Green Cleaning Policy

#### Scope

The scope of this policy includes approaches to green cleaning, custodial cleaning contract specifications, green cleaning solutions specifications, reducing dust and dirt with proper cleaning and preventive measures, reducing microbial growth through proper cleaning, special treatments of carpets, janitorial training requirements, chemical storage guidelines, cleaning equipment standards and specifications, and hand hygiene.

#### Intent

To reduce the exposure of building occupants and maintenance personnel to potentially hazardous chemicals, biological, and particulate contaminants, which adversely affect air quality, human health, building finishes and systems, and the environment at this facility. This policy has been reviewed and accepted by the current janitorial service provider and has been incorporated into building management and provided to all service providers.

#### **Responsible Parties**

Property Manager: Nathan Greene, Facilities Manager at StopWaste

Service Manager: Evening Janitorial Company

#### Performance Metric

At least 75% of new green cleaning equipment and cleaning solution purchases should meet the requirements in LEED v4 EQ Credit: Green Cleaning—Purchase of Cleaning Products and Materials, and EQ Credit: Green Cleaning—Cleaning Equipment. . Documentation of the type of chemical, volume, and concentration used in all cleaning processes must be maintained. Documentation of the frequency of each cleaning process must be maintained. Records and documentation for all guidelines, training, occupant feedback, and other strategies must be maintained. Additionally a minimum of 75% of all purchasing and using paper products and trash liners will comply with the U.S. Environmental Protection Agency (EPA) Comprehensive Procurement Guidelines.

#### **Green Cleaning Product Criteria:**

Cleaning products must meet one or more of the following standards:

- 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;

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- Green Seal GS-40, for industrial and institutional floor care products;
- Environmental Choice CCD-147, for hard-floor care;
- EPA Design for the Environment Program's Standard for Safer Cleaning Products; and/or
- Cleaning devices that use only ionized water or electrolyzed water and have third-party-verified performance data equivalent to the other standards mentioned above (if the device is marketed for antimicrobial cleaning, performance data must demonstrate antimicrobial performance comparable to EPA Office of Pollution Prevention and Toxics and Design for the Environment requirements, as appropriate for use patterns and marketing claims).

Disinfectants, metal polish, or other products not addressed by the above standards must meet one or more of the following standards:

- Environmental Choice CCD-112, for digestion additives for cleaning and odor control;
- Environmental Choice CCD-113, for drain or grease trap additives;
- Environmental Choice CCD-115, for odor control additives;
- Green Seal GS-52/53, for specialty cleaning products;
- California Code of Regulations maximum allowable VOC levels for the specific product category;
- EPA Design for the Environment Program's standard for safer cleaning products; and/or
- Cleaning devices that use only ionized water or electrolyzed water and have third-party-verified performance data equivalent to the other standards mentioned above (if the device is marketed for antimicrobial cleaning, performance data must demonstrate antimicrobial performance comparable to EPA Office of Pollution Prevention and Toxics and Design for the Environment requirements, as appropriate for use patterns and marketing claims).

Disposable janitorial paper products and trash bags must meet the minimum requirements of one or more of the following programs:

- EPA comprehensive procurement guidelines, for janitorial paper;
- Green Seal GS-01, for tissue paper, paper towels and napkins;
- 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;
- FSC certification, for fiber procurement;
- EPA comprehensive procurement guidelines, for plastic trash can liners; and/or

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 California integrated waste management requirements, for plastic trash can liners (California Code of Regulations Title 14, Chapter 4, Article 5, or SABRC 42290-42297 Recycled Content Plastic Trash Bag Program).

Hand soaps and hand sanitizers must meet one 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;
- Environmental Choice CCD-170, for hand sanitizers;
- EPA Design for the Environment Program's standard for safer cleaning products;

## **Procedures and Strategies**

Responsible Parties will be responsible for:

- 1. Adopting the purchasing policy for sustainable cleaning products and equipment
- 2. Establishing and enforcing standard operating procedures for consistent use of floor cleaning system
- 3. Implementing strategies to improve hand hygiene
- 4. Developing and enforcing guidelines for handling safe storage and cleaning chemicals
- 5. Implementing training for staff and maintenance personnel
- 6. Collection of occupant feedback.

#### Goals

This facility will strive to reduce exposure of occupants to chemical hazards by using only low-environmental-impact chemicals meeting requirements outlined in LEED version 4 IEQ credits: Green Cleaning—Purchase of Cleaning Products and Materials, and EQ Credit Green Cleaning—Cleaning Equipment. . Additionally, the facility will strive to save energy, water and resources by following green cleaning strategies. At least 75% of all purchases made during the performance period will meet the standards. This policy will allow StopWaste to follow fundamental environmental protection guidelines:

- 1. Prioritize worker and occupant safety;
- 2. Promote the conservation of energy, water, and chemicals used for cleaning;
- 3. Establish that the primary reason to clean is the preservation of health, secondary reason is building appearance;
- 4. Clean to maximize the extraction of pollutants from the building environment;
- 5. Minimize chemical, particle, and moisture residues by using only approved chemicals;
- 6. Clean to improve the total environment;
- 7. Manage hazardous spills and mishandling incidents; and
- 8. Proper disposal of janitorial waste.

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### **Quality Control / Quality Assurance**

StopWaste is responsible for adopting a purchasing policy for sustainable cleaning products and equipment, establishing and enforcing standard operating procedures for consistent use of floor cleaning system, implementing strategy to improve hand hygiene, developing and enforcing guidelines for handling safe storage and cleaning chemicals, implementing training for staff and maintenance personnel, and the collection of occupant feedback. The management will track purchases and will perform quarterly assessments of all green cleaning purchases to insure we have met the green cleaning purchases threshold of at least 75% by cost. Additionally, StopWaste will perform a quarterly assessment of our janitorial service company and vendors to insure all aspects of the green cleaning policy and procedures are being performed as stated in this policy and training procedures.

#### Occupant Feedback

Proactive cleaning procedures will be implemented to avoid disproportionately affecting vulnerable building occupants (See "Goals" above). Complaints will be addressed immediately to eliminate any such vulnerability to building occupants who may be disproportionately affected by cleaning practices. All complaints will be archived and adjustments will be made to minimize impact, which includes adjustments to cleaning procedures, frequencies, and timing. The information will be used strategically to avoid possible problems in the future (for example, if a specific occupant has allergies to a green cleaning product which is used throughout the entire building, a different product will be used for their occupant space).

StopWaste has a procedure for resolving any complaints and/or concerns that occupants may have about the building via email or anonymous notes. Complaints and/or concerns are directed to the facilities manager and the janitorial company. Management will address all complaints and/or concerns immediately, but no longer than 30 days.

#### **Time Period**

This policy must remain in effect going forward from its inception date, March 30, 2012. Additions and revisions will be made to this policy as new technologies and strategies become available.

#### Approaches to Green Cleaning

- A. Cleaning is performed in order to:
  - 1. Maintain a healthy indoor environment for all occupants
  - 2. Maintain a clean facility and consequently increase the lifetime of the facility, fixtures and systems as well as maintaining the value of same.
- B. Coordinate cleaning with other basic environmental management strategies:
  - 1. Control pollution and waste by reducing the amount of consumables

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- 2. Limit indoor-polluting activities
- 3. Ventilate buildings to reduce indoor contaminants
- 4. Design facilities and ventilation systems to optimize indoor air quality
- C. Follow fundamental environmental protection guidelines:
  - 1. Prioritize worker and occupant safety
  - 2. Establish that the primary reason to clean is the preservation of health, secondary reason is building appearance
  - 3. Clean to maximize the extraction of pollutants (particles, gas, and biopollutants) from the building environment
  - 4. Minimize chemical, particle, and moisture residues
  - 5. Minimize human exposure to pollutants with safe handling and storage practices
  - 6. Clean to improve the total environment
  - 7. Proper disposal of janitorial waste
- D. Conserve resources used for cleaning:
  - 1. Reduce energy by shutting off lights after cleaning rooms or areas;
  - 2. Conserver water by using concentrated cleaning solutions whenever possible;
  - 3. Maintain the waterless urinal according to manufacturer specifications (don't flush with water);
  - 4. Use reusable cleaning fabrics like microfiber towels and mops instead of single use/disposable materials;
  - 5. Reuse can liners for garbage and composting whenever possible.

## **Green Cleaning Solutions Specifications**

- A. 75 % of the cleaning products used shall meet the Green Cleaning Product Criteria specified earlier in this document.
- B. Procurement of general cleaning supplies such as dishwashing liquid and desk cleaner must meet the Green Cleaning Product Criteria specified earlier in this document.
- C. Contractor's employees should be made aware of the availability of green cleaning supplies. Employees should be prohibited from bringing in unapproved cleaning supplies that do not meet the referenced criteria.
- D. To the extent practical, custodians should ensure that cleaning or disinfecting products utilized in the building do not contain ingredients that are carcinogens, mutagens, or teratogens. These include chemicals listed by the U.S. EPA or the National Institute for Occupational Safety and Health on the Toxics Release Inventory (40 CFR, Section 372, Subpart D). If such products containing these toxic chemicals must be used (cleaning solutions for specific equipment, etc),

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only the minimum amounts will be used and the product must be disposed of properly. The custodial staff will be responsible for proving that a) viable alternatives are not available, and b) that these cleaning products are necessary for proper functioning of the building.

### Reducing Dust and Dirt with Proper Cleaning and Preventive Measures

Minimizing the amount of dust and dirt present in the building will reduce the amount of time and resources spent maintaining a clean environment as well as the amount of solutions required for cleansing.

- A. Place entryway mats at all main points of entry as appropriate into the building(s):
  - 1. The entryway mats should measure at least five steps in length (approximately 10 feet), but are not required to span the entire width of the point of entry.
  - 2. Maintain a cleaning schedule for all main points of entry into the building which specifies how often and by what means the mats are cleaned (example: vacuum once a day).
  - 3. Enhanced vacuuming will reduce the amount of dust and dirt tracked into the building.
- B. Clean the floor with a vacuum, microfiber dust mop or damp-mop instead of a broom.

### C. Vacuum effectively:

- 1. Use vacuum cleaners that meet the requirements of the Carpet & Rug Institute's Green Label Program and that can capture 96% of particulates 0.3 microns in size and operate with a sound level less than 70dBA.
- 2. Use high-efficiency microfiltration bags, which retain dust and particles in the 0.3 micron range or smaller.
- 3. The efficiency of the vacuum cleaner degrades as the bag becomes full. Check bag frequently and change / empty bags before they are completely full (80 90 %).

#### D. Dust effectively

- 1. Use a damp, folded cloth or cloth-covered feather duster or a microfiber dust cloth.
- 2. Use a wiping motion, rather than a flicking or sweeping motion, to ensure that dust remains on the cloth.
- 3. To maintain the efficiency of the duster, change out before cloth begins to load up.
- 4. When using treated dust mops, obtain pre-treated mop heads from a laundry service or spray the mop heads outdoors. (Dust-mop sprays generally contain petroleum products that can harm the user and building occupants.)

#### E. Floor buffers

- 1. Use a medium-speed buffing machine. Medium-speed machines generate fewer particles of chemicals and dirt than high-speed buffers.
- 2. Use a vacuum attachment to the buffing machine whenever available.

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### Reducing Microbial Growth through Proper Cleaning

The following are basic guidelines to minimize the need for antimicrobial products:

- A. Clean first and then apply disinfectant:
  - Most disinfectants are not cleaners, and are usually only effective on a clean surface.
  - Wait the recommended time before rinsing the antimicrobial solution from the surface (usually at least 10 minutes).
- B. Use disinfectants only when and where required:
  - Ordinary detergents typically remove more microbes than disinfectants.
- C. Disinfect mop heads and sponges daily to reduce microbial growth.
- D. Change cleaning water frequently (water used in mop-buckets, etc.) daily at a minimum or as water becomes cloudy.
  - Do not waste water by overfilling mop buckets, etc.
- E. Clean areas where water collects and condenses on a regular basis:
  - Address areas such as refrigerator and air conditioner pans as well as air cleaner/humidifier machines.
- F. Use a drain maintainer (containing enzymes) if drains clog or have odors.
- G. Food prep areas should be cleaned with antimicrobial soaps and/or disinfectants.

### **Special Treatment of Carpets**

Carpet can be a source of biopollutants, dust, and volatile organic compounds (VOCs). Pesticides and cleaning products (such as stain removers) that remain on the carpet after initial application can volatilize (rise up into the air) over time and contaminate the indoor air. The following carpet treatment specifications should mitigate the need for extensive carpet cleaning solutions through both preventative and prescriptive treatment.

- A. Prevent stains:
  - Clean up spills promptly using cold water and one or more blotting cloths.
  - Ensure the availability of spill kits to cleaning personnel.
- B. Promptly clean and thoroughly dry carpets if they should become saturated with water:
  - Quick action following a leak or other water damage may prevent carpet loss and the growth of mold and/or mildew. (Do not attempt to clean a moldy carpet without proper

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protective equipment, clothing, respirators, and air filters. Special training may be required to adequately deal with a water-soaked carpet.)

C. Avoid excessive use of carpet shampoos and bonnet cleaning products. Bonnet cleaning involves the use of cotton, rayon, and/or polypropylene pads and a rotary shampoo machine. Although these chemicals are usually mild, overuse makes more frequent extraction cleaning necessary.

#### D. Deep-clean when necessary:

- Periodic deep cleaning of carpet is necessary to extract dirt, bio-pollutants, moisture, and embedded cleaning agents.
- Use a wet vacuum water extraction machine after dry vacuuming.
- Reduce the amount of chemicals needed by applying sprays carefully and leaving on long enough.
- The Carpet and Rug Institute recommends rapid drying of the carpet, within 24 hours.

#### **Hard Floor Maintenance**

1.

#### FINISH/SEALER APPLICATION

- 1. Apply finishes or sealers with a clean, rayon mop head or micro-fiber flat mop.
- 2. Use clean buckets with clean wheels.
- Line bucket with fitted trash liner.
- 4. Use finish or sealer that meets the California Code of Regulations for maximum allowable VOC content, or one that is Green Seal (GS-40) certified.
- 5. Apply even coats.
- 6. Don't force dry finish with a fan.
- 7. Put on appropriate Personal Protective Equipment, as stated on the product label and MSDS.
- 8. Post Wet Floor signs and blockades.
- 9. Pour enough sealer or finish into the bucket for the area.

## BUFFING AND BURNISHING

- 1. Make sure that adequate floor finish exists.
- 2. Select the appropriate restoration products. Water-based, low VOC products are preferred.
- 3. Apply product in a stream or coarse spray instead of a wide-angle mist to minimize the amount that becomes airborne and inhaled or over sprayed. Do not over apply.

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- 4. Be sure that the pad matches the machine speed and the finish type.
- 5. Put on appropriate Personal Protective Equipment, as stated on the product label and MSDS.
- 6. Post wet floor signs or other blockades.
- 7. Dust mop and damp mop the floor. The use of a micro-fiber flat mop is preferred.
- 8. Change pads as necessary.
- 9. Dust mop the floor after the entire area has been buffed.
- 10. Clean equipment and return it to its proper place.
- 11. Remove wet floor signs and/or other blockades.

### **Janitorial Training and Staffing Requirements**

A staffing plan has been developed for this building establishing the number of trained employees qualified to deliver the scope of services required for this building. The staffing provided meets the industry standards for employee productivity established by the ISSA (<a href="http://www.issa.com">http://www.issa.com</a>) and has been endorsed as an adequate level of labor for providing "Class A" service. There is currently one employee providing janitorial service per day, which has been accepted by property management and the provider as sufficient for the needs of this building. In the event that the primary custodian is unable to service the building, the janitorial company must provide a trained green cleaning staff person in their absence. In the case that the primary cleaner is not able to service the building due to illness, leave, or staff turnover, the janitorial service provider shall ensure that at least 2 qualified green cleaning staff are available as backup at any one time.

#### A. Basic Janitorial Training:

- Cleaning contractor should provide janitorial workers with the requisite training, including the Green Cleaning specifications delineated in the Green Cleaning Policy.
- A minimum of 4 hours of documented training per year per employee is required. In addition, any key personnel that service the StopWaste building must have received comprehensive 2-hour training on specific green cleaning practices at the StopWaste site.

Date	[Janitorial Service Provider]	Job Description	Training Type	Hours
12/12/11	[Name}	Facility Janitorial Maintenance	Green Cleaning	2

B. Training should include:

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- Providing and explaining the material safety data sheets (MSDS) for products used on site on an annual basis;
- Introducing new products as required;
- Education on the location and proper usage of the on-site hazardous spill kit;
- Compliance with green cleaning criteria for product specified above; and
- Use and wear of Personal Protective Equipment.

C. Provide site manager or authorized employee with quarterly training logs indicating the staff and the training topic. An example log is shown below:

All Training completed by [NAME] its distribution partner [NAME].	Names of Staff	Start-Up Date
Preferred Cleaning Chemicals		
Floors, Common Areas, Restrooms & Tenant Spaces with regards to new cleaning tools		
Log Training and Tracking		
Refresh microfiber, vacuums & Chemical Training		

D. Occupant and custodial staff input and feedback are welcome and encouraged. Regular email communication must be in place between StopWaste and the janitorial service provider. Complaints or issues shall be resolved within 5 business days of the normal cleaning crew, or within 2 business days in the event of staff turnover or contingency staffing plans.

## Tracking:

StopWaste and the janitorial service provider shall track cleaning product purchases and cleaning equipment purchases. Typically StopWaste will purchase the cleaning supplies semi-annually, while the janitorial company will purchase cleaning equipment asneeded.

On a quarterly basis, StopWaste and the janitorial provider will log all purchases of cleaning supplies and equipment (if any) via receipts and invoices. These documents will

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be kept current and available for review by StopWaste at any time in a consolidated folder in the administrative offices at StopWaste.

The janitorial company will track the amount of toxic chemicals used for cleaning (if any):

- Any use of toxic chemicals that do not meet the green cleaning criteria in this policy requires prior approval by the StopWaste facilities manager.
- Notify StopWaste of the intent to purchase and use toxic chemicals at least 1 week before planned use. The janitorial company must explain why the chemical is necessary, and what if any less toxic alternatives to the chemical (or its application) are available.
- If approval is granted to use the toxic chemical, the amount purchased and amount applied will be logged and reported back to StopWaste within 1 week of the application of the toxic chemicals.

### **Equipment**

All powered equipment must have the following features:

- safeguards, such as rollers or rubber bumpers, to avoid damage to building surfaces;
- ergonomic design to minimize vibration, noise, and user fatigue, as reported in the user manual in accordance with ISO 5349-1 for arm vibrations, ISO 2631-1 for vibration to the whole body, and ISO 11201 for sound pressure at operator's ear; and
- as applicable, environmentally preferable batteries (e.g., gel, absorbent glass mat, lithiumion).
- Vacuum cleaners must be certified by the Carpet and Rug Institute Seal of Approval/Green Label Vacuum Program and operate with a maximum sound level of 70 dBA or less in accordance with ISO 11201.
- Carpet extraction equipment, for restorative deep cleaning, must be certified by the Carpet and Rug Institute's Seal of Approval Deep Cleaning Extractors and Seal of Approval Deep Cleaning Systems program.
- Powered floor maintenance equipment, such as vacuums, guards, or other devices for capturing fine particulates, must operate with a maximum sound level of 70 dBA, in accordance with ISO 11201.

Propane-powered floor equipment are not allowed. Automated scrubbing machines are not allowed.

### **Laundry & Ware Washing**

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StopWaste does not have laundry facilities, so laundry washing of microfiber mops and towels are to be done offsite by the janitorial company.

On-site dishwashing is to be performed by the janitorial company at the end of each business day, using the ENERGY STAR dishwashers and the supplied cleaning detergent, which has been selected based on green cleaning criteria referenced in this document.

## **Chemical Storage Guidelines**

- A. Chemicals stored in the janitor's closets (or other approved storage area) must have a locked container, which encloses the liquid cleaning products and delivers proper specified measurement for dilution.
- B. The solutions used are all to be stored in the janitor's closet(s) and the janitorial staff must follow the below guidelines:
  - 1. Material Safety Data Sheets (MSDS) must be available to all employees.
  - 2. All containers must be properly labeled by the manufacturer to be easily identified.
  - 3. All cleaning products must be properly and safely stored in compliance with MSDS.
  - 4. No liquids will be placed on shelves above eye level.
  - 5. Cleaning personnel must use appropriate Personal Protective Equipment.
  - 6. Custodians must adhere to the manufacturer's recommended chemical dilution systems.
  - 7. Only the necessary amount of chemicals should be stored in the janitor's closet. Bulk chemical storage should be maintained at an appropriate offsite location.
  - 8. Only authorized employees will have access to the storage rooms.

## **Cleaning Equipment Standards and Specifications**

- A. Vacuum cleaners shall meet the requirements of the Carpet & Rug Institute Green Label Program and must be designed to capture 96% of particulates 0.3 microns in size and operate with a sound level less than 70dBA. Proof of compliance to be provided by the equipment specification or cut sheet and delivered by the cleaning contractor.
- B. Hot water extraction equipment for deep cleaning carpets should be capable of removing sufficient moisture such that carpets can dry in less than 24 hours.
- C. Powered maintenance equipment including: floor buffers, burnishers and automatic scrubbers should be equipped with vacuums, guards and/or other devices for capturing fine particulates, and operate with a sound level less than 70dBA. Proof of compliance should be provided by the equipment specification or cut sheet and delivered by the cleaning contractor.

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- D. Automated scrubbing machines are to be equipped with variable-speed feed pumps to optimize the use of cleaning fluids.
- E. Battery-powered equipment is to be equipped with environmentally preferable gel batteries.
- F. Where appropriate, active micro fiber technology is to be used to reduce cleaning chemical consumption and prolong life of disposable scrubbing pads.
- G. Powered equipment is to be ergonomically designed to minimize vibration, noise and user fatigue.
- H. Equipment is to have rubber bumpers to reduce potential damage to building surfaces.
- I. Cleaning contractor should keep a log for all powered housekeeping equipment to document the date of equipment purchase, repair and maintenance activities and the respective vendor cut sheets for each type of equipment mentioned in the logbook.

### **Hand Hygiene**

Healthy hand hygiene should be promoted by providing soap and soap dispensers in janitorial closets, kitchen areas, bathrooms, break rooms and locker rooms. Custodial vendors are required to wash their hands on a routine basis while servicing the facility.