often defined as “the use of products and services that help reduce the negative health and environmental impacts of cleaning compared to similar products and services used for the same purposes.” Alternatively, stated a different way, employing cleaning products and systems that perform as well as traditional products but help protect health and do not harm the environment.

Progressive Thinking

Historically, the cleaning profession has cleaned mostly for appearance, i.e. a happy customer has been one that is pleased with the way their building looks and who received minimal complaints from the building’s occupants. Over the years, however, we have come to realize that many of the chemicals and products used in conventional cleaning that may help keep a facility looking sharp are not very healthy.

For instance, many cleaning products, especially those used in all purpose cleaners and degreasers contain 2-butoxyethanol. This very potent and powerful ingredient can endanger the health of building occupants and cleaning professionals, as well as harm the environment, especially if it is used improperly.

Some of the short- and long-term health effects that can result from inhaling or touching 2-butoxyethanol include:

- Dizziness or light-headedness in some cases to the point that the victim passes out.
- Burning of the eyes, which can be extremely dangerous and can lead to serious eye damage.
- The breakdown of red blood cells leading to anemia and other blood disorders.

It is obvious that developing cleaning chemicals that do not include 2-butoxyethanol – but still perform well – would be much healthier for all of us. And in the past five years, technology has so advanced that there are now many excellent environmentally preferable cleaning chemicals that do not contain 2-butoxyethanol, but do in fact perform just as well, if not better, than those that do.



More than Chemicals

All this seems simple enough. But Green Cleaning is much more than just using environmentally preferable chemicals, and this is where the confusion begins. Green Cleaning is really more like a cleaning system, involving a variety of cleaning tools, products, and equipment. And this is how it most differs from traditional cleaning methods. For example:

Matting Systems: Source control is an important element of Green Cleaning. And taking measures to prevent soil and dust from entering a facility through proper matting will mean less cleaning is required, which helps minimize cleaning’s impact on the environment. Studies indicate that as much as eighty-five percent of the soil that enters a facility does so on the feet of building occupants.

High-performance matting systems help “store” these soils, oil, water, and other contaminants, preventing them from entering a facility. This is best accomplished by effective matting systems, 12 to 15 feet long, inside and outside building and garage entrances. And today, high performing mats are available that are also made of rubber, as compared to conventional mats which are typically made from vinyl (pvc) which is a product of concern for many in the green community.

Vacuum Cleaners: Vacuum cleaners with advanced filtration systems are Green and healthier because they substantially reduce the number of impurities and contaminants released into the environment when vacuuming. Instead of dust and dirt becoming airborne, the irritants are trapped within the machine by multi-stage

vacuum systems and filters and deposited into the filter bag.

Many vacuums incorporate high-efficiency particulate air filtering (HEPA) filter systems to better trap contaminants. And some manufacturers are introducing a new type of microfiber filter bag that more effectively traps dust and dirt, further enhancing the vacuum cleaner's air-filtration system.

Low-Moisture Carpet Extractors: Many traditional carpet extractors use three or more gallons of water and cleaning solution per minute to clean carpets. Additionally, some machines have poor or ineffective vacuum systems so carpets remain moist for longer periods of time. The U.S. Environmental Protection Agency [EPA] suggests that carpets dry within 48 hours after carpet extraction to prevent the possibility of mold and mildew—which can cause a variety of health problems. However, many experts believe this is even far too long, maintaining that carpets should dry in 24 hours or less.

In contrast, low-moisture carpet extractors use a gallon or less of water and solution per minute to clean carpets. This means that not only is less water being used, but also less chem-

ical, which is healthier and can result in much faster drying times. Additionally, some low-moisture extractors heat the cleaning solution, which some studies indicate improves the effectiveness of the cleaning solution and helps reduce drying times.

Advanced Floor Machines: When floors are buffed or polished, a small layer of the finish's surface is actually ground down, causing a considerable amount of dust to become airborne, potentially harming indoor air quality and the health of the cleaning professional. If this dust enters HVAC systems, it can spread throughout a facility. To counter this problem, many "Greener" European floor machines use active vacuum systems, which actually vacuum up most of this dust as it is being generated.

Due to electrical incompatibility, active floor machines are rarely used in the United States. Instead, the more environmentally preferable floor machines here rely on passive vacuum

systems. This model incorporates a shroud that covers the base of the machine to help trap dust; the machine then vacuums up the impurities and deposits them into a filter bag.

Training & Building Involvement

As you can see, Green Cleaning is a comprehensive system made up of several components that all interact to produce healthier cleaning. And just like any system, it is only as strong as its weakest link. Not only must all of the proper components be in place, but cleaning workers must be thoroughly trained on the use of Green tools, products, and procedures.

But Green Cleaning is a task for more than just the cleaning workers. All the major stakeholders in a facility – building managers, occupants, as well as cleaning workers – must be directly involved in the Greening of their facilities. With all parties involved, not only will facilities look better but they will be healthier as well.

Stephen P. Ashkin is president of The Ashkin Group, a consulting firm specializing in Greening the cleaning process. In the book *Environmentalism Unbound*, Dr. Robert Gottlieb describes Steve Ashkin as the "leading advocate for a stronger environmental profile among cleaning product manufacturers and suppliers" and the "most visible industry figure advancing the cause of environmentally preferable products." The Ashkin Group provides Green consulting services for school districts, building owners, product manufacturers, architects, and cleaning contractors and can be reached at 812-332-7950 or www.AshkinGroup.com.

