

Environmental Protection Plan

Commitment & Purpose

L&J Diamond Maintenance Inc. places a high value on promoting sustainable building operations and we are committed to playing our role supporting Thompson Rivers University in achieving its sustainability goals. Through implementing efficient and responsible cleaning systems and processes we are able to help encourage occupant wellbeing, environmental performance and to generate quantifiable economic returns. Our Green Cleaning program incorporates those goals through a best practices policy of continuous improvement that integrates innovative practices, standards and technologies derived from routine internal performance review and from our industry service partner's insights and guidance.

<u>Scope</u>

Our Green Cleaning Policy and Program is applicable to cleaning activity throughout the campus and the associated grounds, including all of the building's interior spaces and the building exterior as described below.

<u>Goals</u>

The goal of our Green Cleaning Policy and Program is to reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particle contaminants, which adversely impact air quality, health, building finishes, building systems, and the environment. Specifically, our goal is 100% compliance with the processes and strategies outlined below.

Processes and Strategies

A. Overview

Green cleaning strategies minimize potentially harmful compounds and contaminants in an effort to promote indoor environmental quality. The foundations of our Policy and Program are:

- 1. Containment of soil and contaminants at building entryways
- 2. Ongoing touch point and hand sanitation (see ATP Meter, Section)
- 3. Products with low environmental impact
- 4. Equipment with low environmental impact
- 5. Techniques with low environmental impact
- 6. Appropriate staffing
- 7. Appropriate training (see Task Specific Training Program, Section)



- 8. Cleaning audits and occupant feedback (see Monthly Quality Audits, Section_)
- **9.** Ongoing process improvement
- **B.** Entranceways

Containment of soil and contaminants at building is an essential first step to our program. Entryway systems reduce occupant exposure to potentially hazardous chemical biological and particulate contaminants, which adversely affect air quality, human health, building finishes, building systems and the environment. Accordingly, a 10 foot entryway mat system should be permanently installed at all public entryways.

As containment minimizes the introduction of soil and other contaminants, the cleanliness of the building's entranceways is a top priority. We employ our staff to maintain appropriate cleanliness standards at the building's entryways and lobbies. Throughout the day, the matron/porter removes visible debris from the mats and surrounding entranceway areas. At night, entryways are vacuumed by the night staff. Further, each night, entryway matting is removed and the bottom of the mat is cleaned to reduce the potential for moisture and bacterial and fungal growth.

C. Touch Points and Hand Sanitation

Ongoing touch point and hand sanitation is another cornerstone of our program. Our focused touch point sanitation program is designed to help reduce the transmission of germs at faucets, door handles, drinking fountains, elevator buttons, trash bins, etc. During daytime hours, the matron/porter wipes down each touch point, based on established frequencies, throughout the day to maintain appropriate cleanliness standards. Additionally, the night staff cleans each area once per night.

D. Cleaning Products – Chemicals

All of the cleaning products we use minimize environmental impact while maintaining acceptable cleaning standards. While more specific guidelines are outlined below, cleaning products generally meet the following characteristics:

- **1.** A more neutral pH as compared to similar product types
- **2.** A lower volatile organic content (VOC) as compared to similar product types
- 3. Biodegradable
- 4. Free of dyes
- **5.** Free of fragrances



- 6. Minimal use of packaging materials
- 7. Manufactured from renewable resources
- **8.** Free from antimicrobial agents (exceptions are made for the targeted application of disinfectants)

Additionally, while more specific guidelines are outlined below, paper products and trash bags have been selected to minimize the property's use of original materials.

In accordance with building standards and client preferences, we strive to have all cleaning products meet one or more of the following standards for the appropriate category:

- **1.** Green Seal GS-37, for general-purpose, bathroom, glass and carpet cleaners used for industrial and institutional purposes;
- 2. Environmental Choice CCD-110, for cleaning and decreasing compounds;
- 3. Environmental Choice CCD-146, for hard surface cleaners;
- 4. Environmental Choice CCD-148, for carpet and upholstery care.

Similarly, for any disinfectants, metal polish, floor finishes, strippers or other products which we could bring into the building and that are not addressed by the above standards, we strive to meet one or more of the following standards for the appropriate category:

- **1.** Green Seal GS-40, for industrial and institutional floor care products
- **2.** Environmental Choice CCD-112, for digestion additives for cleaning and odor control;
- 3. Environmental Choice CCD-113, for drain or grease traps additives;
- 4. Environmental Choice CCD-115, for odor control additives;
- 5. Environmental Choice CCD-147, for hard floor care;
- **6.** Canadian Code of Regulations maximum allowable VOC levels for the specific product category.

Specifically, L&J Diamond Maintenance Inc. uses and will store the following chemicals at TRU:

- Multi Surface Cleaner Alpha-HP Multi Surface Cleaner (Green Seal GS-37);
- 2. Glass Cleaner Glance-NA (Non-Ammoniated) (Green Seal Certified);
- 3. Disinfectant EP 50 Greenseal/Ecologol disinfectant
- 4. Neutral Cleaner Stride (Green Seal GS-37);
- 5. Floor Finish EP 64 floor cleaner Greenseal/ecologo
- 6. Floor Stripper Freedom SC (Green Seal GS-40).



Notably, all the above chemicals are purchased in concentrate form and all chemicals are diluted through a semi-automated dilution control system discussed below (with the exception of the laundry items).

Consumable paper products and trash bags meet the minimum requirements of one or more of the following programs for the applicable product category:

- 1. US EPA Comprehensive Procurement Guidelines for Janitorial Paper and Plastic Trash Can Liners
- 2. Plastic Trash Can Liners no thicker than 0.70 mils (17.78 microns)
- **3.** Green Seal GS-09, for paper towels and napkins
- 4. Green Seal GS-01, for tissue paper
- **5.** Environmental Choice CCD-082, for toilet tissue
- 6. Environmental Choice CCD-086, for hand towels
- **7.** Janitorial paper products derived from rapidly renewable resources or made from tree-free fibers

Presently, the consumable products presently being used at TRU are:

- 1. Half Fold Toilet Seat Covers
- 2. Liners BAG CAN LINERS 40x48
- 3. Liners BAG CAN LINER 30x37
- 4. Liners BAG CAN LINER 24x33
- **5.** Toilet Tissue KC 04460 toilet tissue
- 6. Hand Towels KC 1980 multifold towels

Hand soaps meet one or more of the following standards:

- 1. 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)
- 2. Green Seal GS-41, for industrial and institutional hand cleaners
- **3.** Environmental Choice CCD-104, for hand cleaners and hand soaps

Presently, the hand soaps being used at TRU is:

Rubbermaid 800ml hand soap

Chemical storage will be located in secure janitor's closets. Importantly, cleaning staff maintains the smallest possible inventory of chemicals. Storage areas are checked daily to ensure that they are free from spills. Stock chemicals are reviewed periodically to ensure that none are leaking and that the expiration dates are not passed.



As a best practice, flammable liquids, acids, bases and reactives are stored separately at all times. Similarly, solid and liquid chemicals are separated to reduce the possibility of unwanted chemical reactions.

Each chemical container is labeled at all times and no improperly labeled chemicals are used. Further, we maintain a current (less than 3 years old) MSDS on file for each hazardous chemical used on-site and keep the MSDS in a location that is readily accessible to all employees.

Finally, we minimize product packaging through the use of concentrated cleaning products and dispensing equipment. Our dispensing system is outfitted with a backflow preventer and product dilution rates shall be regularly verified.

E. Cleaning Equipment

L&J Diamond Maintenance Inc. uses cleaning equipment that minimizes environmental impact by controlling dust creation, reducing energy use, and minimizing noise pollution. While more specific guidelines are outlined below, cleaning equipment generally meet the following characteristics:

- **1.** Protects indoor air quality
- 2. Prevents noise pollution
- 3. Reduces water use
- **4.** Reduces energy use
- **5.** Are ergonomically designed
- 6. Minimizes damage to the building

Additionally, all equipment purchases meet one of the following standards:

- Vacuum cleaners certified by the Carpet and Rug Institute "Green Label" Testing Program for vacuum cleaners operating with a sound level of less than 70 dBA;
- Carpet extraction equipment used for restorative deep cleaning certified by the Carpet and Rug Institute's "Seal of Approval" Testing Program for deep-cleaning extractors;
- **3.** Powered floor maintenance equipment, including electric and batterypowered floor buffers and burnishers, equipped with vacuums, guards and/or other devices for capturing fine particulates and operates with a sound level of less than 70 dBA;
- **4.** Automated scrubbing machines equipped with variable-speed feed pumps and on-board chemical metering to optimize the use of cleaning fluids;



- **5.** Powered equipment ergonomically designed to minimize vibration, noise and user fatigue;
- **6.** Equipment designed with safeguards, such as rollers or rubber bumpers, to reduce potential damage to building surfaces.

To lower costs and in an effort to minimize future equipment purchases, equipment is selected on the basis of performance and durability. Finally, we maintain an equipment log to document the date of equipment purchase and to track all repair and maintenance activities.

Presently, L&J Diamond Maintenance uses the following equipment at TRU:

- 1. Vacuums (backpack) ProTeam Super Coach HEPA (6 units);
- 2. Vacuums (upright) ProTeam ProForce 1500/1500XP Upright HEPA (2 units);
- **3.** Single Speed Floor Machine (1 unit);
- 4. Chemical Dispensing Unit J-Fill Select Quattro System (1 unit);
- 5. Micro Fiber Cleaning Cloths Micro Quick Cloths.
- 6. Micro Fiber Mops Rubbermaid.

See attached

F. Cleaning Program & Standard Operating Procedures

L&J Diamond Maintenance Inc. uses an efficient and effective cleaning methodology we refer to as "Task Specific." Under the Task Specific Program, man-power resources are allocated purposefully and efficiently to ensure that the building meets the appropriate cleaning standards, while only using the necessary labor hours. Cleaners are assigned to a dedicated area and trained to complete tasks under a carefully crafted schedule to ensure the work is completed over the course of the evening, week, month and year.

Sustainability is truly at the heart of the Task Specific Program. While the cleaner are trained to maintain a high standards, they are also shown that they do not need to clean what doesn't need to be cleaned . . . they are taught not to "clean *clean*." Task Specific puts them on a schedule, and, on a given night, with the supervisor's support, directs the cleaner to perform only those tasks that are planned to be accomplished that evening. And, while each space must first be evaluated to conform to the appropriate schedule, once in place, the building is truly being maintained with a responsible and efficient effort. See attached <u>Task Specific Training Program</u>.

1. Measuring/Diluting Chemicals



Our staff is trained to follow the manufacturer's directions and wear appropriate personal protective equipment at all times. All secondary containers are properly labeled. Cleaning products are diluted with the appropriate amount of water through the use of a J-Fill Quattro Select System, and two or more chemicals are never mixed together.

As noted previously, all chemicals are purchased in concentrate form. Dilution for Alpha-HP, Glance-NA, Oxivir, and Stride Neutral Cleaner is all accomplished through the use of the J-Fill Select System.

2. Touch Point Sanitation

Our best practice calls for concentrated sanitation at all "touch points" – areas such as faucets, door handles, drinking fountains, elevator buttons and trash bins – which commonly act as a transfer medium for germ transmission. Touch point sanitation are a primary training focus for day porters and night cleaners. Cleaners use Alpha-HP or Oxivir Tb by applying the chemical directly onto the micro fiber cloth.

3. Dusting

Our best practice employs the use of microfiber cloths to regularly dust all horizontal and vertical surfaces in accordance with the Task Specific Program schedule. When Alpha-HP or Stride Neutral Cleaner is used for dusting, it is always applied to the cloth (rather than to the surface to be dusted). And, as a general rule, dusting is completed from top to bottom, and high dusting is followed by vacuuming.

4. Glass Cleaning

Microfiber cloths are also used to clean mirrors, window interiors and other interior glass. When Glance-NA is used for glass cleaning, it is limited by applying the chemical directly to the cloth (rather than the surface to be cleaned).

5. Hard Floor and Carpet Maintenance - Overview

We utilize an effective hard floor and carpet maintenance program in order to minimize the need to strip and recoat a floor or to extract a carpet. Our hard floor and carpet maintenance program is also designed to extend the life of floor materials – reducing waste at the source and minimizing the impact on landfills.

6. Carpet Maintenance - Vacuuming

Our best practices demands that spills are cleaned as quickly as possible as an effective pollution prevention strategy. Vacuuming is performed from the area of the room farthest from the entry door and continuing toward the door. In open areas, a V or W pattern is followed. Extra care



is taken along walls and baseboard edges. And, vacuum bags are emptied when half full and disposed of properly.

Building's common areas, conference rooms, and hallway carpets are vacuumed nightly and/or by a day porter in response to a reported spill. Occupants offices are spot vacuumed to remove visible debris nightly and are vacuumed edge to edge weekly.

7. Carpet Maintenance –

Carpet Cleaning is conducted with minimum amount of the least toxic product and using a minimal amount of water in a well-ventilated unoccupied space. The cleaning solution is applied from a sprayer and then the carpet is extracted. Subject areas are ventilated during and after cleaning.

- 8. Hard Floor Maintenance Dust Mopping & Microfiber Mop System L&J Diamond Maintenance Inc. uses a microfiber mop system with a micro-fiber pad. The mop may be used, laundered and re-used as necessary. Mopping begins in the area of the room farthest from the entry door and continues toward the door. In open areas an overlapping pattern is used. Extra care is taken along walls and baseboard edges. Specifically, the building's hard floors are vacuumed and mopped nightly and/or by a day staff in response to a reported spill.
- 9. Hard Floor Maintenance Stripping

Floor stripping is conducted with Freedom SC Stripper in a well-ventilated unoccupied space. The appropriate personal protective equipment is worn at all times, which typically includes gloves, goggles and non-slip footwear. Subject areas are ventilated during and after stripping.

10. Hard Floor Maintenance - Restoration

A solid foundation of 1 to 3 coatings of low VOC Vectra floor finish is carefully reapplied in a manner that maximizes the longevity of the coatings. The appropriate personal protective equipment is worn at all times, which typically includes gloves, goggles and non-slip footwear.

G. Training

While specific training varies by job function, all cleaners receive training in the Task Specific Program, the hazards of use, disposal, recycling of cleaning chemicals, dispensing equipment and packaging. Training emphasizes proper use of chemicals and equipment in addition to various site specific Green Cleaning techniques. Special attention is paid to seemingly minor techniques, such as applying a cleaning agent to a cloth rather than spraying it on a surface,



as such practices can importantly have an enormous impact on exposures to building occupants and the environment. We also stress to cleaning personnel that using the proper chemical with the proper process is the most effective manner to achieve the particular task, and that adding extra concentrated cleaning product does not make the cleaning agent work better or faster.

At L&J Diamond Maintenance Inc., we believe that a well trained and focused staff leads to an efficiently and effectively cleaned building. Accordingly, training is an ongoing and continuous process that is discussed briefly on a nightly basis, formally at quarterly group meetings, individually in response to problems that arise in a particular cleaner's assigned area and in response to supervisory "best practices" audits and evaluations that reveal the need for additional support and training.

H. Staffing

L&J Diamond Maintenance Inc. has devised the building staffing plan to maximize an efficient cleaning system and a responsible work load assignment in accordance with our Task Specific Training Program.

The Account Manager is accountable to building management 24/7, routinely monitor building services and activity, and conduct periodic site visits and inspections.

I. Occupant Feedback and Cleaning Audits

L&J Diamond Maintenance Inc. values occupant feedback regarding our cleaning services and Green Cleaning Program. Accordingly, our Account Manager is available to respond to cleaning concerns during campus hours.

Our Quality Control and Auditing System has several components. First, on a weekly basis, our on-site Account Manager performs a quality control audit. On a rotating basis, and with the Task Specific schedule as a guide, he will inspect a particular cleaner(s) area noting deficiencies, rating individual items, and commenting on general satisfaction

The on-site Manager may provide instant feedback to the cleaner upon completing the report or, for more general matters the supervisor will gather all of the cleaners on the following evening.



The combination of the routine quality inspections by our Account Manager and the comprehensive monthly quality audit will allow L&J Diamond Maintenance Inc. to respond to best practices, challenges and cleaning issues before they become an inconvenience.

J. Vulnerable Building Occupants

As our cleaning practices directly impact upon the building overall hygiene, we recognize that some occupants may be disproportionately affected. Accordingly, occupant reaction to the cleaning program schedule, chemicals or methods may vary due to oversensitivity to odors, pre-existing health conditions, reduced immune system function or other factors.

Understanding occupant sensitivities is essential to accommodating vulnerable building occupants. When TRU makes us aware of a vulnerable building occupant, we make every effort to reasonably accommodate the circumstance. By minimizing the use of a particular cleaning product in a certain area of the building and/or by altering the time and day that cleaning takes place, we are able to support the needs of more vulnerable building occupants.

LJDM works closely with our suppliers to keep up to date with the newest green cleaning systems. LJDM will bring in our representative and have them work with the staff to learn the new product or system, and how to properly use it, and maintain it.