

Green Cleaning in School Food Service

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In food service, as in all areas of a school, meeting stringent public health and sanitation requirements is a top priority.

Health and safety should never be compromised. Enacting a green cleaning program means using environmentally preferable products and procedures to achieve that goal. It also means protecting health without harming the environment.

The following guidelines address specific green cleaning considerations related to food service in schools. Remember that transitioning to green cleaning for food service is not an all-or-nothing process. A few small changes in incremental steps can produce significant benefits.

Step One: Get Started

Some schools may find that the best way to start is to simply phase in green cleaning products. Other schools may decide to enact a cleaning plan and formal policy. Whichever way you choose to begin, you'll want to ensure that your procedure changes are consistent with local health regulations first. Reach out to your local department of health if you have any questions.

Who's In Charge?

A green cleaning program in food service starts with establishing who is responsible. That means designating a leading party in either the kitchen crew or the custodial staff. In some schools, cooks are responsible for cleaning their own stations and custodial crews only clean the floors at the end of the day. No matter how responsibilities are divided, it's a good idea to have written documentation in a chart that outlines who is cleaning each area of the kitchen.

Training Matters

Only professionally trained staff should be involved in cleaning. You will need to educate all staff about the reasons for green cleaning in addition to specific training procedures for products and equipment.

One of the most important lessons for your food service staff is [hand hygiene best practices](#).

Make sure that service staff members are using all products and equipment as intended by the

manufacturers. SDSs should be made available and reviewed with all staff members. In many states, OSHA guidelines must also be followed.

Products and procedures should be outlined on a chart near work stations and color coded for ease of use. For example, instructions on stainless steel washing could be in a green font and bottles for the appropriate chemical could use a green label. Don't hesitate to contact your product vendors, which should have training materials and instructions for use.

Step Two: Use Green Cleaning Products

The following recommended product guidelines fall into two categories: products for non-food contact areas and products for food contact areas.

A general rule for purchasing green products in any of the following categories is to choose concentrates over ready-to-use products and to select those with the least amount of packaging.

General Cleaners for Non-Food Contact Areas

Products for non-food contact areas in the food service department are generally no different than those used in other parts of the schools. The best green products reduce health risks and have limited environmental impact without compromising effectiveness.

Third Party Certifications

Products that are certified by respected third parties such as Green Seal, EcoLogo or Design for the Environment are recommended for cleaning hard surfaces, glass, floors and other general purpose cleaning. These certifications are a great place to start when looking for greener choices. Most importantly, they help you weed out products that simply claim to be green from those products that actually are green.

When Certifications Aren't Available

Some product categories are not subject to third party certifications. For the following product categories, we recommend looking at product attributes rather than specific certifications.

Stainless Steel Cleaners

Stainless steel is a surface that must be cleaned regularly to prevent bacterial growth. Conventional stainless steel cleaners and polishes leave a shiny appearance, but they also leave an oily residue that attracts dirt. Some of these conventional cleaners are aerosols that contribute to poor indoor air quality. It is best to clean stainless steel surfaces with a third-party certified all-purpose cleaner or glass cleaner. Using an all-purpose or glass cleaner rather than a specific polishing agent will simplify purchasing and reduce your overall chemical inventory. Microfiber products are an effective green option for cleaning stainless steel.

Lime and Scale Removers

Lime and scale removers require acid to remove mineral deposits from sinks. Some ice machines may also require cleaning with lime removers if the water is hard with minerals. Products with a neutral pH (close to 7) are recommended over those with an extreme pH (close to 1 or 14).

Cleaners for Food-Contact and Preparation Areas

When cleaning areas that come into contact with food, sanitization becomes a key consideration. Be mindful that local health rules determine what

counts as a food contact surface area. In some districts, any place where food could theoretically touch, such as tables and trays, should be sanitized. Remember that only fully trained professionals should be involved in sanitization.

Sanitizers and Disinfectants

Sometimes these two terms are used interchangeably, but they are technically, and legally, different. The actual legal definitions of these terms are:

Disinfectant

A product that completely destroys all specific test organisms in 10 minutes under conditions of the AOAC Dilution Test.

Sanitizer

A product that destroys 99.999 percent of specified test bacteria within 30 seconds under conditions of the Official Detergent Sanitizer Test, also known as the Weber and Black Test.

As a general rule, disinfectants are used in settings like hospitals that need 100 percent certainty, and sanitizers are used for effective safety that takes real-world time requirements into account. Always check with your local department of health to find out the regulations you should follow and which type of product you should be using in your foodservice area.

Drain Cleaners

Conventional drain cleaners are highly acidic or highly alkaline chemicals used to cut the oil and grease caught by kitchen drains and grease traps. These corrosive cleaners, at the extreme end of the pH scale, can seriously burn eyes and skin. Environmentally preferable drain cleaners are bio-based, using non-pathogenic microbes less harmful to human health and the environment.

However, drain and grease trap maintenance using these cleaners is only one component of a healthy,

ongoing maintenance program. Automatic injection systems emit healthy bacteria at timed intervals to ensure clear drains. If stoppages occur, trained maintenance personnel should use mechanical removal when appropriate. Cleaning solutions that rely on biological agents should be applied at the end of a shift.

Floor Care in Food Preparation Areas

Floors in food preparation areas tend to be porous, unglazed tiles. These tiles prevent slipping when wet. Products used to clean this type of floor must be capable of removing grease and debris trapped in the pores and grout. Although there are not many certified products for this type of floor care, recommended floor care products use enzyme- or peroxide-based formulas that effectively rid porous surfaces of dirt and grease. Certified degreasers or all purpose cleaners can be used effectively. For intermittent cleaning, certified degreasers or all-purpose cleaners are effective. Steam vapor cleaning systems may also work well on these surfaces.

Warewashing Detergent

There are currently no broadly recognized green certifications for ware washing. When choosing warewashing detergent, consult your vendor for guidance on which products are compatible with your machine. Recommended ware washing detergents are non-caustic and are phosphate-free. Phosphates are discouraged because they tend to seep into water systems and cause “algae blooms” that overwhelm natural ecosystems. Phosphates are now banned for use in cleaning products by nearly half of our states. Regardless of the product selected, portion control, either through metering devices or prepackaged units, plays an important role in minimizing product and water waste.

Manual Detergents for Use in Three-Compartment Sinks

Recommended detergents specific to manual

cleaning in three-compartment sinks have a neutral pH and no flash point. They leave little residue, are non-caustic and also are biodegradable. Controlled dispensing systems or packaged units for portion and dilution control are also recommended.

Follow “wash, rinse, sanitize” procedures when manually washing dishes. Wash with water that is as hot as can be withstood. Then rinse in clean water and, finally, sanitize. Dishes should air dry before they are put away; use of drying rags can lead to contamination. If your school does not have a triple sink, follow local board of health regulations.

For the sanitizing compartment, there are a limited number of options. While bleach is an effective sanitizer, it is very caustic and can erode stainless steel surfaces as well as burn the skin and eyes. Quaternary Ammonia Compounds may be less caustic, but still carry their own health risks, including being an asthmagen and being a respiratory sensitizer. So when working with these compounds, employees should closely follow manufacturer directions, use no more product than necessary, and use personal protective equipment when necessary.

Food Service Sanitizers

Sanitizers are critical to reducing bacterial contamination risk in sinks or machines. All such sanitizers must be registered with the U.S. Environmental Protection Agency (EPA). Sanitizers allowed for cleaning food service areas are listed in the [EPA's 40 C.F.R. 180.940](#). As a general rule for selecting environmentally preferable sanitizers, consider pH levels, which refer to how acidic or alkaline a product is. Those with a neutral pH (close to 7) are recommended over those with an extreme pH (closer to 1 or 14).

Remember, using cleaning products properly and with the correct dilution is just as important as buying the right products. Always check the manufacturer’s specifications and testing

parameters. Be sure to keep SDS sheets on hand for all products.

Step Three: Introduce Green Equipment & Supplies

Green equipment and supplies save energy and reduce harmful chemicals and water usage.

To extend the life of equipment and supplies, food service staff should always be trained in proper maintenance and care. Here are a few environmentally preferable options to consider.

- Controlled dispensing and monitoring systems, or pre-measured packs, can track efficient product usage and machine maintenance.
- Color-coded cleaning systems help prevent waste, improper product usage and cross-contamination.
- Microfiber cloths reduce chemical use, clean and polish effectively and rinse clean for easy reuse. Microfiber may be more expensive per cloth, but higher quality and greater durability make it more cost effective long-term.
- Spray and vac cleaning systems automatically dilute and apply a degreasing solution to remove grease from various surfaces. The built-in vacuum then efficiently removes and holds the emulsified soils while leaving floor surfaces dry to prevent slipping.
- The greatest environmental impact from warewashing and laundry machines is the energy used for heating water. Monitoring and managing this energy use can save time and money while benefiting the environment.
- Be sure that wash rags are cleaned or disposed of regularly.

Food Service Ware

Reusable ware is always the best, greenest and healthiest option. Reusable food service ware requires far fewer material resources, uses much

less energy, and generates much lower levels of air and water pollutants and less solid waste in its production, use, and disposal than disposable products. The use of fossil fuel-based plastic food ware has serious environmental and public health ramifications that make it undesirable for a green cleaning program that has the goal of promoting health.

Bio-based disposables, made from cornstarch, potato starch or wheat, have emerged as an alternative to traditional products. These products also have an environmental advantage if they are composted; however, they may require special composting facilities.

While reusable wares are the best choice for the environment, bio-based consumable wares offer a more environmentally beneficial choice to traditional petroleum-based wares. Bio-based food service wares are made from various renewable resources, such as corn, soy, sugar cane waste and perennial grasses. Not all bio-based products are equally preferable. Products created with sustainable attributes in mind will have a smaller impact on the environment.

Information on choosing paper towels, napkins, janitorial wipes and trash can liners can be found in the [5 Steps to Green Cleaning in Schools](#).

Step Four: Adopt Green Cleaning Procedures

When we talk about procedures, we mean how your staff is cleaning the school. This could include the way they operate machinery, the method they use to scrub floors and wipe surfaces, how often they disinfect and they manage recycling and waste. When it comes to food service, green cleaning procedures should include:

- Training staff in disinfection, sanitization and

cleaning

- Wearing gloves during cleaning. Labeling or color-coding gloves can help prevent confusion.
- Using disinfectants and/or sanitizers required by local and federal regulations for food contact surfaces.
- Cleaning and sanitizing touch points (e.g., faucet handles, drinking fountains) at least daily, more frequently if needed.
- Frequently monitoring chemical dilution and handling equipment. Proper dilution and handling limits exposure to chemicals, prevents waste and saves money.
- Increasing cleaning if the use of the food service area increases.
- Scheduling regular equipment cleaning and maintenance to minimize costly repairs.
- Removing residual food in emptied waste containers, loading docks and all other areas to avoid pests.
- Sharing the responsibility for managing waste by encourage students, teachers and staff to rinse food and drink containers before placing in recycling receptacles.
- Covering all food waste containers, emptying containers daily (or more frequently if necessary), along with daily cleaning and sanitizing of containers.
- Asking product vendors for instructions and training on how to properly clean specialty areas like portion scales, ice machines, ovens, hoods, slicers and freezers.
- Taking care of ice machines, because ice is a food!

Remember, food safety is the number one priority. Green cleaning procedures are intended to help hard-working food service staff protect the health of all staff, students and teachers.

Step Five: Share the Responsibility

Sharing the responsibility is one of best ways to ensure the success of your green cleaning program. And in no other area of the school do students have a more obvious role in cleaning up after themselves than in the food service area. That makes food service one of the easiest places share the green cleaning responsibility with students in a tangible and effective way. In addition, teachers have a role in educating students about responsible behaviors.

While students should never be expected to wipe down a surface, they do have great control when it comes to hand washing as well as waste management and recycling. It is your staff's role to encourage students to clean up after themselves and teach them how they can promote a healthy cafeteria environment. This can be done with signage, announcements and other creative promotions.

Waste-Free Lunch

Waste-free lunch programs are an excellent way to get the entire school involved. Many schools have adopted waste-free lunch days, in which students are challenged to bring in lunches that are completely recyclable, reusable or compostable. Schools with gardens can take advantage of vegetable and fruit scraps to start a composting program, or, if near a farming community, schools can arrange a food composting program with local farmers.