The Basics of Green Cleaning

Green cleaning can reduce both risks and costs.

By Claire L. Barnett



rue story: As the Healthy Schools Network was just getting off the ground in New York State, even before the organization was incorporated, we advocated for "nontoxic" cleaning. Then, the president of the Superintendents of School Buildings and Grounds Association (SBGA, now the New York State School Facilities Association) said: "We agree. We want to do nontoxic cleaning, too. But which products are those and where do we get them?"

To find the answer, the Healthy Schools Network secured a grant from the U.S. Environmental Protection Agency (EPA) and invited SBGA past presidents to be project advisers. We worked with them and other consultants on definitions and protocols and in late 1999, published jointly with SBGA the nation's first userfriendly guide to green cleaning in schools.

SBGA's hands-on expertise sharpened our knowledge and skills, which we have shared with advocates and education constituencies across the country ever since.

Following on New York's 2005 executive order for state agencies and a state law for all public and private schools on green cleaning, 10 years later, in 2015, 11 states plus the District of Columbia either required or promoted the use of green cleaning supplies in schools. In addition, 8 states have adopted stringent new green purchasing specifications for state contracts for cleaning supplies, from general cleaning products to hand soaps, paper towels, and safer disinfectants.

Two reasons for this push for green cleaning stand out: 1) green cleaning does not necessarily cost more and it may cost less, including the fact that it is simpler to administer; and 2) green products not only reduce the use of hazardous chemicals around children but also reduce the occupational health risks to janitorial workers.

What Is Green Cleaning?

Green cleaning is about protecting health and the environment while cleaning a building. That means that the old way of cleaning solely for appearance is no longer enough. And for the most committed practitioners, who track costs and benefits, it goes beyond "green products." They use a comprehensive approach, relying on green products, updated equipment, proper procedures, building-specific green cleaning plans, staff training, and communications with staff and the community.

At the Healthy Schools Network, we have two frameworks for all our work to address school environments:

- 1. Children are not just little adults.
- 2. Schools are not just little offices.

We know that children are biologically more vulnerable to chemical hazards than adults. They have different exposures and cannot identify hazards or protect themselves. Children with special health or learning needs may be even more exposed and more vulnerable.

We also know that schools are more densely occupied than offices, jam-packed with biologically vulnerable occupants (children and women of child-bearing age), and harder to keep clean. As school budgets are tightened, nonmandated staff—such as facility workers and school nurses who, respectively, know the most about facility problems and children's health—may be the first to go.

Taking Stock

School district officials should start by familiarizing themselves with relevant laws, best practices, and state

Green Cleaning Resources

- Green Seal: www.greenseal.org
- UL EcoLogo: www.ecolabelindex.com/ecolabel/ecologo
- Green Cleaning for Healthy Schools Toolkit: www.cleaningforhealthyschools.org/green cleaning.html
- "Safer Products and Practices for Disinfecting and Sanitizing Surfaces": www.cleaningforhealthyschools.org/documents/sfe th safer products and_practices_for_disinfecting.pdf
- New York State Green Procurement Program and Progress Reports: www.ogs.state.ny.us/EO/4/Default.asp

green purchasing contracts. Business officials have an important role in ensuring that local public agency procurement laws are followed and bid specifications are consistent and understood. Note also that schools can buy on state contract and engage with other schools in bulk ordering—another way to save on purchasing.

Check the labels on the current inventory of cleaning products in your school or district. Look for Green Seal or UL EcoLogo labels on containers. Both labels guarantee that the products meet specific, well-accepted pass-fail standards for green products. Then, check the district's bid specifications and the district's cleaning product or cleaning services contracts to determine whether Green Seal or UL EcoLogo are specified. Green Seal offers a certification for cleaning services, in addition to cleaning products.

Going Green

Going green for the first time may be easier than you may think.

A simple starting point is to invite your district's most reliable vendor to give a free demonstration of his or her "third-party-certified green cleaning products" to your cleaning and facilities staff in your school after hours. It is important to state in advance that you are inviting only "third-party-certified products," not just any product with a claim to be green. Green claims abound; some are designed to mislead—we call them "greenwashing."

Allow cleaning staff in one school to pilot products they select. Be prepared to repeat the free demonstration with a different set of thirdparty-certified products. Hundreds of products are on the market, and every school has its own needs, cleaning issues, and product preferences. When the staff finds green cleaning products that work for their school, track successes and expand to another school. Celebrate success and communicate it to the whole community!

One action that every school can take—with or without selecting green cleaning products—is to prevent dirt from being tracked in and accumulating indoors. Every school has cleaning problems, but not every school knows how to reduce the dirt and particulates indoors.

A short list of steps to reduce dirt and thus reduce the effort needed to clean the building—often includes

- Keeping sidewalks clean.
- Hosting locker cleanouts.
- Using walk-off mats at all major
- Maintaining mechanical systems and filters.
- Restricting food storage and consumption areas.
- Prohibiting food or pets in classrooms.
- Locating custodial closets near classrooms.
- Using updated equipment, such as reusable microfiber mops and rags and vacuums with high-efficiency particulate air filters.

What about disinfectants? It is important to understand that general all-purpose cleaning and disinfecting are two different processes:

- 1. The surface is cleaned, which will remove most germs. This is the general cleaning process.
- 2. A disinfectant is applied and allowed to sit for a specific "dwell time" (see the product label). The surface can then be wiped dry. This is the disinfection process.

Understanding this two-step, timeand labor-consuming process should help clarify how ineffective disinfecting wipes are. By using those heavily marketed products, you may not be disinfecting at all, but spreading toxic chemicals over school desktops, cafeteria tables, and other surfaces.

No green-labeled disinfectants currently exist. The EPA registers disinfectants as "pesticides," products that are designed to kill living organisms. As such, under EPA policy, disinfectants produced and sold in the United States cannot carry a "green" label.

However, some disinfectants are inherently safer to use than others, and just as effective. When a school plans to order disinfectants for specific purposes, check first with your city or state health agency to determine specific requirements; then, choose from among the effective and safer disinfectants in the marketplace.

Note: the EPA's Design for Environment/Safer Choice program and its label are not widely accepted by state and local procurement agencies. EPA's labeling program is out of compliance with EPA's own guidelines for how green-labeling programs should operate. It awards labels to products before an onsite audit of actual ingredients takes place; it also has no set of robust and verifiable, pass-fail standards for auditing product ingredients.

Cost and Benefits of Green Cleaning

The costs to go green can be reduced in several ways:

- Green cleaning products are often found for the same or comparable price as conventional products.
- Green cleaning products are waterbased and sold in concentrated form so that in different dilutions they can be used for different cleaning tasks. That factor reduces the total number of different products and their storage space.
- Schools can buy in bulk.
- Using certified green products that have banned or steeply restricted certain chemical ingredientssuch as asthmagens, carcinogens, skin sensitizers, and reproductive toxins—reduces chemical odors and residues indoors and reduces the risks to the cleaning staff.

Before the University of North Carolina at Greensboro began its green cleaning program, the chemicals on hand cost roughly \$3.07 per gallon. Switching to Green Seal-certified chemicals brought the cost down to an estimated 25 cents per gallon and reduced chemical usage by 75%.

In a pilot test conducted by the Green Purchasing Institute for the state of Hawaii, two schools in Honolulu reduced the cost of their restroom cleaning products from \$6-\$12 per gallon to less than \$1 per gallon by replacing a ready-touse conventional product with a highly concentrated Green Sealcertified product.

And finally, New York State, which through executive orders asks all its state agencies—offices, hospitals, prisons, and parks—to go green and tracks agencies' progress, issued a progress report in April 2016 stating, "The adoption of green cleaning is one of New York's biggest success stories" (www.ogs.state.ny.us/EO/4/ Default.asp).

The state reported that in fiscal year 2014/15, 79% of the agencies responsible for cleaning their own offices used green cleaning products all or most of the time; 61% used fragrance-free cleaning products; 69% reported using advanced equipment like microfiber mops and walk-off mats; and 66% reported using fewer cleaning products.

Overall cost savings by the New York State agencies participating in the state green procurement program and tracked by the Office of General Services and the state Department of Environmental Conservation was over \$130 million just on the aggregate buy of green-rated laptops and office computers in the state's 2014/15 fiscal year. The \$130 million savings on first cost does not take into account long-term savings due to energy efficiencies.

There is every good reason school business officials should take a long, hard look at green cleaning and the green procurement of other types of products and services. It's never too late to start.

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