

Green Cleaning Standard Operating Procedure



Document Information

Owner	Sustainability Team
Approver	Director, Sustainability
Effective Date	February 2017
Approved Date	February 2017
Last Review Date	April 2021
Next Review Date	April 2022
Category	Sustainability
Appendices	Appendix A: Green Cleaning Product and Equipment Guidelines Appendix B: SOP Checklists
Keywords	Green Cleaning; Custodial; EcoLogo; Green Seal; Chemicals; Cleaning Equipment; Hand Washing

Applicability and Responsibility

Asset Classes	Office, Industrial, Retail, Residential
Geographic Scope	Canada
Responsibility	Property Teams





1. Purpose

To provide guidance on green cleaning best practices. This document should be shared with third party cleaning vendors, and tenants where QuadReal does not have operational control.

2. Background

Many cleaning products contain harmful chemicals that have a negative effect on full-time employees, tenants, residents and maintenance staff.

	Adverse Health Risks	Exposure to these chemicals, either through inhalation or skin absorption, can increase adverse health risks such as reproductive problems and eye, skin, and respiratory irritation
	Negative Environmental Impacts	Includes air and water pollution, bioaccumulation of toxic substances in plants and animals, endocrine disruption in wildlife, and ozone depletion

Therefore, QuadReal aims to provide high-performance green cleaning in its properties by using practices that emit fewer harmful compounds, improve air quality, and promote well-being of our building occupants.

3. Standard

A green cleaning program ensures that the negative impact of using chemicals on people's health and the environment is minimized.

There are two broad areas of opportunity for improving green cleaning practices:


1. **Purchasing** green cleaning materials and equipment; and
2. **Implementing** strategies and initiatives that promote green cleaning awareness, training, and practices.

4. Asset Class Applicability

This SOP is applicable to all QuadReal managed properties. Applicability is determined by asset class as per the table below. If a property does not have operational control, this document should be shared with tenants as a resource for implementing these best practices in their spaces.

Note: *Where a property is undergoing a building certification, additional procedures and tasks may be required. These will be determined on a case-by-case basis. Properties can reach out to the [Sustainability Team](#) for support.*



 ASSET CLASS APPLICABILITY	Commercial Office Multi-Tenant Mixed-Use	Multi- Residential	Retail Enclosed	Retail Open-Air	Industrial
	FULL	FULL	FULL	PARTIAL	PARTIAL
SOP PROCEDURE ITEMS					
1. Purchase: Green cleaning materials and equipment	Mandatory			Exempt [Unless under operational control]	
2. Ensure: Compliance of third-party providers with green cleaning standards	Mandatory			Exempt [Unless under operational control]	
3. Implement: Strategies to promote and improve hand hygiene	Mandatory			Exempt [Unless under operational control]	
4. Establish: Process for addressing occupant feedback and driving continuous improvement	Mandatory			Exempt [Unless under operational control]	

5. Procedure

5.1 Purchase green cleaning materials and equipment

All contracts with cleaning vendors **must** include requirements for use of green cleaning products and equipment. For properties where the existing property cleaning contract does not provide guidance on procurement of specific green cleaning products and equipment, see list of *Green Cleaning Product and Equipment Guidelines* found in *Appendix A*. When existing cleaning contracts come up for renewal, *Appendix A* should be included in new contracts.

Any cleaning products or equipment purchased directly by the Property team must also follow the requirements listed in *Appendix A*.

QuadReal Sustainability green cleaning criteria **must** be met for:

- Cleaning products used in the building
- Floor care products and disinfectants
- Disposable janitorial paper products and trash bags
- Hand soaps and hand sanitizers
- Cleaning equipment



5.2 Ensure compliance of third-party providers with green cleaning standards

Along with requirements for green cleaning products and equipment, contracts with cleaning vendors **must** address how the following green cleaning standards will be met:

- Effective cleaning of hard floor and carpet maintenance systems and how they will be consistently utilized, managed, and audited.
- Safe storage and handling procedures for cleaning chemicals used in the building.
- Mitigation plans for spills, leaks and chemical management.
- Conserving energy, water and chemicals used for cleaning.
- Protection of vulnerable building occupants.
- Staffing and training of maintenance personnel appropriate to the needs or requirements of the building (Property Managers are responsible for regular meetings with cleaning provider and staff).

Note: A green cleaning program is designed with vulnerable site populations (employees, occupants and visitors with asthma, other respiratory conditions, or sensitive or damaged skin) in mind by reviewing the products, equipment and processes intended to be used at the buildings. These methods may include but are not limited to the adjustments to:

- Cleaning procedures
- Frequencies and timing
- Product choices or similar adaptations

5.3 Implement strategies to promote and improve hand hygiene

The following strategies for promoting and improving hand hygiene should be implemented at all properties:

- **Engage with cleaning staff:** Ensure proper and frequent hand hygiene and sanitation is addressed with all cleaning staff. Staff must be reminded and trained to wash hands thoroughly before and after starting work, breaks, handling of any chemicals, handling of food, and/or any other activity that warrants handwashing/sanitizing. Proper hand hygiene helps reduce the risk of illness, the spread of germs, and injury from certain chemicals/products.
- **Ensure availability of hand soaps:** All washroom facilities that are under operational control, including those in public areas and back-of-house spaces, shall include appropriate hand soaps (see Appendix A for sustainable hand soap requirements).
- **Promote awareness:**
 - Per regulations, hand-hygiene notices will be placed in all employee washrooms.
 - Where applicable, a hand sanitation station or a clear sign pointing to the nearest hand sanitation or handwashing station, is located at the entryway to areas intended for food consumption as per the WELL Standard.
 - Properties are encouraged to install permanent educational signs promoting and outlining the steps for handwashing in all washrooms under operational control as per the Fitwel certification guidelines.






- **Provide disposable paper towels:** It is highly recommended that properties provide disposable paper towels in all washrooms under operational control rather than air dryers as per the WELL Standard.

For more information, refer to [WELL Standard](#) and [Fitwel certification](#) guidance on hand hygiene and handwashing supplies best practices.

5.4 Establish a process for addressing occupant feedback & driving continuous improvement

Property Management to:

ACTION REQUIRED:	
 Address Occupant Feedback via: QR Connect	Review feedback and evaluate new technologies, procedures, and processes to continually improve. Conduct due diligence on any new technologies before full implementation.
 Address Occupant Feedback via: Tenant surveys with each building occupant that address the cleanliness of the building	Where unfavorable responses are collected, the responsible party must work with the cleaning vendor and building occupant to address the issues.
 Drive Continuous Operational Improvements	Cleaning vendors will work closely with supply vendors to analyze new equipment, chemicals and consumable product technologies for potential use in the building.



APPENDIX A: GREEN CLEANING PRODUCT AND EQUIPMENT GUIDELINES

Purchase sustainable cleaning and hard floor and carpet care products that meet the **sustainability criteria** as follows. A minimum of 50% of products must meet the criteria, but properties should aim for 100%.

CLEANING PRODUCTS

The cleaning products used in the building must meet one or more of the following standards for the appropriate category:	
Hard surface cleaners (general purpose cleaners, bathroom cleaners, window and glass cleaners, cleaners for cooking appliances, industrial cleaners, degreasers, and dish washing detergents)	UL EcoLogo 2759 Green Seal GS-37 EPA Safer Choice
Biologically based cleaning and degreasing compounds	UL EcoLogo 2792
Carpet cleaners, upholstery cleaners, and stain removers	UL EcoLogo 2795

FLOOR CARE PRODUCTS AND DISINFECTANTS

Floor care products, disinfectants, or other products not addressed by the above standards must meet one or more of the following standards for the appropriate category:	
Hard floor care products (floor finishes & sealers, strippers & neutralizers, and restorers)	UL EcoLogo 2777 Green Seal GS-40
Non-biologically based digestion additives for cleaning (drain or grease trap additives) and odour control additives	UL EcoLogo 2798
Biologically based drain or grease trap additives	UL EcoLogo 2791
Biologically based odour control additives	UL EcoLogo 2796

JANITORIAL PAPER PRODUCTS

Disposable janitorial paper products and trash bags must meet the minimum the requirements of one or more of the following programs for the applicable product category:	
Sanitary paper products (toilet tissue, facial tissue, paper towels, hand towels, paper napkins, and toilet seat covers)	UL EcoLogo 175 Green Seal GS-01 U.S. EPA Comprehensive Procurement Guidelines FSC certification Made from rapidly renewable resources Contain tree-free fibers
Plastic trash can liners	U.S. EPA Comprehensive Procurement Guidelines

HAND SOAPS AND HAND SANITIZERS

Hand soaps must be fragrance free and 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 (i.e., food service and health care requirements)	
Hand cleaners and hand soaps	UL EcoLogo 2784 Green Seal GS-41 EPA Safer Choice
Hand sanitizers	UL EcoLogo 2783





CLEANING EQUIPMENT

All powered cleaning equipment must have the following features:

1. **Safeguards**, such as rollers or rubber bumpers, to avoid damage to building surfaces.
2. **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.
3. 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.

In addition to the above, specific cleaning equipment must meet the following requirements:

Equipment	Requirements
Vacuum cleaners	<ul style="list-style-type: none">• Certified by the Carpet and Rug Institute Seal of Approval/Green Label Vacuum Program; and• Operate with a maximum sound level of 70 dBA in accordance with ISO 11201.
Carpet extraction equipment (<i>for restorative deep cleaning</i>)	<ul style="list-style-type: none">• Certified by the Carpet and Rug Institute's Seal of Approval Deep Cleaning Extractors and Deep Cleaning Systems program.
Powered floor maintenance equipment (<i>including electric and battery powered floor buffers and burnishers</i>)	<ul style="list-style-type: none">• Equipped with such as vacuums, guards, or other devices for capturing fine particulates; and• Operate with a maximum sound level of 70 dBA, in accordance with ISO 11201.
Propane-powered floor equipment	<ul style="list-style-type: none">• High-efficiency, low-emissions engines with catalytic converters and mufflers that meet the California Air Resources Board or EPA standards for the specific engine size; and• Operate with a sound level of 90 dBA or less, in accordance with ISO 11201.
Automated scrubbing machines	<ul style="list-style-type: none">• 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; or• Scrubbing machines may use tap water only, with no added cleaning products.



APPENDIX B: SOP CHECKLISTS



ASSET CLASS: COMMERCIAL OFFICE | ENCLOSED RETAIL | MULTI-RESIDENTIAL SOP CHECKLIST: GREEN CLEANING

Item	Check
1. Share this document with third party cleaning providers.	<input type="checkbox"/>
2. Check if the cleaning contract provides cleaning materials procurement information, or guidance on procurement of specific green cleaning products and equipment. Ensure it meets guidelines outlined in <i>Appendix A</i> for the following products at minimum: <ul style="list-style-type: none"> ○ Cleaning products used in the building ○ Floor care products and disinfectants ○ Disposable janitorial paper products and trash bags ○ Hand soaps and hand sanitizers ○ Cleaning equipment 	<input type="checkbox"/>
3. Check if the contracts with vendors address the following: <ul style="list-style-type: none"> ○ Effective cleaning of hard floor and carpet maintenance systems and how they will be consistently utilized, managed, and audited. ○ Safe storage and handling procedures for cleaning chemicals used in the building. ○ Mitigation plans for spills, leaks and chemical management. ○ Conserving energy, water and chemicals used for cleaning. ○ Protection of vulnerable building occupants. ○ Staffing and training of maintenance personnel appropriate to the needs or requirements of the building 	<input type="checkbox"/>
4. Confirm Property Manager holds regular meetings with cleaning provider and staff.	<input type="checkbox"/>
5. Address proper and frequent hand hygiene and sanitation with all cleaning staff.	<input type="checkbox"/>
6. Remind and train cleaning staff to wash hands thoroughly before and after starting work, breaks, handling of any chemicals, handling of food, and/or any other activity that warrants hand washing/sanitizing.	<input type="checkbox"/>
7. Include appropriate hand soaps in all washroom facilities that are under operational control, including those in public areas and back-of-house spaces.	<input type="checkbox"/>
8. As per regulations, place hand-hygiene notices in all employee restrooms.	<input type="checkbox"/>
9. Refer to WELL Standard and Fitwel certification guidance on hand hygiene and handwashing supplies best practices, and implement as appropriate.	<input type="checkbox"/>
10. Address occupant feedback as it relates to improving green cleaning practices:	<input type="checkbox"/>



Item	Check
<ul style="list-style-type: none">○ Review feedback from QR Connect on green cleaning and evaluate new technologies, procedures, and processes.○ Conduct due diligence on any new technologies before full implementation.○ Review tenant survey results - where unfavorable responses are collected, the responsible party will work with the cleaning vendor and building occupant to address the issues.	
<p>11. Put in place continuous operational improvements to enhance green cleaning practices at the property:</p> <ul style="list-style-type: none">○ Cleaning vendors are working with supply vendors to analyze new equipment, chemicals and consumable product technologies for potential use in the building.	<input type="checkbox"/>



ASSET CLASS: INDUSTRIAL | OPEN-AIR RETAIL

SOP CHECKLIST: GREEN CLEANING

Note: In most cases, QuadReal does not have operational control over cleaning at industrial or open-air retail properties. However, the following is applicable if QuadReal is responsible for the cleaning contract in common spaces or common washrooms. If a property does not have operational control, this document should be shared with tenants as a resource for implementing these best practices in their spaces.

Item	Check
1. Share this document with third party cleaning providers.	<input type="checkbox"/>
2. Check if the cleaning contract provides cleaning materials procurement information, or guidance on procurement of specific green cleaning products and equipment. Ensure it meets guidelines outlined in <i>Appendix A</i> for the following products at minimum: <ul style="list-style-type: none"> ○ Cleaning products used in the building ○ Floor care products and disinfectants ○ Disposable janitorial paper products and trash bags ○ Hand soaps and hand sanitizers ○ Cleaning equipment 	<input type="checkbox"/>
3. Check if the contracts with vendors address the following: <ul style="list-style-type: none"> ○ Effective cleaning of hard floor and carpet maintenance systems and how they will be consistently utilized, managed, and audited. ○ Safe storage and handling procedures for cleaning chemicals used in the building. ○ Mitigation plans for spills, leaks and chemical management. ○ Conserving energy, water and chemicals used for cleaning. ○ Protection of vulnerable building occupants. ○ Staffing and training of maintenance personnel appropriate to the needs or requirements of the building 	<input type="checkbox"/>
4. Address proper and frequent hand hygiene and sanitation with all cleaning staff.	<input type="checkbox"/>
5. Remind and train cleaning staff to wash hands thoroughly before and after starting work, breaks, handling of any chemicals, handling of food, and/or any other activity that warrants hand washing/sanitizing.	<input type="checkbox"/>
6. Include appropriate hand soaps in all washroom facilities that are under operational control, including those in public areas and back-of-house spaces.	<input type="checkbox"/>
7. As per regulations, place hand-hygiene notices in all employee restrooms.	<input type="checkbox"/>
8. Address occupant feedback as it relates to improving green cleaning practices.	<input type="checkbox"/>