



Radford University  
Green Cleaning Policy and Program Plan  
LEED for Existing Buildings: Operations and Maintenance  
August 2011

SECTION 1: SCOPE

This Policy and Plan addresses environmental best practices for cleaning the interior of all Radford University Facilities. Specifically, it addresses purchasing sustainable cleaning, hard-floor and carpet products, and entryway systems; procuring sustainable cleaning equipment; developing and implementing standard operating procedures for effective cleaning; promoting and improving hand hygiene; developing guidelines for handling cleaning chemicals; developing staffing and employee training requirements; collecting and addressing occupant feedback; and establishing procedures for use of chemical concentrates and dilution system.

SECTION 2: GOALS

The goal of this Green Cleaning Policy and Plan is to reduce the 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.

SECTION 3: RESPONSIBLE PARTIES

Don Barnes, the Housekeeping Director, with support from the House Implementation

Green cleaning strategies for the property shall include actions performed by any cleaning contractor performing cleaning operations at Radford University.

SECTION 4: QUALITY ASSURANCE CONTROL PROCESS

The party responsible shall periodically evaluate the success of the Green Cleaning Policy and Plan. This evaluation may include producing and providing a report on an annual basis to senior management. Whenever possible, the annual report shall include an evaluation of the performance, safety, cost and environmental/public health benefits achieved as a result of its implementation.

Prior to implementation, the responsible party shall review all proposed cleaning activities. Upon reviewing proposed activities, the responsible party shall determine if they meet the criteria of the Green Cleaning Policy and approve or deny action.





#### APPROVED PRODUCT LIST

The products listed below are approved for use. Products beyond those listed here must be submitted for approval prior to use.

Product Type	Manufacturer/Product Name	Sustainability Criteria Met
Toilet Tissue	Vondrehle, Blue Mist	Green Seal Certified
Toilet Tissue	Vondrehle, Preserve	Green Seal Certified



Carpet extraction equipment for restorative, deep cleaning is certified by the Carpet and Rug Institute's Seal of Approval Testing Program for deep-cleaning extractors.

Powered floor equipment—e.g., electric and battery-powered floor buffers and burnishers—are equipped with vacuums, guards and/or other devices for capturing fine particulates, and operates with a sound level less than 70dBA.

Propane-powered floor equipment has high-efficiency, low-emission engines with catalytic converters and mufflers that meet California Air Resources Board (CARB) or Environmental Protection Agency (EPA) standards for the specific engine size, and operate with a sound level of less than 90dBA.

Automated scrubbing machines are equipped with variable-speed feed pumps and onboard chemical metering to optimize the use of cleaning fluids. Alternatively, the scrubbing machines use only tap water with no added cleaning products.

Battery-powered equipment is equipped with environmentally preferable gel batteries.

Powered equipment is ergonomically designed to minimize vibration, noise and user fatigue.

Equipment is designed with safeguards, such as rollers or rubber bumpers, to reduce potential damage to building surfaces.

#### Record-keeping

A log shall be kept for all powered cleaning equipment to document the date of purchase and all repair and maintenance activities. Vendor cut sheets for all equipment used onsite shall be stored onsite. When cleaning equipment replacement is necessary, acquisition dates and supporting documentation shall be retained to demonstrate that all newly acquired equipment complies with the specifications.

#### APPROVED EQUIPMENT LIST

The equipment listed below is approved in the event of new equipment acquisition. Equipment beyond that listed here must be submitted for approval prior to acquisition.





Floor-care maintenance shall consistently be performed according to written protocols, without exception. QC checks will be used to ensure 100% adoption.

#### PRACTICES TO OPTIMIZE HARD-FLOOR AND CARPET MAINTENANCE



Clean up and restore all equipment, replace walk-off mats, note and report any problems, check your work

HARD FLOOR MAINTENANCE PROCEDURES  
TOP SCRUBBING AND FINISHING - INTERIM MAINTENANCE

Dust mopping procedure MUST be followed before proceeding.  
Gather appropriate materials and personal protective equipment (PPE), automatic floor scrubber, or standard  
Floor machine, mop buckets, wringer/wringe





movements with the vacuum to give it time to remove soil. At least 4 passes front and back are required to remove soil.

Clean up and store all equipment, check vacuum bag and cord note and report any problems.

#### CARPET MAINTENANCE PROCEDURES

##### ROUTINE MAINTENANCE – SPOTTING DAILY

Gather supplies and personal protective equipment (PPE).

Read MSDS and label instructions.

Remove obstacles.

Post wet floor/caution signs.

Inspect area for spots.

Remove solids and blot up any excess liquid.

Using appropriate green spotter, dispense spotting solution in a coarse stream directly on the spot, agitate with carpet brush, work toward the center of the spot, blot as necessary, let dry completely and vacuum.

For difficult spots a spotting machine may be necessary.

#### CARPET MAINTENANCE PROCEDURES

##### ROUTINE MAINTENANCE – ENCAPSULATION CLEANING – EVERY 1-3 MONTHS – MORE OFTEN AS NEEDED

Notify any vulnerable employees or building occupants before starting the cleaning procedure.

Gather supplies and personal protective equipment (PPE).

Read MSDS and label instructions.

Remove obstacles.

Post wet floor/caution signs.

Mix encapsulation solution following label instructions in a tank sprayer.

Lightly mist (do not saturate) the solution on an area of carpet that can be cleaned before the solution gets dry.

Using the encapsulation machine clean the area where the solutio





## SECTION 8: ENTRYWAY SYSTEMS

### PERFORMANCE METRICS AND MEASUREMENT

Protocols promoting effective use of entryway systems shall be wholly adopted. Quality control checks shall be used to ensure 100% adoption.

### PRACTICES TO OPTIMIZE USE AND MAINTENANCE OF ENTRYWAY SYSTEMS

All entryways and entrances into Radford University are equipped with walk off mats and/or semi permanent walk off carpet tiles.

Walk-off mats at all primary entrances shall be



Protocols governing safe handling and storage of cleaning chemicals shall be wholly adopted. QC checks will be used to ensure 100% adoption.

PRACTICES TO OPTIMIZE HANDLING AND Uen



The housekeeping equipment repair technician provides maintenance of the dilution control systems following the system technical manual and troubleshooting guide.

## SECTION 12: CONTAINMENT AND TREATMENT OF LABORATORY CHEMICALS

### PERFORMANCE METRICS AND MEASUREMENT

For any drain that handles laboratory-type liquids, containment drains must be provided that will appropriately treat the liquid waste.

### PRACTICES TO OPTIMIZE USE OF CONTAINMENT DRAINS IN LABORATORY SPACES

Containment drains are installed and used, as necessary, according to the procedures below, to minimize risk to staff and occupants, and to mitigate contamination of natural resources.

#### Containment Drain Description



Unsafe attitudes and conditions in the work place through Job Safety Analysis—OSHA JSA or JHA (Job Hazard Analysis)

Employee performance improvement, such as accident prevention and record-keeping

Compliance with health and safety rules, and regulation and confidentiality issues

Safe chemical storage and handling

Disposal and recycling of cleaning chemicals, dispensing equipment and packaging

Maintenance and proper use of housekeeping equipment

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