



**SUSTAINING
OUR BUILDINGS
AND GROUNDS**
The Next 100 Years

University of Alberta
June 1-3 2008



UNIVERSITY OF ALBERTA

University of Alberta

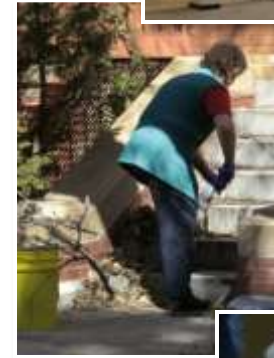
Facts and Figures

- Located Edmonton Alberta
- 3rd largest University in Canada
- 32,000 undergrads 6,000 grad students
- 13.9 million sq. ft. of buildings
- 2-3 million being added in the next 2-5 years
- Student population to grow to 50,000
- 10,000 staff – academic and support
- provide cleaning and grounds services
- utilizing in house staff and contractors
- responsible for a number of other services
- recycling, waste removal, pest control



Cleaning for a Healthy U

*The University of Alberta's
Sustainable Cleaning and
Related Services Program*



What does sustainable mean to us?

We want our practices to limit the negative impact of the services we provide and to enhance our environment, not only today, but also into the future.



History

In the early 90's we were looking for:

- cleaning chemicals that were less harsh to use
- dispensing systems that would allow more control over usage
- ways to improve the efficiency and effectiveness of our staff
- ways to further reduce our waste stream through recycling



History

We had already:

- established building inspection and quality assurance programs
- benchmarked with other institutions
- developed written standard operating procedures
- developed standardized training programs
- identified industry best practices and adopted them
- and started using microfibre cloths long before *green* came on the scene



So, when we started to hear about Green Cleaning . . . we asked, “what’s all the fuss about?”

To begin with I:

- didn’t understand what the big deal was
- was skeptical about why it was happening
- didn’t see anything different from what we were doing already
- thought it was just another passing fad
- was not an early adopter of *Green Cleaning*



We were not early adopters of *Green Cleaning* ?

- did a lot of research and reading
- attended a number of conferences and sessions
- talked to leaders in the field both suppliers and colleagues
- and discovered we had been doing *Green Cleaning* for years, it just wasn't called *Green Cleaning*



The switch to Sustainable Cleaning

WHAT WE DID NOT DO:

- change chemicals; the ones we were using were already *green certified*
- change equipment; our vacuums and hallway equipment were also *green certified*
- change our practices; we had been modifying them on an ongoing basis since the 1990's



The switch to Sustainable Cleaning

WHAT WE DID:

- reviewed all our services and processes
- reviewed other “*green programs*”
- took a holistic view of green and sustainability
- developed the program to include all aspects of the services we provide
- linked it to our existing Quality Assurance and Staff Training and Orientation Programs
- developed a catchy slogan and logo

Cleaning for a Healthy U



Parts of the Whole

Staff Training and Orientation Guide

- Informs staff on how to do the work.



Providing our customers with a healthy sustainable environment

Quality Assurance Program

- Provides for a quantitative method of ensuring our services are meeting standards



Cleaning for a Healthy U

- Sets guidelines for provision of our services in a sustainable fashion.



About our Program

Our program has four main sections

1. Objectives
2. Definitions and References
3. Components
4. Guidelines

About our Program

Objectives

1. To promote a high quality healthy indoor environment.
2. To ensure that the objectives of the Program are understood by service providers and the Campus community, and recognized as contributing to the overall health of the Campus.
3. To provide a standard for the provision of environmentally responsible and effective cleaning management practices.

. . . continued



Objectives

4. To minimize the exposure of the cleaning services personnel and building occupants to potentially hazardous chemicals and airborne particulates.
5. To minimize negative impacts caused by the provision of our services to building air quality, building finishes and systems, and the environment.
6. To balance the previous objectives with the cost and quality of the managed cleaning systems providing sustainable cleaning services.



Definitions and References

Sustainability

Programs and procedures that provide the best outcomes for human and natural environments both now and into the indefinite future. Simply put, we want our current practices to enhance our environment and limit the negative impact we have on the environment not only for today, but into the future.

Sustainable Cleaning

The provision of our services in a fashion that will provide the best outcomes for the human and natural environments both now and into the foreseeable future. Simply put we want our current cleaning practices to enhance our environment not only today but into the future and to limit the negative impact of our practices.

Cleaning Service Providers

The parties responsible for the provision of the Cleaning Services, to University buildings, includes both in-house operations and contractors.

Cleaning Services Personnel

The staff responsible for the provision of the Cleaning Services, to the University buildings, includes both in-house and contractor's staff.

. . . continued



Definitions and References

Cleaning Chemicals

Chemicals approved for use in the provision of cleaning services at the University. They shall be, where appropriate, certified Green by the appropriate agency(s). When it is not possible to use a cleaning chemical with Green certification, the product shall have a defined, restricted use and an explanation as to how and where the product is used will be provided.

Touch Zones

Areas that individuals frequently come in hand contact with. Examples of touch zones are, but not limited to; door knobs and handles, light switches, water taps, flush valves, dispenser handles, push plates, panic bars, handrails, shower heads, public phones. Touch Zones are to be cleaned and disinfected using Triad.

Enhanced Cleaning

Same areas as Touch Zones, areas are cleaned then disinfected using Virox.

Enviro Choice

An organization that sets standards for Green Cleaning products in Canada and certifies same.



Definitions and References

Green Guard

An organization that sets standards for Green cleaning equipment and certifies same.

Green Certified

Products or equipment that have been certified as green by the appropriate third party agency.

Volatile Organic Compounds (VOC's)

Chemical compounds that are emitted as gases from certain solids or liquids. Concentrations of many VOC's are consistently higher indoors (as much as 10 times higher than outdoors) VOC's are emitted by a wide range of products.

MSDS (*Material Safety Data Sheets*)

The MSDS is a technical bulletin which provides detailed hazard, precautionary and emergency information on the controlled product. It's the second element of the WHMIS information system and is meant to supplement the alert information found on the label. The MSDS must be made available to workers for review and use.

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Definitions and References

APPA (formerly the Association of Physical Plant Administrators)

An international association dedicated to maintaining, protecting and promoting the quality of educational facilities, APPA represents more than 1,500 learning institutions serving over 4,700 individuals. Cleaning standards established by APPA and modified by the University of Alberta set the frequency for the various cleaning tasks and define the results expected to meet the established standards.

Vacuums (complete with Hepa-like Filters)

Vacuums equipped with Hepa-like filters shall be used for normal servicing of areas. These filters shall be capable of removing particulates as small as 0.3 microns from surfaces.

WHMIS (*Workplace Hazardous Materials Information System*)

This is Canada's national hazard communication standard. The key elements of the system are cautionary labeling of containers of WHMIS "controlled products", the provision of material safety data sheets (MSDS) and worker education and training programs.

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Components

1. Cleaning Services
2. Cleaning Chemicals
3. Cleaning Chemical Storage
4. Carpet Care and Maintenance
5. Hard Surface Floor Care & Maintenance
6. Cleaning Equipment and Products
7. Disposable Products, Equipment and Supplies
8. Entryway Matting Systems
9. Recycle Programs
10. Low Environmental Impact Integrated Pest Control
11. Education & Training Programs
12. Public Awareness Program

Appendix A-Staff Orientation & Task Training Program



Components

1. Cleaning Services

The provision of cleaning and related services at the University of Alberta is defined generally as those tasks which remove foreign materials from cleanable vertical and horizontal surfaces using approved chemicals and systems, by manual or mechanical means, and where appropriate it will include disinfection of “touch zones” and other specialized cleaning procedures. It includes the removal of waste and recyclable materials to designated locations and the provision of pest control practices. Procedures for the provision of these services are found in *The Staff Orientation & Training Guide - Appendix A*

[Guideline 1 - Cleaning Services](#)



About our Program

-- *Guidelines*

Each component has a guideline that was developed to:

- Provide a methodology to ensure a consistent provision of services and standards across Campus
- Provide specifications for the purchase of cleaning chemicals and equipment used to provide these services.
- Identify building components required to support sustainable practices



1. Cleaning Services

- To achieve leadership in environmental responsibility within cleaning services systems, the University must consider the life cycle of their 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 can be measured for environmental performance, including product selection, installation, operation, long-term maintenance, and eventual disposal.
- As a minimum, facility safety, health, and environmental practices must be compliant with all University, local, provincial and federal regulatory requirements.



1. *Cleaning Services (continued)*

- The Division shall develop and communicate proper disposal methods for all housekeeping wastes.
- Cleaning services personnel shall be trained in the use, and safe disposal of cleaning chemicals, the use and maintenance of equipment, and recycling of packaging. Training records certifying each person's specific training dates shall be kept by the University and cleaning services contractor.
- Suppliers' Material Safety Data Sheets and Technical Bulletins for all cleaning services chemicals shall be provided by suppliers. The suppliers of cleaning products shall provide full disclosure of ingredients on Material Safety Data Sheets. Suppliers must also provide training materials on the hazards and proper use of cleaning services chemicals for workers.



1. *Cleaning Services (continued)*

- A facility disclosure policy that is responsive to the needs of health and safety personnel. If, however, the disclosure requirements noted below, are not met on the MSDS, then disclosure can be provided by suppliers through other means that are easily accessible to health and safety personnel.
- "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.



1. *Cleaning Services (continued)*

- A log shall be kept that details all cleaning services chemicals used or stored on the premises. The log shall include the manufacturer's Material Safety Data Sheets and Technical Bulletins. Enviro Choice certification will be recognized standard for cleaning chemicals, Green Guard and or CRI will be the recognized the standard for cleaning equipment. Cleaning chemicals that are stale dated shall be disposed of by contacting Environmental Health & Safety.
- A MSDS and/or label must be supplied by the manufacturer specifying that the product meets the VOC content level for the appropriate product category.



1. *Cleaning Services (continued)*

- A copy of the Enviro Choice certification.
- If the product has not been certified by Enviro Choice, the manufacturer will provide test data documenting that the product meets each of the environmental health and safety criteria set forth in Enviro Choice standards.
- The use of floor treatments that require no additional finishes to be applied or floor treatments, which allow the Division to maintain floors through the use of motorized equipment using neutral cleaners should be considered.



1. *Cleaning Services (continued)*

- 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. A scoring system should be used to develop and evaluate alternatives, including consideration of the total cost of ownership. The selection of flooring materials and their maintenance must consider the full life cycle impacts in order to ensure they will offer the most sustainable floor care system.

1. *Cleaning Services (continued)*

- 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

1. Cleaning Services (continued)

- A log shall be kept for all powered cleaning services equipment. The log should identify the date of purchase and all repair and maintenance activities. Equipment shall meet requirements in Guidelines 6 and 7.
- Preference will be given to purchasing products with reduced packaging formats and or recyclable packing formats. All packaging will be recycled where possible.



The Switch to Sustainable Cleaning

WHY WE DID IT:

Cleaning for a Healthy U was developed by Buildings and Grounds Services to:

- confirm our commitment to provide a high quality, healthy indoor environment, through our cleaning and related services
- act as a guide to deliver our services to students, staff, and visitors to the University.



About our Program

What have we accomplished?

- marked improvement in staff morale
- recognition by our staff that what they do does make a difference
- recognition by the Campus community that what we do does make a difference
- a higher visibility on Campus
- a higher visibility nationally and internationally
- our program is ready to contribute points towards LEED™ buildings



Accomplishments (continued)

- the amount of VOC's being put into the air has been reduced up to 90% in some cases
- reduced the amount of contaminants coming into buildings through entrances
- improved work environment for staff & students
- annually
 - reduced the use of plastic by 7700 kgs.
 - reduced water consumption by 60,000 gallons
 - eliminated 350-400 kgs. of zinc from our waste stream

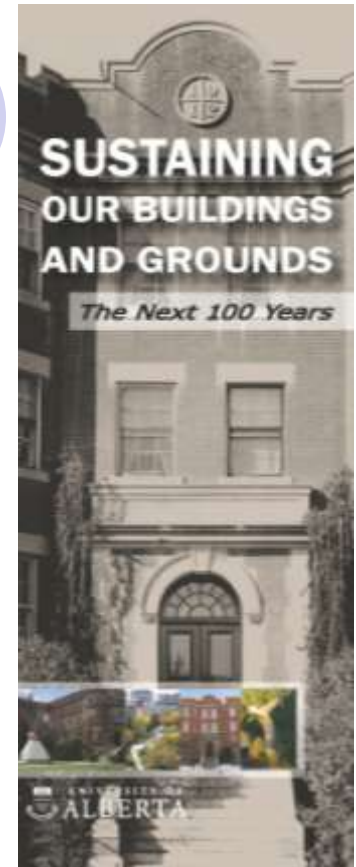


Spreading the Word

U of A
Sustainability Website:
[www.uofaweb.ualberta.ca/
vpfacilities/
sustainability.cfm](http://www.uofaweb.ualberta.ca/vpfacilities/sustainability.cfm)



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*... but, of course,
the real key to a
Successful Program is a
Catchy Slogan*

... and Logo

