How Green Cleaning Has Improved the Campus Environment, Worker Safety & the Bottom Line at UGA

2011 Facilities Officers Conference

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An Introduction

- UGA is the flagship institution of Georgia and was established in 1785 as the nation’s first state-chartered university

- Scope:
  - Nearly 35,000 students and 9,000 faculty and staff
  - Annually recognized as one of the best values in American higher education
  - Named to Princeton Review’s Green College Honor Roll
• The Physical Plant Division (PPD) is the largest of the University’s Office of Finance & Administration with 800 staff members.

• Division areas include:
  – Construction; Energy Services; Engineering; Grounds; Sustainability; Operations & Maintenance; Services; and Work Management

• The Services Department is the largest of the Division areas with nearly 400 employees in areas such as Building Services, Sanitation/Recycling, Automotive Center, Warehouse, and Material Requisition.

• The Office of Building Services area and are responsible for maintaining nearly 9.5 million square feet of RI.
PPD Building Services Challenges
Public Health & Worker Safety Issues

• Indoor air quality (IAQ) in older buildings leading to complaints and appearance issues
• Workplace safety injuries and accidents
• Disparate cleaning procedures varying from different staff members
• Complaints by building service workers about respiratory problems, allergies, headaches
• High turnover rates
• Poor inventory control measures
PPD Green Cleaning Program

What’s our focus?

• The Green Cleaning building focus is more on environmentally friendly and ergonomic cleaning processes; utilizing CompuClean software to assist in determining FTE and work assignments for custodial staff; chemical inventory and equipment management; and quality building inspections.

• The overall cleaning service plan demonstrates our commitment to excellent customer service, providing a healthy and clean campus environment, promotion of workplace safety, and continuous training for our staff.

• All facilities have a clearly marked Building Notebook for public inspection that contains the cleaning service plan for their building, MSDS sheets, key emergency contacts, and the quality inspection results for their building.

UGA’s Old College – oldest building on campus
PPD Green Cleaning Program
Program Design

Green Cleaning Program based on:

• Indoor Air Quality
• Chemical Inventory Control
• Green Restrooms Designs
• Green Purchasing Contracts
• Ergonomic Equipment
• Training, Training, Training
• Customer Input
• Measurable Results
Indoor Air Quality

Improvements with Green Cleaning

- Substitute hazardous chemicals with high volatile organic compounds (VOC’s) with safer products
- Implement research for greener cleaning products with low or no VOC’s and biodegradable concentrations
- Implement plan of action to convert cleaning products
Ergonomic Equipment

• Our approach includes the use of ergonomic cleaning tools in our program which serves to:
  • *decrease worker contact with waste*
  • *decrease fatigue*
  • *demonstrate our commitment to workplace safety*
  • *reduce worker absenteeism*
  • *increase productivity*
Chemical Inventory Control

• Conduct thorough chemical inventory of all cleaning products both in the custodial closets and PPD Warehouse
• Stop practice of vendors “dropping off” chemical samples and/or products directly to building employees
• Implement chemical exchange program with other departments or universities
• Set purchasing controls for chemicals
• Monitor chemical deliveries to facilities with computer software inventory management
• Install dilution control systems
• Purchase bulk concentrates instead of ready-to-use products
Green Restrooms

• Implement standardized cleaning procedures for campus restrooms with emphasis on public health (not fragrances)
• Standardize all paper products, hand soaps, sanitizers, and dispensers to decrease learning curves and work times
• Collaborate with other campus departments to implement these procedures from initial facility designs, renovations, and cleaning practices.
• Quality inspections by PDA’s
Green Purchasing Contracts

PPD Preferred Green Restroom Specs
• PPD Services Department has made recommendations on environmental purchasing based on industry third party certification standards
• The products listed meet one or more industry sustainability standards of: U.S. Green Building Council’s Green Seal certification; U.S. Environmental Protection Agency’s Design for the Environment; and/or Eco Logo’s Environmental Choice certification.
• Additionally, all products listed will assist UGA in obtaining LEED-EB standards (U.S. Green Building Council’s Leadership in Energy and Environmental Design, Existing Building) for certification.
• There are several local distributors within the Athens-Clarke County area to support purchase of these products. This will also aids our sustainability efforts through reduced storage/inventory, packaging, travel distance, and shipping costs.
Training, Training, Training

- Implemented mandatory attendance of all Building Services employees in BSW Academy
- All employees attend 5-part green cleaning training as part of the BSW Academy
- Supervisors and Leadership team members also attend PPD Supervisor’s training and PPD Leadership Academy
- PPD Safety Coordinator works with staff to coordinate important training topics and to maintain training records
- Career paths within Building Services must include successful completion of BSW Academy and/or appropriate level of supervisory training
BSW Academy Curriculum

- Workplace Survival
  - (Introduction and customer service module)
- Workplace Safety Topics
- General Cleaning Practices
- Recycling and Environmental Sustainability
- Floor & Carpet Care
- Green Cleaning Program
- Preventative Maintenance & Trouble shooting on Equipment
- Hands-on Sessions
Worker Safety

- Mandatory 2-week BSW Academy; Certification course award given
- Written and hands-on practical exercises on all cleaning procedures, equipment, and safety response protocols
- Continuous training in crew meetings monthly and quarterly basis
- Remedial training based on employee safety violations
- Promotion reviews based on safety compliance.
- Move to equipment with little or no chemical usage requirements
Customer Input

• Building inhabitant meetings to review Quality Cleaning Plan

• Feedback with building supervisors via face-to-face, joint building inspections, surveys

• Building Information Notebooks in all campus facilities

• Partnership to remove personal air fresheners, hair sprays, perfumes, aerosol cans from public restrooms and break room areas to control air quality
Measurable Results

Process Changes

• Monthly building quality inspections to determine if specific refresher training is needed
• Institutional cleaning procedures standardized throughout campus; 200 employees completed BSW Academy
• Reduced hazardous chemicals in both Warehouse and facilities (over 500 chemicals removed)
• Positive employee morale and turnover rate has decreased
• Reduction in lost work time injuries in green cleaning buildings
• Better communication with employees and customers
Measurable Results

Lost Work Hours

Lost Hours

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<th>Jan 07 - Dec 07</th>
<th>Jan 08 - Dec 08</th>
<th>Jan 09 - Aug 09</th>
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<td>Lost Hours</td>
<td>4474</td>
<td>2106</td>
<td>386</td>
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Jan 07 - Dec 07
Jan 08 - Dec 08
Jan 09 - Aug 09
Measurable Results
Cleaning Chemical Spending

Chemical Purchases

- FY07: $1,509,281
- FY08: $1,369,371
- FY09: $196,747
- FY10: $111,019
- FY11: $60,602

FY 11
FY 10
FY 09
FY 08
FY 07
Program Notables

- Over 200 buildings across campus have been converted to green cleaning practices.
- Overall cleaning chemical usage was reduced from 350 traditional cleaners to three (3) green chemicals. *Primarily two are used on a daily basis: a hospital grade quaternary disinfectant and all-purpose cleaner. A window cleaner is used occasionally in place of our normal water & microfiber cloths.*
- *In Fall 2010, the Physical Plant Division (PPD) earned its second consecutive CIMS Certification with Honors in the International Sanitary Supply Association’s Cleaning Industry Management Standard (CIMS), making the University of Georgia only the second university in the United States to earn this designation and the first to earn it under the recognized practices of green cleaning.*
• Partnered with UGA Environmental Safety Division to safely transfer over 400 cases of usable cleaning chemicals to other BOR schools without a green cleaning program.

• Partnered with UGA Procurement Office to establish Green Procurement contracts for daily cleaners. Other BOR schools can purchase from the contracts to implement their own green cleaning programs.

• Established green restroom guidelines for campus renovation and new construction projects: Over 2000 new roll towel and tissue dispensers installed campus wide. Standardized hand soap, hand sanitizer, and paper products to realize cost savings.
Achieved CIMS certification with Honors from International Sanitary Supply Association

UGA PPD Building Services, HR, and CIMS certification team with ISSA certification. (left) Photographed for cover story of ISSA Today Magazine Jan/Feb 2009 issue.
Received “Honorable Mention” for 2008 and 2009 American School & University Magazine’s Annual Green Cleaning Awards.

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goal of College, mentioned in 1982, was the first building on the University of Georgia Athens (UGA) campus to adopt green cleaning. As part of the facility’s renovation in 2006, the physical plant staff, as department (PPD) minimized 20 traditional cleaning chemicals and replaced them with two green products and one alternative. UGA’s goal was to introduce a mini core spill into a green-cleaning operation in line with the increased adoption of products that control building's indoor and outdoor sanitation practices. The University of Georgia has been recognized for its green-cleaning efforts, receiving the Green Cleaning Award in 2008 and 2009.

2008 Honorable Mention for Green Cleaning Award in American College & University Magazine’s Green Cleaning Awards. December 2009 issue
Any questions??