

# Green Cleaning

“Cleaning to Protect Health  
Without Harming the  
Environment”



# Green Cleaning

Why Green Cleaning?

# Why Green Cleaning

- We spend 90% of our time indoors
- Air quality indoors is 2 to 5 times worse than it is outdoors
- Connections exist between indoor air quality, cleaning and lost productivity

*source: US Environmental Protection Agency*

# Why Green Cleaning

## The school indoor environment:

- Asthma affects 1 of 13 children
- Leading cause of absenteeism
- Major indoor triggers of asthma attacks include irritants such as cleaning agents

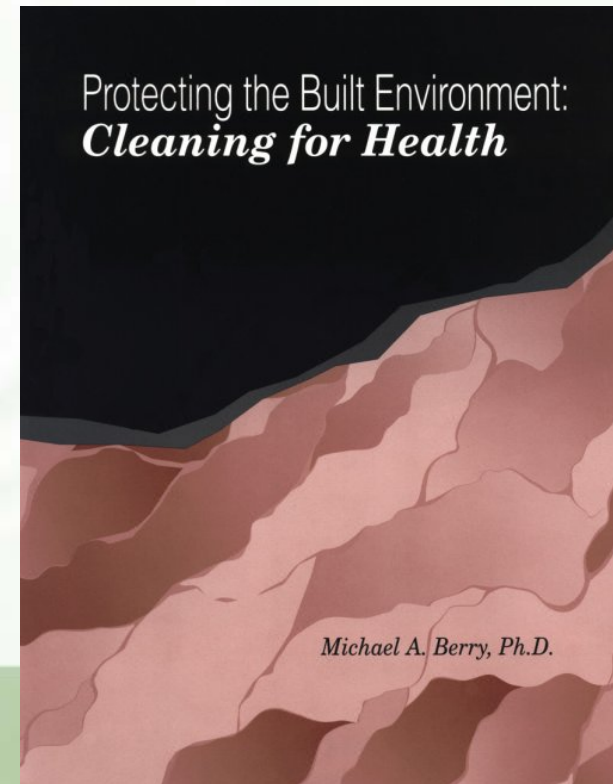


*source: US Senate Environment and Public Works Committee  
US Green Building Council*



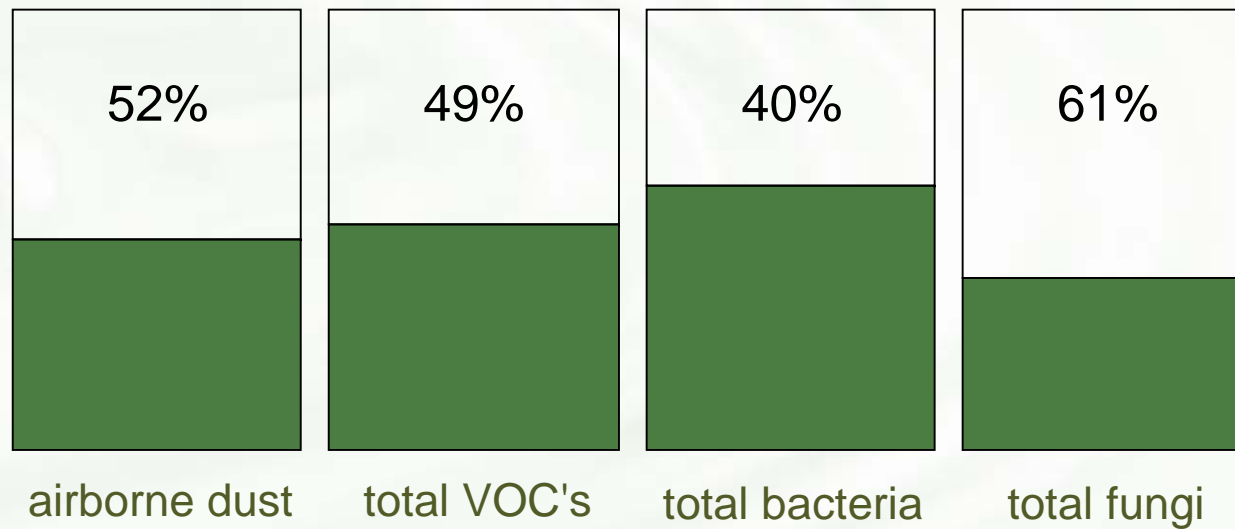
# Cleaning for Health Vs. Appearance

- Clean for health first
- Appearance is second



# Cleaning To Protect Health

Improved cleaning methods decreased contaminant levels



*source: EPA, Dr. Michael Berry, Research Triangle Institute*

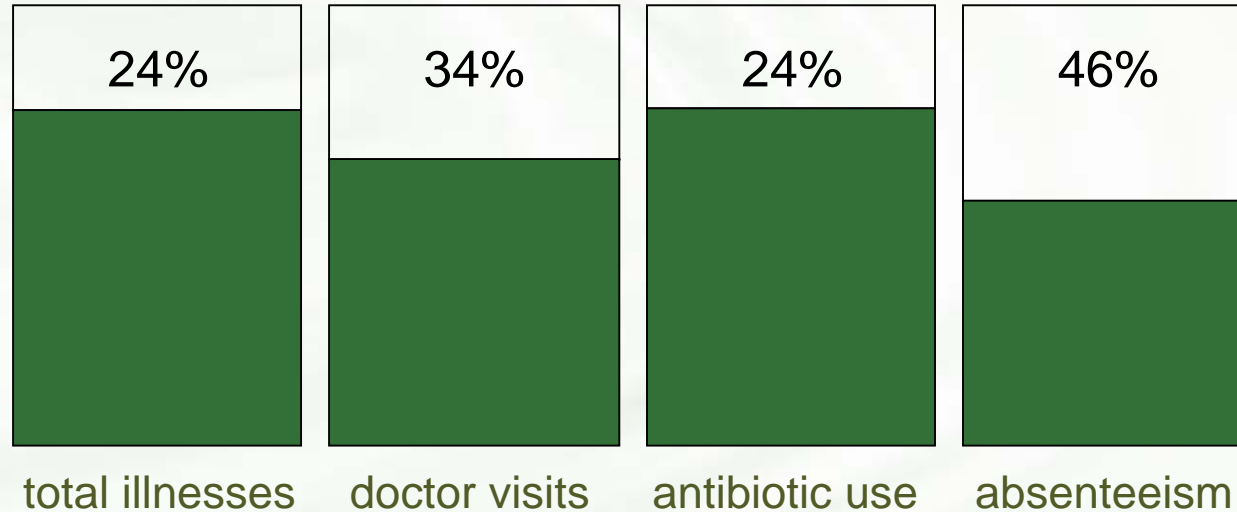
# Cleaning To Protect Health

Improved cleaning methods include:

- green cleaning chemicals
- efficient vacuum cleaners
- walk off mats
- damp dust cloths
- moisture control
- deep cleaning procedures
- frequent vacuuming and dusting

# Cleaning To Protect Health

Improved cleaning methods decreased health related issues



source: Dr. Leonard Krilov, Cornell University

# Cleaning To Protect Health

Performance cleaning processes and products have a reduced impact on the health of:

- Custodians
- Building Occupants
- Buildings
- The Outdoor Environment

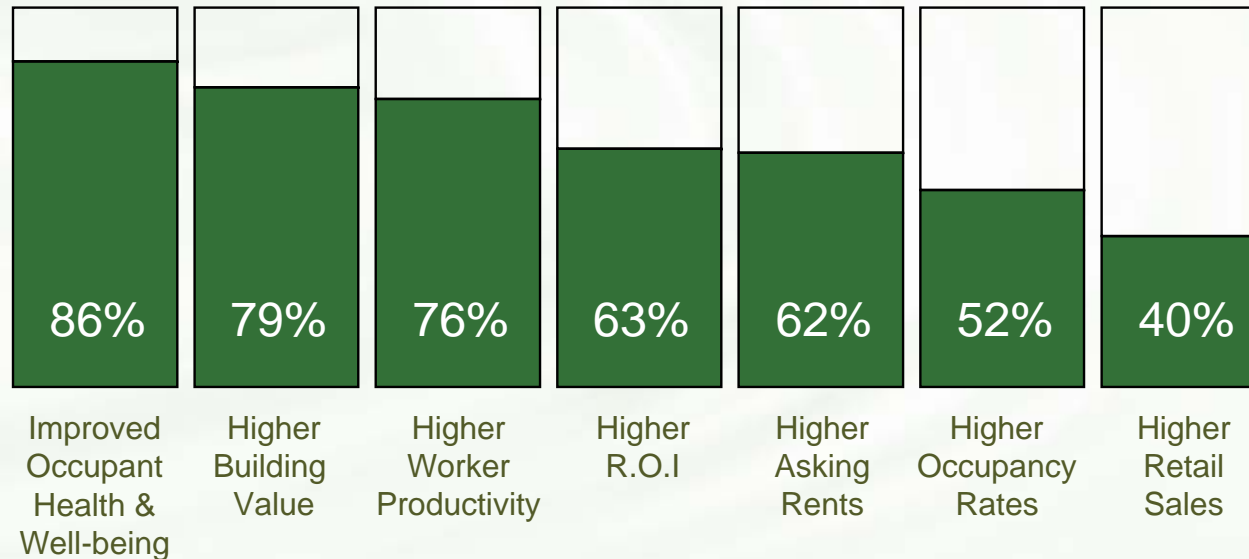
# Cleaning To Protect Health

It's all about ...

- being a good steward letting your employee's know their health and safety is important
- return on the investment in productivity & performance
- commitment to something important to the community at large

# Do Green Buildings Make Sense?

Executives who say green buildings outperform non-green buildings:



source: PRNewswire, 9/15/04

# Implementing performance cleaning...

- reduces performance-robbing contaminants
- contributes to lower absenteeism rates
- contributes to reduced illness rates
- contributes to better test scores
- consolidates products
- simplifies custodial training
- reduces custodial staff hazards
- positively impacts the environment



# Dispelling green myths with green facts...

## MYTH

- Costs More
- Less Performance
- No Impact
- Nobody cares

## FACT

- Costs Less
- Equal or Better
- Studies Prove
- Growing Rapidly

# Green Seal

- Independent, non-profit organization
- Certifies products that:
  - cause less toxic pollution and waste
  - conserve resources and habitats
  - minimize global warming and ozone depletion
- Certifies cleaning processes



# Green Seal Criteria (Ex. GS-37)

Cleaning Performance

Human Toxicity

Carcinogens and Reproductive Toxins

Skin and Eye Irritation

Skin Sensitization

Combustibility

Smog Production / IAQ (VOCs)

Aquatic Toxicity

Aquatic Biodegradability

Concentrates

Fragrances

Prohibited ingredients

Training

Eutrophication

Animal Testing

Packaging

# Green Seal

Standards for:

- institutional cleaners (GS-37)  
general purpose, bathroom, and glass and carpet
- floor care products (GS-40)  
floor finishes, strippers
- hand soaps (GS-41)
- paper products (GS-01 and GS-09)  
towels, napkins, and tissue
- cleaning processes (GS-42)

# Other Eco-Labels

- Design for the Environment
- Eco-Logo



# You can make the difference!

Follow the 5 Points on the  
Green Cleaning Road Map



# Step 1

Use Green Seal Certified and Other Environmentally Preferred Products

- Chemistry
- Paper Products
- Can Liners



# Green Seal Certified Cleaners & Floor Care Products

- Super Shine-All
- Green Select Glass Cleaner
- Green Select Degreaser
- Green Select Bathroom Cleaner
- Suprox
- Carpet Pre-Spray and Extraction
- One Plus Floor Finish
- Green Select Stripper






# Step 1, Paper Products

- At a minimum, meet EPA Guidelines
- Green Seal Standards GS-01, GS-09 exceed EPA guidelines

## EPA Guidelines



	<u>Post Consumer %</u>	<u>Total Recovered %</u>
Bathroom Tissue	20-60%	20-100%
Paper Towels	40-60%	40-100%
Facial Tissue	10-15%	10-100%

# Hillyard Green Select Paper Products

- Green Select Folded Towels
- Green Select Roll Towels
- Green Select Kitchen Roll Towels
- Green Select Center Pull Towels
- Green Select Tissue



# Step 1, Can Liners

- Use liners with resins that contain at least 10% post consumer waste



# Hillyard Green Seal Certified Hand Soaps

- Green Select Foam Hand Soap
  - 1200 ml
  - 1250 ml
  - 1500 ml
- Green Select Liquid Hand Soap (Bulk)



## Step 2, Low Environmental Impact Equipment

- Vacuums
- Extraction Equipment
- Autoscrubbers
- Buffers and Burnishers
- Touch-free Restroom Cleaning



## Step 2, Vacuums

- Carpet & Rug Institute Certified
  - Soil Removal
  - Dust Containment
  - Appearance Retention
- Less than 70dBA Sound Level
- Captures 96% of Particulate 0.3 Microns



## Step 2, Extraction Equipment

- Carpet & Rug Institute Certified
  - Soil Removal
  - Water Recovery
  - Appearance Retention
- Capable of removing moisture so carpets dry in 12 hours.





## Step 2, Autoscrubbers

- Variable speed pumps to optimize the use of cleaning solution.
- Operate at less than 70dBA.
- Environmentally preferred gel batteries.





## Step 2, Buffers and Burnishers

- Guards, vacs, or devices to capture fine particulate.
- Operate at less than 70dBA.
- Propane-powered floor equipment has high-efficiency, low-emissions engines.



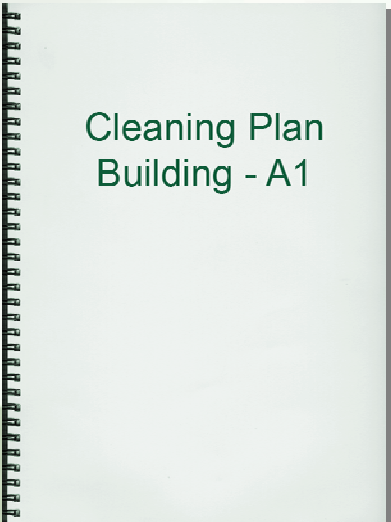
## Step 2, Touch-free Cleaning

- 1/2 GPM to reduce water consumption
- Battery operation for quiet operation
- Utilize concentrated, environmentally preferred refills



## Step 3, Implement High Performance Processes

- Redistribute Workloads
- Redefine Daily Cleaning Processes
- Use a Chemical Dilution System
- Use Microfiber Technology
- Deploy High Performance Matting Systems
- Utilize CCAP to make the transition easier



Cleaning Plan  
Building - A1

## Step 3, Microfiber

- Captures more dirt
- Reduces chemical use
- Lasts longer
- Takes less effort to use
- Always uses fresh cleaning solution



## Step 3, High Performance Matting

- 12 to 20 feet high quality matting
- Less dirt tracked in, lower cleaning burden
- Rubber-backed is environmentally preferred over vinyl-backed



## Step 3, CCAP

- Helps manage and analyze cleaning programs
- Can assist in transitioning to a green program by:
  - Assigning and balancing workloads
  - Monitoring and assessing quality
  - Generating critical reports
  - Evaluating processes
  - Standardizing systems
  - Implementing training

HILLYARD  
**CCAP**<sup>®</sup>  
Version 10.0

## Step 4, Third-party Certification

- Currently Green Seal is the only independent, third-party organization certifying green cleaning programs
- Green Seal has published a standard, GS-42, Green Seal Environmental Standard for Cleaning Services



## Step 4, Third-party Certification

- GS-42 establishes requirements for cleaning service providers
  - including in-house cleaning services,
  - external cleaning services,
  - creation of a green cleaning program that protects human health and the environment.



# Step 4, Third-party Certification

## GS-42 Components

- Planning Requirements
- Products, Supplies and Equipment
- Cleaning Procedure Requirements
- Communication Requirements
- Training Requirements

## Step 5, Whole Building Certification

Integrate Green Cleaning Into A  
Green Certified Building

# Step 5, Whole Building Certification

## U.S. Green Building Council

- LEED®-NC and LEED®-EB
- Provides a voluntary standard for green buildings to improve performance while reducing overall operating costs



# Step 5, Whole Building Certification

## LEED®-EB certification categories

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■ sustainable sites	14
■ water efficiency	5
■ energy & atmosphere	23
■ materials & resources	16
■ indoor environmental quality	22
■ innovation in operation & upgrades	5
■ total points available	85

*source: US Green Building Council*

# Step 5, Whole Building Certification

## Cleaning industry impact on LEED®-EB

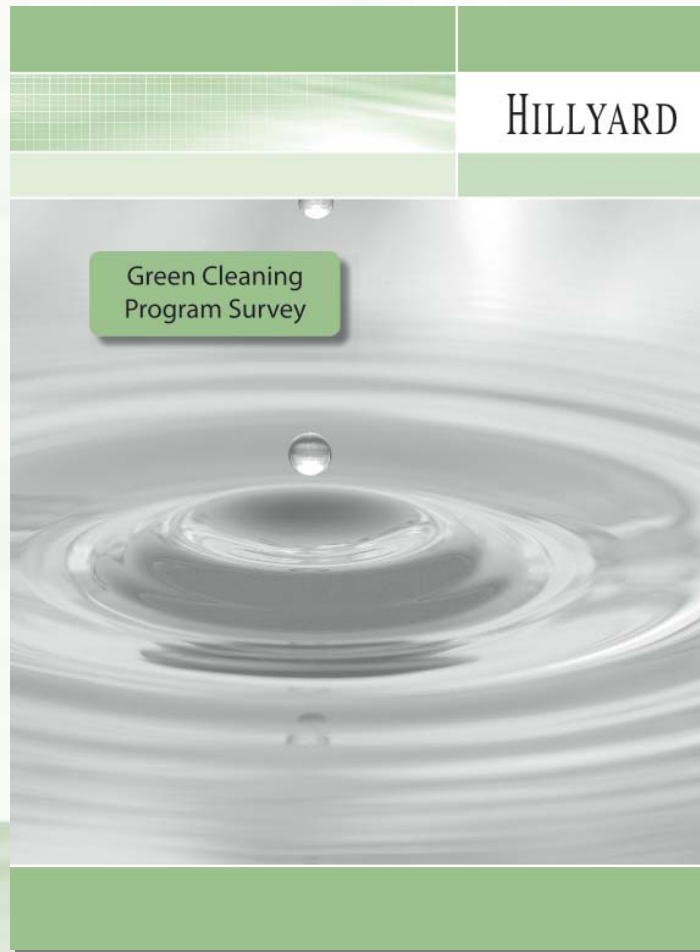
Category	Item	Points
Sustainable Sites	Plan for Green Site and Building Exterior Management	2
Materials & Resources	Sustainable Cleaning Products	3
	Occupant Recycling	3
Indoor Environmental Quality	Entryway Systems	1
Green Cleaning	Cleaning Policy	1
	Pest Management Policy	2
	Cleaning Equipment Policy	1
Total:		13

source: US Green Building Council

# Getting started...

- Evaluate the current state
- Do product survey
- Field test products
- Gain support throughout the organization
- Follow GS-42 recommendations for compliance

# Green Cleaning Program Survey



# Develop a green cleaning manual...

Green cleaning manual available at  
[www.GreentoClean.com](http://www.GreentoClean.com)

Follows GS-42 Standards

Has Guidelines for  
Implementation




HILLYARD  
Green Cleaning Manual



# Conclusion

- Going “Green” isn’t a difficult process
- Being “Green” benefits everyone
  - Custodial Staff
  - Occupants of the building
  - The environment as a whole



Thank You  
[greentoclean.com](http://greentoclean.com)