

The University of British Columbia – Okanagan Campus

Custodial Services - Facilities Management

Green Cleaning Plan

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a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

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1. DEFINITIONS

“Green cleaning” refers both to the use of cleaning products containing environmentally-friendly ingredients and the application of cleaning methods designed to preserve both human health and environmental integrity. “Green cleaning” can also refer to the methods used to manufacture, package, and distribute cleaning products. Products that are biodegradable and/or manufactured using environmentally friendly processes may be termed “green”.

2. PURPOSE

The primary purpose of this plan is to minimize the potential health, safety, and environmental risks associated with the use of commercial cleaning products and practices.

In addition, implementation of a Green Cleaning Plan is consistent with the environmental priorities established by other university initiatives, including

- the [UBC Okanagan Whole Systems Infrastructure Plan](#) (2016), which “provides a framework that supports sustainable campus growth, community wellbeing, and ecological resilience”; and
- the [UBC Okanagan Sustainable Practices & Guidelines](#), which includes guidelines for [Sustainable Purchasing](#), to support “the procurement of socially, environmentally and economically sustainable products and services”.

Lastly, the following Green Cleaning Plan forms the custodial counterpart to UBCO Facilities Management’s existing green initiatives with respect to waste management, including its [“Sort it Out” program](#) for campus-wide recycling and composting.

3. SCOPE & APPLICABILITY

This plan applies to all cleaning procedures, cleaning material purchases, cleaning equipment purchases, and cleaning services that occur inside and on the building site and grounds for all buildings listed below. Specifically, it covers:

- 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

This Green Cleaning Plan applies to the following UBC Okanagan buildings:

- Campus Administration Building (ADM)
- Arts and Sciences Centre (ASC)
- Arts Building (ART)
- Central Heating Plant (CHP)
- Charles E. Fipke Centre for Innovation and Research (FIP)
- Creative and Critical Studies Building (CCS)
- Engineering Design Labs (EDL)
- Engineering, Management and Education Building (EME)
- Geo Exchange Control Building (GEO)
- Gymnasium (GYM)
- Innovation Annex 1 (IA1)
- Innovation Precinct 1 (IP1)
- Library Building (LIB)
- Office Modular 1 (OM1)
- Plant Growth Facility (PGF)
- Portable V (PBV)
- Quonset Office
- Reichwald Health Sciences Building (RHS)
- Science Building (SCI)
- The Commons (COM)
- University Centre (UNC)
- University House (UNH)
- Upper Campus Health Building (UCH)

Effective date of this plan: Jun 1, 2021

4. GOALS

CATEGORY	GOAL	PERFORMANCE MEASUREMENT UNIT
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 EQc Green Cleaning – Products and Materials)	Toxic chemicals will only be used in situations where 1) products meeting the requirements of EQ Credit Green Cleaning – Products and Materials are unable to sufficiently clean the area, 2) the area cannot be replaced (such as a floor tile), and 3) the situation poses a hazard to human health	Number of uses

5. ROLES AND RESPONSIBILITIES

The responsible party for this plan is Jamie Armer, Manager of Custodial and Waste Services, who will ensure that it is executed and that any contracted Custodial Service Vendors under management’s control are aware of and fully trained on the procedures outlined herein.

The Manager of Custodial and Waste Services is furthermore responsible for sharing this plan with the building tenant representatives and for encouraging plan adoption accordingly. In addition, the Manager is responsible for reviewing this plan for any significant changes at the interval specified in Section 8, below. If at any time updates are required to this plan, the Manager will ensure that the appropriate individuals are informed of the updates.

6. PROCEDURES AND STRATEGIES FOR IMPLEMENTATION

6.1 Hard floor and carpet cleaning and maintenance

- Hard floors, including tile, concrete, and wood surfaces, will be cleaned once a week with sustainable cleaning products only. No stripping or coatings will be applied to hard floor surfaces.
- Carpets will be vacuumed daily with vacuum cleaners that meet the sustainability criteria listed in Section 7, below.
- Once a month, the carpets will be inspected for stains and other damage. Wherever feasible, the stained 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.

6.2 Protection of vulnerable occupants during cleaning

- Vulnerable occupants include pregnant women, children, elderly occupants, and individuals with asthma, allergies, or other sensitivities.
- Wherever possible, only sustainable cleaning products will be used. Please refer to Section 4 and Section 6.10 of this plan for additional information.
- Wherever the use of carpet cleaners or a non-sustainable cleaning product is required, this cleaning will be performed after regular business hours.

6.3 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 in Section 7 will be considered to meet the requirements of this plan.
- Hand sanitizers will be placed throughout the building for the use of occupants.
- Only disinfectants meeting the purchasing sustainability criteria listed in Section 7 will be considered to meet the requirements of this plan. 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.

- Wherever possible, automated mixing/dilution systems will be used to reduce human error.

6.4 Safe storage and handling of cleaning chemicals, including spill management

- Cleaning chemicals will be stored in the janitorial closets to prevent access by 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 safety data sheets provided by the manufacturer.
- All spills will be handled carefully. As soon 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 cordoned off and building occupants will be informed to stay clear of the area.
- Material safety data sheets for all cleaning chemicals used in the building will be retained and hazard information will be highlighted. This information will be clearly displayed in all janitorial closets.

6.5 Strategies for reducing the toxicity of chemicals used for laundry, 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 Section 7, below.
- Dish soaps and laundry detergent meeting [EPA Safer Choice Standard](#) will be supplied for ware-washing and laundry.
- The incumbent Custodial Services Vendor must meet the certification requirements of [ISSA CIMS \(GB\)](#), to ensure that their operational and purchasing practices meet the expectations of UBC's Okanagan campus and the appropriate LEED requirements.

6.6 Strategies for conserving water & energy and for limiting use of cleaning chemicals

- Manual-powered equipment and cleaning strategies will be used wherever possible to reduce the energy and water used by powered equipment and typical cleaning strategies.

- Cold water will be used for any necessary disposals to reduce the energy required 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 chemical is used.

6.7 Strategies for promoting hand hygiene

- All new and renovated restrooms will be equipped with hands-free soap dispensers, faucets, and hand dryers. Towel dispensers will be gradually phased out.
- Hand sanitizers meeting [UL EcoLogo](#) standards will be placed throughout the building.
- Posters promoting effective hand-washing technique will be placed in prominent positions around the campus.

6.8 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 applied.
- The audits will be conducted once every sixth months, led by the Custodial Services Vendor in consultation with the Manager of Custodial and Waste Services. The Vendor will record the results of the audits and follow up with cleaning staff to provide any additional training and/or guidance necessary, and make record thereof.
- All cleaning staff are required to check in each day when they arrive at work. The Custodial Services Vendor will retain these records to ensure that the building is sufficiently staffed with trained professionals. This document, known as the Daily Custodial Report, is provided to the Manager of Custodial and Waste Services for review and record-keeping.
- The Custodial Services Vendor will keep a log of all training provided to the cleaning staff and will ensure that the training plans described above are met.
- When new staff come on board, the Custodial Services Vendor will record the initial training and orientation provided to the staff.

6.9 Tracking plan for water, energy, and toxic chemical usage

- Every time a toxic chemical is used, it must be reported to the Vendor's site manager, who 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 Custodial Services Vendor will record maintenance performed on all cleaning equipment, including filter replacement, to ensure that they are regularly replaced to reduce energy usage.

6.10 Tracking plan for cleaning product and cleaning equipment purchases

- All cleaning product and cleaning equipment purchases, made by either by the Custodial Services Vendor for use in the building or made by Facilities Management, will be recorded in the purchasing log.
- On a quarterly basis, the Manager of Custodial and Waste Services will review all purchases and compare these against the plan goals. If the plan goals are not being met, the Manager will take corrective action, typically in the form of providing education to the Vendor's site manager about the goals and sustainability criteria outlined in this plan.

6.11 Staffing and contingency plans

- During the most recent assessment, it was determined that in order to effectively clean the campus' 1.1 million square feet of core building space, approximately 30-35 full-time equivalent staff would be required. This is based on different spaces being used in different ways and not every space requiring daily attention. This is reviewed on an ongoing basis, with spaces added and removed from the scope almost weekly. Contingency or 'on-call' staff are retained to cover illness and absence.
- In the event of staffing shortages, the Custodial Services Vendor will adjust their priorities accordingly to ensure that all urgent, priority work is achieved. Secondary or project work will be delayed until sufficient staff are present on site. Priority work is determined based on safety and hygiene.
- Feedback will be collected from building occupants and department representatives to ensure that standards are being met.
- Occupant and custodial staff feedback will be considered in the cleaning procedures described in this plan. The Manager of Custodial and Waste Services will evaluate

whether updates to the staffing and contingency plan are necessary based on this feedback.

6.12 Staff training plan

- All cleaning staff, including backup personnel, are required to receive at least 8 hours of training per year. The Vendor's site manager will record the training attended by each staff member.
- Training sessions are held regularly and may be one-to-one or group sessions. Topics vary, and cover standard operating procedures for cleaning different surfaces, proper toxic chemical usage and spill management, the hazards of toxic chemicals, cleaning to protect vulnerable occupants, cleaning equipment maintenance, and conservation of energy and water usage during cleaning.
- The Custodial Services Vendor coordinates and hosts all of the training sessions.

7. PURCHASING GUIDELINES

Sustainability Criteria for Cleaning Products and Materials

- Custodial vendors performing all cleaning duties on campus must have achieved the [ISSA Cleaning Industry Management Standard \(CIMS\) Green Building \(GB\) certification](#).
- This audit process and certification ensures that contract cleaning vendor's operations and business practices are in line with those of UBC Okanagan and LEED. This includes purchasing practices that meet sustainability expectations and targets.
- Procurement practices are audited by the Manager of Custodial and Waste Services regularly to ensure that rogue items are not being purchased. In the event that items are identified that do not meet the requirements, a training session would take place and the non-conforming product will be swapped out at the first available opportunity.

8. QUALITY ASSURANCE/QUALITY CONTROL PROCESSES

The Manager of Custodial and Waste Services will evaluate the Green Cleaning Plan on a quarterly basis to evaluate progress towards the implementation goals. If any cleaning product or equipment purchases are not being recorded properly, the Manager will inform the appropriate individuals to ensure that activities are recorded moving forward. The Manager will evaluate the results of the cleaning audits to determine whether the building is being sufficiently cleaned and whether standard cleaning procedures are being properly executed. As necessary,

the Manager will revise the Green Cleaning Plan to include additional cleaning strategies or modify existing ones.

In addition, if any implementation goals are not being met, the Manager of Custodial and Waste Services will investigate the situation and work with the individuals purchasing or using the materials and equipment. The Manager will evaluate whether updates are necessary to the Green Cleaning Plan in order to achieve the implementation goals.

Any revisions made to the Green Cleaning Plan will be incorporated into the next training cycle for the contract cleaning staff.