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Green Cleaning Policy for Facilities Management - Caretaking Department

Effective date: *June 1, 2016*

i. Scope

This policy applies to all cleaning procedures, cleaning material purchases, cleaning equipment purchases, and cleaning services that occur inside the facility buildings for which Caretaking is responsible, within the University of Calgary. Specifically, this policy covers the following:

Green Cleaning strategies for:

- Hard floor and carpet cleaning and maintenance
- Protection of vulnerable occupants during cleaning
- Disinfectant and sanitizer selection and use
- Safe storage and handlings of cleaning chemicals, including spill management

Performance metrics and strategy development:

- Reductions in water use, energy use, and chemical toxicity
- Green cleaning products purchasing
- Green cleaning equipment purchasing

Staffing and training plans:

- Staffing requirements and contingency for staffing shortages
- Timing and frequency of staff training
- A process to obtain occupant and custodial staff feedback after contingency plans are implemented.

ii. Goals

This policy will be fully implemented starting on the effective date.

<u>Category</u>	<u>Goal</u>	<u>Performance measurement unit</u>
Cleaning products and materials purchases	85% meet sustainability criteria	Cost
Cleaning equipment purchases	100% meet sustainability criteria	Number of equipment items
Cleaning equipment inventory	40% of equipment in the project inventory will meet the applicable sustainability criteria	Number of equipment items in the overall inventory for the project
Toxic chemical usage (applies to all cleaning chemicals, including those not addressed by Indoor Environmental Quality Credit (IEQc) Green Cleaning – Products and Materials)	Toxic chemicals will only be used in situations where products meeting the requirements of IEQc – Products and Materials are unable to sufficiently clean the area, the area cannot be replaced (such as a floor tile), and represents a hazard to human health	Number of uses



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iii. Roles and Responsibilities

The responsible party for this policy is Programs Manager, Caretaking Department. The position is responsible for ensuring that this policy is executed and that any contracted cleaning vendors under management's control are aware of and fully trained on the procedures outlined in this policy. Further, Facility Managers are responsible for sharing this policy with building occupants and encouraging policy adoption accordingly. The director is responsible for reviewing this policy for any significant changes on the interval specified in the quality assurance section. If at any time updates are required to this policy, the director will ensure that the appropriate individuals are informed of the updates.

iv. Procedures and strategies for implementation

Hard floor and carpet cleaning and maintenance

- Hard floors, including tile, concrete, and wood surfaces, will be cleaned once a week with only sustainable cleaning products. Stripping and waxing will only occur where needed and in those cases, the chemicals used shall be certified **Green**.
- Carpets will be vacuumed daily with vacuum cleaners that meet the sustainability criteria listed later in this policy.
- One per month, the carpets will be inspected for stains and other damages. If feasible, the necessary areas will be spot cleaned with sustainable carpet cleaning materials. If damaged, the carpet tiles will be replaced.
- When carpet extraction equipment must be used, methods to reduce chemical usage will be implemented.

Protection of vulnerable occupants during cleaning

- Vulnerable occupants include women who are pregnant, children, elderly occupants, and individuals with asthma, allergies, or other sensitivities.
- As much as possible, only sustainable green cleaning products will be used. **Please refer to the goals and tracking sections of this policy for additional information.**
- Any cleaning that involves the use of carpet cleaners, or if at any point the use of a non-sustainable cleaning product is required, this cleaning will be **performed after regular business hours**.

Disinfectant and sanitizer selection and use

- Only hand soaps and hand sanitizers that meet the at least one of the sustainability criteria listed under the purchasing guidelines will be considered to meet the requirements of this policy.
- Hand sanitizers will be placed throughout the building for the use of occupants
- Only disinfectants meeting the purchasing sustainability criteria listed below will be considered to meet the requirements of this policy. Disinfectants will be kept locked in the janitorial closets and may only be used by the cleaning staff.
- Cleaning staff will be required to follow all dilution strategies for disinfectants.

Safe storage and handlings of cleaning chemicals, including spill management

- Cleaning chemicals will be stored in the janitor closets to prevent access for other occupants.
- Cleaning staff will receive training on the various hazards of different toxic chemicals and how to address spills.
- Spills will be cleaned and handled according to the manufacturer safety data sheets provided by the manufacturer.



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- All spills will be handled carefully. As soon as a spill of a non-sustainable product occurs, the responsible party must be notified. If the spill occurs in an area to which typical building occupants have access, the area will be closed off and building occupants will be informed to stay clear of the area.
- Safety data sheets for all of the cleaning chemicals used in the building will be retained and hazard information will be highlighted. This information will be clearly displayed in all janitor closets.

Strategies for reducing the toxicity of the chemicals used for ware washing, and other cleaning activities

- Cleaning staff and building occupants will be supplied with safe cleaning chemicals that meet the sustainability criteria described in the purchasing guidelines listed below.
- Dish soaps and detergent meeting the EPA Design for the Environment will be supplied for ware washing and associated products.
- For surface cleaning, green cleaning solutions will be used and where implemented, ionized water cleaning devices (using only water) will be utilized.

Strategies for conserving energy, water, and chemicals used for cleaning

- Manual-powered equipment and cleaning strategies will be used whenever possible to reduce the energy and water used by powered equipment and typical cleaning strategies.
- Cold water will be used for any necessary disposal to reduce energy used to heat hot water.
- The filters in vacuums and other applicable equipment will be changed frequently to enable air flow and reduce the energy consumption of the equipment.
- When cleaning chemicals are necessary, the operating procedures for chemical dilution will be followed to ensure that the minimum amount of cleaning chemicals necessary is used.

Strategies for promoting hand hygiene

- All restrooms will be equipped with hands-free soap dispensers, faucets, hand dryers, and towel dispensers.
- Hand sanitizers meeting UL 2783 standard for Instant Hand Antiseptics (formerly Environmental Choice CCD 170) will be placed throughout the building.

Tracking plan for staffing and overall performance

- Regular APPA audits will be conducted to evaluate cleanliness. As a part of the audits, the auditors will interview cleaning staff to ensure that the cleaning and hard floor and carpet maintenance system is being consistently used.
- The audits will be conducted once every sixth months and will be led by the responsible party for this policy. The responsible party is responsible for recording the results of the audits in the management records, following up with any cleaning staff to provide additional training and/or guidance and recording these actions.
- All cleaning staff are required to check in each day when they arrive at work. The responsible party will retain these records to ensure that the building is sufficiently staffed with trained professionals.
- The responsible party will log all training that is provided to the cleaning staff and will ensure that the training plans described above are met.
- When new staff come on board, the responsible party will record the initial training and orientation provided to the staff.

Tracking plan for water, energy, and toxic chemical usage



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- Every time a toxic chemical is used, it must be reported to the responsible party. The responsible party will record which chemical was used, where it was applied, and the reason for its use. This information will be used to track against the goal for using toxic chemicals only when strictly necessary.
- All vacuum filters will be replaced on a regular basis. The responsible party will record maintenance performed on all cleaning equipment, including filter replacement, to ensure that they are regularly replaced to reduce energy usage.

Tracking plan for cleaning product and cleaning equipment purchases

- All cleaning product and cleaning equipment purchases, made by either by the cleaning vendor for use in any Facilities managed building or made by the building management, will be recorded in a purchasing log.
- On a quarterly basis, the responsible party will review all purchases and compare against the policy goals. If the policy goals are not being met, the responsible party will take corrective actions, typically in the form of providing education to the individuals in charge of procurement on the goals and sustainability criteria outlined in this policy.

Staffing and training plans

- To sufficiently clean the buildings across campus requires at least 19.5 hours of cleaning per day across three shifts for both areas 1 and 2. Caretaking is responsible for approximately 6,000,000 square feet of cleanable space. It requires a minimum 6.5 hours of cleaning time per day per shift per staff in different specialist roles.
- In the event of staffing shortages (staff are available from a contract service provider), the department maintains a contact with a backup cleaning vendor who can supply additional staff. A combination of quality audits and customer surveys would enable the University to gather feedback on the performance of contract service providers.
- Requirements for maintenance personnel.
- All cleaning staff, including backup personnel, are required to receive at least all mandatory training as per the Facilities Management skills matrix per year. The responsible party will record the training attended by each staff member.
- Training events are held once a month per staff or group of staff and are one hour long or more depending on the topic. Topics vary each month, and cover standard operating procedures for cleaning different surfaces, proper toxic chemical usage and spill management, hazards of toxic chemicals, cleaning to protect vulnerable occupants, cleaning equipment maintenance, and conservation of energy and water usage during cleaning.
- The responsible party coordinates and hosts all of the training.
- The responsible party keeps a record of all training attended by staff including refreshers and certificate renewals.

v. Purchasing guidelines

Sustainability Criteria for Cleaning Products and Materials

Cleaning products must meet one or more of the following standards or a Canada approved equivalent:

- Green Seal GS-37, for general-purpose, bathroom, glass and carpet cleaners used for industrial and institutional purposes;
- UL 2792 (formerly CCD 110), for cleaning and degreasing compounds;
- UL 2759 (formerly CCD 146), for hard-surface cleaners;
- UL 2795 (formerly CCD 148), for carpet and upholstery care;
- Green Seal GS-40, for industrial and institutional floor care products;



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- UL 2777 (formerly 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 or a Canada approved equivalent:

- UL 2798 (formerly CCD 112), for digestion additives for cleaning and odor control;
- UL 2791 (formerly CCD 113), for drain or grease trap additives;
- UL 2796 (formerly CCD 115/107), 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 or a Canada approved equivalent:

- EPA comprehensive procurement guidelines, for janitorial paper;
- Green Seal GS-01, for tissue paper, paper towels and napkins;
- UL 175 Sanitary Paper Products, for toilet tissue and 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

Hand soaps and hand sanitizers must meet one or more of the following standards or a Canada approved equivalent:

- 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;
- UL 2784 (formerly CCD 104), for hand cleaners and hand soaps;
- UL 2783 (formerly CCD 170), for hand sanitizers;
- EPA Design for the Environment Program's standard for safer cleaning products.

A Canada approved equivalent is any Type 1 eco-labeling program as defined by ISO 14024: 1999 developed by a member of the Global Ecolabelling Network may be used in lieu of Green Seal or UL standards.

Sustainability Criteria for Cleaning Equipment

All powered equipment must have the following features:

- safeguards, such as rollers or rubber bumpers, to avoid damage to building surfaces;



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- 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
- as applicable, environmentally preferable batteries (e.g., gel, absorbent glass mat, lithium-ion) except in applications requiring deep discharge and heavy loads where performance or battery life is reduced by the use of sealed batteries.

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 must be equipped with such as vacuums, guards, or other devices for capturing fine particulates and must operate with a maximum sound level of 70 dBA, in accordance with ISO 11201.

Automated scrubbing machines must be equipped with variable-speed feed pumps and either (1) on-board chemical metering to optimize the use of cleaning fluids or (2) dilution control systems for chemical refilling. Alternatively, scrubbing machines may use tap water only, with no added cleaning products.

vi. Quality Assurance/Quality Control Processes

The responsible party will evaluate the green cleaning policy on a quarterly basis to evaluate progress towards the implementation goals. If any cleaning product or equipment purchases are not being recorded properly, the responsible party will inform the appropriate individuals to ensure that activities are recorded moving forward. The responsible party will evaluate the results of the cleaning audits to determine whether the building is being sufficiently cleaned and whether the standard cleaning procedures are being properly executed. As necessary, the responsible party will revise the green cleaning policy to include additional cleaning strategies or modify existing cleaning strategies.

In addition, if any implementation goals are not being met, the responsible party will investigate the situation and will work with the individuals purchasing the materials and equipment or using the equipment. The responsible party will evaluate whether updates are necessary to the in order to achieve the implementation goals.

Any revisions that are made to the policy will be incorporated into the next training cycle for the cleaning staff.

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