Green Floor Care in our Schools

Green Clean Schools
June 23, 2015

healthy schools campaign

About Healthy Schools Campaign

2015 Webinar Series

May 27 - ARCHIVED
Engineered Water

NOW
Floor Care in your Green Cleaning Program

July 15, 1-2 p.m. CST
Learn from the Leaders

August 11, 1-2 p.m. CST
Green Cleaning Award for Schools & Universities

September 8, 1-2 p.m. CST
Infection Control in a Green Cleaning Program

Logistics

- Webinar will run approx. 1 hour
- A recording of the webinar will be available online
- Please take 2 minutes to complete the survey at the end

Join the Discussion!

- Follow @healthyschools for the latest on our schools, environment, and education.
- Tweet #greenclean to share your thoughts!

Q&A Session

- Q&A will be held during the final 15 minutes
- Ask questions through “chat” in the lower right side of your screen

Today's Speakers

Mark Bishop
VP Policy
Healthy Schools Campaign

William Griffin
President
Cleaning Consultant Services, Inc.

Patrick Pizzo
Assistant to the Superintendent for Administration & Special Projects
East Meadow Union Free School District

What is Green Cleaning?

Cleaning to protect health without harming the environment

Why do we care about green cleaning?

1. Helps students stay healthy and learn
2. Protects the health of custodial staff
3. Increases the lifespan of facilities
4. Preserves the environment
5. Fiscal responsibility

Green Clean Schools

- **5 Steps To Green Cleaning**
- **National Summit** (July 30-31)
- **Leadership Council**
- **Education**
- **Quarterly newsletter**
- **Assessment Tool**

www.greencleanschools.org

Green Clean Schools Participating Organizations

- American Federation of Teachers
- American Association of School Administrators
- Association School Business Officials International
- Council of Educational Facilities Planners International
- Green Cleaning Network
- International Sanitary Supply Association
- National Association of Charter School Authorizers
- National Association of School Nurses
- National Association of State Boards of Education
- National Clearinghouse for Educational Facilities Planners
- National School Plant Management Association
- Parents for Public Schools
- Public Education Network
- And more!

2014 Green Cleaning Award Winners

Grand Award: Green Cleaning Excellence
University of Washington, WA

K-12 Winners:

First Place
Blue Valley School District, KS

Honorable Mention: New Program
Clarke County School District, GA,

Honorable Mention: Sustainability
Virginia Beach City Public Schools, VA,

College/University Winners:

First Place
University of Michigan, MI, Plant Building & Ground Services

Honorable Mention: Evaluation
Stony Brook University, NY

Honorable Mention: Sustainability
University of Minnesota, Duluth, MN

Apply!

GREEN CLEANING AWARD
for Schools & Universities

asumag.com/green_cleaning_award

…or just search for "green cleaning award"

AMERICAN SCHOOL & UNIVERSITY

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William Griffin

Cleaning Consultant Services, Inc.

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CLEANING CONSULTANT SERVICES, INC.

Green Sustainable Floor Care In Schools

Wm R. Griffin, President

Cleaning Consultant Services, Inc.
www.cleaningconsultants.com

CLEANING CONSULTANT SERVICES, INC.

Sustainability and Green are the Future - must be Effective and Competitive

CLEANING CONSULTANT SERVICES, INC.

Why Floor Care is Important in Schools

- Accounts for 20% or more“ of cleaning budget.
- Everybody sees and uses the floor.
- Appearance of floors set the tone for the over cleanliness of the facility.
- Floor care has a liability factor (Slip, Trip and Fall)

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Everything About Floor Care is Changing

- New Surfaces
- New Equipment
- New Chemicals
- New Processes
- New Approaches to Managing Floor Care

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New Surfaces

LVT, Solid Vinyl, Linoleum
Polished Concrete and Terrazzo
Prefinished Wood & Bamboo,
Exotics, Leather, Glass, Metal
Surfaces that Don’t Require Finish

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New Equipment

- Micro Auto Scrubbers
- Engineered Water
- Foam
- Micro Fibers and Flat Mops
- Bucketless Mopping
- Robotics

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Equipment

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New Chemicals

- Ultra Concentrates and Auto Dilution
- Engineered Water
- Reduction or Elimination of Chemicals
- Chemical Free Cleaning
- Nano Based Chemicals
- Certifications – Products and Programs

Nano Resource Links

Nano Floor Treatments:

- www.inovexcoatings.com
- www.simixsolutions.com

- Nano Disinfectant Type Products:
- www.microx1.com/microx1_microprotex.html
- www.genesisurfacetechnologies.com
- www.bactibarrier.com
- www.permanonusa.com
- www.ecosealsafe.com

Recent magazine article on nano:

- http://issatoday.issa.com/Vizion5/viewer.aspx?issueID=27&pageID=12

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New Processes

- Elimination of Floor Finish
- Elimination of Brunish, Strip and Refinish
- Diamond Impregnated Floor Pads
- Nano Treatments, Coatings & Penetrants
- Chemical Free and Dry Scrub and Strip
- Cost reduction of 50% – 65% Possible

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New Approaches to Floor Care Management

- Micro vs. Macro Scheduling
- Day Cleaning
- Focus on Prevention & High Traffic Areas
- Computerized Scheduling, Quality Control and Costing
- Part Time and Next Gen Staff
- Contracted Services

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Restroom Floors
Spray and Vac Systems

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Carpeting Needs a Program

Vacuuming, Encapsulate and Wet Extraction

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Science Based Cleaning

- Research
  - What's it Telling Us?
    - Many of our Processes Don't Actually Clean
  - Quantitative Proof via Testing
    - ATP, Gloss, Tribometer, Others
  - Processes, Systems are Available
  - They Work and They Make a Difference

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Keeping Up with Tomorrow

- Seminars, Books, Videos
- Internet, Forums, Chats, Research
- Peers, Certification, Training
- Trade Shows (ISSA/Experience/Others)
- The Responsibility is Yours

Thank You.

- William Griffin, President
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- Email: wgriffin@cleaningconsultants.com
- Cell-206-849-0179
- www.cleaningconsultants.com

Pat Pizzo

East Meadow Public Schools

healthy schools campaign

Green Clean Schools: Sustainable Floor Care

Patrick Pizzo, A.B.D., M.B.A.

- Assistant to the Superintendent for Administration & Special Projects
  East Meadow Union Free School District
- Lecturer, Hofstra University
- National Green Clean Schools Leadership Council, Healthy Schools Campaign

June 23, 2015

Green Cleaning, Defined:

- Using cleaning methods with environmentally-friendly ingredients and chemicals to preserve human health and environmental quality. Green cleaning techniques and products avoid the use of chemically-reactive and toxic cleaning products.

Green Cleaning

1. Collaborate- TQM teams/Training/Cross-training
2. Innovate- Identify products and conduct pilot programs
3. Evaluate- Determine results from pilot programs before implementing district-wide
4. *….this approach works for floors, the largest area we maintain!*

Practical Reasons Why You Should Care About Floor Care:

- Lowers operating costs/cost savings
- Achieves product operational efficiency
- Increases employee productivity/safety
- Chemical Avoidance

How Do We Start?

- Evaluate type of flooring- Terrazzo, Vinyl, etc.- current systems can, and often should, be changed
- What do you use now?

How Do We Start?
What DO I Need to Know?
...*Here are some suggestions*

- Does Terrazzo need wax? NO
- What is in traditional wax and stripper? Harmful chemicals, which are often known carcinogens
- How do I know what is in the products my staff uses? Check the Safety Data Sheets (SDS) and look up the SDS on ingredients as well.

Procedures and Strategies

- Diamond Pads polish the stone and eliminate chemicals
- Ionized water spray cleaner/auto-scrubbers– chemical free
- Steam cleaners –kill a wide range of bacteria and germs for use in bathrooms and are chemical-free
- Bio-based cleaning supplies
- Microfiber mops – replace chemically treated dust mops

What Do I Need to Know? What About Health Impact?

...Here are some suggestions

- What health problems can develop from exposure to chemicals? Immediate and long-term low-level impact
- What is long-term low-level impact? Some health problems take time to develop, and are caused by low-level exposure over time, this is how we refer to these problems.

Strategies For Chemicals Used:

- Green-certified floor waxes which eliminate the use of styrene and reduce labor (requires change in process)
- Try Low-VOC products for gym floor finishing

What is Styrene?

United States Environmental Protection Agency

Hazard Summary-Created in April 1992; Revised in January 2000

Styrene is primarily used in the production of polystyrene plastics and resins. Acute (short-term) exposure to styrene in humans results in mucous membrane and eye irritation, and gastrointestinal effects. Chronic (long-term) exposure to styrene in humans results in effects on the central nervous system (CNS), such as headache, fatigue, weakness, and depression, CSN dysfunction, hearing loss, and peripheral neuropathy.

How Can We Find Out If Styrene is in the Wax We use?

…Look at Safety Data Sheets

According to the CDC look for these names on Safety Data Sheets:

Synonyms & Trade Names

- Ethenyl benzene, Phenylethylene, Styrene monomer, Styrol, Vinyl benzene
- *(found under Hazardous Ingredients)*

Change in Practice

- Elimination of STYRENE allows the elimination of STRIPPER
- Mechanical means become effective/more effective in removal of wax

…..why is that important?

Floor Stripper Facts:
Actual Safety Data Sheets

ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Put on appropriate personal protective equipment (see Section 8.).
- **Environmental precautions and clean-up methods:** Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

HANDLING AND STORAGE

- **Handling:**
- Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Wash thoroughly after handling. Remove and wash contaminated clothing and footwear before re-use. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Use only with adequate ventilation. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Conclusion: The Facts

- Chemicals can be reduced and often be eliminated
- Change in products, coordinated with change in process, can reduce labor
- Indoor Air Quality/Indoor Environmental Quality ***can be improved***
- These changes are the current practice in East Meadow, this is not a theory or plan

Conclusion:
Cost Savings Summary

Process & Supply Savings Per Initiative on a Yearly Basis			
Product	Use	Percentage Savings	Savings Per Year
*Stripper	Eliminated by new system- had been used to remove wax. Stripper is a very harsh chemical.	100.00%	$14,526.00
*Wax	Substantially reduced by new system. We currently use no chemicals (wax or stripper) on terrazzo hallways and green wax (no stripper) on all tile areas.	49.21%	$6,042.52
*Baseboard Cleaner	Eliminated by new system- had been used for baseboards. This was a very harsh chemical, which should be avoided.	100.00%	$6,429.41
*Polyurethane	Used to coat Gym/ wood floors- changed process and product (oil to water based). New dispensing system drastically reduced product consumption and labor to apply.	28.93%	$488.16
*Buffing products	Eliminated by new system- used to shine a wax floor. Buffing is labor intensive and decreases IAQ due to the creation of dust.	100.00%	$5,478.88

** Based on a 1,340,020 square foot of occupied space*

Q&A Session

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Thank you!

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