PURPOSE
Provide a Departmental Standard Operating Procedure, which insures consistent, environmentally responsible and sustainable housekeeping maintenance services.

The intent of this SOP is to minimize exposure of building occupants and cleaning personnel to potentially hazardous chemical, biological and particle contaminants which may adversely impact air quality, health, building finishes, facility systems or the environment. The intent is to balance each need with the cost/quality of the SOP to provide a sustainable approach to housekeeping.

SCOPE
The scope of this document covers all normal housekeeping duties that are undertaken in the course of cleaning. Cleaning is the process of locating, identifying, containing, removing and properly disposing of an unwanted substance from a surface or environment. This SOP includes the following:

1) Entryway Systems Maintenance
2) Isolation and storage of cleaning chemicals
3) Dusting, dust mopping and vacuuming
4) Sustainable Cleaning Chemicals
5) Use of Concentrates from Dispensing Equipment
6) Carpet Maintenance Program
7) Consumables products
8) Durable Equipment- Green Seal
REQUIREMENTS

1. The Assistant Director of HDRU Executive Housekeeper is responsible to provide housekeeping services to all residence halls, which reduce overall risk and provide a safe and effective work environment, while minimizing environmental impact. The attached guidelines are provided to produce this result in the area of all housekeeping services including chemical usage.

2. All operations must meet local regulatory requirements.

3. Green housekeeping shall be used by all staff that participates in the cleaning of Residence Halls. This is to include vacuums with hepa filters, using steam cleaning equipment, chemical dispensing systems, carpet extraction, and kaivac equipment.

4. These green cleaning requirements will apply to all areas of the residence halls to include, common rooms, bed rooms, offices, work area, kitchen, hallways and training area.

5. Results of this program shall be documented by the Office of the Assistant Director and reviewed and updated on an annual basis. An annual report shall at a minimum include chemical use listing, safety/incident review, and performance/inspection documents.

6. Standards, product registrations, and housekeeping practices are constantly evolving. The Assistant Director of HDRU Executive Housekeeper will keep abreast of developments and strive for continuous improvement in performance and environmental achievement.
HDRL Housekeeping Green Plan

The purpose and intent of the Green Housekeeping Plan is to avoid exposure of building occupants and housekeeping personnel to potentially hazardous chemical, biological and particle contaminants which may adversely impact indoor air quality, health, building finishes and systems, and to minimize the impact of the building housekeeping program on the environment. Additionally, this Plan is intended to reduce the risk of both occupants and the housekeeping staff from injury and/or health problems. The promotion of high quality indoor environment will have positive beneficial effects on employee health and productivity, life-cycle building maintenance costs, and overall environment.

1) Entryway Systems Maintenance

Properly installed and maintained entryway systems will greatly reduce the amount of foreign matter tracked into the building, reduce the risk of slips/falls inside the building, and protect the building flooring systems from excessive wear and tear, thereby reducing interior maintenance requirements.

All entryways shall be protected with Anderson mats. At the main entrance double matting is utilized both inside and outside of the door/passage way.

Mat systems and application shall be specified and applied year round. Additional matting will be applied in the winter when grit, salt, ice and water are prevalent, a dual (external/internal) mat system may be required to adequately protect the building, and to supplement the permanent system installed at the entryways.

The Assistant Director of HDRL/Executive Housekeeper shall develop specifications and plans for selection and installation of the entryway systems and mats. HDRL housekeeping staff will be responsible for maintaining entryway systems and mats. A log shall be maintained on ATHOS to document that the systems have been effectively maintained. This duty list and system performance shall be reviewed at least annually by the Assistant Director of HDRL/Executive Housekeeper. (Refer to attachment one A)

2) Dusting, dust mopping and vacuuming

Use only dusting tools that capture and remove the dust. Micro-fiber, lint-free dusting cloths or vacuums with onboard attachments are used in all areas. Windsor Sensors vacuums will be used in all areas. This vacuum cleaner meets the Carpet & Rug Institutes (C&RI) Green Label Program and is fitted with appropriate bags and HEPA filters.

It is required to use a folded cloth and use the refolding technique when full of soil.

Documentation shall be kept that details all daily dusting, damp mop and wet mopping procedures. (Refer to attachment one B)

Micro-fiber flat mops will be used during the dust-mopping phase of all floor care.

3) Isolation and Storage of Cleaning Chemicals

Proper isolation, storage and handling of chemicals will reduce the risk of occupant exposure to potentially hazardous materials.

- All cleaning chemicals shall be stored in isolated areas of the building under lock and key.
Hot and cold water supplies and sink drains plumbed for appropriate disposal of liquid wastes.

All students will have access to a Living Group Closet with a limited cleaning inventory to assist with student clean up needs. (Refer to attachment two)

Only authorized personnel shall have access to the housekeeping chemical storage and mixing areas and stations.

The Campus Office along with the Assistant Director of HDRL/Executive Housekeeper shall maintain building plan drawings indicating all areas where chemical storage and chemical dispensing systems are located in each building. Cleaning practices shall be reviewed annually to insure continued compliance as well as providing opportunities to incorporate improved tasks. (Refer to attachment three)

4) Sustainable Cleaning Chemicals

Housekeeping services includes floor care, restroom care, and general cleaning and deep cleaning. ‘Sustainable Cleaning’ encompasses more than the concept of minimizing exposure of personnel to potentially hazardous chemicals. To achieve leadership in environmental responsibility within housekeeping operations systems, the Assistant Director of HDRL/Executive Housekeeper must consider the life cycle of the building materials and maintenance methods, and incorporate concepts of total cost of performance, safety in use and application, and overall environmental impact. All stages of sustainable building maintenance can be measured for environmental performance, including product selection, installation, operation, long-term maintenance, and eventual disposal.

Environmental and safety aspects of sustainable housekeeping operations are defined in this plan as follows:

- Residence Hall safety, health & environmental practices must be compliant with applicable local regulatory requirements.
- The Assistant Director of HDRL/Executive Housekeeper shall develop and communicate proper disposal methods for all janitorial wastes, including floor care stripping wastes.
- All housekeeping staff shall be properly trained in the use, maintenance and disposal of cleaning chemicals, dispensing equipment, and packaging. Training records certifying each person’s specific training dates shall be kept by the Assistant Director of HDRL/Executive Housekeeper. (Refer to attachment four)
  - All housekeeping staff shall attend a minimum of twelve (12) hours of combined classroom and field training on green buildings and proper cleaning of a LEED certified facility
  - All personnel shall attend a minimum of thirty-six (36) additional hours of combined classroom and field training each calendar year. (Refer to attachment four A and B)
- Supplier’s Material Safety Data Sheets and Technical Bulletins for all cleaning chemicals shall be provided by suppliers. The suppliers of cleaning products shall provide full disclosure of ingredients on Material Safety Data Sheets. Additionally, suppliers must provide training materials on the hazards and proper use of housekeeping chemicals for workers. (Refer to attachment five)

"Full Disclosure" for products which are not formulated with listed suspect carcinogens is defined as (i) disclosure of all ingredients (both hazardous and non-hazardous) that make up 1% or more of the undiluted product and (ii) use of concentration ranges for each of the disclosed ingredients. "Full Disclosure" for
products which are formulated with listed suspect carcinogens is defined as (i) disclosure of all ingredients (both hazardous and non-hazardous) that make up 0.1% or more of the undiluted product and (ii) use of concentration ranges for each of the disclosed ingredients. Suspect carcinogens are those which are listed on authoritative lists available for MSDS preparation: IARC, NTP, and California Proposition 65 lists. Concentration range definitions are available from the Canada WHMIS regulation.

The intent of the above disclosure requirement is to have a facility disclosure policy that is responsive to the needs of health and safety personnel. If, however, the above disclosure requirement is not met on the MSDS, then disclosure can be provided by suppliers through other means that are easily accessible to health and safety personnel.

- Low environmental impact cleaning products shall be used in accordance with the Green Seal GS-37 or Green Seal GS-40 standard and/or nationally recognized green certification (such as listed in LEED for Existing Buildings: Operations and Maintenance, EQ 3.4-3.6). (Refer to attachment six)

- We only use a green seal certified hand soaps and sanitizer

  Qualifying products can be found through Green Seal GS-41 or Environmental Choices CCD-104

- Documentation shall be kept that details all cleaning chemicals used or stored on the premises (stored products include those that are no longer used, but still in the building). Attachments to the documentation shall include manufacturer’s Material Safety Data Sheets and Technical Bulletins. In locations where Green Seal is a nationally recognized standard, the log shall identify:
  - An MSDS and/or label from the manufacturer specifying that the product meet the VOC content level for the appropriate product category as found in the California Code of Regulations.
  - A copy of the Green Seal Certification.
  - If the product has not been certified by Green Seal, the manufacturer will provide test data documenting that the product meets each of the environmental health & safety criteria set forth in Green Seal Standard GS-37 / GS-40 (or other certifying body as listed in LEED for Existing Buildings: Operations and Maintenance, EQ 3.4-3.6).

- We will only use chemical concentrates dispensed from closed dilution systems.

- Selection of flooring used in the facility, whether a new installation or replacement, shall consider all potential environmental impacts over the full life of the floor system, including raw material extraction and use, installation practices, maintenance requirements, overall useful life, hygiene, appearance and safety attributes, and eventual disposal

- Resilient tile and hard flooring coating systems, including floor finishes and restoration products shall be slip-resistant (as defined by ASTM Std D-2047) and shall be highly durable in order to maintain an acceptable level of protection and gloss for a minimum of one (1) year before stripping/removal and recoating is necessary.

- A written floor maintenance plan and log will be kept which details the number of coats of floor finish being applied as the base coat and top coats, along with relevant maintenance/restoration practices and the dates of these activities. The duration between stripping and recoat cycles shall be documented. (Refer to attachment seven)
5) Use of Concentrates from Dispensing Equipment

Use of chemical concentrates has several positive environmental benefits:

1. Significantly lower transportation costs between manufacturer and end-user.
2. Significantly lower use of packaging materials.
3. Lower real chemical use to obtain same performance.
4. Potentially lower exposure of maintenance personnel to hazardous chemicals.

Chemical concentrates may present higher hazards upon exposure. Proper containment, storage and dispensing are critical to avoid employee exposures. Exposure to hazardous chemicals is minimized by using closed dispensing systems. Concentrates sold for manual dilution in buckets or bottles can actually increase the risk of employee exposure.

Chemical concentrates dispensed from closed dilution systems shall be used preferentially to open dilution systems or non-concentrated products. Housekeeping Operations is currently using Ecolab ultra concentrate dispensing systems. Chemicals and their use shall comply with all directives shown in section 3.

If equipment is used to control the dilution of concentrated cleaning chemicals then documentation shall be kept which includes the equipment manufacturer’s technical information, as well as the date of installation, maintenance and repairs. The log shall also contain the desired dilution rates for each cleaning product and a plan for maintaining the desired dilutions on an annual basis. (Refer to attachment eight)

Housekeeping staff shall be properly trained in the use, maintenance and disposal of cleaning chemicals, dispensing equipment, and packaging.

6) Carpet Maintenance

Low environmental impact housekeeping equipment includes the use of durable carpet care equipment, such as upright, backpack and wide area vacuums equipped with power-heads and capable of capturing 99% of particulates 0.6 microns in size. Carpet extraction equipment shall be capable of removing sufficient moisture such that carpets can dry in less than 24 hours. Carpet care equipment shall be electric and shall have a maximum sound level less than 70dBA. (Refer to attachment nine A)

Wherever possible, a dry encapsulation method shall be used to reduce chemical use and drying time.

Documentation will be kept which details the relevant maintenance/restoration practices and the dates of these activities. The duration between extraction cycles shall be documented. (Refer to attachment nine B)

Documentation will be maintained which lists all carpet care equipment including vacuums (e.g. upright, backpack, wide area and wet/dry) and equipment used for maintaining resilient and hard floors (e.g. buffers, burnishers, and auto-scrubbers). Documentation will be kept on each piece of equipment identifying performance capabilities. (Refer to attachment nine C)

7) Consumables

Low environmental impact housekeeping supplies will include the use of disposable paper (toilet tissue and paper towels) utilizing 100% recycled content and a minimum of 30% post-consumer recycled content. AND which are manufactured without the additional use of elemental chlorine or chlorine compounds (Processed Chlorine Free). Plastic trash can and other liners will utilize a minimum of 10% post-consumer recycled content

Certified products found under GS-09, GS-01 and Environmental Choice CCD-82 and CCD-86

Additional qualifying paper products will be derived from rapidly renewable resources or made from tree-free fibers.

Purchasing records manufacturer's technical bulletins for paper and plastic lines, which indicates grade, total recycled content, post-consumer recycled content and bleaching processes (if applicable) shall be provided. (Refer to attachment 10)

7) Durable Equipment

- A log shall be kept for all powered janitorial equipment. The log should identify the date of purchase and all repair and maintenance activities. Equipment shall meet these requirements:
  - Vacuum cleaners shall be certified by the Carpet and Rug Institute (CRI) “Green Label” testing program for vacuums. Housekeeping Operations is currently using Windsor Sensor vacuums that meet this criteria.
  - Carpet extraction equipment used for deep restorative deep cleaning must be certified by the CRI “Seal of Approval” program for deep-cleaning extractors. Housekeeping Operations is currently using CFR PRO 500, ECO 500 that meet this criteria.
  - Powered maintenance equipment should be equipped with vacuums, guards and/or other devices for capturing fine particulates, and shall operate with a sound level less than 70dBA.
  - Steam equipment will be used in for deep cleaning of restroom, cleaning and sanitizing of furniture and project related functions with limited use of chemicals.
  - Where appropriate, active micro fiber technology shall be used to reduce cleaning chemical consumptions and prolong life of disposable scrubbing pads.
  - Powered equipment shall be ergonomically designed to minimize vibration, noise and user fatigue.
  - Equipment shall have rubber bumpers to reduce potential damage to building surfaces.