

**CUSTODIAL**  
OPERATIONS:





# GREEN & SUSTAINABLE

By J. Kirk Campbell

Custodial Operations have been inundated by customers and service providers to adopt green cleaning products. This trend is partly due to environmental issues—both indoor and global—partly due to the fact that going green is the right thing to do, and partly due to employee safety. But green goes beyond the ingredients in the products being used. It delves deeper into other sustainable aspects, such as packaging, recyclable, reusable, organic, or compostable.

The intent of this article is not to sanction or promote any particular product or certification program, but to help give some guidelines or considerations when evaluating to go green and sustainable.

## INDUSTRY CERTIFICATIONS

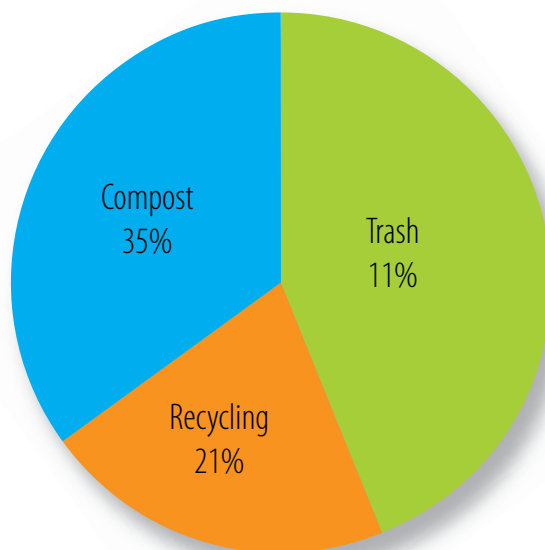
An article in the February 2008 issue of *Housekeeping Solutions* does a nice job in detailing some of the different types of certifications available and an explanation of each. Custodial managers need to learn all the details for comparison of certifications in order to determine which criteria to use and best fits the institution's goals.

As one studies the different criteria, the findings of some are more stringent, or may allow some low level of potentially harmful ingredients.

One example is phosphate: some allow small amounts of phosphate, another may only allow organic phosphates, while others allow no phosphate. The question here is where does *your* operation stand on the use of phosphate?

Another example is if volatiles of any kind will be allowed or not. Some certifications allow for a certain amount and others may have no standard at all. Can a glass cleaner be totally effective without some amount of alcohol? Again, the custodial operations must determine what they're going to accept as their green and sustainable criteria.

Figure 1: Waste Distribution in October



We all have to prioritize our decisions. Having some kind of green-seal label may give our customer a sense that the operation being responsible, but the operation must do the housework and be able to clarify and justify why they use the products that are chosen.

## REUSABLE RESOURCES

Many more natural or renewable products have entered the market in the last few years. Citric containing products, kelp, and other plant derivatives that can be grown or naturally reproduced without taxing the environment and may eliminate a fossil fuel cleaning derivative.

One of the difficulties that challenge the cleaning industry is the ability of renewables to meet the test of being able to meet required cleaning needs. The products may not be as aggressive and require repeat applications or additional natural abrasives to get desired results. Again these are choices that have to be made to achieve the ultimate goal desired.

## BIODEGRADABLES

The need for cleaning products to breakdown into non-toxic and safe byproducts is essential. Any adverse result from

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using or disposing of the product can and should be avoided. However, biodegradable goes beyond just the cleaning products.

Plastic bags are a main staple for custodial operations. These bags have been products of fossil fuels and virtually insoluble. The market has greatly changed to offer a complete line of renewable, made-from-plant bags. These products have the strength required to hold waste, but will rapidly breakdown in the landfill, or can be used in a compostable program.

Being green and sustainable in custodial operations has to emphasize the product or packaging from cradle to grave—how things are made, what is it made of, what are the affects when used, and where it ends up in the environment.

Perhaps the following operational guideline regarding cleaning and paper products can be catalyst for others to adopt an operational impact statement.

#### **PACKAGING**

Concentrated products should be used whenever possible. It reduces waste, fuel, and the need for additional plastic containers and the production of cardboard products. Even

carpet will be disposed of at a recycling center. This requires an additional cost (locations are 40 miles from the college) but is essential in one of our many steps to be green and sustainable.

#### **WASTE**

Custodial operations are at the heart of the waste stream. The best involvement is getting all waste out to the pick-up areas and perhaps responsible for the end disposal of the various types of waste. At Carleton College, Custodial Operations has full responsibility for all waste streams.

#### **RECYCLING**

Recycling goes beyond the normal waste stream (i.e., furniture reselling or given away, construction metal or material). Concentration here will be on the historic recycling stream of paper, plastic, aluminum, cardboard, metal cans, and glass.

For years the traditional way of recycling was to separate the different types of material (plastic, paper, metal, and glass) in specific disposal container by the user (our customers) and hauled to a specific location. However the market has expanded—

What is unique with the program wasn't finally composting food waste from the dining halls, but converting most of the waste that came from the campus snack bar into compostable material.

Figure 2



though all packaging should be recyclable in one form or another, plastic or cardboard reducing the need to produce packaging required is greener than recycling itself.

#### **CARPETING**

Carpeting has made great strides over the last several years. Quality carpet can be purchased with a percentage of recycled carpet that promotes fewer raw materials and provides a source for the old carpet, other than the landfill. In some locales, there are carpet recycling centers that will accept old carpet.

At Carleton College, our carpet contracts require that the old

and perhaps near your location—where “single stream” or “single sort” recycling has become viable. This means all materials are put in one container or mixed together at the source, or mixed together at pick-up and hauled to a sorting center that separates the material by type. Then the material is bundled by type and marketed throughout the world to those that use the material.

The advantage of a single system for our operation is enormous. Fewer containers are required inside the building and at the disposal sites. There is a cost reduction in the amount of containers to purchase, which reduces the number



## Custodial Sustainable and Green Initiatives

### INTENT/GOALS

Reduce the negative environmental impacts of cleaning products, disposable janitorial paper products, and trash bags.

### OUR PLAN

- To reduce and eliminate harmful cleaning chemicals from non-green products to green approved products. (Disinfectants are not green products due to their ability to kill organisms.)
- Change hand soaps to green foam soaps.
- Change our trash bags to totally biodegradable and/or compostable bags.
- Stop using aerosols.
- To make sure that all packaging is recyclable or biodegradable.
  - Paper products currently using: Paper towels and wipes that are made up of 40% post-consumer fiber and a minimum total recycled content of 40%.
  - 2-ply bath tissue made up of 20% post-consumer fiber and a minimum total content of 20%.
- To achieve a goal of reaching the EPA's Recommended Recovered Fiber Content Levels for Commercial/Industrial Sanitary Tissue Products.

Item	Postconsumer Fiber %	Recovered Fiber %
Bathroom Tissue	20-60%	20-100%
Paper Towels	40-60%	40-100%
General Purpose Industrial Wipes	40%	40-100%

of outdoor containers charged out by number of containers per pick-up. At Carleton College, we were able to reduce our outdoor containers—that many times were not completely full—by 30 percent.

Single stream has also proven to capture more recyclable material. Putting everything in one container eliminates the user from having to sort or find a specific container. It also captures more from individual areas, such as offices and dorm rooms. Many individuals only had paper recycling containers and would place other material in the waste stream containers, in lieu of walking to the specific recycling container within the building.

## COMPOSTING

A significant part of the waste stream that usually goes to the landfill is compostable waste. This is material comes mostly from the food service area. Establishing a composting program that is all internal to the operation can be expensive and labor-intensive, and, you can still experience difficulty handling and using the volume that is produced.

Since all waste is the responsibility of the custodial operations, composting became a focal point in our aggressive green and sustainable goals. By partnering with our waste handler and a compost landfill, we were able to take 35 percent of our waste stream to be composted and out of the landfill.

What is unique with the program wasn't finally composting food waste from the dining halls, but converting most of the waste that came from the campus snack bar into compostable material. Again, by partnering with our food service vendor, we buy material or containers made from a renewable source (corn and soy).

The net results thus far are indicated in Figure 1 (page 34), which shows the breakdown of these main waste streams on campus. Figure 2 (page 35) shows what is compostable from the snack bar. Our green and sustainable efforts allow for:

- The elimination of fossil fuel, decreased containers to renewable source, and compostable end-product containers.
- The use of compostable trash bags that go into the mix at the landfill.
- A compostable landfill that is 20 percent cheaper per ton than waste landfill.
- The enhancement of our stewardship to the environment and our commitment of being green and sustainable.
- The ability to provide that outdoor food events can be totally recycled and composted.
- The ability to be green while not impacting overall operational costs.

## SUMMARY

Custodial Operations play a significant role in the overall direction of an institution in being green and sustainable. By no means have I covered all areas where custodial is heavily involved—lighting, for example.

Custodial Operations can have a significant impact on institutional green and sustainable goals if given the proper support and challenge. It does not come without study, knowledge, and old-fashioned time and effort.

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