

- ALLEN RATHEY

HEALTHY FACILITIES EDUCATOR

ELEVATED CLEANING

- ✓ Leavenworth Elevation 1,166 feet
- ✓ Cascade Mtns 5,000-8,000 feet



ELEVATED CLEANING

- ✓ Mountains exist to be climbed!
- ✓ It's a journey not a destination.
- ✓ You can rise

 higher...

TAKEAWAYS

- 1. Why is Green Cleaning 'Subtracting'?
- 2. What 2 steps enable disinfecting?
- 3. Name 'Principles of Cleaning'.
- 4. What technologies help?
- 5. What's engineered water?

ABOUT GREEN CLEANING

- ✓ Healthier Cleaning.
- ✓ Cleaning that improves, doesn't pollute the environment.
- √"Green cleaning" cleans up the cleaning.

GREEN CLEANING

Environmentally Preferable Cleaning Products

"products that have a ... reduced harmful effect on

human health and the environment compared with

products or services that serve the same

purpose." (U.S. Executive Order 13101).

GREEN CLEANING

- Certified or 3rd-Party-Vetted Cleaning Products.
- Green Seal.
- UL Ecologo.
- UL Environment.
 http://industries.ul.com/cleaningproducts
- EPA's Safer Choice (formerly, Design for the Environment, DfE).

GREEN<u>ER</u> CLEANING

Uncertified Products

Ask vendors:

- For disclosure of ingredients.
 - Proof of safety.
- Whether EPA's Safer Choice <u>ingredient</u> criteria were used.

CLEANING AS 'SUBTRACTION'

It's like "readin', writin', and 'rithmetic" — cleaning is *subtracting* (-) soils or pollutants — i.e., removing them, not adding (+) them.

KNOW CHEMICAL SENSITIVITY

✓ 12.6% of people are chemicallysensitive

(The National Institutes of Health).

✓ 15.9% of people are chemically-sensitive (California Department of Health Services).

ADDRESS CHEMICAL SENSITIVITY

Collaborative Service Opportunities

OAsk people if they are Chemically-Sensitive.

OGive them a Reduced-Chemical (RC) experience.

KNOW ASTHMA & ALLERGIES

- ✓ Dust triggers allergies & asthma.
- ✓ Clean. ingred. linked to asthma.
 - ✓ Fragrances linked to illnesses.
 - ✓ Best fragrance = None at all.

2 FUNDAMENTALS

- 1. PROCESSES for better contaminant removal.
- 2. PRODUCTS that remove, don't rearrange soil.

PRINCIPLES

- 1. Removes, doesn't add contaminants.
- 2. Removes, does not add or stir dust.
- 3. Removes, does not routinely poison germs.
- 4. Removes, does not add allergens.
- 5. Minimizes chemistry, maximizes results.

PRINCIPLES

- 6. Disinfects touch points.
- 7. Ergonomic.
- 8. Fragrance-free.
- 9. Residue-free.
- 10. Non-toxic.

- ✓ 'People Do Not Fail, Systems Do'.
 - Dr. Edwards Deming
 - ✓ Develop a System to Clean for Health.

- 'A better doctor helps before disease begins, and the lesser one after the disease has developed.'
- ✓ Healthier Cleaning is Preventive Medicine.

- ✓ Putting Health 1st is Key.
- ✓ Dirty Process Makes Dirty Buildings.
 - ✓ Clean Process Makes Clean Ones.
 - ✓ Clean for Health,
 Appearance follows.

'A better housekeeper helps prevent illnesses, while the lesser one applies higher cleaning standards only after sickness starts.'

WHAT IS QUALITY?

Quality

Dr. Edwards Deming asked business students:

'What is Quality?'

He answered:

'Quality is Pride of Workmanship.'

Instill *Pride* in housekeepers =

Quality experience

for customers and guests.

LESSEN INSPECTING

Inspection: How Reducing It

Can Improve Quality

While Inspection can catch poor results before they reach your customer ...

It's Better to improve the System that produces the results.

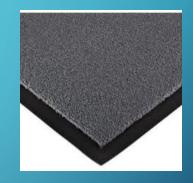
Then Inspect.

STOP SOIL AT THE DOOR

An effective entrance mat removes:



- ✓ Heavy metals.
- ✓ Pesticide dust.



- ✓ Outdoor contaminants.
- This helps keeps pollutants outdoors, post indoors and inhaled or on surfaces.

STOP SOIL AT THE DOOR

- Clean entry walks outside the building.
 - ✓ Use two walk-off mats at entry.
 - outside and inside doors:
- ✓ Bi-level, scraper mat outside removes soil.
 - "Carpet" mat inside dries, wipes shoes.

STOP SOIL AT THE DOOR

- √ Vacuum, sweep, clean.
- replace mats often (daily, weekly, often during bad weather).
 - ✓ Replace curling mats to prevent tripping.

2 STEPS TO DISINFECTING

- Clean first (remove soil).
- 2. Disinfect second (you can't disinfect a dirty surface).

UNDERSTAND SANITIZING & DISINFECTING

Sanitizing

Reduces, but does not always eliminate, microbes from the inanimate environment to levels considered safe by public health codes or regulations (EPA).

UNDERSTAND SANITIZING & DISINFECTING

Disinfecting

Destroys or inactivates infectious

bacteria, viruses, and fungi

on hard inanimate surfaces (EPA).

Disinfectants are 'stronger' than sanitizers.

DISINFECTING STEPS

- Emphasize 'Touch Points'.
- Clean first, then disinfect, since dirt often deactivates disinfectants.
- ✓ Prespray surface with disinfectant. Let stay wet for several minutes
 called "dwell time".



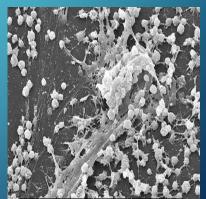
DISINFECTING FACTS

Dwell Time

Disinfectants work best when allowed to work for several minutes before wiping or rinsing.

WINNING SLIME WARS

- Just applying disinfectant will not always kill bacteria. For example, under the rim of toilet bowls.
- Bacteria make a protective slime biofilm.
- Biofilm prevents disinfectants from getting in.
- Brush/scrub to break it up.



HEALTHY BATHROOM TIPS

- Run bathroom exhaust fan when cleaning.
- Prespray disinfectant on surfaces with a pump (not trigger) sprayer to allow dwell time.
 - Avoid inhaling aerosols.



HEALTHY BATHROOM TIPS

✓ Use separate color-coded microfiber cloths (e.g.,red) for one bathroom only, then change cloths.





✓ Fill drain traps regularly.

TALKING TRASH

- Empty trash daily especially food waste avoid odor and pests.
- ✓ Pull trash daily, disinfect receptacles weekly. Replace liners.
- Separate trash and recyclables properly.
 - Help guests separate recyclables.

HANDLING CHEMICALS

✓ Provide clear directions using icons / translation (vendors can help).



- ✓ Track chemical-use quarterly.
- ✓ Use a proportioner for correct dilution, effectiveness and to limit worker exposure.

HANDLING CHEMICALS

Apply solution to the cleaning cloth using a pump sprayer or squirt bottle to prevent breathing aerosol and overuse.

✓ Reduce or eliminate chemicals.



FLOOR CARE - CARPET

- √ Vacuum high traffic areas daily.
- ✓ Vacuum medium to low traffic areas weekly, monthly.

FLOOR CARE - CARPET

- Clean the tops of fibers every few weeks or months (interim cleaning).
- ✓ Hot water extract or
- deep-clean carpet to remove
- embedded and sticky soils.

FLOOR CARE - CARPET

- Increase ventilation, run the HVAC unit, and use fans to dry carpets quickly.
- ✓ Carpets should be dry within 12 hours.

CRI-APPROVED EQUIPMENT



- ✓ Vacuum Cleaners.
- ✓ Carpet Cleaning Extractors.
 - ✓ Cleaning Solutions
 - & Carpet Spotting Products.
- Carpet Cleaning Systems (solutions, equipment).

CRI

Environmentally Preferable Equipment
Carpet and Rug Institute (CRI)

Seal of Approval (SOA)



Certifies effective carpet cleaning tools & processes.

WHAT TECHNOLOGIES HELP?



DUSTING AND COUNTERS (NON-BATHROOM)

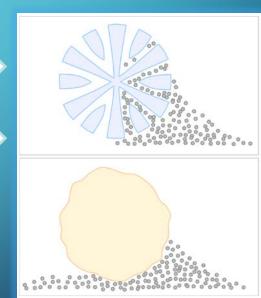
- ✓ Dusters should capture dust.
- ✓ Lint-free wipes, microfiber.



- √ Vacuums with efficient bags/filters.
- Microfiber & Water on glass & counters.
 - Use microfiber tools for edge dusting.

WHY MICROFIBER

- Removes, doesn't spread, dust.
- Faster, better cleaning dry or wet.
- √ Top Image, Micro. Strand.
- Bottom, Cotton Strand.



GLASS - SMALL

- Microfiber cloths or pads clean glass using just water.
- ✓ A microfiber pad on a pole cleans large mirrors quickly.





GLASS - LARGE

✓ A window washing sleeve fits applicator. ○



✓ Water with a few drops of mild detergent is applied then "squeegeed".



CLEANER TECHNOLOGIES (LESS CHEMISTRY AND DUST)

Microfiber (cleans well with water, removes dirt, dust, fingerprints).



Pumice stone (cleans rings from toilets without chemicals).



CLEANER TECHNOLOGIES (LESS CHEMISTRY AND DUST)

- Steam Vapor (cleans, sanitizes with water, kills b. bugs, d. mites in mattresses).
- ✓ Vacuums with Multi-level Filtration keep dust inside (CRI-Approved).

CLEANER TECHNOLOGIES (LESS CHEMISTRY AND DUST)

✓ Spray-and-Vacuum Unit for Public

Restrooms (applies clean solution, removes dirty solution).



Autoscrubber (applies clean solution, scrubs, and removes



dirty solution).

REMOVE IT & PROVE IT

Cleaning results improve when...

1. Solution is applied to the surface.





2. Wiped with a dry microfiber. Subtraction Principle Applies.

(Kaivac Research)

REMOVE IT & PROVE IT



Why?

- ✓ Wiping with a dry towel removes more soil then when wet.
- ✓ Wet wipe loses capillary action.

PROVE IT



SUBTRACTION TOOLS

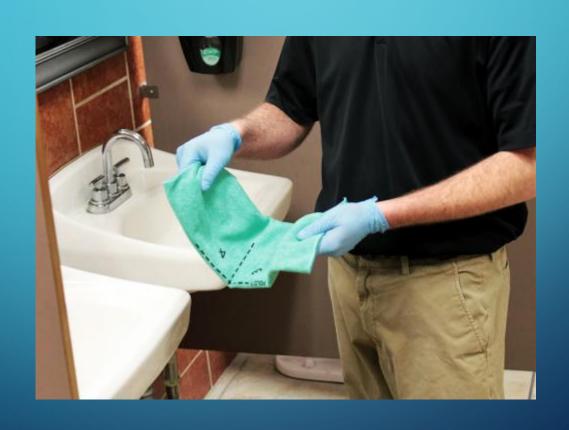




SUBTRACTION TOOLS



FANTASTIC FOLDING



FLOOR CARE – DRY PROCESS HARD OR RESILIENT

- Dust mop floors using microfiber, or;
- ✓ Vacuum with a well-filtered machine.
 - ✓ Avoid petroleum-based dust mop treatments.

FLOOR CARE – WET PROCESS HARD OR RESILIENT

- Place wet floor warning signs before mopping.
- Ventilate or use fans to dry floors preventing slips and falls and growth of bacteria, mold and mildew.

FLOOR CARE — HARD OR RESILIENT — WET PROCESS

On smaller floors...



- ✓ Use a damp pole-mounted microfiber pad to mop bathrooms, rinse often.
- ✓ Reduce moisture buildup and drying times by running exhaust fans.

FLOOR CARE — HARD OR RESILIENT — WET PROCESS

On larger floors...



- √ Consider an automatic scrubber.
- Or use a microfiber string mop, a divided mop bucket, and change water often.

WHAT'S ENGINEERED WATER?



Water engineered to meet the performance requirements of professional cleaning, and/or sanitizing and disinfecting.

Why "Engineered" Water?

Water is the universal cleaning agent, that can be "engineered" by electrochemical activation (ECA) to an end product whose primary constituent is still water.

It may include:

- ✓ Split-stream Electrolysis of Water.
- ✓ Aqueous Ozone.
- ✓ Deionized Water.
 - ✓ Low-Moisture Steam Vapor.

It does not include:

- X High-pressure application of water.
- X Cleaning using water blended with, or part of, traditional cleaning chemicals or solutions.

Key Drivers

- ✓ Long-term-value (.03-.07 per gallon).
- ✓ Health and green factors.
- ✓ On Site Generation (OSG).







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THANK YOU

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Winning Environments, LLC, specializes in promoting best practices that enhance the built environment.