

RED & BLACK equals GREEN

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



2011 Facilities Officers Conference

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University of Georgia

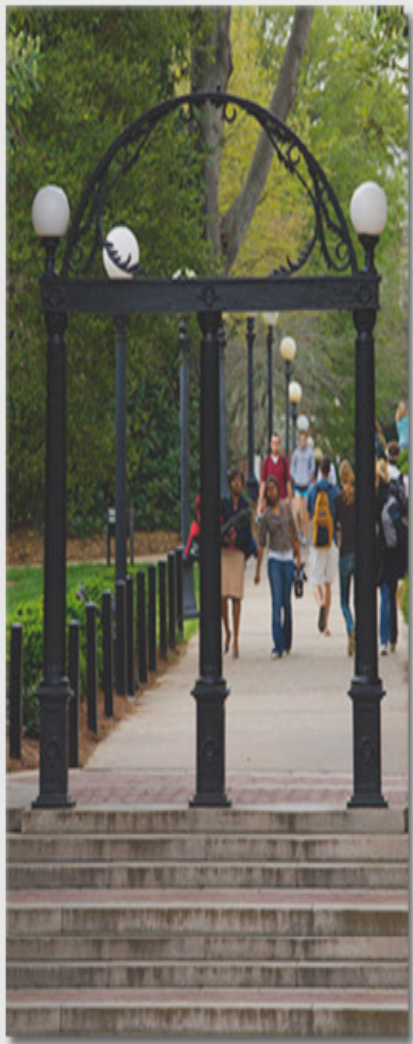
Physical Plant Division- Services

Department



The University of Georgia

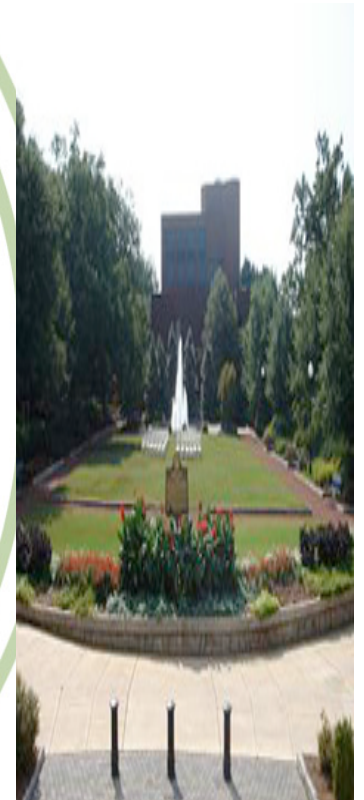
An Introduction



- 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

UGA Physical Plant

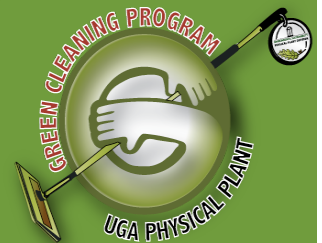
- The Physical Plant Division (PPD) is the largest of the University's Office of Finance & Administration with 800 staff members.
- Division areas include:
 - *Construction; Energy Services; Engineering; Grounds; Sustainability; Operations & Maintenance; Services; and Work Management*
- The Services 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 aid 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



UGA Green
Cleaning
Building Map

- 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

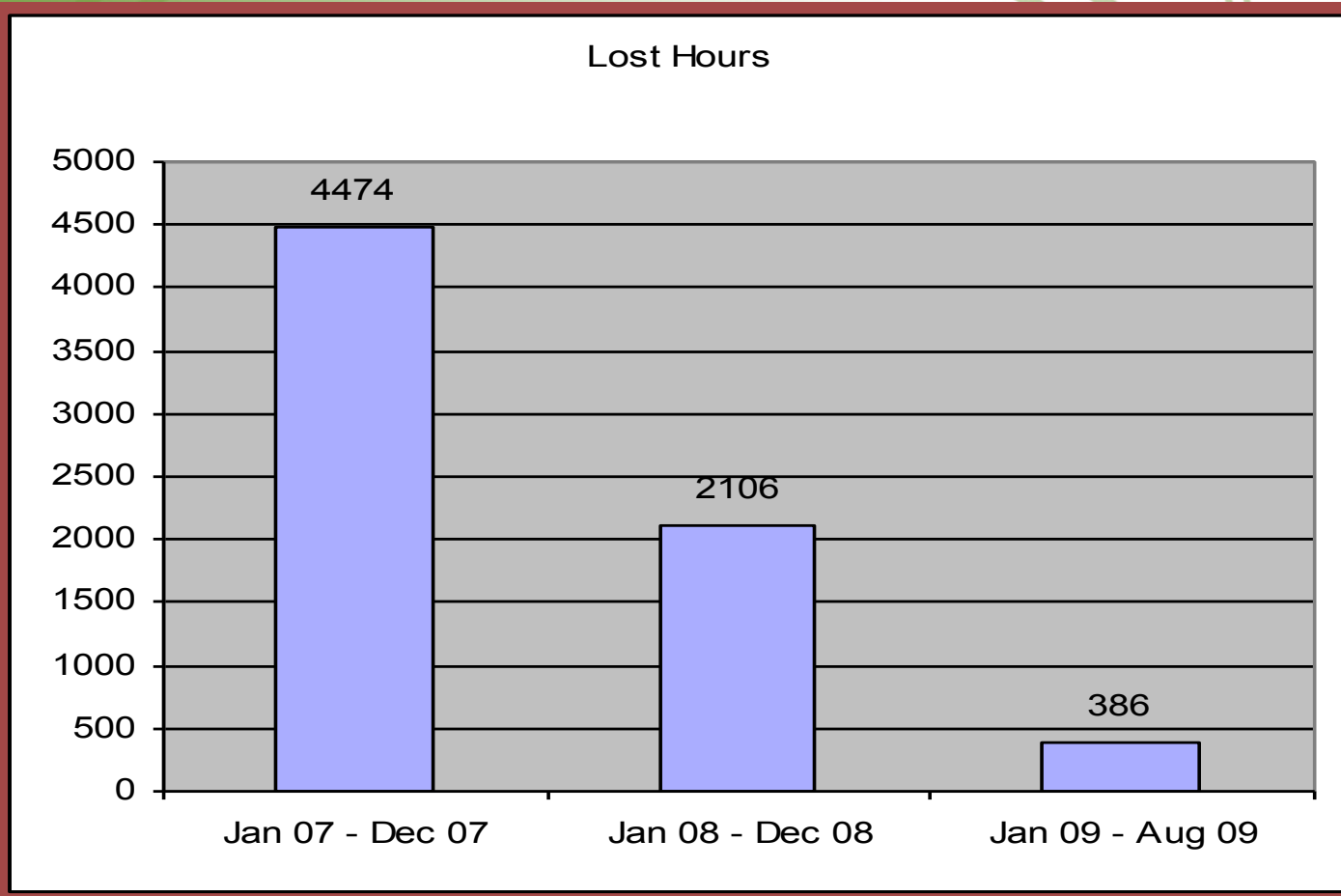
Process Changes

- 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

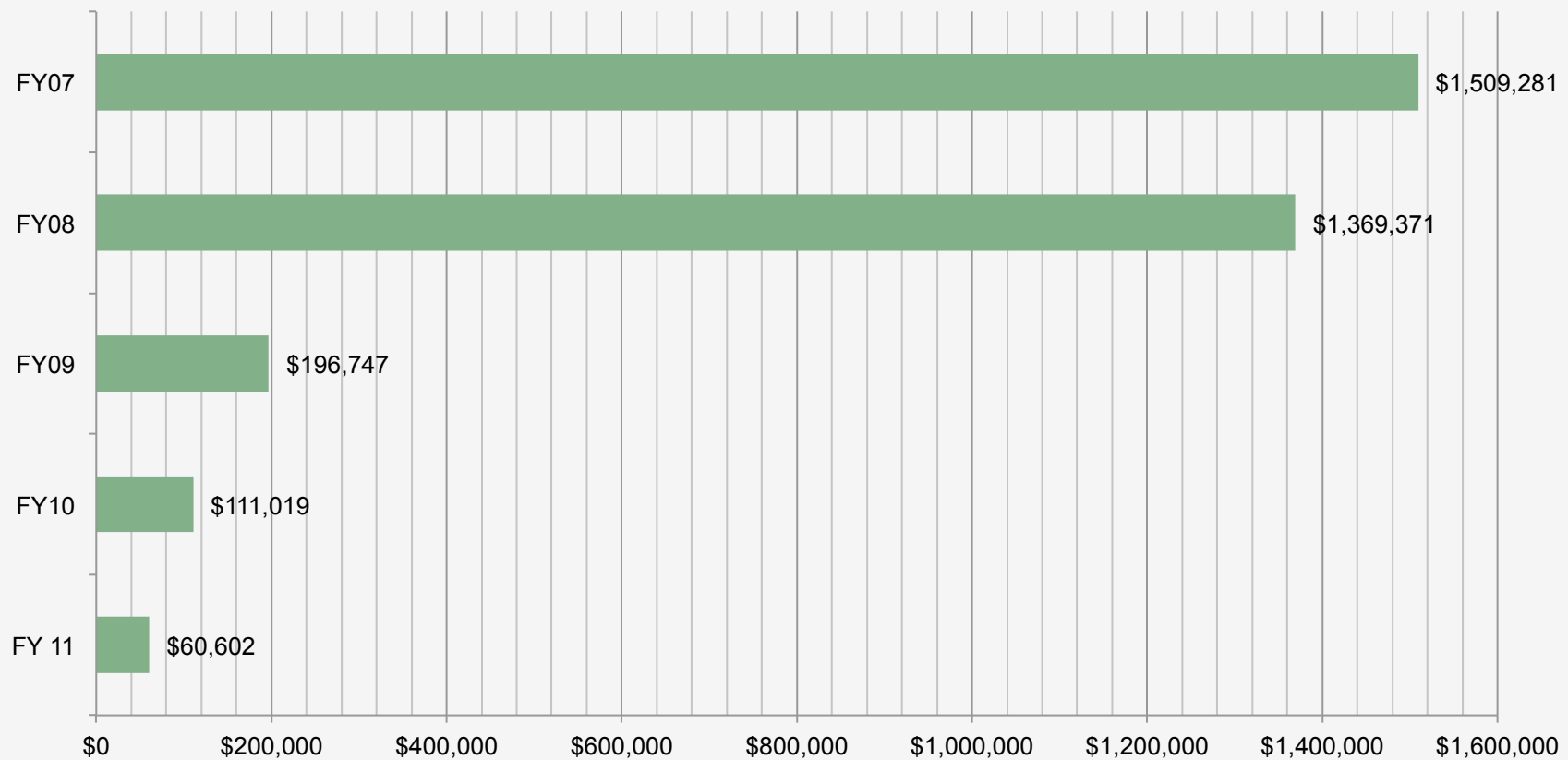


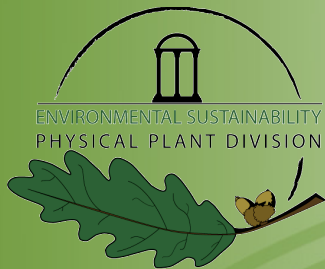
Measurable Results

Cleaning Chemical Spending



Chemical Purchases



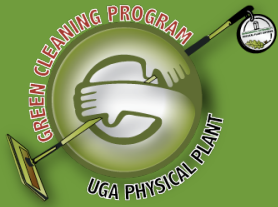


Program Notables



- 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.*





Program Notables



- 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.**

GREEN CLEANING AWARD FOR SCHOOLS & UNIVERSITIES

HONORABLE MENTION

UNIVERSITIES

>> UNIVERSITY OF GEORGIA—ATHENS



PROGRAM INFORMATION

- Number of students: 44,000
- Square footage maintained: 9.5 million sq. ft.
- Number of full-time custodians: 315
- Annual cleaning budget: \$18.5 million

Green-cleaning team members: Kimberly Thomas, Assistant Director of Services; Al Jeffers, Inmate Superintendent of Building Services; Leo Billups, Maurice Demotte, Assistant Superintendents; Deborah Massey, Building Supervisor; Tom Link, Training Specialist; Athens Janitor Supply Company; Graham Thornton Brothers, Janitorial Product Distributors; UGA Physical Plant Unit: Support Services, Grounds, Energy Services, Human Resources/Safety Office, Operations and Maintenance, Engineering Departments

Old College, constructed in 1883, was the first building on the University of Georgia, Athens (UGA), campus to adopt green cleaning. As part of the facility's rehabilitation in 2005, the physical plant services department (PPD) removed 20 traditional cleaning chemicals and replaced them with two green products and one disinfectant.

UGA's goal was to evolve the entire campus into a green-cleaning operation within three years. It is in the process of converting almost 60 buildings into north and south campus green corridors. These areas will focus on indoor air quality through green-cleaning techniques, increased indoor/outdoor recycling stations, green operations and maintenance practices, pedestrian-friendly waiting mats and bike racks.

The university has developed the Building Service Worker Academy to standardize cleaning operations. Employees are taught the proper use of green-cleaning products, equipment and tools; techniques to reduce cross-contamination; procedures for universal waste handling; and inventory-control measures.

The department has regular supervisory crew meetings that stress safety training. Each building has been work-loaded (electronic data entry) into Custodial Maintenance Management (CMM) software for floor-by-floor chemical and equipment inventory, routine cleaning assignments, training cards, cleaning task checks and cost projections by facility. Quality-assurance checks are completed by PDA and downloaded for a final building report.

To evaluate its program, an ISSA-CIMS-certified OSHA trainer conducts quality-assurance checks. The department has saved \$212,000 by reducing chemical use and eliminating more than 350 traditional products. Employee absenteeism has been reduced within the last three years as well.

STORY OF INNOVATION—COMMUNICATIONS: UGA engages others in the responsibility of green cleaning with water-energy conservation posters in all restrooms areas, a green-building listserve, an e-mail address for green-cleaning concerns, a "Go Green" website, partnerships with student groups and faculty/staff to publicize green cleaning, campus-wide recycling efforts, and the Go Green Alliance.

GREEN CLEANING AWARD
for Schools & Universities



(right)
**2008 Honorable Mention for
Green Cleaning Award
in American College &
University Magazine's
Green Cleaning
Awards.
December 2009 issue**



Any questions??

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