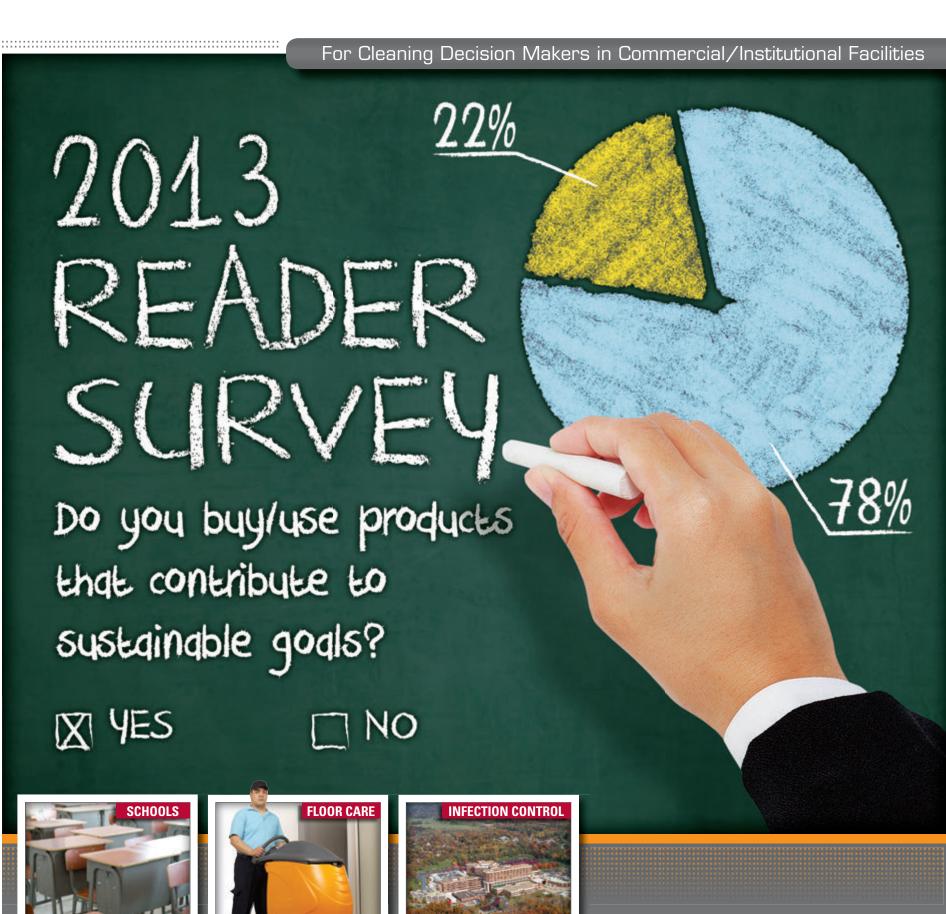
## 10USEKEEPII Solutions





#### **Standards Of Clean Validate Procedures**

Scientists are using research to test school surfaces and define the true meaning of clean



#### **Greener Pastures For** Floor Care Equipment

Sustainable equipment can boost green initiatives and help earn points toward LEED certification



#### **Department Receives Clean Bill Of Health**

St. Luke's Hospital implements infection control processes that are proven effective

A Supplement to:

maintenance



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#### **Webcast: The Key To Developing A Proper Restroom Maintenance Program**

When it comes to bathroom cleanliness, the public isn't shy about their expectations, making restrooms the number one complaint among facility issues. In this free webcast, attendees will learn how to develop an effective restroom maintenance program, challenges that may come up, an understanding of how to ensure that cleaning frequency matches restroom usage, products and technologies that help improve hygiene, and sustainable and green issues in restroom care. For more information and to register for this webcast, go to www.cleanlink.com/webcasts

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#### **ISSA Announces Changes To Convention Schedule**

In 2013, the ISSA/INTERCLEAN North America trade show will begin on Monday, Nov. 18 and run through Thursday, Nov. 21. In response to attendee and exhibitor demand for more time to network and share new innovations, the show hours have also been extended. Exact details are available at www.cleanlink.com/15379news

#### Webcast: OSHA's GHS Chemical Standard - Are You Ready?

Training requirements for OSHA's Globally Harmonized System (GHS) and classification and labeling of chemicals is required before Dec. 1, 2013. This premium webcast reviews necessary employee training, standard requirements, as well as revisions required for the millions of Material Safety Data Sheets and labels currently in circulation. Details and registration information can be found at www.cleanlink.com/webcasts

Look for daily news of interest, as well as people and company announcements and case studies at www.cleanlink.com/news



Corinne Zudonyi

#### Managers Seek Validation For Themselves And Their Departments

As we point out in this year's Housekeeping Solutions survey, the in-house custodial market is at a status quo. But even though this is the case, we found that managers are not satisfied with their status.

According to the survey, management's top priorities focus on increasing training that highlights hygiene, a reduction of crosscontamination and improving the overall perception of clean within the facility.

This comes as no surprise as building occupants scrutinize cleaning more than ever before, largely due to infection control topics swarming the national media. Reports of hospital-acquired infections and health outbreaks in schools have forced managers to ramp up training in an effort to control infections in their facilities. The fact that they can prevent infections and save lives puts cleaning in the spotlight.

To further increase the validation of cleaning departments, many managers have begun highlighting personnel that have achieved certifications and accreditations in their field. In fact, 73 percent of those surveyed encourage employees to participate in training that leads to certifications and accreditations — a staggering 17 percent jump from just one year ago. Managers call out these accolades in an effort to showcase the level of expertise accessible within the department.

This level of training will go a long way to improve both tenant satisfaction and the overall perception of clean within the facility. For more results from our annual Reader Survey, turn to page 14.

> Conne Zudony Editor
> Corinne Zudonyi

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### Standards Of Clean Validate Procedures

Scientists are using research to test school surfaces and define the true meaning of clean

By Bill Balek

ELEMENTARY AND HIGH SCHOOL facilities across the United States pose health risks to students and staff due to the lack of a standardized approach to assessing the effectiveness of their cleaning regimen. A vast majority of facilities judge cleaning by sight, smell and even touch. But this approach is woefully inadequate in this age of MRSA, norovirus and other infectious agents that cannot be detected by the senses alone.

Realizing this serious deficiency, ISSA and the Cleaning Industry Research Institute (CIRI) entered into a joint venture, commissioning an independent body of scientists led by Dr. Richard Shaughnessy, University of Oklahoma – Tulsa, and Dr. Gene Cole, Brigham Young University, Provo, Utah, to perform research intended to provide three deliverables.

The first goal was to identify an objective, quantitative method of measuring cleanliness. After thoroughly reviewing various devices, the researchers concluded that ATP (adenosine triphosphate) meters are a valid, relatively simple, rapid and affordable measure of the level of cleanliness of critical interior surfaces in schools. Just as important, these devices were found to be reliable and consistent in their measurements across geographic and climatic zones.

Secondly, ISSA and CIRI tasked the researchers with producing reasonable range values for measuring levels of cleanliness in schools across three different ATP meters, representing a standardized and quantitative approach to measuring clean. With this step, "cleanliness" was defined based on ATP-RLU (relative light unit) values.

Now, ISSA and CIRI will use this information to establish a practical standard and protocol that will empower custodial departments within schools to validate their cleaning regimen, as well as help them more efficiently allocate their limited resources for cleaning and maintenance. This protocol — the Clean

Standard: K-12 — is currently in the final stages of development, and is expected to be completed by June 2013.

#### **Overview And Background**

The goal of the Clean Standard: K-12 is to provide schools with a useful tool that will help them objectively measure and monitor the level of cleanliness at their facilities, thereby contributing to the quality of the indoor environment for the benefit of students and staff alike.

The Clean Standard: K-12 is performance-oriented and focused on:

• The levels of cleanliness that can be reasonably achieved;

This standard provides schools with a framework and standardized protocol for measuring cleaning effectiveness on a consistent and periodic basis.

- Recommended monitoring and inspection procedures designed to measure how "clean" a facility is using quantitative measures (i.e., ATP Meters) and traditional methods (i.e., sight, smell, touch);
- How to use these results to evaluate and improve the cleaning processes and products that are critical to maintaining a safe and healthy learning environment for students and staff.

The Clean Standard doesn't specify or favor any particular cleaning process or product. Instead it focuses on achieving the desired level of cleanliness and provides a systematic approach to inspection in an effort to ensure "clean" is achieved and maintained.

The Clean Standard: K

and maintained.

effectiveness and ensure that

#### **Development Process**

In developing the Clean Standard, ISSA and CIRI followed a broad multi-stake-holder process designed to garner the input of all major stakeholders in an open and transparent manner. The Clean Standard development process allowed for stakeholder involvement by participation on either the Development or the Stakeholder Committees, whose decisions were based on consensus.

These committees are comprised of industry members (manufacturers, distributors and cleaning service providers), major school districts, unions such as the American Federation of Teachers, and NGOs and non-profits such as the Healthy Schools Campaign, the National Education Association, APPA and the National Association of State Boards of Education.

The development process has been guided and informed by independent research, which included extensive scientific measurements from a multiyear review of cleaning procedures in numerous schools across the United States. The data clearly indicates that a standardized approach to the measurement of cleaning effectiveness across critical surfaces (recognized as presenting health risks in schools) could be used to improve the hygiene of interior school surfaces and help improve the school's overall indoor environmental quality.

Specifically, the research has validated ATP meters as a way to measure the level of cleanliness of school surfaces. In addition, the research has produced reasonable range values for measuring levels of cleanliness in K-12 schools across three different ATP meters, representing a standardized and quantitative approach to measuring clean.

The Clean Standard provides schools with a framework and a standardized

For additional information on emerging standards and legislation affecting the jan/san industry, visit www.CleanLink.com/news for daily updates.

protocol for using ATP meters to measure and assess cleaning effectiveness on a consistent and periodic basis. Perhaps more importantly, it provides a structured approach to addressing situations where the facility has fallen below the desired level of cleanliness.

Adenosine triphosphate is recognized as an excellent marker for monitoring biologically-derived surface soiling and cleanliness. Most surfaces collect and retain soils, dusts and various deposits containing myriad particles, residues and fragments of some biological origin. These residues may derive from plants (such as pollens, fibers, dusts, fungi, etc.) and animals (skin cells, dander, insect parts, secretions, exudates, etc.), as well as other microorganisms that are environmentally ubiquitous.

By basing the metric of "clean" on ATP levels on interior surfaces, one is practically covering all surface residual contamination of biological origin. However, it is important to note that ATP monitoring is not appropriate for the identification of specific, non-biological and other pollutants that are recognized and regulated as human health hazards. Examples include lead, asbestos and pesticides.

ATP cannot identify specific bacteria, virus or fungi that may serve to be human pathogens. However, during research, RODAC measurements (a recognized means of detecting and measuring the presence of microorganisms on surfaces) were taken contemporaneously with ATP measurements. The research compared ATP and RODAC measurements and clearly established that a reduction in culturable bacteria as measured by RODAC was consistent with the reduction in ATP values after cleaning.

#### **Purpose Of The Standard**

The Clean Standard: K-12 establishes a framework for assessing the cleanliness of a school's interior high-touch surfaces. The primary methods used for this assessment is a site survey and quantitative measurements based on ATP meters to determine what is biologically soiled. The assessment is designed to provide information showing the initial extent of contamination and the level of biological contaminant removal when cleaned. It should be used for the ultimate purpose of improving the quality of the indoor environment for the benefit of both students and staff.

The standard provides a systematic approach based on multiple elements that are used to measure and monitor the level of cleanliness at K-12 facilities related to residual surface contamination of biological origin.

Specifically, the Clean Standard includes the following elements:

- A site survey or building audit;
- Evaluation of the presence of visual dust and soils;

- Pre-cleaning and post-cleaning evaluations and measurements based on ATP measurements; and
- Periodic measurement of bio-contamination or bio-soil loads using ATP.

These elements are intended to be used in a systematic process to determine the background condition and preexisting soiling loads in any school, as well as the level of cleanliness achieved after cleaning. They also provide periodic measurement of cleanliness at the school facility.

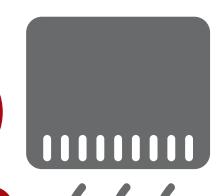
Training will be a key component in implementing the Clean Standard at any school. It will verify that ATP measurements are conducted in a correct and consistent manner to ensure accuracy of the results.

The collective elements of the Clean Standard: K-12 will make it possible to assess the effectiveness of any commercial cleaning regimen, equipment, products and procedures. As such, the standard empowers schools to select a cleaning regimen that is the most effective and economical.

BILL BALEK is the director of environmental services and legislative affairs for ISSA, Lincolnwood, Ill. More information on the Clean Standard: K-12 can be found at www.issa.com.



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#### Blown Away

With **high-speed hand dryers** becoming more efficient and greener, is it time for facility managers to throw in the paper towel?

By Ronnie Garrett



"We're seeing an increase in the use and awareness of high-speed hand dryers due to the financial benefits they provide," says Dan Storto, president of World Dryer in Berkeley, Ill.

In addition to the financial benefits, he believes facility managers are tapping into dryers for their green and sustainable capabilities, as well as the improved hygiene.

#### The Buck Stops Here

While it is true that facilities incur a cost to install high-speed hand dryers (up to \$600 or more per dryer), that cost typically shows a one-year return on investment, reports Excel Dryer's William Gagnon.

"With their higher performance and higher efficiency, you get a 95 percent cost

savings versus paper towels, and eliminate labor, maintenance and waste," says the vice president of marketing at the East Longmeadow, Mass.-based firm.

Consider that it takes 17 trees to make one ton of paper, and that the average cost of paper is 2 cents per towel versus 1/10th of a cent using hand dryers, and it's easy to see that the return on investment can be fairly quick with these units, according to Kevin Knapp, director of sales and marketing at Palmer Fixture in Green Bay, Wis.

"From a payback standpoint, there is an initial cost to hand dryers but then there is usually a 9- to 12-month payback period because you are no longer purchasing paper towels," he says.

The units are virtually maintenance free as well, eliminating the time and expense it takes to order towels, manage inventory, and stock dispensers.

"In a public restroom, you can costjustify a high-speed dryer in almost every case on labor savings alone," says Storto.

#### Easy To Be Green

A key factor in the increased popularity of high-speed hand dryers, says Jeff Culler,

New England regional sales manager at Steibel Eltron of West Hatfield, Mass., is their green/sustainability capabilities. As more facilities look to green their operations, a high-speed hand dryer proves itself to be an excellent place to start.

While conventional units once required special circuitry, today's high-speed systems tap into standard voltages and use up to 80 percent less energy.

"Hand dryer technology has improved by leaps and bounds, resulting in better drying efficiency, as compared to years ago when hand dryers took 30 to 40 seconds to dry your hands," says Storto. "Modern units dry hands within 10 to 15 seconds."

The primary reason why only 10 percent of the restrooms utilized hand dryers previously is people claimed they took too long to dry their hands. But because newer units are both quick and effective, these dryers are used far more than ever before, all the while, using less energy and contributing to green goals.

But be aware that not all high-speed dryers are the same. Some take longer to dry than others.

Gagnon explains that air stream can be measured in two ways: the area of the air-flow and the linear feet per minute. Conventional dryers fan the air out, while high-speed hand dryers target the flow of air into a linear path.

"That's why they dry your hands so quickly," he says. "The air flows faster and is more focused. It is also heated."

All of this translates into significant energy savings, adds Knapp, who points out that conventional hand dryers consume approximately 1,800 watts of power, whereas their high-speed counterparts draw just 1,000 to 1,200 watts. And if the facility opts not to use the heating unit in the dryers, the power usage may drop to just 750 watts.

These benefits make the units efficient from both an environmental and budgetary standpoint.

When compared to paper towels, "the cost per kilowatt hour to run the dryer is minimal in comparison to the cost to produce paper," Knapp says. "Then there is the waste created, the cost to carry that waste away and the trash going into the landfill."

Emphasizing the environmental attributes, Storto elaborates, saying the production of paper towels is twice as



energy-intensive as that of drying units, and creates more greenhouse gasses.

"Over its lifetime, one hand dryer will produce three tons less CO2 than the production of the paper towels it replaces," he says. "Also, towels can be made from recycled paper, but they can't be recycled themselves, creating millions of cubic feet of waste."

#### **Hand Hygiene Facts**

Users once shied away from using highspeed hand dryers because of the prevailing thought that they were not as hygienic as paper towels. But the reality is, these units are more hygienic.

"There have been studies published about dryers blowing germs onto your hands," Gagnon admits. "But an independent study performed by the Mayo Clinic showed that when hands are washed with soap and rinsed for the appropriate amount of time, the amount of bacteria on hands is the same whether you use a paper towel or a hand dryer. In other words, the way you dry your hands was insignificant, but the way you wash them is critical."

The difference lies in the fact that hand dryers eliminate bacterial and paper towel waste from the restroom environment. Manufacturers have also addressed bacterial concerns by making these units touch-free, coating the units with antimicrobial surfaces, installing HEPA filters and adding water troughs to collect excess water.

"Today's automatic hand dryers are very hygienic," says Storto. "Some models incorporate antimicrobial technology that inhibits the growth of bacteria, mold and fungus, and extends the dryer's service life."

#### Throw In The Towel

Once a department decides to use highspeed hand dryers, a few decisions remain. They must decide on the type, quantity and placement of the units, says Culler.

How many dryers a restroom requires depends on restroom traffic and the type of facility. A rule of thumb is one dryer per two sinks in a restroom, but a high traffic restroom may require one dryer for every sink or two dryers for every three sinks. And the units should be as close to the sink as possible, says Culler.

In a facility where restroom patrons have a penchant for paper towels, departments can opt to install one hand dryer and one towel dispenser instead.

"Some companies will just take out their hand towel dispenser and replace it with a hand dryer, while others keep the towel dispenser and then add a hand dryer, too," Culler says.

When it comes to hand drying options, there is no one-size-fits-all philosophy. It's important to work with a distributor to spec the right one for the job.

"The correct hand-dryer choice can vary not only between buildings but

also between areas within the same building," says Storto. "Traffic flow is a big determinant, as is requirements for ADA (Americans with Disabilities Act)-compliant fixtures. Some hand dryers are surface mounted ADA compliant, eliminating the need for costly recessed installation kits."

When selecting the right hand dryer, noise can also be a concern. High-speed hand dryers are noisier than paper towel

dispensers or conventional dryers, says Culler, so they may not work as well in quiet office buildings, but do well in industrial settings, malls or busy schools. A conventional dryer, he says, has a range of 55 to 75 decibels, whereas a high-speed unit outputs 85 to 105 decibels.

"There can be sound sensitive areas but there are new accessories or options available to address that," says Gagnon. Many manufacturers have designed highspeed systems that emit lower decibels via noise reduction nozzles, and the ability to control motor speed.

With new high-speed hand dryers that are more efficient, cost effective, hygienic and green, it's safe to say that it may be time for housekeeping operations to consider throwing in the towel.

RONNIE GARRETT is a freelance writer based in Fort Atkinson, Wis.







#### Greener Pastures For Floors

Sustainable floor care equipment can boost green initiatives and help earn points toward LEED certification

By Kassandra Kania

As the sustainability movement continues to flourish, more custodial managers are demanding environmentally friendly products to satisfy in-house green initiatives, as well as earn credits toward LEED certification for property owners.

Although there are no certifications for floor care equipment per se, by adhering to U.S. Green Building Council (USGBC) guidelines when buying or using floor care equipment, custodial departments can help businesses earn points toward LEED certification.

According to media associate Jacob Kriss, the USGBC awards up to one point toward LEED for Existing Buildings: Operations & Maintenance (LEED-EBOM) for projects that implement a program for the use of janitorial equipment that reduces building contaminants and minimizes environmental impact (see sidebar, "Indoor Environmental Quality c3.4: Green cleaning-sustainable cleaning equipment" for excerpted requirements pertaining to floor care equipment).

For existing powered cleaning equipment, 20 percent must meet the criteria set forth in this credit by cost or unit count, whereas newly purchased equipment must meet 100 percent of the credit requirements. Under the new version of the rating system, set to launch in Fall 2013, the cleaning equipment credit will require 40 percent of powered equipment to meet certain criteria, while equipment that does not meet the criteria must be phased out.

"Everything in LEED is good for the environment and the organization, and makes sense to do," notes Michael Arny, president of Leonardo Academy in Madison, Wis. "If people want to operate their buildings in a greener way, the more of the LEED program they can follow, including the cleaning component, the further they

are down the path to making their building more sustainable. And they also position themselves to move forward with LEED certification more easily, if and when they decide to do that."

According to Bill Griffin, president of Cleaning Consultants Services Inc. in Seattle, Wash., the growing interest in sustainable flooring equipment is being driven in part by LEED.

"The evolution in equipment is in the response to demand from customers wanting to be more sustainable," he says. "LEED is driving some of this, and the demographic of people running these buildings is also driving this to some degree. There's a younger crowd coming in, and they're more aware and have a higher expectation regarding green."

Although the industry is moving toward greener flooring equipment, Stephen Ashkin, president of The Ashkin Group in Bloomington, Ind., urges cleaning departments to keep in mind that this is merely one part of a comprehensive green cleaning program.

"Don't lose sight of the fact that this is one important element in an entire system that ultimately will meet the intent of the LEED credits," he says. "And that intent is to create safe, healthy, productive environments while minimizing negative impacts on the environment."

#### **Less Is More**

Reducing water, energy and chemical usage are important prerequisites for achieving credits toward LEED certification. Likewise, when implementing a green program and reassessing floor care equipment, cleaning departments should look for opportunities to reduce water and energy consumption.

"There are greener and more sustainable floor machines on the market today that use less water or use eco or hybrid water instead of plain water and chemicals," says Griffin. "There are also ultra high dilution products where you put a



cartridge in the machine and it automatically dilutes the chemical."

To reduce power consumption, managers should look for equipment with Energy Star ratings, or battery-powered equipment that uses environmentally preferable gel batteries.

In addition to reducing water, power, and chemical usage, managers should look for floor equipment that reduces noise levels. Griffin recommends equipment that operates below the 65-decibel rating. Departments also need to consider how their equipment fits into their green protocol. For example, the decibel level of the machine becomes more significant if they are cleaning during the day when the building is occupied.

"Environmentally friendly equipment isn't just about protecting the environment, but also the employees using the equipment," says Stan Hulin, president and CEO of Future Floor Technology Inc. in Gladstone, Ore. As such, manufacturers are paying more attention to machine ergonomics by designing equipment with operator comfort and safety in mind.

#### **Train And Maintain**

While equipment specifications are essential when implementing a green program, sustainability consultants stress the importance of proper operator training.

As Hulin notes, "It's not environmentally friendly equipment if it's not used correctly."

Ashkin urges customers to ask vendors questions about training when purchasing floor care equipment.

"What kind of training do they provide? If my staff speaks another language, do they have people who can teach them how to use the equipment? Customers really need to ask these questions when selecting new equipment," says Ashkin.

Training is a very beneficial value-added service when purchasing floor equipment, saving departments valuable time and money. Hand in hand with that training is the importance of documentation.

"If you want to ensure your buildings are being managed in a more sustainable way, you have to track what's happening," says Arny. "You can't manage what you don't measure. Looking at the tracking that LEED includes as a means of assuring that what's being strived for is actually being delivered is a good approach to green cleaning.'

Griffin recommends documenting procedures to hold custodians accountable for doing work properly.

"Keep logs on how often floor finish is put down, for example, and how many coats are applied," he says. "If workers put floor finish on a small area, train them not to fill the bucket up with floor finish and throw away two gallons of excess finish, just because they've always put two gallons of floor finish in the bucket."

In keeping with the LEED requirements

for powered cleaning equipment, custodial staffs should also keep a log for all equipment purchases and maintenance. Repair and maintenance activities are an essential component of any green cleaning initiative and should be recorded for each machine.

"Equipment only achieves benefits if it's maintained properly," says Ashkin. "If used incorrectly, it could put workers and building occupants at risk."

According to Ashkin, too much

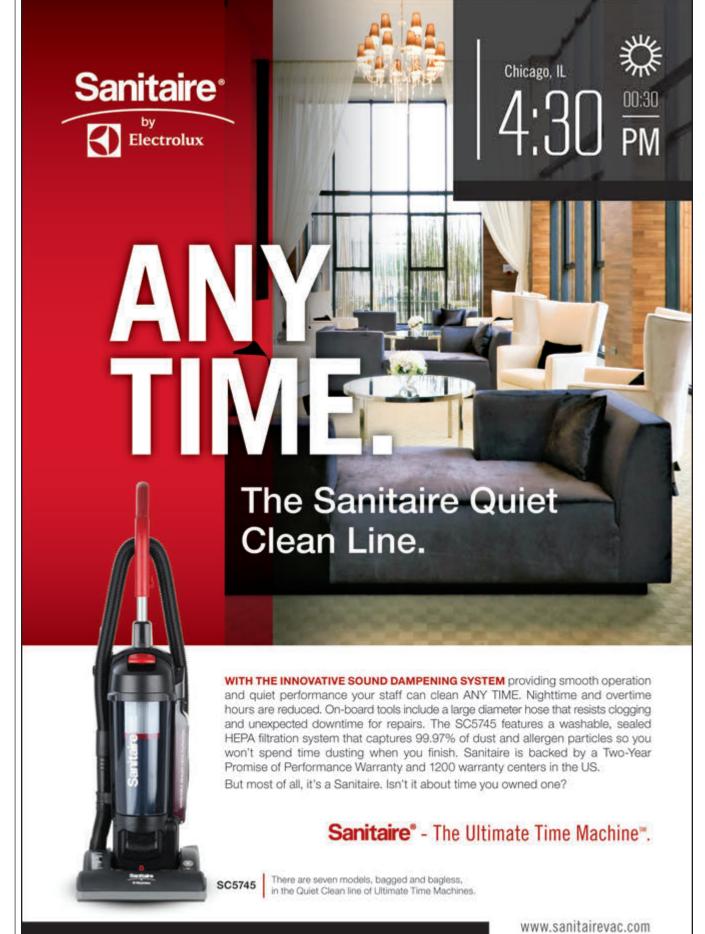
emphasis is placed on cost when buying floor care equipment. Instead, look at the long-term return on investment and value-added components when purchasing.

"Sometimes, people are better off negotiating for extended warranties and maintenance," he says. "If you have a piece of equipment you use for cleaning multiple buildings, make sure service is available and inquire about service capabilities."

#### **Future Floors**

As more customers demand equipment that reduces negative impacts on people and the environment, manufacturers will continue to meet the challenge by designing sustainable machinery.

"I expect we'll see more computerization of equipment, such as on-machine diagnostics, so you won't have to spend so much time trying to figure out what's wrong," says Griffin. "You'll also see



machines analyzing and diagnosing water coming off the floor, so they'll know how much detergent to use, how much pressure to use, or how slow or fast to go."

Ashkin also sees a move toward life cycle assessments that inventory the impacts of equipment over its lifespan.

"We really need to understand, from cradle to grave, what the impacts of that piece of equipment are," he says. "Ask

of parts, such as filters, squeegees, brushes and batteries. Also what happens at the end of the life of the equipment? Do they take it to the landfill? People pursuing a green building need to ask vendors what makes their equipment green, and let them know this is important to them."

Custodial managers need to develop a green purchasing policy — not just for equipment but for all purchases.

ers," says Ashkin. "Develop a list of questions: How does this equipment reduce energy in manufacture and use? How does it reduce water consumption? How does it reduce impacts to people using the product and the building occupants? If we don't ask, it's as if we don't care. By asking questions, we can start to change what's going on." hs

KASSANDRA KANIA is a freelance



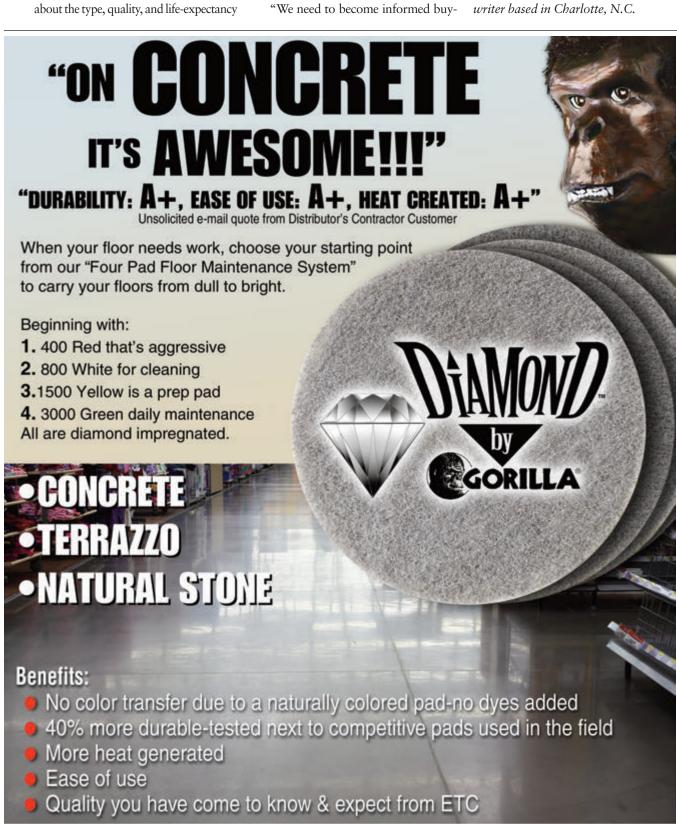
To reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particulate contaminants that adversely affect air quality, human health, building finishes, building systems and the environment, from powered cleaning equipment.

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- Automated scrubbing machines are equipped with variable-speed feed pumps and on-board chemical metering to optimize the use of cleaning fluids. Alternatively, the scrubbing machines use only tap water with no added cleanina products.
- Battery-powered equipment is equipped with environmentally preferable gel batteries.
- Powered equipment is ergonomically designed to minimize vibration, noise and user fatique.
- Equipment is designed with safeguards, such as rollers or rubber bumpers, to reduce potential damage to building surfaces.
- Keep a log for all powered cleaning equipment to document the date of equipment purchase and all repair and maintenance activities and include vendor specification sheets for each type of equipment in use.

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#### SORTING OUT ODOR ISSUES

Answers to the industries top odor control questions

By Corinne Zudonyi, Editor

This Manufacturer Roundtable took the compilation of questions *Housekeeping Solutions* received from in-house custodial professionals and posed them directly to cleaning industry manufacturers. Here are their responses.

Do odors (good or bad) impact the perception of a facility and it's custodial crew?

Ferris — Restrooms can certainly impact consumers' perceptions of businesses, and as a result, also impact their bottom lines. According to a survey, three in four American consumers are disgusted by urine odors and urine stains in public restrooms. Of those surveyed, two-thirds

would refuse to patronize establishments with unclean restrooms, and more than half would likely review a business more negatively based on whether the restroom was clean. Research from Additionally, the majority of parents surveyed (70 percent) say a school's restroom reflects the quality of the school, its staff and its teachers.

Daluga — When it comes to cleanliness, perception really is reality and a foul odor immediately raises eyebrows. Likewise, when a facility smells strongly of fragrances and perfumes, there's a perception that something is being covered up — there are odors being masked by other odors.

McGuire — Foul odors give the impression that the facility is dirty. Thus, a process that is designed to "eliminate" not "mask" odors is essential to provide an optimal environment. Masking a foul

odor can be tricky. Facility managers need to be careful on which fragrance they choose. Not all occupants like the same fragrance and in some cases masking can make matters worse.

Malik — A building occupant's first impression of cleanliness is not necessarily what they see, it can be what they smell. Fragrance has a powerful effect on human behavior. Pleasant fragrances can make us feel at home, brighten our moods, deliver a sense of calm and wellbeing, or increase alertness. Foul odors, even when isolated, can leave a negative perception of the entire facility, from the custodial crew to general management.

These facility odors, good or bad, can shape the perception of how a facility is run, and how much the facility management cares about its customers. Foul odors are often associated with unsanitary and unsafe conditions.

Other than restrooms, what areas of the facility should custodial crews focus on odor control?

Malik — Common areas such as lobbies, break rooms, conference rooms, hallways, and locker rooms are examples of additional areas where odor control solutions such as air fresheners and air sanitizers can improve facility image, customer experience, and protect customers/employees from the spread of germs.

Daluga — A good odor management strategy addresses every aspect of a facility: certainly the restrooms, but also lobbies and common areas, offices and meeting rooms. Anywhere there's people, food, etc., there's likely to be smells that someone will find unpleasant, and it's crucial to have a strategy in place that addresses odors before they become an issue.

**McGuire** — It is wise not to overlook kitchen areas, lunch rooms, break rooms,



Michael McGuire President Thornell Corporation Smithville, Mo.



Beth Malik
Director of Marketing
Amrep, Inc.
Marietta, Ga.



Amanda Daluga National Sales Manager OMI Industries/Fresh Wave IAQ Long Grove, III.



Brad Ferris
Senior Public Relations
Manager
Clorox Professional
Products Company
Oakland, Calif.



smoking areas, laundry, hallways and the always present dumpster. These are all areas that can cause odor control problems.

What should custodial executives consider when deciding on air freshening scents?

Daluga — Ideally, "clean" smells like nothing at all, and thusly, custodial executives should seek odor solutions that don't employ phony fragrances that simply cover up odors.

Malik — Fragrance preference is very subjective. Look for an odor control solution supplier that offers a thorough line of fragrances with multiple selections in each of the primary fragrance families: Floral, herbal/wellness, edible/gourmand, fruity/citrus and fresh/outdoor.

In order to eliminate odors at the source versus simply masking them, it's also important to look for an odor control solution supplier that offers fragrances with odor counteracts.

Fresheners can sometimes contribute to restroom odors. Is it possible to over freshen?

McGuire — The best policy is to use a technology that eliminates not masks the odor. Masking is the blending of two different odors that can become just as offensive as the odor itself. Once the odor is eliminated you can use a scent to freshen the air.

Malik — Air fresheners formulated with odor counteracts are the optimal solution to both break down and neutralize malodors and leave a fresh scent behind. Without the odor counteractant, an air freshener masks the malodor by overwhelming it with a stronger odor, but does not neutralize the malodor. When using multiple cleaning or odor control products, it's ideal to ensure the fragrances complement other scents in the area to create uniformity. Competing fragrances contradict each other and can become unpleasant.

What recommendations do you have regarding placement of odor control products?

Daluga — A sound odor management strategy employs a number of different delivery methods for odor control products. Use of a passive solution, such as a gel that works using ambient airflow, will address odors 24/7, while sprays will address odors immediately on an at-need basis. Other products, such as air and surface liquids or laundry additives, are designed to address specific odor issues at their source (mop buckets, wash loads, etc.). Indeed, each delivery method has a place in a sound odor management strategy.

Malik — It's important to understand the size of the area that needs odor control coverage, and match this to your system of choice, along with the supplier's cubic foot recommendation. When continuous and consistent odor control is desired, the optimal delivery solution is a wall-mounted dispenser. Typically, metered aerosols cover larger cubic feet and deliver higher doses of continuous fragrance versus passive air systems or fan systems and gel cups. Passive air and fan dispensers disperse neutral and low fragrant oils and typically have a lower coverage area than a metered aerosol.

Liquid and handheld sprays are good solutions for spot treatments to supplement a wall-mounted dispenser program that offers continuous odor control and/or air sanitizer benefits.

Do odor eliminators and fresheners actually kill odors and/or bacteria in the air?

McGuire — Most fresheners do not "kill" anything unless they are part disinfectant. They are simply a cover-up for the foul odor. A registered disinfectant with the proper claims is needed to kill bacteria and generally needs to be applied at the odor source to be effective. The odor itself is caused by molecules that have the ability to emit a vapor. These molecules are generally created by the bacteria. As these molecules become airborne, they emit a vapor that hits the olfactory system, allowing people to then identify it as a pleasant or foul odor. To eliminate the odor, you need to choose a product that attacks the odor molecule.

Ferris — Let's take urine odors as an example – one of the toughest cleaning professionals face. Urine odor comes from naturally occurring bacteria and uric acid crystals (crystallized urine residue). Porous, damp surfaces such as grout host the bacteria, which feed on urine. Uric acid crystals often stay trapped in these porous surfaces and release strong odors as the bacteria consume the urine. Humid conditions or rewetting the surface can reactivate odors. The only real way to completely eliminate odors - not just mask them - is to eliminate those naturally occurring sources of odor.

Malik — It depends on the product formulation and its claims. An air freshener is a product designed to mask or remove unpleasant odors. If it is designed to mask odors only, it will overcome a malodor by overwhelming it with a stronger odor for a period of time, but it will not break the malodor down.

If an air freshener is designed to break down malodors, it will contain odor counteractants in addition to fragrance. The odor counteractants neutralize the malodor by breaking down its molecules into the air. An air freshener with odor counteracts is the best solution for a facility with offensive malodors such as smoke and rotting food that should be removed from the air.

An air sanitizer can reduce airborne bacteria making the air you breathe healthier and cleaner. The simplest definition of how it works is a molecule from the air sanitizer attaches to a bacteria molecule and causes it to become inert.

What recommendations do you have for defeating odors that stem from urine build-up?

Ferris — Urine presents one of the toughest jobs in cleaning commercial facilities and it demands a smart and effective process to solve. In fact, one survey found that among cleaning industry decision makers, removing urine stains (47 percent) and odors (52 percent) from grout and other porous materials are most important, among various top restroom cleaning priorities. Yet, many cleaning professionals report they are not satisfied with existing products to tackle these issues.

To help, cleaning professionals should choose products specifically designed to eliminate odors on hard and soft surfaces. If the selected products cannot penetrate surfaces, such as grout, to eliminate the naturally occurring sources of odor, odors will return, undermining cleaning professionals' hard work. It is also important to find products that require minimal training and are easy to use effectively.

Malik — Automatic cleaning and deodorizing drip systems for urinals and commodes eliminate odors at the source while keeping fixtures and pipes clear. These systems offer controlled and continuous dispensing of fragrance directly to the odor source via a secure wall-mount dispenser.





**TOUGH JOBS DEMAND SMART SOLUTIONS** 



There are enzyme-based, "no fragrance" units that can be installed on flushers or designed to work automatically in urinals and commodes. Urinal screens, which mold to the shape of the urinal, also protect and deodorize.

When cleaning existing odor-causing areas, it is key to scrub the source of the malodor and allow for the disinfectant, enzymes or live bacteria to work. Remember that rinsing the area with water or chemicals designed for the surface is an important step after working the area where the malodor is coming from.

**McGuire** — First and foremost choose an odor eliminating product that is applied and attacks the odor at the source. Choose a product that can penetrate surfaces like grout, and that is stable when used in the same area with detergents and disinfectants.

Why do drains emit odors and what are some best practices to controlling/preventing these foul smells?

**McGuire** — Odors in drains generally come from a buildup of various odor-causing materials such as urine, feces and food waste. Using an enzymatic odor digester can help eliminate the existing problem and regular use of a deodorizer in your cleaning solution can help prevent it from reoccurring.

Malik — The root cause of the odor can depend on the facility. In food service, a common cause is the buildup of fats, oils and grease in the drain. In other segments, the culprit can be a combination of mildewing dirt and hair debris, and a buildup of a bacteria-filled slime layer (biofilm) on the sides of the drain pipe. As water rushes past the biofilm and debris, odor-causing molecules dislodge and drift up out of the drain into your nose.

There foaming enzymes drain maintainers and/or live bacteria products that can be used daily to control these odors. The foam allows for a longer dwell time around the drain and then assist in moving the enzymes and live bacteria through drain itself. As the foam turns into liquid, the foam has set-up the path for the enzymes around the entire circumference of the drain line. This will eat at odor causing bacteria.

There are also mechanical wall mount units that improve drain flow by dispensing continuous amounts of enzymes, antimicrobials that eat fats, oils and grease. Look for solutions that are safe for all pipes, grease traps and sewers when selecting these products.

Odors can seep into carpeting. What recommendations do you have for eliminating these odors?

Malik — Carpet products must be formulated correctly to remove odors and stains but not leave behind residue in the carpet. A bioenzymatic carpet cleaning product that uses a built-in odor counteractant is recommended for this purpose.

**McGuire** — Again you must treat the odor at the source. In carpets, this means applying a product in a saturation type procedure as most odor issues in carpets come from under the carpet and the pad. If cleaning procedures have been performed prior, be sure to pick a product that is not affected by the previously used detergents.

Where do air fresheners fit into a green and sustainable program?

**Daluga** — There are myriad odor control products on the market, but very few that use natural ingredients and fit under a "green" or "eco-friendly" heading.

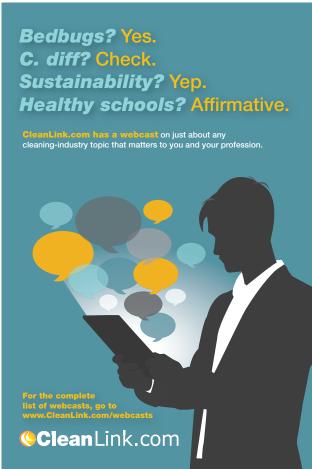
Malik — While some cleaning product categories are rated "green" by third-party certifiers, there are no green certification standards

for air fresheners. But even without third-party certifications, air fresheners can fit into green and sustainable initiatives. The optimal system will depend on the facilities odor control needs and goals of the sustainable initiative. For example, passive air care systems that offer low VOC continuous air freshening without the use of batteries or any power source, or metered air care systems that offer extended battery and odor control refill life.

For more information on odor control issues, go to www.CleanLink.com/



▲ FREE INFO: Circle 411



#### URINE HAS TO GO.



Urine is one of the toughest stains to clean and odors to remove, especially on porous grout. When uric acid crystals are left behind, moisture will reactivate them and the smell will return.

Clorox® Urine Remover eliminates odor-causing uric acid crystals and stains.

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## 2013 READER SURVEY

AFTER DEALING WITH THE recession and its lingering effects, this 2013 survey suggests that custodial managers have finally found a groove and departments are becoming less affected by the unstable economy.

Although *Housekeeping Solutions* readers historically believe their departments to be underfinanced, there seems to be less concern that budgets will drop any further. In fact, respondents comment that budgets have leveled out for the third year in a row, resulting in optimistic managers.

As departmental funding remains flat, managers also are becoming less fearful of potential staff reductions, a reality that plagued

departments in the past. According to survey results, staffing levels aren't expected to jump to pre-recession levels, but managers don't believe they'll dip again anytime soon, either.

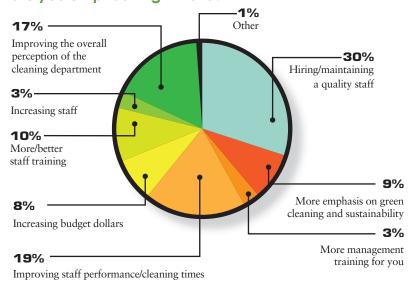
With budgets and labor stabilized, many departments are once again looking to purchase products and equipment that streamline cleaning processes. Status quo these last two years, worker productivity is still a driving purchases in 2013. But in addition to products that improve cleaning times, managers are also purchasing based on ease of use. In fact, the demand for easy-to-use products that simplify training, while increasing efficiencies, is up 20 percent in the last two years.

With budgets stabilized, quality employees on staff and purchasing once again on the rise, managers remain optimistic for the year ahead.

# Easy on the budget, tough on grease and grune. CONTACT US TODAY: meangreen@crbrandsinc.com 866.447.3369 WWW.meangreendegreaser.com/industrial Mean Green's unique blend of biodegradable detergents is now stronger than ever before. Introducing Mean Green Industrial Strength Cleaner & Degreaser—designed specifically to eliminate the cleaning and degreasing challenges faced by industrial users. "Adv more cleaning ingredientis produce improved and superior performance. Grease and Grime are quickly dissolved way." Some provider and 20% increase uniquality in the amount of our Chelating Agent of the Agent of th

#### Management Priorities

#### What management priorities are you emphasizing in 2013?



#### What types of technology are used within the cleaning department?

Inspection software (job scheduling, inspections, workloading, etc.)

Two-way radios <b>67%</b>	
Personal Digital Assistant (PDAs)	
Smart phones <b>31%</b>	
Tablet 11%	

41%

#### In order, what areas within the facility are the most challenging to keep clean?

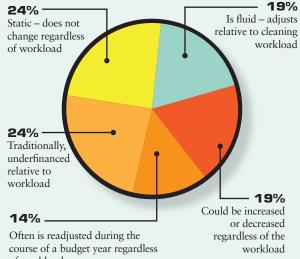
Restrooms	<b>54</b> %
Entryways	20%
Carpeting	15%
Common touch-points	<b>7</b> %
Hard floors (including wood, tile and marble)	<b>5</b> %
Small rooms/areas with obstacles	<b>4</b> %
Large or open rooms/areas	2%



Compare this 2013 study with studies from past years at www.CleanLink.com/IndustryStatistics

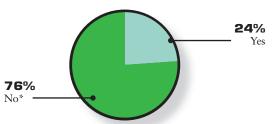
#### Budgets 24% Static - does not

#### Which statement best describes your annual operations budget?



of workload

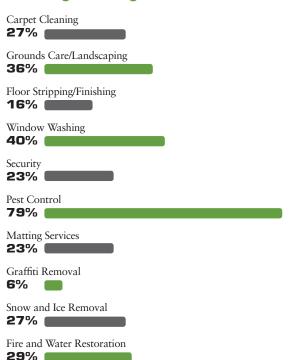
#### In the last year, has your department been threatened by outsourcing?



\*How have you kept the threat of outsourcing at bay?

Maintain strong communication with management and exemplary customer service, meet or exceed cleaning performance and service expectations while on budget, provide ongoing training that encourages employees, and staff the department with honest and hardworking employees

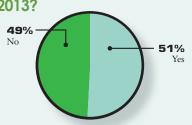
#### Do you outsource any of the following cleaning tasks?



#### Rank these cleaning priorities in order of importance as they relate to your facility.

Maintain or improve tenant satisfaction	32%
Improve facility appearance	20%
Prevent cross-contamination	14%
Improve hygiene	10%
Improve productivity/cleaning times	9%
Improve Indoor Air Quality	6%
Reduce absenteeism (building occupant and cleaner)	3%
Maintain or increase the use of green/environmentally friendly cleaning products	3%
Improve worker satisfaction	3%

#### Was your budget reduced due to economic concerns in 2012 and early 2013?



#### With respect to your department, do you expect the following to increase, decrease or stay the same in 2013



#### What adjustments were made in your program to comply with lower budgets?

Laid off cleaning staff (attrition)

10%

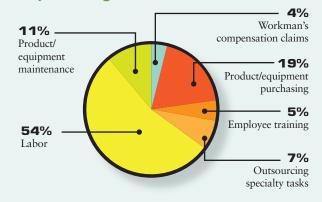
38% ▮ Reduced cleaning frequencies 44% Switched to lower grade/off-brand consumables (ie. Soaps, towels, chemicals, etc.)

16% Postponed large product/equipment purchases Reduced employee salary/benefits

ed more efficient cleaning processes, reduced employee hours/schedule

#### 15% Other\*

#### Where do you spend most of your budget dollars?





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#### Green & Systainability

#### What types of green/sustainable products are currently being used in your department?

Floor finishes/strippers 39%

Glass cleaners

**63%** 

Restroom cleaners/chemicals

Multi-surface chemicals

Carpet chemicals 33%

Broom/Brushes/Mops made of recycled fibers 27%

Soaps/Hand sanitizer **46%** 

Paper products (toilet tissue, paper towels and napkins)

**59%** Trash liners

33%

Vacuums

18%

Carpet extractors

Microfiber products (cloths, mops)

Odor control products (enzymes, grease traps)

39%

Autoscrubbers

(those that use less water or chemical)

Hand dryers (high-speed dryers) 26%

Ice melt

25% (

Chemical-free cleaning

(ionized or ozone cleaning) 13%

What green and sustainable practices are currently in place at your facility?

Green cleaning

62% **•** 

A paperless office **12%** 

Recycling program or composting

Waste reduction efforts 69%

Water conservation efforts **61%** 

Daylighting

Carbon offsetting

Solar panels 13%

Sensor temperature controls

**59%** 

Recycled carpeting/flooring

21%

#### How has your facility benefited from the use of green products?

Improved health among building occupants and cleaning workers

55%

Improved appearance of the facility

28%

Reduced cleaning times

16%

Helped reduce costs/expenditures

32%

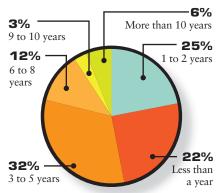
Improved the perception and marketability of the company as a whole

**67%** 

Received green certification awarded by a third-party

13%

#### How long have you been green cleaning in your facility?



#### How important are these statements in regards to your in-house department?

Very Important

Somewhat Important

Not Important at this time

Green certification for products used within the facility is

**30**% **51**%

Green certification for workers

or the department is

53% 34%

13% Green certification for the entire facility is

21%

47% 32%

Greening your cleaning program is

**27**% 57% 16% Implementing sustainable practices

and working with sustainable suppliers is

42% 48% 10%

#### Yes or No

14%



My facility is working towards green

No

certification awarded by a third-party. 16%

We do whatever we can to incorporate green products into our cleaning program.

78%

We purchase whatever products do the best job for the least amount of money, regardless of a green claim.

53%

We have seen financial benefits to going green.

The use of green products within my facility is required in my state/city.

We are happy with the results we have seen from the use of green products.

67%

Green products are just as effective as traditional products.

42%

All green certifications are the same to me.

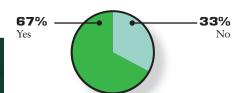
Green and sustainability are interchangeable

terms. 31%

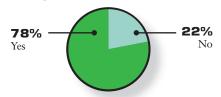
I would like products to list ingredients on their

11% 89%

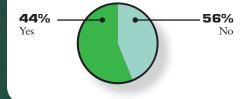
Is it important to buy products from manufacturers or distributors that embrace sustainable initiatives?



Do you buy/use products that contribute to sustainable goals (products which are green in their manufacturing, use and disposal)?



Do you plan on implementing products that contribute to sustainable goals in the next 12 months?







#### **TW** Professional Brands

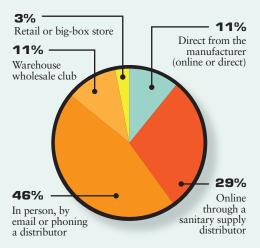
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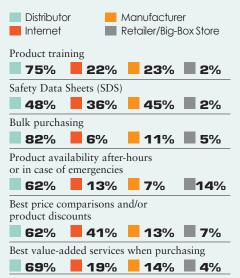
1-800-817-6710.

#### Purchasing

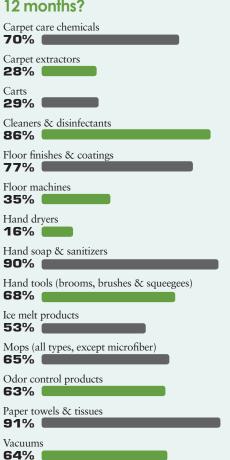
#### Where do you purchase your products and equipment?



#### Where do you go to find the following information?



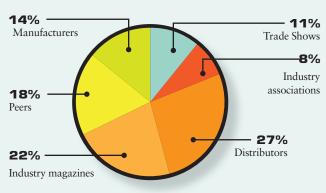
#### Which products have you/ will you purchase in the next 12 months?



#### What product attributes are most important when purchasing?

Safety	70%
Ease of use/training	45%
Impact on occupant health	44%
Multi-purpose cleaning capabilities	43%
Recommendations from cleaning staff	41%
Equipment durability	40%
Duration of cleanliness	21%
Impact on the environment/green certification	17%
Ergonomic design	14%

#### Where do you go to find industry information?





FREE INFO: Circle 415

HOUSEKEEPING SOLUTIONS MAY/JUNE2013

#### What services do you receive from your distributor?

Training 85% **[** 

Storage options 23%

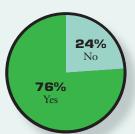
Product knowledge on various brands

90%

Discount/bulk purchasing **80%** 

Emergency services

Do you receive value-added services from your distributor?



#### What do you look for when purchasing?

**75%** 

Time/labor savings

79%

95%

Convenience/ease of use

74%

Company/manufacturer dependability

Distributor support/dependability

Green certification

45%

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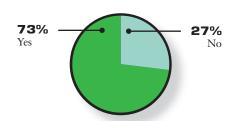
**NOVEMBER 18-21 LAS VEGAS, NV** 

#### Staffing

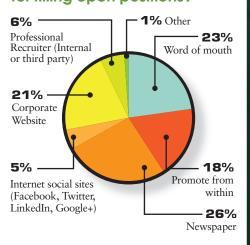
#### Rank the following employee issues and how they impact your cleaning department.

Hiring adequate employees	49%
Employee absenteeism	35%
Lack of adequate training	19%
Employee retention	19%
Employees are unwilling to implement training practices	<b>17</b> %
Employee tardiness	15%
Noticeable language barriers	10%
Employees with physical limitations	<b>7</b> %

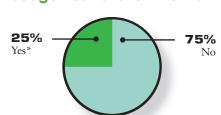
#### Do you support employee certification/accreditation or offer advancement opportunities to your staff?



#### Which method of employee recruitment is most effective for filling open positions?



#### Did you reduce cleaning frequencies to comply with budget restrictions in 2012?



\*The most common cleaning tasks that were cut include carpet extraction, dusting, vacuuming and floor care.
Cleaning frequencies in non-crucial areas, such as offices, break rooms, hallways, stairwells and classrooms were also cut. Many of the facility executives surveyed don't expect frequencies to return to pre-recession levels.







#### Soap/Sanitizer Dispenser

**STOKO, an Evonik Brand** — The Refresh 4-in-1 Hand Hygiene System is a first in the industry with a choice of touch-free or manual dispensers that use the same refill. The 4-in-1 saves costs, simplifies purchasing, reduces labor and streamlines inventory. It offers maximum flexibility, no hidden fees and over 40 variations of colors and styles.

#### **B. Vacuum**

**Hoover Inc.** — The Insight has an auto seal bag that opens in one step to reduce dust emissions, and WindTunnel technology to lift and remove debris. No tools are required to change the brush roll, and a quick-change cord reduces downtime and lowers replacement parts. The MagnaTorque Brushless DC Motor has no carbon dust emissions and minimizes noise levels. Intelligent Design Technology utilizes sensors to communicate performance issues and maintenance recommendations to the user. FREE INFO: Circle 302

#### C. Broom

 $\textbf{ACS Industries Inc.} \ \ \textbf{—} \ \ \textbf{The Black Crimped}$ Polypropylene Brooms are durable and long-wearing and are available in both warehouse and lobby style. Both styles come with gloss black wood handles and a protective poly sleeve. The brooms synthetic fibers are resistant to water, oils and most solvents. FREE INFO: Circle 303

D. Soap Dispenser Kutol Products Co. — The EZ Foam Counter Mount Dispenser features a patented refill dock and refill bags that reseal automatically to avoid air and water infiltration. Each refill bag can fill one empty dispenser or top-off a few from above the counter. The dispenser is available in chrome or black. FREE INFO: Circle 304

#### E. Disinfectant

Procter & Gamble Professional — Spic and Span Disinfecting All-Purpose Spray and Glass Cleaner cuts grease, cleans stainless steel and glass streak-free, and is a hospital-grade disinfectant. Comet Disinfecting Bathroom Cleaner is a nonabrasive cleaner that cleans soap scum and tough bathroom soils. Both products are registered with state and federal EPA.

#### F. Vacuum

**ProTeam Inc.** — The Super Coach Pro 6/10 backpack vacuum features a triangular shape and FlexFit articulating harness that keeps the unit closer to the body, improving user comfort and range of motion. The vacuum has Four Level Filtration with HEPA to capture 99.97 percent of particulate matter 0.3 microns or larger, including fine carbon dust from the motor.

Diverse

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JanPak is the leader in assessing and then optimizing healthcare facilities for healthier environments and improved patient safety and satisfaction. JanPak offers:

- Trusted healthcare facilities advisors with high-level perspective and deep expertise in infection prevention and environmental services
- Strategic insights to identify and address HAI hotspots
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- Innovative solutions to drive hand hygiene and compliance monitoring

To learn how to transform your facility from a cost center to a performance center, contact JanPak today.

As shown, JanPak offers leading technologies like Oxivir® Tb and Oxivir Tb Wipes to kill a wide variety of organisms of concern including Norovirus, Hepatitis B, Hepatitis C and the drug resistant microorganisms MRSA and VRE.







Until now, ordering dispenser refills could be puzzling. With STOKO Refresh® 4in1, you use the same refills for both Manual and TouchFree dispensers. Whether foam, spray, liquid or gel, our unique dispenser system helps prevent mistakes and saves you money. It's the perfect fit.

For more information, call 1 800 334-0242 or visit www.stokoskincare.com.



TOKO Refresh

Evonik. Power to create.









#### **G.** Floor Equipment

**Betco Corp.** — The Stealth MicroRider has a productivity rate exceeding 30,000 square feet per hour and is equipped with an 18-gallon solution tank to reduce down-time. It includes the "Eco-Mode" feature, allowing operators to conserve energy and extend run time. It also operates at only 54 dBA for quiet cleaning and lower energy consumption. FREE INFO: Circle 307

#### **H. Odor Control**

Accuy — Smell Guard, an all-natural product recognized by the USDA and other accredited organizations to contain 100 percent natural biobased contents, is used to control all forms of organic odors. Smell Guards can be used in hospitality, schools, facility maintenance and more. It is safe for use around people, animals and plants, and is safe for the environment.

#### Advertiser Index

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I. Dilution Control
Diversey Inc. — Diverflow with Sure Link is a wall-mounted chemical dispensing system designed for foodservice organizations. The system includes six pouches of concentrated formulas for glass, restrooms, floor care, multipurpose, manual warewash and sanitizing. Color-coded cap and bottle lock-out features ensure that employees use the correct product for each application while reducing exposure to concentrated solutions. FREE INFO: Circle 309

#### J. Carpet Chemical

Core Products Company, Inc. — HydrOxi Pro Encapsulating Spotter is a hydrogen peroxide-based spotter featuring acrylic polymer technology. Spray and walk away, and the spotter bonds and crystallizes residue. It is neutral pH, safe for many fibers and fabrics and DfE certified. FREE INFO: Circle 310

#### K. Window Cleaning

**Sky Pro** — The Sky Pro Mini is a portable window cleaning system for mid-height buildings. The system weighs just over 100 lbs, folds down for transport and has removable wheels for easy maneuvering. The units 40-inch, self-cleaning, quick-change brush cleans with finger foam technology, and the dual-motor design maintains brush torque and speed to assure an even cleaning motion. FREE INFO: Circle 311

#### . Urine Remover

#### Clorox Professional Products

**Company** — The Clorox Urine Remover is formulated to effectively remove stains and break down urine to remove odors. The product does not contain bleach and is intended for use on porous surfaces such as mattresses, carpet and upholstery. The cleaner is also effective for use on vomit, feces, pet stains and grease.

#### M. Floor Equipment

**Advance** — The SW8000 industrial-sized rider sweeper features a 50-inch main broom and DustGuard side broom dust suppression system, increasing productivity by over 70 percent. The equipment also features Kubota engines for quiet operation, One-Touch controls for ease of use, a Clear-View design for operator comfort and enhanced operator safety. FREE INFO: Circle 313

## FACILITY FOCUS: Clean Bill Of Health

THERE ARE MANY REASONS why St. Luke's Hospital, in Chesterfield, Mo., was recognized as one of America's 50 Best Hospitals for a 7th year in a row. Certainly, outstanding patient care and clinical excellence takes top billing, but one cannot overlook the exemplary efforts made by the environmental services staff on infection prevention.

The reality is that many lives are lost every day because of the spread of infections in hospitals across the country, which is why infection control and prevention are essential components of any environmental services program. In fact, J. Darrel Hicks, director of environmental services and patient transportation, has made it his goal to stay one step ahead of potential infection outbreaks.

This is not to say that St. Luke's is immune to hospital-acquired infections (HAI). Certainly, a hospital licensed for 490 beds that spans 950,000 square feet, with an additional 300,000 square feet of medical office buildings on site will experience cases just like every other hospital. But, where St. Luke's shines, is the infection is quickly controlled and eliminated before becoming a problem.

"We, fortunately, have never experienced an infection control outbreak at the hospital," he says. "That success can be attributed to well-communicated processes; a strong and comprehensive hand hygiene program; mandatory education of infection prevention for all employees; well-trained, conscientious housekeepers; and good supervision in the environmental services (EVS) department."

#### In The Event Of Infection

When a patient contracts a hospital acquired infection, members of Hicks' 119 FTE (full-time equivalent) staff deviate from standard operating procedures and shift into "infection preventionists." The staff incorporates additional cleaning processes into their routine in an effort to eliminate crosscontamination and further spread of the infection.

#### St. Luke's Hospital implements infection control processes that work

For example, in the event of an infection such as C. diff or MRSA, Hicks stresses the importance of patient isolation as the first step. Secluding the infection minimizes the likelihood of it spreading between patients and allows cleaners the opportunity to focus on its removal.

"The staff does a twice daily disinfection with bleach wipes in the affected area," says Hicks. "We wipe all hightouch surfaces with the bleach wipes, and then at discharge, we clean the entire room and restroom with an all-purpose cleaner and microfiber cloth.

program. Skipping this step is an invitation to potential infection outbreaks.

"Germs aren't contained in just the patient's room," says Hicks. "Which is why we need to broaden our scope of cleaning and disinfecting to include practically every area of the hospital."

The only way to reduce crosscontamination and keep infections from spreading is to give the same amount of attention to the common areas, waiting rooms, nurses stations, and other spaces, that is given to the patient care room. This means strict cleaning protocols that target not just sanitizing frequencies, they'll speak up. Hicks has also trained his staff to monitor medical machines that move between patient rooms and proper disinfection techniques of those machines.

As an extra set of eyes on practices like these, Hicks and his staff are able to further minimize the threat of crosscontamination throughout the hospital.

"The EVS staff will also occasionally attend a nursing staff meeting on their assigned floor/area to talk about how we can work together to provide a safe, clean and disinfected environment for our patients and staff," he says.

Keeping everyone focused on reducing cross-contamination through open communication goes a long way to promote proper infection control within the facility.

"I believe that all employees must know the basics of infection prevention," says Hicks. "This includes an understanding of basic infections, multi-drug resistant organisms, how infections spread, identifying isolation signage, targeting high touch surfaces for disinfection and preventing crosstransmission through best practices."

To guarantee effectiveness of his processes, Hicks will periodically test surfaces throughout the hospital using an ATP (adenosine triphosphate) meter, a device that measures the hygiene levels on a surface. Doing random tests guarantees that the employees are following proper protocol, the cleaning processes are effective and the chemicals are successful in removing the necessary soils that can spread infections.

In the event that Hicks is dissatisfied with the results from his random testing, processes will be reevaluated and staff training will be addressed.

Hicks has demonstrated that with a well-communicated program, comprehensive training and education on infection prevention, and attention to the details, his department will continue to excel at providing a safe and healthy environment — no doubt adding to the list of reasons why St. Luke's Hospital continues to achieve top quality rankings/awards.



"I believe that all employees must know the basics of infection prevention."

 J. Darrel Hicks, Director of Environmental Services and Patient Transportation, St. Luke's Hospital

Then we use the bleach wipes again to disinfect those same surfaces."

Managers in similar facilities might find the process time-consuming, but one cannot argue the successful results.

"It takes the staff about 10 minutes longer to clean the affected room," says Hicks, "but we have six years of data to prove that the process works at controlling infections."

Reducing Cross-Contamination Reducing cross-contamination can make or break an infection control high touch points, but all surfaces throughout the facility.

Developing a thorough and comprehensive cleaning program of this scale — one that targets every surface of the hospital — will sometimes mean involving departments outside of EVS. Most often, this includes the nursing staff.

"Our EVS staff isn't bashful about telling nurses and other staff what is being observed on the patient care floor," says Hicks.

For example, if St. Luke's EVS staff notices a slip in hand washing or

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