



Green Cleaning Policy

Policy Overview

The Green Cleaning Policy and High Performance Cleaning Program achieves its goal to maintain a clean, healthy, and safe building environment while simultaneously minimizing the impacts of cleaning processes, procedures and products on the natural environment. Under this policy the campus will no longer judge cleanliness of a building solely on appearance, but will now place equal emphasis on the environmental sustainability of cleaning operations and overall building health.

Scope

Management Scope

This Green Cleaning Policy applies to all building areas within the University of South Carolina campus, including functional spaces, public restrooms, lounge and study rooms, public hallways and pathways, computer rooms, kitchenettes, and stairwells. This policy includes the grounds associated and within the University of South Carolina, extending to the property line and including cleaning of hardscape and the building exterior.

This policy is overseen by the University of South Carolina Facilities Department and the University of South Carolina Housing Department and shall not be revised, changed or updated without management consent.

Program Goal

The goal of the Green Cleaning Policy is to minimize exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particle contaminants which may adversely impact air quality, health, building finishes and systems, and the environment, and to balance these needs with the cost and quality of the managed systems to provide a sustainable approach to cleaning and janitorial maintenance.

Performance Goals and Metrics

1. Products:

Goal - Purchase cleaning, hard floor and carpet care products that meet program sustainability criteria.

Metric – Evaluate purchases based on the portion of the product (measured by cost) which meet one or more of the sustainable criteria.

Performance – A minimum of 20% of products by cost will meet this criteria .

2. Operating Procedure:

Goal - Maintain appropriate standard operating procedures, strategies, and guidelines for critical tasks. Develop new procedures as necessary.

Metric – Costs will be evaluated based on necessary changes made to existing procedures, strategies and guidelines. (This would be better as a metric of meeting initial and annual training hours instead of cost)

Performance – All procedures will meet EBOM criteria at a minimum.

3. Staff Training

Goal - Ensure appropriate staff training on an ongoing basis.

Metric – Costs will be evaluated based on time to train staff on new operating procedures. (This may be better as a percentage of staff trained/retrained annually over cost)

Performance – All staff members will be fully versed on proper safety and procedural codes.

4. Occupant Feedback

Goal - Collect feedback to ensure continuous improvement and occupant satisfaction

Metric – Occupant feedback will be based on the results of surveys and suggestions.

Performance – All occupants are pleased with the cleanliness of their buildings. Departments will establish annual percentage targets to measure improvement.

5. Budgetary considerations

Goal - Meet budgetary considerations

Metric – Costs will be evaluated based on total money spent to enact changes. Comparison of costs for green cleaning will be evaluated to past cleaning costs per square foot of building space.

Performance - Enact and continue green cleaning procedures and policy with as little expenditure as possible.

Responsible Parties

The University of South Carolina's Director of Custodial Services (Housing) and Custodial Operations Manager (Facilities) are responsible for developing and managing the implementation of the Green Cleaning Policy .

The Assistant Director of Program Management in the Office of Sustainability and the Sustainability Coordinator for Housing will review this policy and progress toward stated goals with the Director of Custodial Services and the Custodial Operations Manager on an annual basis. Collectively the four positions above make up the Green Cleaning Committee.

Personnel involved with various elements of the green cleaning program shall carry out their tasks according to this policy and report all relevant activities to the aforementioned parties. To ensure an effective and coordinated effort, the building staff responsible for overseeing the Green Cleaning Policy shall review all proposed cleaning activities before implementation.

Time Period

As of July 14, 2014 this policy replaces the 2008 Green Cleaning Policy and is applicable at all University of South Carolina campus buildings.

Green Cleaning Program Products

Green Cleaning Product Use

Wherever feasible, cleaning products and materials, including hard floor and carpet care products, used inside and outside University of South Carolina facilities shall meet the sustainability criteria as described below.

Product types subject to these requirements include, but are not limited to, bio-enzymatic cleaners, hard floor cleaners, carpet cleaners, general purpose cleaners, specialty cleaners, odor control, disinfectants, disposable janitorial paper products and trash bags, and hand soaps.

Approved Product List

Products that meet the criteria listed below are approved for use. Products beyond those listed must be submitted to the Green Cleaning Working Committee for approval before use.

Sustainability Criteria

GENERAL CLEANING PRODUCTS

The cleaning products meet 1 or more of the following standards for the appropriate category:

- Green Seal GS-37, for general-purpose, bathroom, glass and carpet cleaners used for industrial and institutional purposes.

- Environmental Choice CCD-110, for cleaning and degreasing compounds.
- Environmental Choice CCD-146, for hard surface cleaners.
- Environmental Choice CCD-148, for carpet and upholstery care.

SPECIALTY PRODUCTS

Disinfectants, metal polish, floor finishes, strippers or other products not addressed by the above standards meet 1 or more of the following standards for the appropriate category:

- Green Seal GS-40, for industrial and institutional floor care products.
- Environmental Choice CCD-112, for digestion additives for cleaning and odor control.
- Environmental Choice CCD-113, for drain or grease traps additives.
- Environmental Choice CCD-115, for odor control additives.
- Environmental Choice CCD-147, for hard floor care.

PAPER PRODUCTS AND TRASH BAGS

Disposable janitorial paper products and trash bags meet the minimum requirements of 1 or more of the following programs for the applicable product category:

- Environmental Protection Agency (EPA) Comprehensive Procurement Guidelines for Janitorial Paper and trash can liners?
- Green Seal GS-09, for paper towels and napkins.
- Green Seal GS-01, for tissue paper.
- Environmental Choice CCD-082, for toilet tissue.
- Environmental Choice CCD-086, for hand towels.
- Janitorial paper products derived from rapidly renewable resources or made from tree-free fibers.

HAND SOAPS

Hand soaps meet 1 or more of the following standards:

- No antimicrobial agents (other than as a preservative) except where required by health codes and other regulations (e.g., food service and health care requirements).
- Green Seal GS-41, for industrial and institutional hand cleaners.
- Environmental Choice CCD-104, for hand cleaners and hand soaps.

Performance Metric

The practices listed above shall be implemented to the extent practicable, with a target goal of 50% in FY2015, 75% in FY2016, and 95% in FY2017 of the total annual purchases of these products (as measured by product type) complying with the appropriate sustainability criteria. The custodial services purchaser and/or custodial services vendor will track inventory on a monthly basis and report to the Green Cleaning Committee members. Respective departments will also determine the respective percentage of square footage covered by cleaning products.

Equipment

Green Cleaning Equipment Use

All new equipment acquisitions for use on the University of South Carolina Campus shall comply with the requirements of LEED® 2009 for Existing Buildings: Operations and Maintenance™ IEQ Credit 3.4: Green Cleaning, Sustainable Cleaning Equipment.

Sustainability Criteria

Vacuums

- All newly purchased vacuums will meet or exceed Carpet and Rug Institute (CRI) requirements for efficiency (CRI Green Label testing) and shall operate at a sound level of less than 70dBA. Existing vacuum cleaners will be phased out as soon as possible. All LEED certified buildings will be required to meet this requirement from the time they are initially completed.
- HEPA or high-filtration systems will be required to adequately contain particulate matter and ensure indoor air quality at recommended levels.
- Carpet extraction equipment must meet at a minimum the CRI Bronze Seal of Approval.
- Power floor maintenance equipment must be equipped with controls or other devices for capturing and collecting particulates and shall operate at a sound level less than 70 dBA.
- Powered scrubbing machines must be equipped with a control method for variable rate dispensing to optimize the use of cleaning fluids.

Floor Care

- GS certified system should be used and continually evaluated for performance as new systems are available. If GS approved floor systems do not meet all acceptable performance needs of USC then alternative products may be utilized until GS certified products are available.
- Use of dust collection mechanism for high speed burnishers.

Entrance Matting Systems

- Housing will continue the use of entrance matting systems to ensure fewer contaminants are entering the buildings but future systems purchased must be made from environmentally preferable materials and recycled content.

Wipers & Dusters

- Paper will no longer be used as a cleaning tool. Instead, re-usable, washable, microfiber cloths will be used to reduce paper waste. When possible microfiber mops and cloths will replace other cleaning tools such as dusters, sponges and rags.
- No chemical treated cloths will be utilized.

Automatic Aerosol Deodorizers & Urinal Blocks

- Automatic aerosol and fragrance systems shall be eliminated due the presence of VOCs and their release, and select non-aerosol systems should be chosen instead.
- Urinal blocks will be eliminated due to hazardous substances.
- As appropriate, all equipment is to be recycled appropriately.

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Performance Metric

All newly acquired cleaning equipment shall comply with the sustainability criteria listed above. The Director of Custodial Services and the other position shall track the percent of equipment utilized in the building that meets the criteria, based number of pieces of equipment. The following targets have been established:

- FY15: 30% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY16: 40% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY17: 50% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY18: 60% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY19: 70% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY20: 80% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)
- FY21: 90% of the existing equipment meeting at least one of the sustainability criteria (other than the requirement for equipment safeguards)

Custodial Services (both offices) will maintain an inventory of all powered cleaning equipment, including purchase date and all repair and maintenance activities. Vendor cut sheets for all equipment used on site will be made available on demand. When cleaning equipment replacement is necessary, acquisition dates and supporting documentation shall be retained to demonstrate that all newly acquired equipment complies with all appropriate sustainability specifications.

Cleaning Procedures

The procedures, strategies and metrics below have been adopted at the University of South Carolina to ensure the effective implementation of the Green Cleaning Policy.

General Strategies for Sustainable Cleaning

- Assess the areas to be maintained and the usage patterns.
- Determine how to meet the overall goals of the cleaning program.
- Develop a comprehensive approach to the maintenance of the building/property and determine the product specification to be used.
- Ensure that in-house maintenance staff is educated on the policies.
- Ensure that safety, health and environmental practices are compliant with applicable local regulatory requirements.
- Ensure with building management the proper disposal for all cleaning wastes.
- Development of cleaning strategies should focus on the following:
 - efficient use of chemicals
 - efficient use of supplies
 - meet the hygiene and appearance goals of the building/property protect the building's occupants, systems and finishes from contaminants that adversely affect them
 - address the frequency of cleaning in all areas (see specifications)

NOTE: The highest degree of reutilization and recycling must be applied and carried out by all contractors working within the property. Materials that continue to have a working life must be reutilized as possible. Ordering materials without additional packaging will minimize waste. All packaging must be recycled. To the extent possible, construction materials must be recyclable.

Entryways and Exterior Walkways

Indoor air quality and environmental impact start at the door. Appropriate matting, properly placed and maintained, will prevent indoor floor surfaces from wearing prematurely and decrease contaminants inside the building. All public points of entry into buildings at the University of South Carolina are equipped with walk-off mats. All walk-off mats at all public building entries measure a combined minimum of 10 linear feet in the direction of ingress.

Chemical Safety Procedures

The following protocols have been established to mitigate spills, leaks and mismanagement. All practices below are communicated to custodians working on the property in a formal training setting on a biannual basis.

Labels and Material Safety Data Sheets (MSDS)

- Follow all chemical labels and MSDS warnings and use products only as directed.
- Employees should never use an unlabeled container or any chemical product if not certain what it is.
- Report to Manager all missing or unreadable labels

Personal Protective Equipment (PPE) and Engineering Controls

- Wear protective gloves and/or safety glasses as directed on the product label or MSDS.
- Inform your Manager if PPE is needed.
- Always spray chemicals away from the body, especially eyes and mouth. Whenever possible, spray chemical into microfiber cloth.
- Do not eat or drink near any cleaning chemicals and always wash hands after using chemicals.
- Never smell, inhale or taste the contents of a chemical container to determine its contents.

Cleaning with Chemicals

- Use only products provided by Student Housing.
- Employees should only use products they have been trained to use.
- Report all chemical spills to a Manager immediately and refer to instructions on MSDS for proper spill cleanup and disposal.
- Employees should inform a Manager if unable to get something clean with the chemicals provided.
- If product comes into contact with any body part, flush immediately with water. Remove any contaminated clothing. Follow first-aid instruction on the label or MSDS.
- All chemical containers are to be securely covered and stored away from flames or intense heat.
- Properly remove all cleaning chemical residue so customers and tenants will not be overexposed to chemicals.
- Wash hands after using chemicals.
- Do not bring products from home.
- Never puncture or collapse an aerosol can. Use only in accordance with label instructions.

Mixing Chemicals

- Never mix two different chemical products together: this may cause a dangerous and poisonous gas.
- Only fill each secondary container bottle with the exact same product each time you refill.
- Dilute with water only where required.
- Make sure water is turned off and that no chemicals remain in mop buckets, unlocked dispensers or machine tanks overnight.
- Make sure all caps are secure when returning chemicals to rack or closet.

Chemical Storage

- Do not store chemicals above eye level.

- Do not store food or drinks around chemicals (No food or water may be kept on janitor cart).
- All chemicals must be stored in a manner that limits opportunities for accidental spills, leaks and other mishaps.

Chemical Safety and Emergency Procedures

- Report all chemical product spills to Manager immediately and refer to instructions on the MSDS for proper spill cleanup and disposal.
- If any product comes into contact with any body part, flush immediately with lots of water. Follow first-aid instruction on the label or MSDS, call 911 if needed. Employees are to report contact to Manager.
- All chemical containers are to be securely covered and stored away from flames, heat and the sun.
- Properly remove all cleaning chemical residue so customers and tenants will not be unknowingly exposed to chemicals.

Chemical Concentrates and Dilution Systems

- It is the intent of building management to have chemical concentrates used whenever possible in order to lower transportation costs between manufacturer and end-user, reduce use of packaging materials, reduce real chemical use to obtain same performance, and to lower exposure of maintenance personnel to hazardous chemicals.
- A portion controlled, closed dilution system is to be utilized in order to further reduce environmental impacts.
- Pre-labeled containers are to be utilized.
- Dilution systems and chemical concentrates shall be wholly utilized for the 3M Twist 'n Fill chemical management system

Performance Metric

- Protocols governing safe handling and storage of cleaning chemicals shall be adopted. Quality control checks will be used to ensure adoption.

Cleaning Strategies for Vulnerable Building Occupants

The needs of vulnerable building occupants, such as occupants with asthma, other respiratory conditions, or sensitive or damaged skin, on The University of South Carolina will be addressed to ensure that adequate precautionary measures are taken in relation to the Green Cleaning Program. Product selection and use should vary on a case-by-case basis, as needed.

Hand Hygiene

All restroom facilities, including those in guest rooms, public areas, and back-of-house spaces shall include appropriate hand-push soap dispensers (see Approved Cleaning Products list). Staff

will be educated on the importance of hand hygiene through informative seminars. Protocols promoting hand hygiene shall be adopted. Quality control checks will be used to ensure adoption. All staff will be required to clean their hands using this soap upon the completion of their work day to protect their health as well as others.

Staffing and Planning

The University of South Carolina employs over 100 part time custodians and 52 full time custodians. To ensure a clean environment that promotes the health and well-being of building occupants and users, USC requires the following:

- Custodians are provided with daily scope of work checklists to insure all tasks are completed. All custodians are given a procedure list to follow and complete.
- Daily and weekly inspections are performed by the Custodial Operations Manager to ensure expectations and requirements for cleanliness are being met on an ongoing basis.
- Custodial staff meets daily with the Custodial Operations Manager to discuss any issues. When the supervisor is away a communication log is available to help pass on important information to communicate to one another.

Staff Training

The respective manager within Facilities and Housing will ensure:

- All custodians are properly trained in the use, maintenance and disposal of cleaning products, dispensing equipment and packaging. All custodians are trained on new equipment and chemicals prior to initial use. Custodians also receive training about prevention of repetitive motion/stress injuries and the proper way to move and lift objects.
- All custodians receive annual chemical safety training.
- All custodians are educated on the use of products upon their hire and once per year thereafter, as well as annual HAZCOM training. Or, as necessary, to ensure proper use and disposal of products.
- Training records of all staff are to be maintained by the Custodial Operations Manager. Records can be made available to building management for review upon request.

Policy Review

Quality Control

Assessment of the ongoing performance of the Green Cleaning program at the University of South Carolina will be conducted by a four-part process:

- On a daily basis, the Custodial Operations manager and management assess custodial performance in the buildings, discuss any issues or challenges, and address any new developments relating to custodial practices.
- An annual survey will be conducted to elicit feedback on cleaning and custodial service from the building occupants.
- Comment cards available for cleaning and custodial staff members.
- Purchasing-related performance will be tracked to ensure compliance with LEED credit requirements as per individual product categories.

Annual Review

The Green Cleaning Policy & Program at The University of South Carolina shall continue indefinitely and be reviewed annually with approval from the Green Cleaning Committee.

Occupant Feedback

Occupant Feedback will be assessed through the following for residence halls:

- A student satisfaction exit survey sent to all students residing on-campus
- University Housing's FIXX line and website available at <http://www.housing.sc.edu/fixx.html>
- Comment cards for residents

Occupant Feedback will be assessed through the following for academic spaces:

- Comment cards
- On-line work order and feedback system
- Regular occupant surveys

Definitions & Resources

Green cleaning involves cleaning products and practices that have lower environmental impacts than conventional products and practices.

Indoor air quality (IAQ) is the nature of the air that affects the health and well-being of building occupants.

A sustainable (environmental) purchasing policy gives preference to products that have little negative environmental and social impact through their life-cycle, and also gives preference to companies whose products have little negative environmental and social impact.

Green Seal

<http://www.greenseal.org>

LEED 2009 for Existing Buildings Operations & Maintenance Rating System (PDF)

<http://www.usgbc.org/ShowFile.aspx?DocumentID=7245>

U.S. EPA Environmentally Preferable Purchasing (EPP)

<http://www.epa.gov/epp/>