



# HOW TO BECOME CLEAN AND GREEN

**Understanding and Implementing Green Cleaning**

# WHY SHOULD WE BE CONCERNED?

- The USA comprises about 5% of the world's population and annually produces 27% of the world's garbage.
- The USA uses 6 billion pounds of chemical products yearly.
- The USA uses 4.5 billion pounds of paper products yearly.
- The USA uses 35 billion pounds of plastic liners yearly.
- The USA disposes 500 million pounds of cleaning equipment yearly.

# Agenda

- Green Cleaning – What is it?
- What is Green Seal and what does it mean to me?
- What is LEED and how does Green Cleaning relate?
- Steps for implementing a Green Cleaning Program.
- Citroxi Program
- How to Pursue the “Green Opportunity”

# What is Green Cleaning?

- Products and services that reduce the health and environmental impact compared to similar products and services used for the same purpose.
- “Green Cleaning” is more than special chemicals and equipment.
- Currently “Green Cleaning” is not regulated by any governmental agency.

# Markets for Green Cleaning

There is a growing opportunity for Green Products and Green Practices in many different markets:

- Education
  - Healthcare
  - Building Maintenance
  - Government
  - Manufacturing
  - Lodging
  - Transportation
  - Recreation
  - Retail
- 
- **Technology** – now is the right time, chemical advances have allowed us to formulate products that meet or exceed performance of conventional cleaners.

# Benefits of Green Cleaning

- Improve indoor air quality
- Creates a healthier facility for tenants, workers, custodians
- Improves morale
- Reduce sick days and associated health care costs
- Minimize exposure to aggressive chemicals
- Reduce water and air pollution
- Reduce waste by using concentrated products
- Reduce packaging waste with recyclable materials

**CLEAN FIRST FOR HEALTH,  
THEN FOR APPEARANCE**

# Organizations with Recognized Standards & Guidelines

## **U.S. Green Building Council**

Coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.

## **EPA for Comprehensive Procurement Guidelines (CPG)**

U.S. EPA's website for the CPG-a component of the government's "buy-recycled" program.

## **EPA Design for the Environment (DfE)**

Program One of EPA's premier partnership programs working with individual industry sectors.

## **ISSA-The International Sanitary Supply Association**

Trade association of member companies that manufacture, market and distribute cleaning and maintenance products, equipment and related services.

## **Green Seal**

Independent, non-profit organization that works to achieve healthier, cleaner environments by identifying and promoting products and services that is environmentally friendly.

## **Greener Buildings**

Resource center for environmentally responsible building development.

## **The Ashkin Group**

The foremost authority on Green Cleaning.

# What is Green Seal

- Mission - “To achieve a more sustainable world by promoting environmentally responsible production, purchasing and products.”
- Goal of achieving a healthier and cleaner environment by reducing pollution, waste while conserving resources.
- An independent, non-profit organization founded in 1989.
- It works with manufacturers, industry sectors, purchasing groups and governments.

# Green Seal Standards

- GS-01 Tissue paper
- GS-08 Household cleaners
- GS-09 Paper towels and paper napkins
- GS-11 Powdered laundry bleach
- GS-33 Lodging properties
- GS-37 Industrial and Institutional cleaners
- GS-40 Floor Care products

# Current Green Seal Clients

- U.S. Army Aberdeen Proving Ground
  - U.S. Committee For Purchase From People Who Are Blind or Severely Disabled
  - U.S. Department of Energy
  - U.S. Department of the Interior
  - U.S. Environmental Protection Agency
  - U.S. Postal Service, Southeast Area
- 
- **States** – Pennsylvania, Virginia, Minnesota, Florida, California, Massachusetts
  - **Cities** - Santa Monica, Seattle, Los Angeles, Las Vegas, Austin, New York

**AND GROWING!**

# GS-37 Industrial & Institutional Cleaners

- Concentrated products only
- Bathroom cleaners
- General purpose cleaners
- Glass cleaners
- Most widely recognized green chemical standard in the industry. GS-37 has been specified and mandated in school and university bids and municipal contracts.

# Green Seal's Ecolabeling Service

## **Voluntary Environmental Performance Labeling**

- Third Party that allows environmentally preferable products to be identified.
- Third Party that allows environmental claims.
- Voluntary programs that provides environmental data of a product, under pre-set categories of parameters set by a qualified third party and based on life cycle assessment, and verified by that or another qualified third party.
- Further, the ISO has identified that these labels share a common goal, which is:

"...through communication of verifiable and accurate information, that is not misleading, on environmental aspects of products and services, to encourage the demand for and supply of those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement."

# U. S. Green Building Council (USGBC)

- USGBC is a coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.  
([www.usgbc.org](http://www.usgbc.org))
- Goals of USGBC – develop industry standards, improve design practices, enhance operating practices
- Benefits of a Green Building
  - Environmental – reduce the impacts of natural resource consumption
  - Economic – improves the bottom line
  - Health and safety – enhance occupant and worker comfort and health
  - Community – minimize strain on local infrastructures and improve quality of life
- **Responsible for LEED program...**

# LEED (Leadership in Energy & Environmental Design) Rating System

- Defines “green buildings” by establishing common standards
- Promotes integrated, whole building design practices
- Recognizes environmental leadership in the building industry
- Raises consumer awareness of “green building” benefits
- Optimizes environmental and economic factors
- **LEED buildings earn credits for Green Housekeeping.**

# LEED Classifications

- **LEED - NC – New commercial construction and major renovation projects**
- **LEED - CI – Commercial and interior projects**
- **LEED - CS – Core and Shell Projects**
- **LEED - H – Homes**
- **LEED - ND – Neighborhood Development**
- **LEED - EB – Existing Building Operations \*\*\***

# LEED – EB Rating System

- Certified Level            32 - 39 points
- Silver Level                40 - 47 points
- Gold Level                 48 - 63 points
- Platinum Level            64+ points (85 points possible)

The Jan San industry can assist building managers with up to 13 certification points and 1 to 4 innovation points.

# Criteria to Earn LEED Credits

- 
- Indoor environmental quality
- Materials and resources
- Sustainable sites
- Water efficiency
- Energy and atmosphere
- Innovation points

# Examples of Procedures to Earn Credits

## **Sustainable Sites**

- Erosion and sedimentary control
- Alternate transportation – bicycle racks/car pooling/alternate fuel vehicles

## **Water Efficiency**

- Innovative Wastewater Technologies
- Discharge Water Compliance

## **Energy and Atmosphere**

- Ozone Protection
- Renewable Energy

## **Materials and Resources**

- Source Reduction and Waste Management
- Occupant Recycling

## **Innovation**

- Innovation in Operation and Upgrades
- Occupant surveys

# Indoor Environmental Quality

- IAQ Management Program
- Entryway systems
- Isolation of Chemicals
- Dilution Control Systems
- Training in cleaning systems
- Indoor pest management policy
- Equipment that can reduce impact on IAQ
  - Filtration
  - Moisture Reduction
  - Sound Levels
  - Low emissions
  - Ergonomics
  - Repair Log

# How Do I Get LEED Certified?

- Registration
  - Documentation
  - Credit Interpretation
  - Application Submittal
  - Award
  - Appeal – If Rejected
- 
- Fees – Range  
\$750.00 - \$3750.00 for Registration  
\$1500 - \$7500 for Certification

# Green Cleaning Practices

- Entry matting
- Scrub/recoat versus stripping
- Use non-zinc floor finishes
- High filtration vacuums
- Extract versus bonnet cleaning
- Mop and bucket elimination
- When using cleaners/strippers begin at the weakest dilution
- Use chemical management systems – accuracy & safety
- Spot clean everyday
- Always follow manufacturer's label directions

# Green Cleaning Practices

- Adequate ventilation
- Moisture reduction
- Report and repair all leaks
- Frequent cleaning of entrance areas, inside and out
- Wear Proper Personal Protective equipment
- Be aware of tenants/workers who may be sensitive to certain chemicals before there is a problem
- Daily trash removal
- Establish and monitor a recycling program
- Establish a maintenance program for parking lots, garages, roofs and HVAC
- Training, Training, Training

# Selecting Green Products

- Select the least toxic products needed to perform a cleaning task.
- Select products with low VOC content.
- Select products with a moderate pH, 4 to 11.
- Avoid products containing known or suspected carcinogens.
- When using hazardous chemicals, ensure worker safety.
- Select products that leave little or no residue.
- Select products that are biodegradable.
- Select products designed to work in cold water.

# Selecting Green Products

- Select concentrated products and use with dilution control equipment.
- Select metal free floor finishes.
- Select products derived from renewable sources.
- Select products that come in recyclable containers.
- Select paper and plastic products with maximum recycled content.
- Select micro fiber clothes and mops.
- Select a supplier that can support your “greening” effort.

# How do I implement a Green Cleaning Program?

- Set program policy and goals – Make everyone aware!
- Communicate to management and workers
- Suggest a “Pilot Process”
- Baseline study to establish benchmarks – complete a survey
- Evaluate products, procedures and equipment
- Identify opportunities for improvement
- Rank areas of improvement by degree of importance
- Train workers and employees
- Implement the program
- Monitor and reassess plan, continually setting new goals

# Summary

## Need for Green

- Worker safety and public health are driving Green demand.
- Federal and state governments, public and private universities are mandating or giving preferential treatment to Green Products

## Go green without sacrificing performance

- Products have been formulated to have a reduced environmental impact while still maintaining superior performance. Products have been tested and retested to insure performance meets or exceeds conventional maintenance chemicals.
- Try the products for yourself!!!

