

Green Cleaning Program



Providing a healthy and safe indoor working environment for students, staff and faculty is a priority at Thompson Rivers University (TRU). TRU's janitorial services are provided by L&J Diamond Maintenance (LJDM), their green cleaning program is included below. A full list of cleaning products is included in Annex A.

The Green Cleaning Program is reviewed annually and updated, as necessary. Part of this review shall include an assessment of cleaning logs supplied by the contractor. These logs are found within each building, with locations specified in Annex B.

The Green Cleaning Program is to be referenced for cleaning operations in all of TRU's buildings, including:

- Animal & Health Technology
- Arts & Education
- Campus Activity Center
- Clock Tower
- Culinary Arts
- Daycare
- Gymnasium
- House 1- Faculty Association
- House 10- Horticulture
- House 4- Sustainability
- House 5- Aboriginal Cultural Center
- House 6&7- Research Center
- House 8- Radio Station
- House 9- Welcome Center
- House of Learning
- Human Resources
- International Building
- Library
- Materials Distribution Center
- Old Main
- BC Center for Open Learning
- Sciences & Health Sciences
- Trades & Technology Center

THE LJDM GREEN CLEANING PROGRAM

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LJDM GREEN POLICY – STATEMENT OF PURPOSE

Introduction

As is LJDM's motto, "We Don't Cut Corners We Clean Them." However, LJDM is committed to fulfill our motto in a manner that is earth and human friendly. In keeping with our vision LJDM affirms its commitment to environmental stewardship and sustainability, both contained in the 'Green Cleaning Policy'. This policy requests that building occupants do their part. But 'Green Cleaning' comprises an entire program affecting our choice of cleaning solutions, practices, and equipment, our goals for personnel training, and custodial personnel commitment to practice environmentally conscious cleaning and sanitation procedures.

Purpose

L&J Diamond Maintenance (LJDM) conducts its business in a manner that balances environmental considerations and social responsibilities with our corporate goals. LJDM established this policy to reduce exposure of building occupants and custodial personnel to potentially hazardous chemical contaminants that adversely impact air quality or impede occupants' well-being. In short, we want to control the health-negative components within the indoor as well as the outdoor environment.

We continually strive to protect the environment and the health and safety of our employees, customers and the public. We integrate this commitment into our business planning and operations by establishing and maintaining systems that carry out the following principals:

Goals and Strategies

'Green' Cleaning goals are to minimize the exterior's impact on the local environment and to emphasize and practice environmentally safe, low-impact cleaning chemicals and practices. LJDM continually aims to improve its environmental performance by:

- Educating, training, and motivating custodial staff to work in an environmentally responsible manner.
- Ensuring that all custodial staff is aware of their responsibilities in implementing this environmental policy.
- Conserving energy, water, and other resources while still providing a cleaned and sanitary environment.
- Complying with all relevant current legislation and industry standards.
- Using cleaning products that meet Green Seal standard GS-37 or products with low-volatile organic compounds (VOC) whenever applicable.
- Using products that meet EPA standards with high post-consumer recycled content.
- Using equipment with good filtration.
- Eliminating phosphates and aerosol products.
- Using concentrated cleaning products when available.
- Using chemicals that are automatically and accurately diluted using cold water.
- Using products that are packed with recycled materials.

Health and Safety

Foster a culture that makes the health, safety and well-being of our employees and customers our number one priority.

Compliance

Conduct our business in accordance with all applicable environmental laws and regulations, and other relevant standards to which we may voluntarily subscribe. Provide the training, management systems, and resources necessary to do so.

Risk Reduction

Assess and manage the environmental, safety and health risk associated with all aspects of our business to protect our employees, our customers and the communities in which we operate.

Pollution Prevention and Resource Conservation

Factor pollution prevention and resource conservation opportunities into our business planning and operating decisions to help reduce our impact on the environment.

Open Communication

Maintain an open and candid dialog with our employees and customers about the environmental health and safety performance of our operations and services.

Continuous Improvement

Establish key measures to track our performance, set objectives and targets to drive continuous performance improvement, conduct audits and assessments, and promptly correct conditions that may be averse to the environment or the quality of life of our employees and customers.

LJDM GREEN CLEANING POLICIES

In keeping with the LJDM Green Policy, LJDM Green Cleaning takes traditional cleaning beyond appearances with procedures designed to make each customer's the safest, healthiest and cleanest environment possible.

Using environmentally friendly, less-toxic products is just one step in the process of setting up and implementing a successful green cleaning program. How the janitorial staff uses cleaning products and equipment also impacts the program's success.

We can begin with basic green cleaning options, such as switching to Green Seal certified cleaning products, to complete cleaning options such as paper products, and Green Seal Certified equipment, etc... For our customers working toward LEED (Leadership in Energy and Environmental Design) certification, LJDM's Green Clean program will include use of the green cleaning products and procedures required to earn points toward certification.

LJDM's Green Cleaning Program – LJDM employs Green Cleaning Programs throughout its customer portfolio that achieve;

- i) a healthier environment for all occupants in the facility,
- ii) utilize private labeled, LJDM "green-seal" approved cleaning chemical products,
- iii) contribute to reduced absenteeism and higher productivity in the workplace,
- iv) provide customer facilities the opportunity to earn LEED EB credits, and
- v) advocate favorable public relations both internally among employees and externally to the general public/ tenants.

LJDM partners with its customers to create optimal workplace environments that enhance productivity and offer employees safe working conditions.

Landlords and property owners are supported with best practices and certification programs that position the property with an attractive occupancy package for its tenants.

LJDM works closely with facility and property managers to help achieve LEED-EB certification and to comply with industry recognized best practices in all meaningful aspects of the Green Cleaning

Initiative. The LJDM Green Cleaning Program provides its customers with thirteen (13) points toward the thirty-four (34) points required for LEED Certification.

LJDM's commitment and focus is to assist its customers in being recognized as "good corporate citizens" from an environmental and employee relations perspective. The following goals and objectives are prioritized in supporting our customers in the facilities they occupy:

- Drive down operating costs
- Enhance asset value of the facility
- Enhance brand equity reputation
- Meet government compliance and mandates
- Healthier environment for employees
- Lower impact on the environment
- Improved worker safety
- Improved risk and liability management

LJDM creates a comprehensive Green Cleaning Program for its customers assisting their facility to achieve credits towards LEED-EB certification. LJDM's Green Cleaning Programs include the following components:

- Industry recognized best practices for dust containment, use of recyclable paper products, and safe application of Private Labeled Green Seal cleaning products
- Garbage Bags are 100% degradable
- High quality hand soaps without antimicrobial agents
- Entryway matting systems - Focus on entryways inside and out. An important goal in cleaning green is to trap and remove dirt and pollutants before they enter the building and to frequently clean the entrances and entryway mats.
- Use of vacuums certified by the CRI Green Label - Ensure proper vacuuming, extraction, rinsing and drying. Carpets can be a host for moisture problems and mold growth. Green cleaning means minimizing these problems. Empty vacuum bags at the end of shifts or when half full for cleaner and more efficient operating.
- Floor machines with active-vacuum dust capture
- Ongoing training on proper cleaning procedures
- Effective communication and public relations internally among employees and externally to the building manager and occupant base.
- Minimize particles and chemicals in the air by mechanically capturing dust and dirt, using spray for chemicals and applying the cleaner to the cloth rather than spraying the surface to be cleaned.
- Use chemical management systems for accurate product dilution. Our employees are trained to use chemicals properly to minimize waste and maximize cleaning efficiency, an important element of cleaning green.
- Focus on preventative measures. Hand washing and keeping equipment clean and well maintained.
- Focus on touch-points. These are door handles, bright work and other areas where people come in contact with the facility or its fixtures.

Apply disinfectant in restrooms properly and make sure the chemical has proper dwell time so that soil is thoroughly removed using less product.

- Promote safety and prevent cross-contamination. Safer products and proper use and storage of chemicals help create a safer environment. Color-coded tools ensure that pollutants don't get carried from one area (such as a restroom) to another.

This document outlines the LJDM Green Cleaning required and recommended methods and procedures that will ensure maximum benefit is derived in the area of indoor environmental quality.

OVERVIEW – OPERATIONAL REQUIREMENTS/STANDARD OPERATING PROCEDURES:

Cleaning is the process of locating, identifying, containing, removing and properly disposing of an unwanted substance from a surface or environment. LJDM GREEN Cleaning is a process that reduces any negative impact of cleaning on health and the environment. While product selection is important, procedures for a LJDM GREEN Clean program are equally important. This section elaborates on those important procedures in these key areas:

- Dusting and Dust Mopping
- Entryway's
- High traffic areas
- Powered cleaning equipment
- Vacuum use & maintenance
- Floor Care
- Carpet Care
- Restrooms
- Food Areas: Cafeterias, Break Room, Etc.
- Indoor Plants
- Reducing chemical use/proper dilution and efficient use
- Spills
- Trash collection & recycling
- Reducing solid waste
- Vulnerable populations

This section discusses source reduction and pollution prevention strategies in addition to specific opportunities to modify traditional procedures to reduce impact on health and the environment. With the use of any cleaning chemical or janitorial equipment, it is important that appropriate personal protective equipment (PPE) be used and product directions followed. Furthermore, proper disposal of all cleaning wastes is required.

Supplies provided by CLEANING CONTRACTOR shall include:

- Cleaning and chemical agents
- Equipment
- Cleaning cloths, squeegees, brushes, and other small hand tools
- Carts, mop buckets, and other cleaning utensils

Optional supplies that can be provided by CLEANING CONTRACTOR at an additional cost to customer shall include:

Paper products, including toilet paper, hand towels, seat covers, as specified by the EPA Environmentally Preferred Product list.

- GS-37 certified hand soap
- Trash can liners containing a minimum of 100% post-consumer recycled content.

CHEMICALS

LJDM is strongly committed to ensuring the use of quality **Green Seal or ECO-Logo approved** chemicals in the buildings we service.

Chemical Handling & Tracking

LJDM trains its janitorial crews on proper handling techniques and Personal Protective Equipment (PPE), as documented in corporate training files.

Chemical usage is tracked by site through the vigilance of on-site supervisors as well as a stock & supply tracking system monitored at the central warehouse.

MEASURING/DILUTING CONCENTRATED CLEANING PRODUCTS

1. Written and graphic instructions are posted in each janitorial closet to facilitate proper techniques.
2. Use appropriate personal protective equipment when mixing concentrated cleaning products.
3. Follow manufacturer's dilution directions. Do not under -or- over-dilute concentrated cleaning products.
4. Make sure that spray bottles (secondary containers) have appropriate labels.
5. Never mix different cleaning products together.

Highly concentrated cleaning products reduce environmental impact from packaging and transportation, and typically reduce actual use cost compared to less concentrated alternatives. However, to gain the environmental benefits and to protect workers exposed to these more highly concentrated products during mixing, extra care should be taken.

LJDM currently employs dilution control centers in their janitorial closets, ensuring that concentrates are mixed correctly, with no waste. There is no spillage and the chemicals are effectively deployed to the units with a minimal of contact. Janitorial staff are trained on the proper procedures regarding the utilization of this equipment, minimizing the challenges that manual dilution presents.

If using manual dilution, e.g. measuring cup or pump, cleaning personnel understand that by adding extra chemical concentrate beyond recommended dilutions that the product will not necessarily perform better. In fact, surfaces can become slippery and/or take on a cloudy or streaked appearance due to chemical residue. They never mix cleaning products together. Some cleaning chemicals can react when mixed to give off dangerous by-products. They always rinse containers after use.

Products should always be diluted accurately according to manufacturer's directions. This is achieved through a variety of methods including measuring cups, simple dispensing pumps and automated dilution equipment. Dilution control equipment is highly recommended because it minimizes the potential for human error and reduces the chance of chemical exposure to concentrates. Dilution equipment is periodically checked for accuracy.

DUSTING, DUST MOPPING AND VACUUMING

LJDM has implemented the use of micro fiber cloth systems that ensure we are capturing as much dust and particulate from an office environment and removing it from the building versus traditional methods of dusting. To further enhance the program, the micro fiber cloths are color coded so as to avoid cross contamination in areas cleaned.

Traditional dusting and dust mopping techniques frequently move dust and other contaminants from one area to another, such as from a bookshelf to the floor. It is important to recognize that moving dust from one place to another wastes labor and reduces efficiencies. Dusting and dust mopping activities that do not capture soils completely stir them into the air where people can then be exposed to the particles.

POWERED CLEANING EQUIPMENT

LJDM's Janitorial Managers choose cleaning equipment that is:

- Durable-equipment that lasts longer and needs replacement less frequently will not be an additional burden on the waste stream.
 - Energy efficient-using equipment that saves energy is another way of promoting conservation.
 - Quiet-reducing noise pollution means a healthier environment for the janitorial staff.
 - New state-of-the-art-cleaning equipment can make janitorial cleaning tasks easier while also reducing indoor air pollutants
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All new equipment purchased shall meet the following specifications:

- Powered floor scrubbers will be equipped with controls or other devices for capturing and collecting particulates and shall operate at a sound level less than 70 dBA.
- Steam extractors- will meet the CRI Bronze seal of approval
- Vacuum cleaners- CRI Green Label approved, operating at less than 70 dBA.

A component of this plan shall also include a quarterly maintenance program that inspects and maintains the performance of all equipment as defined by the equipment vendor, and records results in a maintenance log.

VACUUM USE & MAINTENANCE

L&J Diamond Maintenance's Vacuum Equipment is CRI Approved: LJDM ensures that all is vacuum equipment meets the CRI Green Label Certification. This equipment employs the use of additional filtration to capture and remove dust from buildings while generating less than 70 dBA of noise.

A component of this plan shall also include a quarterly maintenance program that inspects and maintains the performance of all equipment as defined by the equipment vendor, and records results in a maintenance log.

CARPET CARE

General Maintenance

Beyond the traditional issues, carpet care in a Green Cleaning program addresses the selection of the appropriate products and equipment.

Requirements

1. Keep outside/outdoor entryways clean to prevent soils from being tracked into the building. This may include sweeping, use of a power sprayer, etc.
2. Use entry mats to capture soils and moisture from shoes. It is preferable that the mats be large enough for each shoe to hit the mat two times (typically a minimum of 12 to 15 feet.)
3. Frequently vacuum entryways mats and grating systems.
4. Frequent dust mopping of resilient tile floors, or vacuuming of carpeted surfaces, especially close to entryways and other sources of particulates (i.e. near copier rooms) reduces soiling on surrounding carpeted areas.
5. Establish a daily routine for cleaning carpets.

Carpeted Pre-spray & Extraction

Carpets can act as a "sink" that allows particles, allergens and other unwanted material to filter down into the backing of the carpets. Once down deep in the carpet these unwanted materials can lead to damage of the fibers and the need ultimately replace the carpets sooner than properly maintained carpeting. But from a health perspective, one of the biggest enemies of a healthy indoor environment is when moisture provides an opportunity for biological growth in the carpets. Thus, pre-spraying carpet and rinsing with an extractor should get deep down into the carpets and remove the unwanted contaminants.

Carpet Cleaning- Portable Extraction

Using a detergent applied directly to the carpet, high-pressure jet water is used to rinse the carpeting, followed immediately by a high-powered vacuum to remove the solution, water and dirt. The high-powered vacuum leaves the material damp. Depending on external factors, such as air-flow and humidity, the carpet totally dries anywhere from 2-12 hours. When needed, high-powered fans can be utilized to speed drying times significantly.

RESTROOMS

Because of their heavy use and moisture, restrooms must be cleaned frequently using appropriate cleaning products and procedures.

Large trash cans should be utilized to minimize overflow of waste and reduce the frequency for policing the area. It is often beneficial to place a trash receptacle by the door for easy disposal of towels to prevent them from being thrown on the floor.

FOOD AREAS: CAFETERIAS, BREAK ROOM, ETC.

Action Items:

1. Clean and sanitize floors, tables, etc.
2. Separate recyclables from trash and make sure recyclable areas are kept clean (i.e. rinse soda cans) so as not to attract pests.
3. Make sure that waste containers are covered and emptied at least once daily.

Particular attention should be paid to food waste, trash receptacles containing food debris, recyclables such as soda cans, and other objects that contain food residue that can attract pests is critical to protecting occupant health by reducing or eliminating the need for pesticides inside the building. Refrigerators used by occupants for their personal use should be emptied and cleaned periodically.

INTEGRATED PEST MANAGEMENT

If LJDM is not tasked with implementation of a pest management program, they will:

- As a first line of pest control, exercise preventive tactics by managing the indoor space and reducing sources of potential infestation
- Report any infestations to building management
- Monitor & identify pests- so that appropriate action will be taken when needed.

If an Integrated Pest Management Program is requested of LJDM, further action would entail:

- Partnering with a Pest Management vendor.
- Setting action thresholds- determining when are pests due for control
- Choosing the least risky pest control or mechanical means (traps, etc) as an initial step.
- If spraying is necessary, targeted spraying is first option; broadcast spraying as a last resort.
- Before any spraying of a pesticide, all building occupants will be given 72 hours notice.

INDOOR PLANTS

Plants:

Maintenance of indoor plants includes the following:

- Collect & dispose of plant debris, such as fallen leaves and flower petals
- Ensure that plants are not in direct contact with carpet.
- Periodically check under plants for mold & mildew due to over-watering
- Keep plants away from HVAC vents.

If indoor plant care is not part of cleaning contract, LJDM will alert the customer of situations where indoor plants are interfering with or compromising cleaning processes and indoor air quality.

TRASH COLLECTION & RECYCLING

Recycling Program:

- In the event that a LJDM customer has implemented a recycling program, the janitorial crew will assist in the following ways:
 - Work with building management regarding procedures and for periodic updates.
 - Ensure that Recycling centers are clearly marked, centrally located and easily accessible.
 - Collect & remove food related recyclables (soda cans, water bottles) prior to weekends and holidays. These are collected when bins are full or weekly.
 - Inspect & clean recycling areas daily, including collection containers.
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- Deposit recyclable materials in proper depositories for third party pickup.

Reducing Solid Waste

LJDM purchases chemical products & supplies in quantities that minimize the amount of packaging & container waste.

The janitorial staff uses reusable cleaning cloths or microfiber technology. Within 2 hours of use, cloths are isolated to minimize evaporation of cleaning product into the air. They segregate and recycle all waste items from cleaning operation that are acceptable for recycling. (Glass, paper, plastic, cardboard, empty containers, etc)

PREFERRED PURCHASING PROGRAM

Cleaning products meet GS-37 or GS-40 standards if applicable and/or comply with the California Code of Regulations maximum allowable VOC levels.

Disposable janitorial paper products and trash bags meet the minimum requirements of US EPA's comprehensive procurement guidelines.

- General purpose cleaners are in house products certified by Green Seal GS-37
- Floor cleaners are in house products certified by Green Seal GS-37
- Bathroom cleaners are in house products certified by Green Seal GS-37
- Glass cleaners are in house products certified by Green Seal GS-37
- Carpet cleaners are certified by Green Seal GS-37
- Floor finishes are certified by Green Seal GS-40
- Floor strippers are certified by Green Seal GS-40
- Liquid hand soap is certified by Green Seal GS-37
- Toilet tissue & facial tissue meet the requirements of US EPA's Comprehensive Procurement Guidelines.
- Paper towels & napkins meet the requirements of US EPA's Comprehensive Procurement Guidelines.
- Trash can liners- contain a minimum of 10% post-consumer recycled content.

TRAINING

The training of all cleaning staff is the responsibility of the Contractor. Detailed below are the sections pertinent to staff training, found in the *TRU Janitor Service Agreement*, dated 26 June 2009.

Section 10.1(a)- The Contractor shall be solely responsible for all aspects of employment and labour relations in connection with the workforce provided by the Contractor for performing the Service, including ... training

Section 10.2- The Contractor shall ensure that its employees:

(d) have completed the following:

- (ii) fire and safety training in accordance with Facility policy;
- (iii) site orientation in accordance with Facility policy.

(e) are adequately training and informed in the Worker's Compensation Board Workplace Hazardous Materials Information System and safety requirements of TRU

(f) are adequately informed and trained in Facility security policy

Section 11.7- If any education or training is required by any TRU staff in connection with the Services provided by the Contractor or the equipment, supplies, and materials used by the Contractor..., such education and training shall be provided by the Contractor at no cost to TRU

Annex A: Certified Cleaning Products

A recent addition to TRU's policies is their goal of purchasing 100% 3rd party certified (Ecologo or Green Seal) green cleaning products.

2018 products list:

Product Code	Product Name	Certification
7770072	EP50 CLEANER DISINFECTANT	Ecologo + GreenGuard gold + din 02340321
7770093	EP76 CREAM CLEANSER 946ML	Ecologo
R4501000	20X22 UTILITY BAG BLACK 500/CS	Ecologo biodegradable
R4501005	22X24 UTILITY BAG BLACK 500/CS	Ecologo biodegradable
R4501010	26X36 BAG REGULAR BLACK 250/CS	Ecologo biodegradable
R4501015	26X36 BAG STRONG BLACK 200/CS	Ecologo biodegradable
R4501030	30X38 BAG STRONG BLACK 200/CS	Ecologo biodegradable
R4501035	30X38 BAG XSTRONG BLACK 125/CS	Ecologo biodegradable
R4501045	35X50 BAG STRONG BLACK 125/CS	Ecologo biodegradable
R4501060	42X48 BAG STRONG BLACK 100/CS	Ecologo biodegradable
R4601003	REGARD TOILET TISSUE 2PLY	Ecologo biodegradable
R4601005	REGARD TOILET TISSUE 2PLY JRT	Ecologo biodegradable
R4601010	REGARD SINGLEFOLD TOWEL WHITE	Ecologo biodegradable
R4601015	REGARD MULTIFOLD TOWEL WHITE	Ecologo biodegradable
R4601020	REGARD ROLL TOWEL WHITE	Ecologo biodegradable
740073	35X50 POLYETHYLENE BAG STRONG	Ecologo biodegradable
740420	35X50 POLYETHYLENE BAG STRONG	Ecologo biodegradable
170052	STRIDE CITRUS NEUTRAL ALL	Green Seal

Annex B: Cleaning Log Locations

Building	Cleaning Log Location
Animal & Health Technology	
Arts & Education	
Campus Activity Center	CAC 9105C 1 st Floor
Clock Tower	
Culinary Arts	
Daycare	
Gymnasium	
House 1- Faculty Association	
House 10- Horticulture	
House 4- Sustainability	
House 5- Aboriginal	
House 6&7- Research Center	
House 8- Radio Station	
House 9- Welcome Center	
House of Learning	HOL 9435 4 th Floor
Human Resources	
International Building	IB 2044 2 nd Floor
Library	
Materials Distribution Center	MDC 9122 1 st Floor
Old Main	
BC Center for Open Learning	BCCOL 9341 3 rd Floor
Sciences & Health Sciences	
Trades & Technology Center	