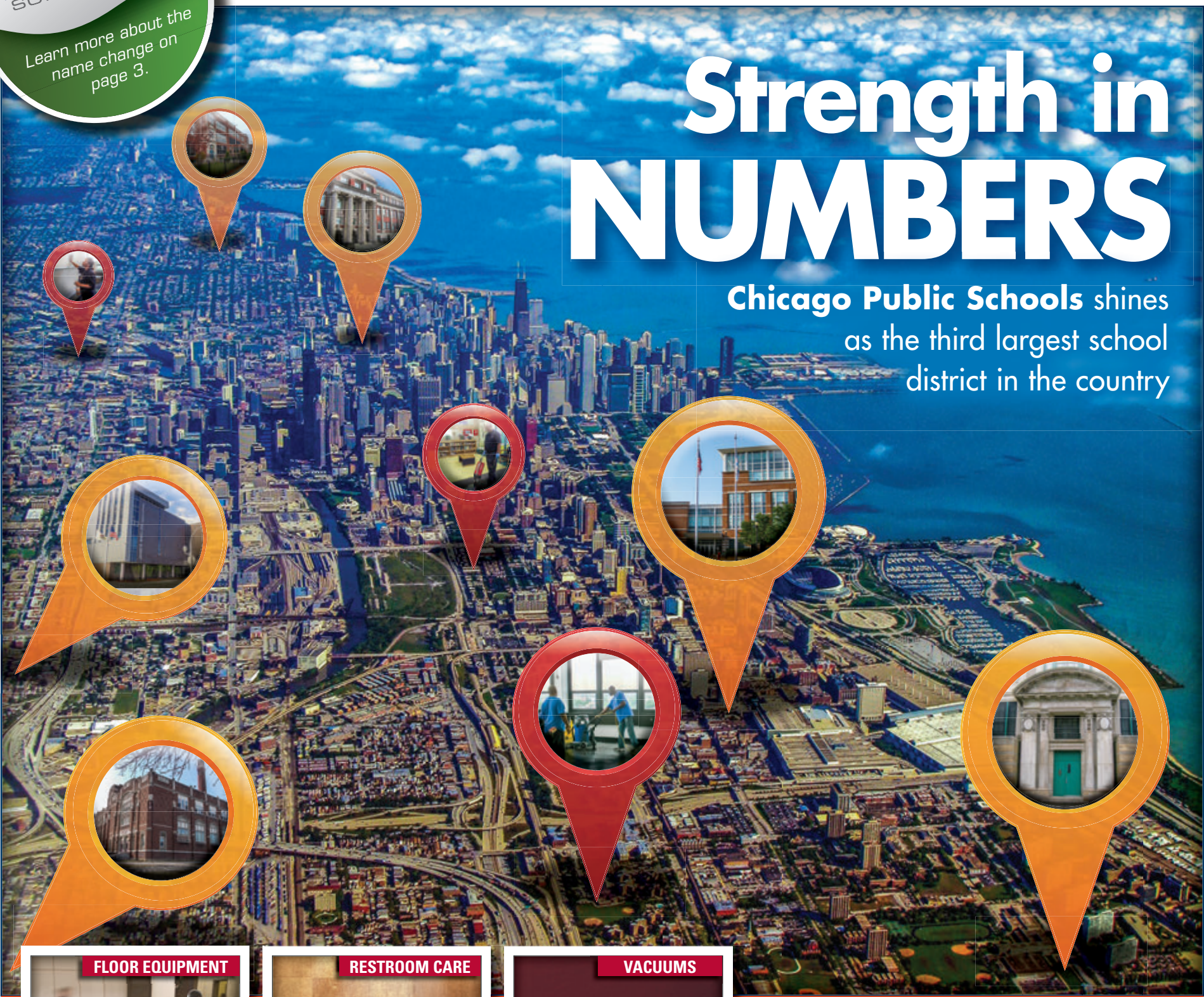


FACILITY CLEANING DECISIONS™

Formerly housekeeping solutions
Learn more about the name change on page 3.

Strength in NUMBERS

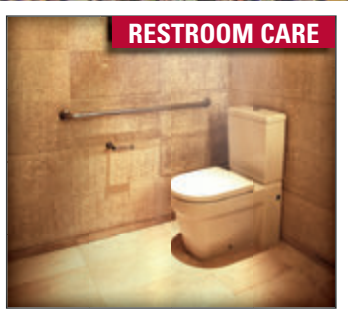
Chicago Public Schools shines as the third largest school district in the country



FLOOR EQUIPMENT

Benefits To Automated Floor Care Equipment

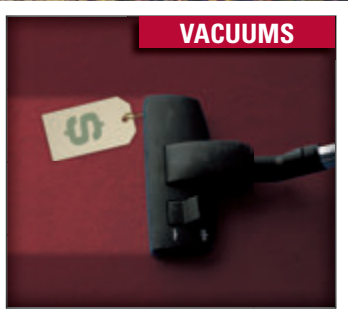
What managers should consider before purchasing new floor care equipment



RESTROOM CARE

Shedding Light On Enzyme Cleaners

The nature of enzyme-based cleaners and how they benefit a restroom cleaning program



VACUUMS

Shopping For A Sustainable Vacuum

The importance of considering environmental benefits when purchasing vacuums

A Supplement to:
FMD Facility Maintenance Decisions™



**you
inspire**

888-GO-BETCO | betco.com/inspire

we innovate

Count on Betco® to improve your cleaning quality, boost efficiency and manage costs. You inspire us to create cleaning innovations that matter – delivering superior products, unrivaled training and advanced technology. See what we've developed and tell us what matters to you at betco.com/inspire.



BETCO®

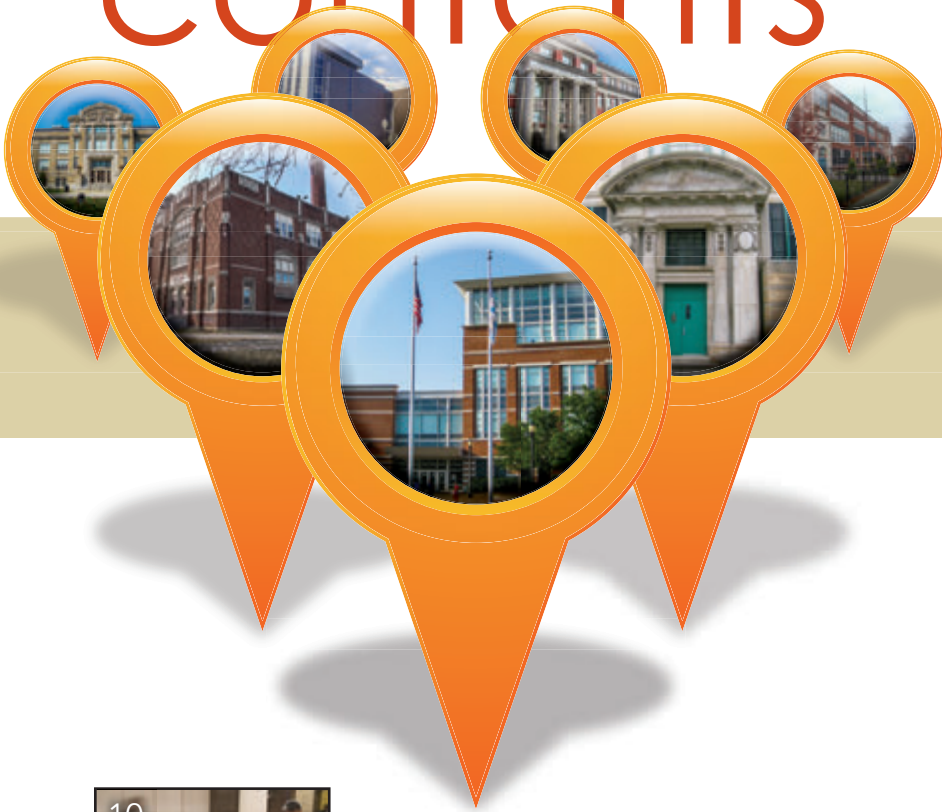
Cleaning Innovations That Matter.



Scan this QR code to see cleaning innovations you inspire

FREE INFO: Circle 401

contents



features

4 Watch Out For Warning Signs
 Managers only have until Dec. 1, 2013 to train staff on the new GHS labeling of chemicals

[cover story]
7 Strength In Numbers
 Chicago Public Schools shines as the third largest school district in the country

10 Automated Floor Care Packs
A Big Bang For Your Buck
 What managers should consider before purchasing new floor care equipment

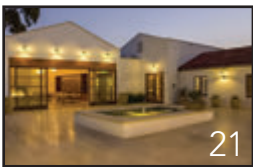
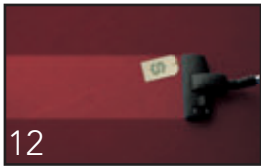
12 Shopping For A Sustainable Vacuum
 The environmental benefits of a vacuum are just as important as suction, cord length and upright versus backpack

14 Shedding Light
On Enzymatic Cleaners
 The nature of enzyme-based cleaners and how they can benefit a restroom cleaning program

21 Four Benefits Of Preportioned Chemical Usage
 Mt. San Antonio College outlines how chemical packets have helped streamline departmental processes

departments

- 3** Editorial: "To Improve Is To Change"
- 18** Product Showcase
- 20** Ad Index



staff

Vice President of Content Development
Dick Yake
 dick.yake@tradepress.com

Editor
Corinne Zudonyi
 corinne.zudonyi@tradepress.com

Production Director
Bobbie Reid
 bobbie.reid@tradepress.com

Production Manager (print)
Wendy Melnick
 wendy.melnick@tradepress.com

Production Manager (e-products)
Kathleen Fehr
 kathleen.fehr@tradepress.com

Director of Audience Development
Eric Muench
 eric.muench@tradepress.com

Vice President of E-Media & Creative Services
Wayne Winter
 wayne.winter@tradepress.com

Creative Director
Jeff Giencke
 jeff.giencke@tradepress.com

Electronic Production Coordination
Jon Warner
 jon.warner@tradepress.com

Designer
Mark E. Uy
 mark.uy@tradepress.com

corporate

President/CEO
Robert J. Wisniewski
 bob.wisniewski@tradepress.com

COO/CFO
Jeff Schenk
 jeff.schenk@tradepress.com

executive offices
 2100 W. Florist Ave.
 Milwaukee, WI 53209-3799
 414/228-7701 • Fax: 414/228-1134

Send address and other changes to:
 custserv@tradepress.com

sales & marketing

Group Publisher,
 Commercial Cleaning Market
Rob Geissler
 ext. 461
 rob.geissler@tradepress.com

Regional Sales Manager
April Aceto
 ext. 504
 april.aceto@tradepress.com

Regional Sales Manager
Sue Flitz
 ext. 488
 sue.flitz@tradepress.com

Vice President Marketing
Tim Rowe
 tim.rowe@tradepress.com

Customer and Data Services
 Specialist
Kimberly Reed
 kimberly.reed@tradepress.com

For reprint pricing e-mail:
 reprints@tradepress.com

advisory board



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



Gene Woodward, R.E.H.
 Director of Building Operations
 University of Washington



Michael Gutierrez
 Manager of Building Operations
 Milwaukee Public Schools



Steven Spencer
 Facilities Specialist
 State Farm Insurance



Scan this QR code to read FCD on your smartphone or tablet

 **myCleanLink** www.myCleanLink.com

 [gplus.to/FacilityCleaning](https://plus.google.com/FacilityCleaning)

 www.facebook.com/FacilityCleaning

 www.twitter.com/cleaning_mag

 www.linkedin.com



Copyright © 2013 by Trade Press Media Group, Inc. *Facility Cleaning Decisions*™ is a trademark of Trade Press Media Group, Inc. The publisher assumes no liability for opinions expressed in editorial contributions to the magazine. The publication is not responsible for claims in advertisements. Printed in USA.



Find more info online at

 **CleanLink.com**

Webcast: Infection Control: Breaking The Chain Of Infection

As viruses like C. diff, MRSA and VRE become more resistant, the proper cleaning tools and procedures are vitally important to eradicating outbreaks. Equally important is educating employees on their need to follow specific cleaning protocols to break the chain of infection.

This webcast outlines universal practices and methods of combating the spread of infection in a variety of settings. The result: a healthier environment for building occupants, increased morale, reduced absenteeism and greater productivity. For more information and to register for this webcast, go to www.cleanlink.com/webcasts

CleanLink Members Receive Added Perks

Industry professionals can now become an exclusive member of CleanLink, for free. Benefits of membership include: advice and information on a variety of critical issues through a library of webcasts; access to magazine downloads; exclusive online content; industry surveys; and much more. Sign up to become a member at www.cleanlink.com/visitorcenter/clmemberpage.asp

Preparations Begin For End-Users Attending ISSA/INTERCLEAN

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 been extended. A mobile app is also available, which will help attendees easily navigate the show floor, schedule meetings and map out an agenda. For more information on the show, visit www.cleanlink.com/15841news

Annual Reader Survey Results Now Available Online

The results to the very popular Annual Reader Survey, which were featured in the May/June issue, are now available online and in PDF. To access this 2013 survey, visit www.cleanlink.com/15763fcd

Industry News

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



Corinne Zudonyi

“There is nothing wrong in change, if it is in the right direction. To improve is to change; to be perfect is to change often.”

— Winston Churchill

Chances are you've perused the front cover and already noticed that we, too, have invested in a major change. I am very excited to announce that *Housekeeping Solutions*, beginning with this July/

August 2013 issue, has been renamed *Facility Cleaning Decisions*.

To improve is, indeed, to change but change for change's sake is not enough of a reason to mess with the identity of the cleaning industry's leading publication.

That said, there was anecdotal evidence aplenty that the former name did, at times, confuse both readers and advertisers, specifically regarding which building markets we reached. While the word "housekeeping" might suggest hotel/motel facilities and specific cleaning professionals, truth is, we reach seven different building markets and a variety of cleaning titles, most of the them management level in nature.

We felt that the name no longer accurately described the level of expertise, changing roles, status or sophistication of the 38,000 readers we reach throughout this industry. I believe the new name does a better job at representing the professionalism and decision-making authority of our readership, and it seems I am not alone.

We tested the new name on a few loyal readers and the feedback has been very positive. One valued and prominent reader told us: "I think you're taking the publication in the right direction ... with your passion for the industry, this will be a positive for all concerned."

I hope you will join me in my excitement of this newest improvement to the publication and I look forward to your feedback on this latest change.

Corinne Zudonyi

Editor
Corinne Zudonyi
corinne.zudonyi@tradeppress.com

**What's not to love
about a better
stand-on
scrubber?**

'DANCING WITH SC1500' AT YOUTUBE.COM



YouTube SEE IT IN ACTION

With the largest capacity solution tank in its class, the Advance SC1500 stand-on scrubber lets you clean up to 3x longer with greater operator comfort and fewer dumps and refills. And with powerful REV technology, it's a superior daily scrubber that also lets you remove floor finish with water only. And at only 63 dB A, the SC1500 is the quietest stand-on scrubber, allowing daytime cleaning in noise-sensitive areas. Step up to the superior stand-on scrubber. Visit advance-us.com/sc1500



 **Advance**



Watch Out For Warning Signs

Managers only have until Dec. 1, 2013 to train staff on the new **GHS labeling** of chemicals

By Stephanie S. Beecher

THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION is revamping its Hazard Communication Standard (HCS), or HazCom, in the largest overhaul of the program since the “Right to Know” laws were introduced to the public in the early 1980s.

The new regulations will affect more than 40 million Americans, and include major modifications to the program’s hazard classification system, chemical labeling requirements and safety data sheets.

OSHA administrators say the globalization of business has prompted the organization to align its existing communication standard with the United Nation’s Globally Harmonized System of Classification and Labeling of Chemicals, otherwise known as GHS. The United Nations began encouraging countries to adopt the program in 2002, when it sought to build the infrastructure to control chemical exposures with a more comprehensive system. Since its inception, more than 70 countries have converted to some version of GHS. The United States adopted the GHS format in March 2012.

“The global chemical business is more than a \$1.7 trillion per year enterprise,” says Allen Rathey, president of The Healthy Facilities Institute. “In the United States, chemicals are more than a \$450 billion business and exports are greater than \$80 billion a year — and have a huge impact on human health. [GHS] affects anyone who makes, sells, or buys chemicals and it certainly affects the global cleaning industry, which is chemically-intensive.”

By transitioning to GHS, OSHA hopes to remove the inconsistencies that have complemented the rise of global commerce. The change is expected to reduce the confusion that surrounds chemical labels by establishing a universal patois of hazard warnings so that workers in the United States, including non-English speakers, as well as workers in foreign countries can benefit from the proper use and handling of chemicals.

“If you’ve ever purchased a product from China [and] you

open the package and look for the instructions, you might be surprised to find they are written in Chinese,” says David Casavant, executive director at the Workplace Safety Awareness Council. “A product purchased outside of the United States might not provide the end users with all of the information required by OSHA.”

Without this information, workers risk serious harm, Casavant says.

Current OSHA statistics show about 15 percent of workplace injuries and fatalities relate to chemical exposure. The revised standard is expected to prevent an estimated 585 injuries and illnesses, and more than 40 deaths, annually, according to OSHA.

“Exposure to hazardous chemicals is one of the most serious dangers facing American workers today,” says Secretary of Labor Hilda Solis in an OSHA press release. “Revising OSHA’s Hazard Communication Standard (HCS) will improve the quality, consistency and clarity of hazard information that workers receive, making it safer for workers to do their jobs and easier for employers to stay competitive in the global marketplace.”

The new program won’t be fully implemented until June 2016, but employers — including facility and custodial operations managers — are required to train their workers on the changes by Dec. 1, 2013. Employers are advised not to wait until the last minute to bring their staff up to speed.

Looking Back At The “Right to Know” Act

On Dec. 29, 1970, President Richard Nixon signed the Occupational Safety & Health Administration Act into law. The bill was bipartisan backed and supported by the country’s

UNDER THE GHS, chemical labels will now require pictograms, a series of symbols and other graphic elements that are intended to convey clear information about the hazards of a chemical, regardless of language or country location. The following images and descriptions represent the nine pictograms used in the GHS.



Health Hazard

- ◆ Carcinogen
- ◆ Mutagenicity
- ◆ Reproductive Toxicity
- ◆ Respiratory Sensitizer
- ◆ Target Organ Toxicity
- ◆ Aspiration Toxicity



Exclamation Mark

- ◆ Irritant (skin and eye)
- ◆ Skin Sensitizer
- ◆ Acute Toxicity
- ◆ Narcotic Effects
- ◆ Respiratory Tract Irritant
- ◆ Hazardous to Ozone
- ◆ Layer (Non-Mandatory)



Flame

- ◆ Flammables
- ◆ Pyrophorics
- ◆ Self-Heating
- ◆ Emits Flammable Gas
- ◆ Self-Reactives
- ◆ Organic Peroxides



Corrosion

- ◆ Skin Corrosion/Burns
- ◆ Eye Damage
- ◆ Corrosive to Metals



Environment (Non-Mandatory)

- ◆ Aquatic Toxicity



Skull and Crossbones

- ◆ Acute Toxicity (fatal or toxic)



Exploding Bomb

- ◆ Explosives
- ◆ Self-Reactives
- ◆ Organic Peroxides



Gas Cylinder

- ◆ Gases under pressure



Flame Over Circle

- ◆ Oxidizers

workers and medical professionals, both of whom had for years pointed to the dangers of chemical exposure and unsafe work environments as the causes of millions of injuries and illnesses each year. At the time, workplace hazards were responsible for more than 14,000 American deaths a year, and about 2.5 million job-related disabilities and about 300,000 job-related illnesses, annually, according to OSHA.

OSHA laws made employers responsible for creating a safe and healthy workplace, and established those conditions as a basic human right. It created many of the standards people consider custom today, including setting exposure limits to toxic materials such as asbestos, vinyl chloride and lead, and requiring employers to provide personal protective equipment to their employees.

When a safe workplace was not afforded, it also gave employees a place to submit a formal complaint, a process that assured their grievances were thoroughly investigated. If an employer was found to be in violation of OSHA law, they were subsequently fined and in major cases taken to court or shut down.

In 1983, OSHA extended workplace safety laws when it published the Hazard Communication Standard. The program required manufacturers and importers of chemicals to evaluate the hazards associated with the chemicals they produce and distribute. The information was required to appear on all container labels, and outlined in the corresponding Material Safety Data Sheets (MSDSs). In addition, employers were mandated to train all employees who would be exposed to chemicals, as well as provide access to the labels and MSDSs. These new regulations became collectively known as the “Right to Know” laws.

“The concept behind HCS is that providing information to employers and employees enables them to take steps to ensure protection in their workplaces. It works to reduce illnesses and injuries,” according to the OSHA website.

Outside of minor changes, such as allowing employers to store digital versions of their MSDSs, the communication standard has remained largely the same for nearly 30 years. OSHA maintains that GHS is a “modification to the existing standard,” albeit a significant one.

Learning The GHS Language

OSHA’s “Right to Know” laws are evolving into the “Right to Understand” regulations. But, that isn’t the only change to occur to the communication standard’s terminology. OSHA has discarded the term “hazard determination” and has replaced it with “hazard classification” to better reflect the language used in the global program. It has also dropped the word “material” from the MSDS, so that the document is now referred to as

a “safety data sheet” or SDS.

In addition to changes in terminology, OSHA has adopted the United Nation’s system of pictograms — a series of nine images depicting various hazard warnings that are required to be displayed on chemical labels. The images include symbols such as a “flame” and an “exploding bomb” to express hazards relating to fire and combustion, respectively. (See sidebar for details.)

Among the chief changes to the communication standard are the agency’s strict new chemical evaluation and labeling rules.

Under current OSHA laws, an evaluation of chemical hazards is performed using the available scientific evidence regarding such hazards. Using the data, an evaluator then determines what hazards a chemical presents to its users.

This process isn’t changing. But, whereas that method was conducted on

a performance-oriented basis — OSHA provided guidelines for chemical evaluation, but not explicit, detailed instructions — the revised standard spells out specific criteria for each health and physical hazard, as well as meticulous directions for carrying out the hazard evaluations. It also draws a distinction between hazard classes (describing the nature of the physical or health hazards, e.g. flammable solid, carcinogen, oral acute toxicity)

WORLDWIDE, THERE ARE 250,000 DEATHS ATTRIBUTED TO ASTHMA ANNUALLY.

DIRTY AIR

DIRTY AIR

DIRTY AIR

THE ANNUAL DIRECT HEALTH CARE COST OF ASTHMA: **\$50.1 BILLION**
 INDIRECT COSTS (E.G. LOST PRODUCTIVITY): **\$5.6 BILLION**
FOR A TOTAL OF \$56 BILLION

ALLEGENS & ASTHMA TRIGGERS CAN STAY AIRBORNE FOR UP TO **12 HOURS**

PARTICLES 40 MICRONS WIDE & SMALLER ARE NEARLY INVISIBLE TO THE HUMAN EYE

FOUR LEVEL® FILTRATION W/HEPA IN A PROTEAM VACUUM CAPTURES & CONTAINS 99.97% OF ALLERGENS AND ASTHMA TRIGGERS 0.3 MICRONS OR LARGER.

AMERICAN LUNG ASSOCIATION HEALTH PARTNER

ProTeam is partnered with the American Lung Association in a campaign to promote public awareness about the importance of healthy indoor air.

CLEANING FOR HEALTH DEFINED
 A cleaning regimen that helps dramatically reduce the levels of allergens and asthma triggers in the indoor environment.

THE NUMBER OF PEOPLE IN THE WORLD WITH ASTHMA WILL GROW BY MORE THAN 100 MILLION BY 2025

PROGRAMS THAT PROMOTE HEALTHY INDOOR AIR QUALITY CAN:

- IMPROVE HEALTH
- IMPROVE ADULT PRODUCTIVITY
- IMPROVE TEST SCORES
- INCREASE STUDENTS' ABILITY TO LEARN

17 STUDIES found POSITIVE health impacts from improved INDOOR AIR QUALITY

FILTRATION & IAQ
 Outdoor pollution gets all the hype, but indoor pollution also poses a grave and imminent threat to public health. In our homes, schools and workplaces indoor air quality is suffering, and quality of life is suffering with it. ProTeam fights back with the Next Generation of backpack vacuums to help you Clean for Health.

ProTeam
 Cleaning for Health® Since 1987
 PROTEAMNEXTGEN.COM | 866.888.2168

AMERICAN LUNG ASSOCIATION HEALTH PARTNER

FREE INFO: Circle 403



The American Lung Association and ProTeam are partners in an educational campaign about Indoor Air Quality issues. The American Lung Association does not endorse products. ProTeam® referenced materials circulated by the World Health Organization, Environmental Protection Agency, American Lung Association, Centers for Disease Control and Prevention, and the US Green Building Council for factual information presented in this advertisement.

and hazard categories, which includes the division of criteria within each hazard class. Once the hazard classification is complete, the new standard requires all of the information to appear on the chemical's label.

Under GHS, each label will now require:

- **Pictogram:** a symbol plus other graphic elements that is intended to convey specific information about the hazards of a chemical. Pictograms must retain the given format, i.e. red borders with GHS symbols.

- **Signal Words:** a single word used to indicate the level of severity of the hazard and alert the reader to the potential danger. "Danger" is used for more severe hazards, while "warning" is used for less severe hazards.

- **Hazard Statement:** a statement assigned to a hazard class and category that describes the nature of the hazards of a chemical, including the degree of the hazard.

"Exposure to hazardous chemicals is one of the most serious dangers facing American workers today."

— Secretary of Labor Hilda Solis



- **Precautionary Statement:** a phrase that describes the recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical.

OSHA has lifted a stay on enforcement regarding the provision to update labels when new hazard information about a particular chemical is available. Chemical manufacturers, importers, distributors or employers have six months to revise the labels after the informa-

tion is received. All chemical labeling must be in compliance with the GHS standard by June 2016, but up until that date employers may comply with the old hazard communication standard, the new GHS standard, or both.

Perhaps the party under the most pressure with the changes then is the chemical manufacturers, who are required to replace their existing product labels with ones that embrace the new format.

"Manufacturers have a lot of latitude in how they make [chemical label] descriptions, but with the new standard it is much more prescriptive," says Bill Balek, director of legislative affairs at the ISSA. "Before they re-label, they have to reclassify their products. We're using a different scheme of stratifying the products and they are very detailed."

Besides changing labels, the revised safety data sheets require information to be presented in a 16-section sequence. Before GHS, OSHA allowed either its eight-section format or ANSI's 16-section format to be used. Now, the SDS will be similar to ANSI's version with the requirement that the sections be presented in a strict order. Formerly, the document's format was left up to manufacturers.

The required order is as follows: Identification, Hazard's identification, Composition/information on ingredients, First Aid measures, Fire-fighting measures, Handling and Storage, Exposure controls/personal protection, Physical and chemical properties, Stability and reactivity, Toxicological information, Ecological information, Disposal considerations, Transport information, Regulatory information, and Other information, including date of preparation or last revision.

Casavant says he expects the changes to SDSs and chemical labels to present an ongoing challenge to custodial managers over the next few years, as they attempt to bring their inventory into compliance.

"I think it's safe to say that folks are stressed," says Casavant. "People are quite concerned about the workload this new standard will bring. [Employers] suspect some chemical manufacturers will take their time in complying and that will create issues for end users downstream."

Educating Workers

While OSHA has instituted a liberal transition period for chemical manufac-

turers, the agency has enacted a Dec. 1, 2013, deadline for custodial managers to train their workers on the new language that will appear on chemical labels and on SDSs. The hope is that manufacturers will get a head start on changing their labels, and that managers and their staff will be able to comprehend the hazard warnings when a chemical is eventually purchased and delivered for use.

OSHA hasn't said how they want managers to train their workers, but the training process shouldn't be any different than when a business introduces a new chemical to their employees, says John Poole, an OSHA Outreach Training consultant.

"If people have been abiding by the HazCom standard as it has been in place over the years, then it really isn't going to change much," Poole says.

If managers fail to train their workers by Dec. 1, there won't be any excuses for non-compliance, Poole says.

"It's one of those things that people say 'Oh, it's just one more regulation,'" says Poole of employers who put off training. "But, what would you do without it? People would ignore it. And people would get hurt. There are a boatload of chemicals out there, and some of them can kill you pretty quickly."

Brushing off training can cost employers their business. If an accident occurs to a worker on site, managers are held responsible for the grievance. The result of an accident can cost employers thousands in workers compensation costs, or more if a lawsuit or citation is brought against the company.

In its training guidelines, OSHA warns employers that one of the first questions the agency will ask following an accident is whether or not the injured employee was trained to do the job. OSHA investigates all workplace injuries, illnesses and deaths, as well as worker complaints, so training is time and money well spent.

The same goes for employee complaints. Since managers can't predict when an employee might complain, it is especially important for them to be in compliance with OSHA laws.

"HazCom in general is on OSHA's radar, and there are a number of violations, historically," Balek says. "The obvious [consequence] is the potential for penalties and citations."

Employers face fines of \$7,000 per infraction to more than \$70,000 for repeated violations, according to OSHA.

The best way to avoid an accident or a run-in with OSHA?

"Try to get with the program," Rathey says. **FCD**

STEPHANIE S. BEECHER is the associate editor of *Contracting Profits* magazine, a sister publication to *Facility Cleaning Decisions*.

If it's important to the cleaning industry, you will find it on **CleanLink.com**

Featuring late-breaking news, podcasts and much more, **CleanLink.com** is the industry's foremost online information center.

- **Access to stories** that appear in *Contracting Profits*, *Facility Cleaning Decisions* and *Sanitary Maintenance* magazines
- **Expert articles** written specifically for – and only available on – CleanLink.com
- **Free audio tips and webcasts** provide easily accessible, effective educational opportunities
- A round up of **industry-pertinent news** culled from worldwide sources
- **A whole lot more...**

CleanLink.com is the #1 SITE for cleaning-industry professionals.

Visit it today and every day.



CleanLink.com

Strength in NUMBERS

Chicago Public Schools shines as the third largest school district in the country

By Corinne Zudonyi, Editor

As the third largest public school district in the United States, consisting of 700 buildings, 60 million square feet of cleanable space and 400,000 students, Chicago Public Schools acts as a benchmark for the rest of the industry.

“As a large district, there are often a lot of eyes on us,” says Terry McGuffage, director of asset management at Chicago Public Schools (CPS).

But McGuffage is far from alone. With 25,000 custodial staff members, as well as support from a number of product vendors and industry consultants, he finds plenty of “strength” to handle whatever challenges are thrown at him — from an early adoption of green cleaning and compliance with green regulations, to facing millions of dollars in budget cuts.

Age Is Just A Number

“Some of our biggest challenges stem not from the size of the district, but from the varying ages of the facilities themselves,” he says.

Facilities throughout CPS range in age from new to more than 130 years old, and according to the district website, age is not always a proxy for quality. In fact, much of the older construction has proved more durable than newer buildings.

Those schools aren’t going anywhere anytime soon. But, as most custodial executives working in older facilities can attest, strong construction doesn’t necessarily transition into easy cleaning.

“On average, our schools are about 75 years old, with the vast majority built in the early 1900s,” says McGuffage. “Some of the older buildings are a challenge to clean because of how they are constructed and the materials that were used.

The older facilities feature a lot of terrazzo floors,

where if the building were constructed today, it would likely feature more vinyl composition tile (VCT), which can be easier to maintain. He also comments that moving between floors throughout the older facilities can become difficult, especially when equipment is required to complete cleaning tasks.

“The older buildings don’t support elevators,” says McGuffage.

No matter the age of the facility, cleanliness still takes center stage and processes are in place to guarantee a safe and healthy environment for students and staff.

The rationale behind this decision has a lot to do with common sense, says McGuffage, but also because, according to state officials, children miss more than 14 million school days each year due to the affects of asthma. The condition is often exacerbated by poor indoor air quality caused by cleaning products and ventilation issues, so CPS facility executives developed a goal to reduce the impact cleaning had on students and staff.

In fact, CPS was at the forefront of national initiatives to improve the health of students and staff, while minimally impacting the environment.

Cleaning Green

Green cleaning is almost commonplace today, but 10 years ago, it was difficult to implement these environmentally friendly cleaning programs, says Mark Bishop, vice president of policy and communications at the Healthy Schools Campaign. But as the availability of green products grew, so, too, did legislation and orders mandating sustainable cleaning practices.

On August 13, 2007, Illinois Governor Rod Blagojevich signed into law the Green Cleaning Schools Act. The Illinois statute required all public and non-public elementary and secondary schools with 50 or more students to “establish a green cleaning policy and exclusively purchase and use environmentally sensitive cleaning products.”

But CPS was well ahead of the curve. According to district reporting, CPS partnered with The Healthy Schools Campaign in as early as 2003 to launch a cleaning for

CHICAGO PUBLIC SCHOOLS BY THE NUMBERS



- Approximately 400,000 students attend the almost 700 schools that span the district.
- Chicago Public Schools is the third largest school district in the nation with roughly about 700 buildings. This includes roughly 500 elementary schools, 100 high schools, 96 charter schools and a number of administration and satellite offices.
- Keeping up with the basic repair and maintenance of the current facilities footprint has been estimated at \$350 million per year.
- The district is one of the two largest employers in the city of Chicago.
- Custodial operations personnel clean and maintain over 60 million square feet of space.
- There are approximately 25,000 custodians working within facilities throughout the district.
- In 2011, the district set and met initiatives that reduced the custodial spend by \$6 million. In 2012, officials trimmed another \$2-3 million of the budget.



health pilot program, which embraced and incorporated green cleaning initiatives.

At the time, Chicago had the highest asthma mortality rate in the nation and 70 percent of Illinois schools were reporting at least one unsatisfactory environmental condition. Piloting a program that would improve those statistics was an easy decision.

“I remember working with Mark Bishop on developing the program for

green cleaning at our schools,” says McGuffage. “Mayor [Richard M.] Daley had wanted the city to be clean and environmentally responsible and he wanted CPS at the forefront of that initiative. When you saw the effects cleaning had on health and the environment, it was a great incentive to push for green cleaning. The idea of buildings being healthy is an easy concept to pick up on.”

As time went on, CPS officials con-

tinued working on green initiatives with members of The Healthy Schools Campaign and consultants such as Stephen Ashkin, president of The Ashkin Group. Soon, the group had developed comprehensive green cleaning standards for the district — prior to the state implementing the green cleaning requirements — and their efforts have paid off over the years.

In recent years, the district has implemented comprehensive facility perfor-

mance standards that include specific policies and expectations on indoor air quality, environmental hazards and overall physical environment guidelines. Although there are no hard numbers reporting the success of these programs, McGuffage comments that anecdotal evidence supports that since implementing the programs, CPS has seen a positive impact on indoor air quality and student and reduced staff absenteeism.

The game-changer that defeats ice. Starts early. Works hard. Stays late.®



Introducing **Early Melt®**, it is a pre-wetted anti-icer that provides:

- A pavement barrier that attacks ice formation beneath snow cover
- Easier shoveling and faster plowing to save time
- A patented residual effect that extends anti-icing action into the next storm
- Dual-functionality, it also works as a deicer

For more on Diamond Crystal® ice melters, visit www.cargillsalt.com or call us at 1-888-385-SALT (7258)



Smart science from Diamond Crystal® ice melters

©2012 Cargill, Incorporated.

▲ FREE INFO: Circle 404

The original Clarke random orbital floor technology has finally been reverse-engineered.



1996



In the meantime, we've engineered an entire family of superior next-generation models.

Now there's a Clarke scrubber with our exclusive BOOST® technology that's the right fit for your floors. All with the original random orbital scrubbing technology that offers chemical-free finish removal in a single pass. Save up to 70% in water and chemical usage, with 40% longer pad life and far greater productivity*.

*Compared to traditional disc models

Trusted. Reliable. Efficient.

A Nilfisk-Advance Brand
©2013 Nilfisk-Advance

Clarke®

www.clarkeus.com

▲ FREE INFO: Circle 405

Purchasing Processes

The years of hard work and open communication between district officials and distribution vendors had paid off by the time green legislation rolled around in 2007. Everyone was on the same page about the green cleaning focus and goals to meeting environmental standards.

“Over the years we have had a lot of vendor involvement, sharing the latest and greatest green cleaning options, which are also better for health,” says McGuffage. “Once our suppliers knew green and healthy cleaning was important to CPS, they were very quick to propose new ideas and options.”

As early adopters of green cleaning, CPS did have challenges wading through the options, but as time went on, processes for purchasing “green” products became simpler.

“Illinois EPA established several programs that were designed to improve the ability of schools to provide a safe and healthy environment,” says ISSA Legislative Affairs Director Bill Balek. “The Illinois Green School Programs provided access to a number of resources including a Green Schools Checklist, and the state’s Greening Schools Program.”

CPS took this one step further and went through a procurement process to set up the “Department of Procurement and Contracts Strategic Sourced Janitorial Supplies Booklet.” This outlines those products which are permitted for purchase and use within the schools, in compliance with the district’s green and health regulations.

“We just went through the procurement process to set up new contracts with vendors to get the lowest cost for the products we need,” says McGuffage. “We list recommended products and offer nice prices, but we don’t have a mechanism to stop an individual school from buying products that aren’t on that list. We do try to combat that with heavy communication, training, awareness and a team of field staff that is always talking about it and the benefits of the products we recommend.”

One of the benefits of being the third largest district in the country is distribution vendors are ready and anxious to help where they can. McGuffage comments that suppliers often raise their hand to provide services and although the district is a government entity that comes with certain restrictions on

accepting services, the vendors are willing and ready to offer assistance.

“It’s no secret that we are trying to drive our costs down and we did that with our procurement process and partnerships with vendors,” says McGuffage. “We actually knocked them down about 30 percent.”

Cutting Back Can Be Difficult

Making the most of every opportunity will go a long way for the operations department, especially as facility budgets continue to be cut. In fact, in 2011, the CPS operations budget was cut by \$6 million.

“When faced with a deficit of this magnitude, you have to look at every single area of operations,” says McGuffage. “We always think that operations is top-of-the-line, but we have to make cuts somewhere.”

“When you saw the effects cleaning had on health and the environment, it was a great incentive to push for green cleaning.”
— Terry McGuffage

He continues, “In 2011, we really had to look at custodial management and tried to dig into staffing, as well as potential efficiencies and where we could tweak schedules. We had to look at schools that were under utilized, address cleaning frequencies or make staffing reductions. Changes we made in these areas really drove the cost savings.”

The department evaluated equipment and assessed how newer options may increase efficiencies. Cleaning frequencies also took a hit. Tasks such as carpet extraction and floor stripping and finishing were reduced as interim cleaning such as vacuuming and floor buffing increased.

“Dusting might have also gone down a bit, but we didn’t want a reduction in restroom cleaning, trash collection or mopping,” says McGuffage.

To offset cleaning frequency cuts and to bolster custodial productivity and accountability, CPS introduced the use of lead custodians in each school. These individuals are responsible for the supervision of cleaning personnel and process improvements that would allow the same level of cleaning services to be delivered using less manpower.

“Lead custodians were chosen by school principals as someone who would maintain cleaning expectations and keep the staff accountable,” says McGuffage.

“Cleanliness is very important to the principals and they have a lot of say regarding what they want done in the schools.”

Budget woes continued in 2012, forcing McGuffage and his staff to find even better and cheaper ways to meet cleaning expectations. To do so, he has adopted cleaning standards.

“We are working towards acceptable levels of APPA standards,” he says. “Once we do, we can vary that standard

to meet our financial and cleaning needs and deliver that same level of expectation to every school, creating consistency throughout the district.”

Consistency between the schools is one of McGuffage’s biggest challenges. With the varying ages and sizes of facilities, the types of building occupants and the distance between buildings, creating standardized processes can be difficult.

At the same time, the size and types of

buildings within the district can be a plus.

“We draw a lot of interest from outside groups that want to help us because we are a large urban district,” says McGuffage. “We have a lot to offer in terms of contracts, so we attract a lot of high-quality vendors. It puts a lot of expertise at our doorstep, which helps us with our goal to continue improving the services we offer our students and staff throughout the district.” **FCD**

Top-rated brands help tackle the toughest restroom cleaning jobs

World leading brands from the Colgate-Palmolive Company make powerful cleaning easy and deliver consistent results. Ajax® Disinfectant Cleaners, Ajax® Bowl Cleaner, Ajax® Glass and Multi-Surface Cleaner along with Fabuloso® All Purpose Cleaner tackle your toughest cleaning jobs creating a pristine restroom environment your clientele will notice and appreciate.

Colgate-Palmolive Company's high performance cleaning products redefine clean. Contact your sales representative or call today for additional information.

COLGATE-PALMOLIVE COMPANY
COMMERCIAL CUSTOMER GROUP

1-800-432-8226
www.colgatecommercial.com

Automated Floor Care Packs A Big Bang For Your Buck

What managers should consider **before** purchasing new floor equipment



By Ronnie Garrett

WHEN IT COMES TO FLOOR CARE, it's a matter of selecting the right combination of tools for the job. The fact is, nearly every facility requires a combination of floor care equipment, from brooms to vacuums, mops and buckets to walk-behind scrubbers and burnishers.

But getting the right mix of equipment requires custodial managers to assess the specific needs of the department and consider a variety of factors as they do. These considerations include the size and types of debris generated, the amount of dirt that builds up, the types of flooring in the building, the size of the facility, and the number of workers cleaning.

"Generally, there are two types of soil you have to clean: dry, loose soil and really sticky, greasy soil," says Dan Ott, co-owner of Chicago-based Facility Supply Systems Inc.

The types of soil dictate the equipment required to remove it, he explains.

"Most daily activities are geared toward removing dry soil because it's easy to remove and if you leave it on the floor, it will eventually turn into oily, sticky soil."

Dry soil can be removed via dust mopping and sweeping in tight areas, or using sweeper vacuums in larger spaces.

"The square footage will determine what's most cost effective and efficient," says Ott. "If you have a few hundred square feet, you'll probably use a broom and a dust mop. But if you have 1,000 square feet, you'll likely use a walk-behind sweeper, vacuum or autoscrubber."

For floors that have become sticky or oily, Ott suggests managers supply staff with traditional rotary machines or swing buffers.

"These are interim maintenance activities," he says. "If you have tile with grout lines, you would use a floor machine with a brush on it. You'd flood coat the space, scrub with a floor machine or a brush, then use a wet-dry vac to suck up the slurry."

Size Matters

Once the type of soil has been identified, managers must consider the size of the area needing cleaning.

Smaller areas will likely require a mop and a bucket. Here, a good microfiber flat mopping system is recommended.

Larger areas will require bigger — and more expensive — equipment. Autoscrubbers are widely used and may be electric, battery-operated and even propane powered. They also range between a 3-4-gallon capacity, up to 100-gallon riders.

A 10,000 square-foot building with 5,000 square feet of floor space does not

An autoscrubber gets the dirt out of a building. A mop just pushes it around.

require a ride-on scrubber or a 27-inch-wide burnisher, explains Chris Portera, president of Ocean Janitorial Supply in Islip Terrace, N.Y.

Keith Schneringer, marketing manager of San Diego-based Waxie Sanitary Supply, agrees. He points out that using a wide-area vacuum, for instance, to maintain an open banquet room or ballroom makes perfect sense, but using that same vacuum in a hotel guest room does not.

"This equipment cleans the floor in a larger space well and requires you to make less passes," he says.

That said, the days of using less mechanical means of floor care, are likely behind us. Even the smallest facility might benefit from a 3-4-gallon autoscrubber a

backpack vacuum, or one with a wider swathe, as opposed to mops and buckets.

Many benefits come from this equipment, quality of clean being one of them.

"A scrubber, for instance, gets the dirt out of a building, whereas a mop just pushes dirt around," says Portera. "There is a definite improvement in cleanliness, sanitizing and appearance when going to ride-on or automated equipment."

Departments that incorporate automated equipment into their floor care programs will also see improvements in efficiencies.

"The idea is that you want to get as much square feet done as possible with the highest technology possible," Portera adds. "You always need to do the detail work. So if you can put a guy on a scrubber...what would take him eight hours normally, takes him an hour. That's seven hours to do the detail work, which inevitably brings up the level of cleanliness in the building."

Wants vs. Needs

When purchasing floor care equipment, many managers question the benefits between battery, corded and propane options. According to distributors, the answer depends on what the departments are using the equipment for.

Portera gives an example: Imagine a custodian in a 50,000 square foot school using an electric burnisher and having to stop and plug in that equipment periodically. Then look outside at the person mowing 50,000 square feet of grass with a riding mower.

"Electric is best for the least amount of square footage, batteries are the next step, and propane power is for the largest areas," he says.

The same goes for the size of the tanks or the width of the cleaning swathe. A 17-inch scrubber might have a 5-gallon tank where a 27-inch scrubber might have a 22-gallon tank.



For additional information on floor care equipment, visit www.CleanLink.com/Equipment.



Traditional Mop Systems



- Durable, Stainless Steel Carts & Restroom Fixtures
- Factory Direct Prices
- 10 Year Guarantee Against Breakage
- All Carts are Shipped Assembled



Microfiber Mop Systems



Request your free catalog today!



www.RoyceRolls.net

toll free 800-253-9638

fax 616-361-5976

FREE INFO: Circle 460



- Durable, Stainless Steel Carts & Restroom Fixtures
- Factory Direct Prices
- 10 Year Guarantee Against Breakage
- All Carts are Shipped Assembled



Chairs, slim jims, and trash cans not included.



Request your free catalog today!



www.RoyceRolls.net toll free 800-253-9638 fax 616-361-5976

FREE INFO: Circle 460

“It all depends on the square footage you need to clean, which option is the most effective,” says Ott. “We’ve got people purchasing 3-4-gallon autoscrubbers with a 20-inch cleaning path for smaller lobby areas because they wanted to make that job more efficient and safer. An autoscrubber puts down solution, scrubs the floor, and then vacuums up the water in one pass so that the floor left behind is essentially dry.”

An autoscrubber might have a rotary feature with a pad and a brush, or it may be cylindrical with just a vacuum cleaner-like brush. If the floor is tile and there are grout lines, distributors recommend a cylindrical brush that might get into grout lines faster and easier. Cylindrical designs often come with a dirt hopper, too, so users don’t have to pre-clean; they pick up the dirt and debris in the hopper as they work.

The surface being cleaned also dictates which option is preferable, says Ott.

Likewise when cleaning carpet in a busy facility, adds Schneringer, users won’t have 24 hours for the carpet to dry. “They will need the equipment in place to get a good result that dries the carpet as quickly as possible,” he says.

It’s also important to identify the difference between a “need” and a “want,” says Ott.

“Some bells and whistles are nifty but are just one more thing to potentially go wrong,” he explains. “Managers need to ask themselves if it’s better to go with a more stripped-down version that won’t cause confusion or maintenance issues.”

And, Portera stresses, “Equipment is not all built the same. One machine could be \$4,000 less than the other machine, but which machine is going to last longer and do more square footage per hour? Quality should always be king.”

Paying For Technology

With all the benefits technology brings, there are some challenges. One of the biggest is the higher price tag larger, more mechanical equipment brings. But sometimes managers need to look beyond the upfront costs to the return on investment (ROI).

“The biggest expense in any custodial operation is labor,” says Ott. “If they have someone spending six to eight hours a day slinging a mop, then they need to consider automating that process.”

If managers purchase equipment to save time and clean quicker, Schneringer says, they will save on labor and that savings will help pay for the equipment.

Managers need to look at their options, and calculate both the cost of the equipment and labor savings to determine ROI.

“We will outline the savings you can expect and how long it will take to pay for this equipment,” says Schneringer. “Then we’ll outline the expected savings over the

life of the equipment you purchased.”

Ott adds that, “ROI comes in terms of time saved, cleaning efficiency and quality of clean. Managers need to look at all three.”

There are two ways to pay for this equipment too, says Portera. “One, you can pay for the piece outright. Or two, you can lease equipment, pay a monthly amount and, in two years, own the equipment. You can upgrade as new technol-

ogy comes out, and pay a fixed cost.”

Ott says a good distributor will offer customers several payment options. They may offer a 60-day purchase plan, split the invoices into two lump sums, or offer leasing options.

A distributor should also offer a preventative maintenance plan for every piece of equipment in the form of a checklist for daily maintenance and a plan for follow-up preventative maintenance at

their service center, adds Schneringer.

“Managers must know what the staff should be doing daily, once a month and so on to keep the equipment running at an optimal level,” he says. “An ounce of prevention is worth a pound of cure and these little things can keep equipment running well and lasting a long time.” **FCD**

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

**“ON CONCRETE
 IT’S AWESOME!!!”**

“DURABILITY: A+, EASE OF USE: A+, HEAT CREATED: A+”
 Unsolicited e-mail quote from Distributor’s Contractor Customer

When your floor needs work, choose your starting point from our “Four Pad Floor Maintenance System” to carry your floors from dull to bright.

Beginning with:

1. 400 Red that’s aggressive
2. 800 White for cleaning
3. 1500 Yellow is a prep pad
4. 3000 Green daily maintenance

All are diamond impregnated.

- CONCRETE
- TERRAZZO
- NATURAL STONE

Benefits:

- No color transfer due to a naturally colored pad-no dyes added
- 40% more durable-tested next to competitive pads used in the field
- More heat generated
- Ease of use
- Quality you have come to know & expect from ETC

Call Today!

1-800-334-6651

e-mail: gorilla@etcpads.com



If you’re Serious About Floor Care!

etc.[®]

ETC of Henderson, Inc.
 1-800-334-6651

SHOPPING FOR A SUSTAINABLE VACUUM

The environmental benefits of a vacuum are just as important as suction, cord length and upright versus backpack

By Lisa Ridgely

Along with mops and buckets, vacuums are one of the main staples of a custodial department's portable cleaning equipment arsenal. While the most obvious considerations when purchasing vacuums might pertain to upright versus backpack models and cord length, managers should also be taking into account issues of sustainability.

Sustainability as it applies to vacuum cleaners can be defined by numerous indicators: the effect on frontline workers who use the machines, or ergonomics; noise pollution or lack thereof; particulates captured and indoor air quality; environmental impact, including a concern for what ends up getting thrown away; durability; repairability; and energy-efficiency.

"Green" or "sustainable" features are a point of comparison when shopping around for any product or piece of equipment, says Steve Ashkin, cleaning industry sustainability expert and president of Bloomington, Ind.-based The Ashkin Group.

"Managers should be asking their distribution vendors what makes one product green compared to other products on the market," he says. "It's a totally appropriate and important question to ask."

Ratings And Certifications

The first step toward purchasing sustainably is to buy green products, such as those that contribute to better indoor air quality. The Carpet and Rug Institute (CRI) offers its Seal of Approval rating system for vacuums, which tests for three things: soil removal, particulate containment and surface damage. Using a vacuum cleaner that is too aggressive, for example, can greatly reduce the life of that carpet, says Werner Braun, president of the CRI.

"You can go out and shop for carpet that has a lot of recycled content and a smaller environmental footprint, but you can blow that environmental footprint up if you're using a bad vacuum cleaner on it," Braun says. "That's something a lot of people don't think about with respect to green."

Particle containment testing addresses the indoor air quality issue. Particles can be emitted through a poor filter, from underneath the vacuum housing — thanks to the turbulence of the brushes — and from wear and tear on the machine itself.

"A vast majority of the moving parts of a vacuum are made with synthetic materials, primarily plastic products, as well as carbon fibers and other materials," says Braun. "Normal use of a vacuum creates

emissions, as well."

LEED-EBOM and CIMS-GB certifications require that vacuums have CRI's Seal of Approval and operate at less than 70 decibels. Whether a facility currently has those certifications or not, it's a good idea to consider purchasing equipment that qualifies in order to be prepared, says Teresa Farmer, LEED-AP and green program specialist for Kelsan Inc., a jan/san distributor in Knoxville, Tenn.

"If the required equipment is not purchased up front, then a replacement will need to be purchased. Otherwise the requirement for these certifications will not be met," she says. "If there is a possibility that either of these certifications are in [a department's] future, the wise decision would be to purchase the equipment that will be necessary for this process."

Cost vs. Value

One of the biggest problems that the commoditization of cleaning has perpetuated is that it encourages the purchasing of cheap, low-end equipment. Vacuums are in a different price and quality category from larger equipment such as rider scrubbers; it's almost as if vacuums are viewed as disposable, Ashkin says.

Environmental costs are usually higher for low-end products that aren't made to withstand the demanding workload of a large custodial department. Vacuums that last longer inherently have less of an environmental impact, Ashkin says.

"Durability isn't just a cost issue — it really has significant environmental impacts," he adds.

Eric Cadell, vice president of operations at Dutch Hollow Supplies, a distributor in Belleville, Ill., encourages managers to shop for quality, durable vacuum cleaners.

"One of the only truly sustainable ways to deal with vacuums is to keep them out of landfills," he says. "Get out of that \$100 range and invest in one that is \$300 to \$400. Buying a new low-end vacuum every two months is more expensive in the long run than buying one nice high-end vacuum that lasts that entire year. And you're keeping machines out of the landfill."

It does typically cost more to purchase machines of better quality and durability, but that's not news to facility managers; return on investment should be taken into consideration when making any purchase, says Renae Hesselink, vice president of sustainability at Nichols, a distributor in Spring Lake, Mich.

"We need to get past only considering the initial cost of equipment when evaluating the purchase of vacuums and take into consideration the entire cost to purchase, maintain and for performance," she says. A



For additional information on vacuums, visit www.CleanLink.com/Vacuums. To learn more about green and sustainable products and processes, visit www.CleanLink.com/GreenCleaning or www.CleanLink.com/Sustainability.

good preventative maintenance program that includes proper care and cleaning of the equipment itself will also help to cut down on future repair costs.

Parts

While some vacuum parts may be made of recycled materials, vacuum bags and filters typically are not considered sustainable. However, a few bag manufacturers do make green lines that are more biodegradable in landfills, Cadell says. It could also be considered more sustainable to purchase bagless vacuum cleaners with adequate HEPA filtration, he adds.

Some add-ons available on all or most vacuums can save managers a lot of maintenance headaches (and replacement parts).

“I would recommend that every single vacuum a manager buys has a magnet bar on it, to pick up the paper clips and staples that can do a lot of damage to the equipment,” Cadell says. “That is one way to help extend the life of beater bars and belts, and even increase the life of bags.”

When it comes to belts, wands, tools, switches and other parts, it’s likely that, at some point, one or more of them will break or wear down and need replacement. The availability of replacement parts should also be considered before buying a vacuum, Ashkin says.

“The reality is, for most departments, workers are out there cleaning every single day, so a piece of equipment really can’t be down for very long,” he says.

Lastly, it’s important for managers to educate and train their employees about the importance of proper use and maintenance of equipment, Farmer says.

“If sustainability is a goal, equipment maintenance and proper training should be a top priority in the cleaning program,” she says. “Equipment that is used correctly and properly maintained by the custodial staff will last longer and not only meet the goals of a green cleaning program, but save money.”

Drive Demand

With the number of LEED-certified facilities growing, and an increasing interest in CIMS certification, knowing what makes equipment sustainable is more important than ever. Managers have the power to drive demand for recycled materials, Hesselink says.

“If we create demand for recycled materials — plastics for example — we create a demand for more recycled plastic that gets the attention of the waste providers and haulers. They then seek out more sources and encourage recycling with their customers,” she says.

The recent collapse of the garment factory in Bangladesh was a tragic reminder that manufacturing takes place in a global marketplace, and that purchasers may not always be aware of where their prod-

ucts are coming from and who is making them, Ashkin says. Just asking distributors and manufacturers certain questions — how they substantiate their claims, what their end-of-life program is, where their equipment is made, who makes their equipment and the parts used, and whether they have a sustainability report — can put those issues on the radar if they’re not already there.

“What is important is that we have

to ask. If the customer doesn’t ask, the message to the manufacturer is that the customer doesn’t care,” Ashkin says. “Questions like that can drive the transformation of the entire sector.” **FCD**

LISA RIDGELY is a freelance writer based in Milwaukee. She is the former Deputy Editor of Contracting Profits magazine, a sister publication to Facility Cleaning Decisions.

“It’s a huge show, where you can keep up with what’s new in the industry and network with peers. That’s my show, my value.”



Steve Spencer
Facilities Specialist
State Farm Insurance
In-house Service Provider



ISSA/INTERCLEAN® and the ISSA Convention offer the networking, innovations, and education to help improve your operations and strengthen your management skills. Whatever your goals, you’ll find that attending is worth the investment. Plus, access the IEHA Annual Convention, held during the same week, November 18-21 in Las Vegas, Nevada.

Register at issa.com/show.

my show. my value.

NOVEMBER 18-21 LAS VEGAS, NV

FREE INFO: Circle 408

Shedding Light on Enzymatic Cleaners

The nature of enzyme-based cleaners and how they can benefit a restroom cleaning program

By Cassandra Kania

**IS YOUR #1
 RESTROOM
 PROBLEM THE
 SMELL OF #1?**



**TOUGH JOBS
 DEMAND
 SMART
 SOLUTIONS**



NI-20376

Foul-smelling restrooms are a frequent source of complaint from building occupants — and a challenge for custodians charged with keeping them clean and fragrant. Continual use makes odor-control difficult, and masking malodors often intensifies the problem.

To rid restrooms of offensive smells, custodial departments need to eliminate the cause of the odor — namely uric acid — and this is where traditional cleaners often fall short, say distributors.

“Typically, in restrooms, the biggest issue is the smell of urine,” says Jim Flieler, vice president of sales at Swish Maintenance Ltd. in Peterborough, Ontario, Canada. “Often, urine splashes to floors and gets into the grout, causing a uric acid odor that’s offensive. Once it embeds itself in grout, traditional cleaners cannot get rid of that smell, and it doesn’t help that most restrooms have poor air filtration.”

While the majority of custodial departments still favor all-purpose cleaners for restrooms, some are beginning to introduce enzyme-based cleaners into their cleaning regimens to remove odor-causing bacteria, particularly in hard-to-reach porous surfaces.

Anthony Crisafulli, owner of Atra Janitorial Supply in Pompton Plains, N.J., has had tremendous success selling enzymatic cleaners, specifically in K-12 school districts.

“In any facility, not just schools, the chief complaint is the odor coming out of the bathrooms,” he says. “If you can eliminate the odors, people aren’t going to complain as much if the bathroom’s a bit dirty. It’s the odors that kick up those complaints so quickly.”

An Introduction to Enzymes

To understand how enzymatic cleaners — also known as bio-enzymatic cleaners — can be advantageous in

restroom cleaning, custodial managers need to first understand what they are and how they work.

In essence, enzymes are chemicals made by bacteria to digest waste. Enzyme-based cleaners contain

enzyme systems that break up waste molecules, which are then digested by the bacteria and converted into carbon dioxide and water. The waste that generates foul odors in the restroom serves as food for the microorganisms.

According to Eric Cadell, vice president of operations for Dutch Hollow Supplies, Belleville, Ill., there are two types of enzymatic cleaners: those that contain surfactants and those that don’t.

“In both cases, the enzymes are



According to surveys, 90 percent of U.S. adults would never rebook at a hotel and 85 percent would never return to a restaurant with unpleasant odor.

kept dormant until they come into contact with the food source,” Cadell explains. “That food source is going to be body fats, oils and uric acids. Typically the enzymes are mixed with water, which awakens them, and they immediately start looking for that food source. If they can’t find that food source, the enzymes will die.”

Because the enzymes remain active as long as the food source is present, they are most often used on restroom floors, around and below toilets and urinals, in drains and in grout lines.

“Most floors in restrooms are grouted ceramic tile,” says Crisafulli. “Many custodians are trained to mop and clean their floors with general purpose cleaner, but that doesn’t get into the grout lines and clean the subsurface. We know that urine penetrates into those grout lines, and general surface type cleaners just don’t clean that deeply.”

When choosing an enzyme-based cleaner, custodial managers should keep in mind that not all enzymes are created equal. Manufacturers have developed different strains to target specific types of organic waste.

It’s important workers understand the differences between traditional and enzymatic cleaners, how enzymatic cleaners work and how they can benefit cleaning processes.

“There are so many different kinds of enzymes, so managers want to make sure that the one they purchase is designed for what the staff is trying to clean,” cautions Cadell. “Enzymes designed for a drain line in a kitchen, for example, go after oils and fat, so that same product won’t work in a restroom because it doesn’t eat uric salt.”

Although enzymatic cleaners designed for restrooms are most commonly used on floors, they can also serve as general-purpose cleaners for high touch points, such as mirrors, faucets and door handles.

“Part of our goal is to help departments reduce the amount of different chemicals used when cleaning restrooms,” says Crisafulli. “By using microfiber technology and enzymatic cleaning products, the custodial staff can clean an entire restroom with just one product — although we still recommend disinfecting touch points.”

A Deeper, Safer Clean

Reducing the amount of chemical used in restroom cleaning can streamline purchasing and product storage. But will managers struggle to convince custodians to give up traditional cleaning products in favor of enzymatic cleaners?

Distributors agree that once workers understand how enzymatic cleaners work, educating them on their benefits — as well as the differences between traditional and enzymatic cleaners — may persuade them to accept these products into their repertoire.

For example, custodial departments concerned with green cleaning will be pleased to know that enzyme-based cleaners are safe for the environment, as well as human health, according to distributors.

“They’re not harmful because they’re not caustic, and most are at neutral pH levels,” notes Cadell.

In fact, in most instances, enzyme-based cleaners eliminate the need to use harsh chemicals. Additionally, the waste consumed by the enzymes is converted into carbon dioxide and water.

“That in itself is a green philosophy,” says Cadell. “It’s not killing anything, and it’s not a surfactant that gets into streams or wastewater, so it’s not causing any harm.”

One of the major differences between traditional cleaners and enzymatic cleaners is that enzyme-based cleaners perform residual cleaning; that is, they continue cleaning well after the product has been applied.

“It’s cleaning after you’ve cleaned,” explains Cadell. “When you use the enzyme cleaners, they

▲ FREE INFO: Circle 410

Cleans Where Chemicals Fail
 Fast, Safe & No Harsh Chemicals

▲ 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.

You can breathe easier.

Find more restroom solutions at Cloroxprofessional.com



SMART and TOUGH

© 2013 Clorox Professional Products Company. NI-20377

▲ FREE INFO: Circle 409

start to travel down the p-traps and grout lines, and after you've cleaned and left, they're still working on the odor source."

According to Crisafulli, some enzyme-based cleaners continue to destroy odor-causing organisms for up to 80 hours, as long as the surface remains wet and there is a food source present.

"A lot of people say, 'When I mop my bathroom floor it's dry in 15 minutes, so how does the product continue to work if the surface has to remain wet?'" he says. "The answer is, on a porous floor, like a grouted floor, the tile may dry but that grout line stays wet for hours, and that's where we want a deeper clean."

Distributors also stress that on non-porous surfaces, enzyme-based cleaners can penetrate into areas where traditional cleaners can't reach.

"Even on something as simple as traditional floor finish on a vinyl tile floor, there are micro-abrasions and scratches due to normal foot traffic," says Crisafulli. "Mopping with a bio-enzymatic cleaner will allow you to get into those hard-to-clean places and give you that deeper cleaning ability."

Spot-On Application

In order for enzyme-based cleaners to work correctly, custodial staffs need to be trained on the proper procedures for handling and using these products.

"Enzymes have a very short life cycle," notes Cadell. "They are kept dormant in a suspension agent until they are diluted with water, at which

point they need to find a food source quickly, or they will die."

Once the enzymes are activated, they need to be applied directly to the surface that needs cleaning.

"These are not the type of products you can toss into your mop water," warns Cadell. "They'll start to attack things inside the mop, because the first place the enzyme touches and finds its food source is the first place it's going to attach and eat."

Cadell recommends spraying the enzymatic cleaner close to the area being targeted — within a foot or less for grout lines.

If custodians are using enzymatic-based cleaners on touch points, distributors encourage managers to train staff to target those areas first, and then move on to urinals, toilets, and finally, floors.

"We suggest workers clean the entire restroom with the bio-enzymatic cleaner, and then the last thing they do is mop the floors with it," says Crisafulli. "Workers should start with dry processes — always working from high to low — and then work their way from the farthest point in the restroom to the door."

Because disinfectants will attack enzymes, distributors advise custodians to disinfect before using enzymatic cleaners.

"Some managers train their people to go in and spray enzymes to take care of odors and then use disinfectant on top of that," says Cadell. "In these cases, they've killed the product before it's even had a chance to work."


The last area to be cleaned with the enzymatic cleaner is the floor. In addition to training custodians on daily procedures, Crisafulli advises them to do a restorative-type cleaning on floors every three months using an enzymatic cleaner.

"If we have a lot of odor complaints, we'll do an evaluation and find that it's usually because of the floors," he says. "We'll encourage departments to do a deep cleaning or scrubbing with the enzymatic cleaner and then do a heavy wet mop with the enzymatic cleaner for three or four days in a row. That way we know the surface is going to stay wet for 24 to 36 hours, and the enzymatic cleaner will continue to break down the odor-causing bacteria."

While the industry has been slow to adopt enzymatic cleaners, Flieler predicts that sales will pick up over the next year due to safer blends, wider availability and more general knowledge.

"It's common sense," he says. "Bio-enzymatic cleaners are safer to use, safer for the environment and safer for human health. They continue to clean well after the initial application, and you displace those potentially disease-causing bacteria. Once we introduce people to these products and explain what they are and how they work, they never go back." **FCD**

KASSANDRA KANIA is a freelance writer based in Charlotte, N.C.



CleanLink

ADDITIONAL INFORMATION

Using Enzymes To Remove Odors From Floors

How do you remove urine odors from grout? How do you remove urine odors from vinyl flooring in a nursing home? How do you remove urine odors from immediate stains, soaked carpeting and even dried urine spots? CleanLink asked manufacturers of enzyme-based cleaners these questions and got some very interesting feedback. Check out the responses, and more at <http://www.cleanlink.com/14122cp/>

BIO-WASTE TRANSFER IN PROGRESS.



Like it or not, your restroom is a bio-hazardous waste transfer station. Fortunately, Kaivac No-Touch Cleaning® systems are specifically designed to thoroughly capture and remove harmful indoor pollutants. Contact us for a FREE no-obligation demonstration.



www.kaivac.com • 1-800-287-1136

MEAN GREEN

40% MORE POWER*
INDUSTRIAL STRENGTH
 CLEANER & DEGREASER

Easy on the budget, tough on grease and grime.

CONTACT US TODAY:
 meangreen@crbrandsinc.com
866.447.3369
www.meangreendegreaser.com/industrial-strength

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. *40% more cleaning ingredients produce improved and superior performance. Grease and Grime are quickly dissolved away. 30% more solvent and 20% more surfactants lift the strongest stains off all surfaces, from fabric to concrete. Plus, the entire formula is super charged by doubling the amount of our Chelating Agent.

YOU are the reason



we've changed our name

Housekeeping Solutions magazine
has been renamed
Facility Cleaning Decisions.

You had a lot to do with the change.

While cleaning has always played a vital role in the facility management mission, your role has changed since *Housekeeping Solutions* magazine debuted years ago. As an information source serving you, we needed to get in step too, and better reflect the changing role, status and sophistication of you and your facility team.

Our new name, *Facility Cleaning Decisions* does just that. It accurately reflects you, your role and the challenges you face.



FACILITYCLEANING DECISIONS™

(formerly Housekeeping Solutions)



A



B



C



D



E



F



G

product showcase

A. Autoscrubber

Advance — The SC450 is a battery-operated automatic scrubber designed for daily use. The machine features a two-button control panel that allows users to switch between scrub and vacuum functions, while the vacuum motor, brushes and water automatically shut off when the tank is full, or when the machine is in neutral. FREE INFO: Circle 301

B. Floor Chemical

Betco Corp. — The Defender Linoleum System includes a non-yellowing stripper, stain resistant permanent sealer and a scuff resistant finish that protects linoleum flooring. Vanisher Stripper safely removes multiple coats of finish without yellowing. Foundation

Sealer provides stain and chemical defense as a permanent sealer and Structure with SRT Finish is a high-gloss finish that provides defense against black heel marks. Defender Linoleum System is low odor and is useful in the healthcare, education and retail markets. FREE INFO: Circle 302

C. 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. FREE INFO: Circle 303

D. Cleaning Pads

ACS Industries Inc. — Scrubble Utility Cleaning Pads and Holder are ideal for hard-to-reach areas. Light-Duty White pads are designed for cleaning and buffing windows and ceilings; Medium-Duty Blue for general purpose cleaning; and Heavy-Duty Brown and Black are very aggressive for removing finish build-ups. The 180-degree Swivel Joint Holder features a hook and loop design for positive traction. FREE INFO: Circle 304

E. Air Mover

Sanitaire by Electrolux — The SC6055 Precision Air Mover pulls air from above into the fan chamber and sends the driest air into precise areas by way of four different drying

positions. The 18-pound (8.2 kg) air mover is a quiet 67 dB at its lowest setting and features a .4 hp motor that moves air at a velocity of 3400 feet/minute. When daisy chained together, six units can work off one 15-amp circuit for drying carpets, floors and small rooms in education, healthcare and hospital-ity settings. FREE INFO: Circle 305

F. Technology

Industry Huddle — IndustryHuddle.com now includes profiles for individual professionals, new communication options and overall improvements to the user experience. The site allows for professional networking and provides options for networking with companies and professionals with similar interests. The My HuddlePost feature offers a feed of content from all companies and professionals that the user has a huddled relationship with, allowing constant notification of news, deals and more. FREE INFO: Circle 306

G. Vacuum

ProTeam Inc. — The 60-dBA battery-powered GoFree Pro is one of ProTeam's most comfortable backpack vacuums. Featuring a triangular shape combined with the patent pending FlexFit articulating harness, the 20-pound vacuum conforms to the users back for a closer fit and reduces accidental contact with walls and doorways. The GoFree Pro has a 55-minute runtime and improves productivity by eliminating cord-management tasks. FREE INFO: Circle 307

CLEANS FASTER

FULLY ADJUSTABLE BRUSHES

CLEANS TILE SIZES UP TO 12 INCHES

VISIT OUR WEBSITE GROUTGATOR.COM

541-653-9412

GROUT GATOR

REPS AND DISTRIBUTORS WANTED PATENT PENDING ISSA MEMBER ACCESSORIES AVAILABLE

▲ FREE INFO: Circle 415



H. Restroom Chemical

Enviro-Solutions Ltd. — ES 51 washroom cleaner and deodorizer with Envirocide cleans, descales and eliminates odors in restrooms. It dissolves completely in water and has a combination of protease enzymes, beneficial microorganisms and a blend of surfactants for cleaning effectiveness. ES 51 is nontoxic, biodegradable, and has been certified by Environmental Choice Program. FREE INFO: Circle 308

I. Carpet Chemical

Core Products Co. 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 309

J. Soap & Sanitizer

Colgate Palmolive — The Softsoap Brand Foaming Hand Care Line features both the Midnight Vanilla Foaming Hand Soap and Foaming Hand Sanitizer (non-alcohol). Both are available in 1,250-milliliter cartridges that fit into the Softsoap Brand Foaming Dispenser. The dispenser is available as a manual dispenser with push bar/large viewing window, or as a touch-free dispenser. FREE INFO: Circle 310

K. Floor Pad

ETC of Henderson Inc. — Armadillo is an ultra-high-speed burnishing floor pad that is specially designed for concrete. The pad is constructed as a 1-inch premium floor pad with an aggressive bond that contains no dyes to transfer color to the concrete floor. The pad can be used on both sides and with any burnisher, including propane models. FREE INFO: Circle 311

The CleanLink Weekly Newsletter

Makes It *EASY* to Stay on Top of Cleaning-Industry News

News important to the cleaning industry is reported every day, but **your busy profession** may not allow time to search out every relevant story.

Subscribe to the **CleanLink Weekly Newsletter** and you don't have to worry about missing the news you need to know.

We gather the week's top stories and send them to you in one **easy-to-navigate weekly email**.

It couldn't be easier.
 (Unless we read the stories aloud to you.)

DON'T MISS OUT

on the news that matters to you, your profession, and the industry:

Subscribe to the **free** online **CleanLink Weekly Newsletter** at www.CleanLink.com/go/CLweekly



product showcase



L. Tool Holder

Royce Rolls Ringer Co. — The Snap Rack handle holder keeps mop sticks and tools in place on cleaning carts. It is composed of four stainless steel hooks and a stretch mount, latex-free rubber toggle strap. The rack fits on any of the company's carts. FREE INFO: Circle 312

M. Hand Dryer

Stiebel Eltron — The ultra-quiet Galaxy and high-speed Ultronic hand dryers consist of rugged construction, touchless operation and fast drying power. An infrared sensor turns the unit on when hands are present, and shuts it off when hands are removed. The Galaxy comes in an Alpine White ABS plastic housing, or with a cast aluminum housing in Alpine White, Silver or Charcoal Gray Metallic. The Ultronic cast aluminum housings come in Alpine White and Stainless Steel Metallic. FREE INFO: Circle 313

N. Mop Bucket

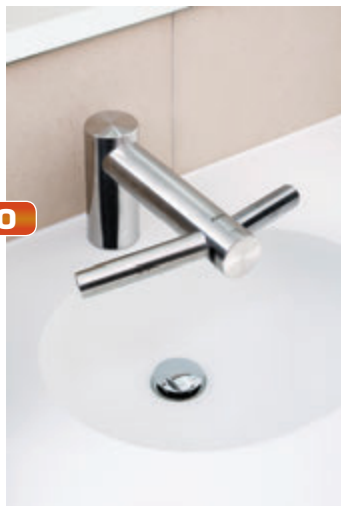
Kaivac — The patented OmniFlex Bucket has a built-in spigot to release precise amounts of cleaning solution, degreaser, or stripping solution directly to the floor. It can also be used for traditional mop and bucket cleaning methods. FREE INFO: Circle 314

O. Hand Dryer

Dyson — The Airblade Tap hand dryer uses infrared sensors to pinpoint users' hands and release water from the tap stem. Once users' hands are washed, integrated circuitry activates two high velocity sheets of air on the tap's branches to dry hands in approximately 14 seconds. FREE INFO: Circle 315

P. Floor Equipment

Clarke — The Vantage 17 Compact Auto-scrubber has a highly maneuverable design and wide 17-inch scrub path, maximizing cleaning productivity with a center-pivot squeegee system. Employing a gas spring for optimal blade pressure, the squeegee system can pick up solution in both forward and reverse in just one pass. Equipped with a 8.2-gallon solution tank and 7.7-gallon recovery tank, the Vantage 17 can operate for up to two hours on a single tank. FREE INFO: Circle 316



No water. Less weight. Save money.



The proven strength of HydrOxi Pro® Concentrated Cleaner is now available in pre-portioned packs.

- No water weight means drastically reduced shipping costs
- Reduced product waste
- Minimizes post consumer waste
- No dispensing system needed



800-825-CORE • coreproductsco.com • core@coreproductsco.com

▲ FREE INFO: Circle 414

Advertiser Index

In addition to the reader service card found on page 11, go to www.cleanlink.com/fcd-info to request more information.

	Page	Circle#
Advance	3	402
Betco Corp.	C2, 1	401
Cargill Salt	8	404
Clarke	8	405
CleanLink.com	6	—
CleanLink Weekly eNewsletter	19	—
Clorox Professional Products Company	14,15	409
Colgate Palmolive	9	406
Core Products Company	20	414
CR Brands	16	413
ETC of Henderson, Inc.	11	407
Facility Cleaning Decisions Magazine	17	—
Gator Cleaning Products	18	415
Hoover, Inc.	C4	416
ISSA	13	408
Kaivac, Inc.	16	412
Mats, Inc.	15	410
ProTeam, The Vacuum Company	5	403
Royce Rolls Ringer Co.	10A	460
United States Pumice Co.	15	411

FACILITY FOCUS:

Four Benefits Of Preportioned Chemical Use

WHEN JOSEPH GARCIA, supervisor of custodial services at Mt. San Antonio College, Walnut, Calif., and president of the Cleaning Industry Trainers Guild, first began at the college, there was no rhyme or reason to the chemicals used throughout campus. The department would purchase products based mainly on price, and had even been known to incorporate free samples from distributors into their daily cleaning regimen.

“When I got here, they had been using anything and everything in terms of chemicals. I called it the flavor of the month,” he says. “Whenever the department signed with a new chemical vendor, we’d use that product. You could open the binder of material safety data sheets (MSDS) and there would be 500 pages to sort through.”

During that time, the department mostly used chemicals that came in gallon jugs or five-gallon pails. As new vendors came in, though, the department started experimenting with what Garcia calls “command centers” — wall-mounted chemical dilution systems. The goal was to get a handle on the chemical usage throughout campus.

“The first thing I wanted to do when I started was to streamline processes by using the same chemicals throughout campus,” he says. “The shift would improve safety, simplify purchasing and standardize cleaning processes.”

After testing a few portion-control systems that are available on the market, Garcia found a program that would work to meet the objectives at Mt. San Antonio. Five years ago, the college shifted to the use of preportioned chemical packets and Garcia comments that the shift has been a positive one.

In fact, he highlights four specific areas where he has seen benefits to the use of these chemical packets.

1. Simplicity and Low-Cost Setup

Using chemical packets means simply cutting the pouch and mixing it with appropriate amounts of water in either a bucket or handheld bottle. So assuming custodians have access to water source of any kind, set-up is simple.

According to Garcia, the only start-up costs associated with introducing the

Mt. San Antonio College outlines why **chemical packets** have helped streamline departmental processes

By Corinne Zudonyi, Editor

preportioned chemical packets came with training employees on the proper use of chemicals — the when, the where and the how much.

“The packets are color coded so training is simple,” he says. “We have three daily use chemicals we use on campus, but there is no guesswork involved in measuring or mixing. So we take one hour for each chemical to go over the Safety Data Sheets, proper application and proper use.”

He adds that all the instructions for use are printed on each packet, simplifying the training process even further. Nevertheless, Garcia does refresher training five to six times a year with the staff.

2. Accuracy

By mixing the contents of one chemical packet to a bottle or bucket, the custodial worker knows he or she has the correct chemical dilution to produce the best cleaning results.

“Prior to our portioning programs, the staff used the ‘glug’ method to measure out of the gallon jugs or five-gallon pails,” says Garcia. “It was nearly

impossible to document whether the staff was correctly measuring, or budget for chemicals. Documenting preportioned packets makes that easy.”

Garcia has also seen a standardization in cleanliness throughout campus. When workers use the chemicals correctly, they’ll achieve the same level of clean no matter where they are on campus.

“I know the staff is using the exact measurement every single time,” says Garcia, “and they will get the same clean result.”

3. Accountability and Control

When using a preportioned chemical packet, managers know exactly how much product is being used for each job, and how many packets should be left at the end of a shift.

“We know how many chemical packets are required to complete cleaning duties,” says Garcia. “At the end of the shift, staff has to bring back the empty packets. By knowing what is necessary to clean, I know how and when to restock. It simplifies things.”

He adds that although some depart-

ments find that once custodians see the benefits to these chemical packets, they can sometimes “grow legs and walk off,” this isn’t an issue at the college.

“Because of our process of documenting chemicals — how much is needed when and where, and what was all used — it would be very difficult to get away with thievery,” says Garcia. “Our inventory is controlled.”

4. Mobility and Labor Savings

Chemical packets are small and easy to carry, meaning custodial staffs can take everything they need to complete their cleaning duties with them in one trip. When new chemical is needed, workers simply refill their bottle at the nearest water source and add one lightweight packet. This benefit saves both time and money.

“One of the chemicals we use is a germicidal detergent for the restroom,” says Garcia. Workers bring enough packets to clean each of the restrooms for that day and “that is all they use for spraying and wiping, toilet bowl cleaning and mopping.”

Multi-purpose chemical packets are used for light-duty jobs such as desks, white boards and glass, and neutral cleaners are added to mop buckets or auto-scrubbers to clean floors. According to Garcia, the packets can easily be stocked on cleaning carts so workers have enough to complete all their cleaning tasks without having to return to the storage closets.

Managers comment that when custodial crews move quickly and efficiently through the building without retracing steps, they are more efficient. By carrying packets with them as they work, workers eliminate the downtime associated with going back and forth to a custodial closet to refill or restock chemicals. These efficiencies translate into savings on labor.

Overall, the use of preportion chemical packets at Mt. San Antonio College has been positive and Garcia doesn’t see the processes changing anytime soon.

“No system is perfect and everything has room for growth, but to look back at what we were doing five years ago, we have come a long way,” he says. “We have had no problems with the chemical packets, only great results and we look forward to continuing that success.” **FCD**



HOOVER INSIGHT™

Clean smarter
with the most
technologically
intuitive upright
in the industry



ON-BOARD LED DIAGNOSTIC

takes the guesswork
out of maintenance



EASY TO USE

no extra tools
needed for service



SERVICEABLE CORD

reduces down time and
lowers maintenance costs



QUICK CHANGE BRUSHROLL

get back to cleaning faster
with brushroll easy access



DISPOSABLE AUTO SEAL BAG

traps dust and
reduces emissions



HEPA FILTRATION

traps 99.97% of particles
down to 0.3 microns



Ask for model CH50100



COMMERCIAL

Part of the **TTI** Group



BUILT ON
PERFORMANCE
BACKED BY
INSIGHT

FREE INFO: Circle 416