

## **Low Environmental Impact Cleaning Policy**

At the completion of a three-year pilot project using low environmental impact cleaners, the City of Minneapolis has adopted a Low Environmental Impact Cleaning Policy (Resolution 2006R-526). This policy directs:

- The City's Purchasing Department to establish and regularly update guidelines and specifications for purchase of environmentally sensitive cleaning products, and cleaning procedures regarding City facilities. These products/procedures must meet minimum standards established by Green Seal or an approved equivalent. Products must perform adequately, be available within reasonable time frame and available at a reasonable price (within 10%) of existing product.
- Requires that all leases negotiated by the City for office space shall require the use of Low Environmental Impact Cleaning practices.
- When applicable, bid specifications should require that suppliers, manufacturers and/or jurisdiction contractors and workers be trained in the proper use of cleaning and disinfecting products for worker health and safety, compliance with regulatory requirements, and cost-efficient product use and disposal.
- Staff to report annually to the City's internal Environmental Coordinating Team on progress/challenges.

For three years prior to City-wide adoption, City of Minneapolis Property Services and Purchasing Department have been piloting low environmental impact cleaning products and procedures. In order to test these products under different conditions, green products have been evaluated at the City of Minneapolis Convention Center, a public works maintenance facility a fire station and a police precinct. During this period of time the availability of these "green" cleaning products has increased and the price has dropped. This pilot project has shown that most low environmental impact cleaning products and procedures are equally as effective and comparable in cost to standard cleaning products.

**RESOLUTION 2006R-526**  
**By Benson and Gordon**

**Adopting Low Environmental Impact Cleaning Policy.**

Whereas, the City of Minneapolis is committed to ensuring a healthy environment for its citizens, visitors and employees; and

Whereas, the City of Minneapolis can use its purchasing power to create a greater demand and awareness of high quality, environmentally friendly products at a reasonable price; and

Whereas, the City of Minneapolis has passed resolutions related to green building standards and there exist State requirements for the purchasing of recycled products; and

Whereas, environmental considerations should be a part of normal purchasing decisions, consistent with standard practices such as safety, price, performance and availability; and

Whereas, environmentally sensitive cleaning products mean those products that minimize adverse impacts on health and the environment; and

Whereas, Green Seal, an independent, non-profit organization dedicated to safeguarding the environment has established minimum standards for low environmental impact cleaning products and procedures; and

Whereas, successful pilot programs utilizing low environmental impact cleaning products and procedures have been successfully completed in the City's own facilities; and

Whereas, City cleaning service providers include both City employees and external contractors primarily responsible for the cleaning of the interior of City facilities; and

Whereas, the City's Operating Departments and the Purchasing Department (having the primary responsibility for hiring of cleaning service providers, and the purchasing of cleaning product) have made strong efforts to reduce cleaning product impacts on the environment;

Now, Therefore, Be It Resolved by The City Council of The City of Minneapolis:

That the City will follow a Low Environmental Impact Cleaning policy.

Be It Further Resolved that the Purchasing Department, in cooperation with the City's Operating Departments, shall establish by January 1, 2007, and regularly update guidelines and specifications for purchase of environmentally sensitive cleaning products, and cleaning procedures regarding City facilities.

Be It Further Resolved that these products/procedures, to the extent practical, must meet the minimum standards established by Green Seal, or alternative standards determined by the Purchasing Department to be equivalent.

Be It Further Resolved that the Purchasing Department shall disseminate to all City departments information on these guidelines, low environmental impact product specifications and sample lists for standard cleaning products that are commonly purchased by departments.

Be It Further Resolved that if cleaning or disinfecting products must be used that do not meet the City's standards, Operating Departments must ensure that proper health and safety measures are utilized to limit human exposure and only the minimum product amounts are used and the product is disposed of properly. When applicable, bid specifications should require that suppliers, manufacturers and/or jurisdiction contractors and workers be trained in the proper use of cleaning and disinfecting products for worker

health and safety, compliance with regulatory requirements, and cost-efficient product use and disposal.

Be It Further Resolved that nothing contained in this resolution shall be construed with requiring products that do not perform adequately, or not available at a reasonable price (within 10% of existing product cost) in a reasonable amount of time.

Be It Further Resolved that Low Environmental Impact Cleaning practices shall be a requirement as part of all new and renegotiated leases for office space utilized by the City of Minneapolis.

Be It Further Resolved that this resolution is effective January 1, 2007 and that Purchasing and Public Works shall report regularly to the Environmental Coordinating Team as to progress/challenges, including environmental benefits, safety concerns and pricing issues, and the first such report shall be no later than December 31, 2007.

Adopted 10/20/2006.



**Request for City Council Committee Action  
From the Department of Public Works**

**Date:** October 12, 2006  
**To:** Honorable Scott Benson, Chair Health, Energy & Environment Committee

**Subject:** **Low Environmental Impact Cleaning Policy**

**Recommendation:**

- a) The City will follow a Low Environmental Impact Cleaning policy; and,
- b) The Purchasing Department , in cooperation with the City's Operating Departments, shall establish by January 1, 2007, and regularly update guidelines and specifications for purchase of environmentally sensitive cleaning products, and cleaning procedures regarding City facilities; and
- c) Products/procedures to the extent practical, must meet the minimum standards established by Green Seal, or alternative standards determined by the Purchasing Department to be equivalent; and
- d) The Purchasing Department shall disseminate to all City departments information on these guidelines, low environmental impact product specifications and sample lists for standard cleaning products that are commonly purchased by departments; and
- e) That if cleaning or disinfecting products must be used that do not meet the City's standards, Operating Departments must ensure that proper health and safety measures are utilized to limit human exposure and only the minimum product amounts are used and the product is disposed of properly. When applicable, bid specifications should require that suppliers, manufacturers and/or jurisdiction contractors and workers be trained in the proper use of cleaning and disinfecting products for worker health and safety, compliance with regulatory requirements, and cost-efficient product use and disposal; and
- f) That nothing contained in this resolution shall be construed with requiring products that do not perform adequately, or not available at a reasonable price (within 10% of existing product cost) in a reasonable amount of time; and
- g) Low Environmental Impact Cleaning practices shall be a requirement as part of all new and renegotiated leases for office space utilized by the City of Minneapolis; and

f) Effective January 1, 2007 and that Purchasing and Public Works shall report regularly to the Environmental Coordinating Team as to progress/challenges including environmental benefits, safety concerns and pricing issues and the first such report shall be no later than December 31, 2007.

**Previous Directives:**

**Prepared by:** Greg Goeke, Facilities Manager, 673-2706

**Approved by:**

\_\_\_\_\_  
Steven A. Kotke, P.E., City Engineer, Director of Public Works

\_\_\_\_\_  
Gary Warnberg, Director of Purchasing

**Presenter:** Gary Warnberg, Director of Purchasing  
Greg Goeke, Facilities Manager - Property Services

Permanent Review Committee (PRC)      Approval \_\_\_\_\_      Not applicable   x  

\_\_\_\_\_  
Policy Review Group (PRG)              Approval   X        Not applicable   

**Financial Impact** (Check those that apply)

  X   No financial impact - or - Action is within current department budget (If checked, go directly to Background/Supporting Information)

\_\_\_\_ Action requires an appropriation increase to the Capital Budget

\_\_\_\_ Action requires an appropriation increase to the Operating Budget

\_\_\_\_ Action provides increased revenue for appropriation increase

\_\_\_\_ Action requires use of contingency or reserves

  X   Business Plan:   X   Action is within the plan.      \_\_\_\_ Action requires a change to plan.

\_\_\_\_ Other financial impact (Explain):

\_\_\_\_ Request provided to department's Finance Dept. contact when provided to the Committee Coordinator

**Community Impact**

Neighborhood Notification: NA

City Goals: NA

Comprehensive Plan: NA

Zoning Code: NA

**Background/Supporting Information**

The City's Environmental Coordinating Team, as part of the City's Green Government Initiative, established a Green Purchasing and Green Operations teams to focus on moving the City's own municipal operations to more environmentally sound practices. With the City's long-term commitment to the environment, concerns over the health and welfare of our employees, citizens and visitors, and the City's interest in purchasing

products that have low environmental impact. In 2004, the goal of converting the City's cleaning services to environmentally preferred products and procedures was established.

This staff report is in response to a request from the Chair of the Health, Energy and Environmental to the City's Environmental Coordinating Team to review the progress to date. Property Services convened a cross departmental team that included representatives from Public Works, Convention Center, Purchasing, Police, Fire and the Municipal Building Commission to define the current status and utilization of environmentally preferred cleaning practices and to determine the next steps in advancing the program for the City.

This staff report also addresses the organizational framework and functional responsibilities for providing environmentally preferred cleaning service for the operating departments of the City of Minneapolis. The staff report is limited to the City's own municipal operations.

### **Current Structure of Cleaning Management**

Currently, in the City of Minneapolis, cleaning services are de-centrally managed at the departmental level. There is no single operating department responsible for cleaning services on an enterprise basis. Internal cleaning operations exist with the Convention Center, Public Works, Police, and Fire Departments. The Municipal Building Commission provides cleaning services for the City Hall facility. Additionally, the City contracts for cleaning services in the Public Service Center and through the contract operator (AAMCO) in the parking (ramps) system. Cleaning services in leased spaces are typically provided by the building owner/manager.

Pockets of staff expertise in cleaning exist within the operating departments that are the largest providers of the services (Property Services divisions of Public Works, the Convention Center, the Municipal Building Commission, and the parking operator). These areas have dedicated staff who supervise the entire cleaning service and are responsible for all intended outcomes. Cleaning services in other areas such as Police, Fire, and parts of Public Works have management staff within the divisions who are generally responsible for a variety of services and assignments with cleaning services being a small portion of their overall tasks and assignments.

In general, with the City's decentralized model, operating departments have determined the appropriate level of service (performance measures, staffing, training, equipment and cleaning supplies) to meet their business needs.

### **Pilot Test Areas and Lessons Learned**

In 2004, the Minneapolis Convention Center volunteered to be the first area to test environmentally preferred cleaning products. The Convention Center seemed a logical place due to the pressures of providing for the needs of event customers, expectations for appearance of the facility, controlling costs, and diversity of staff. The Convention Center has been able to convert a large number of their cleaning products to environmentally preferred products.

In 2005, Property Services volunteered as the second area of the City to test environmentally preferred cleaning products. Public Works facilities tend to have heavy staining and soiling, therefore providing a different challenge in cleaning. Property

Services experience similar success as the Convention Center and has converted several product lines to environmentally preferred products.

In 2006, Public Works is in the process of converting contract cleaning services to environmentally preferred products. In May, the contract for the Public Service Center was converted and the ramp operator is in the process of converting.

The Municipal Building Commission (MBC) is also evaluating and converting product lines. They will be limited at this time by regulations required by the Department of Corrections (Adult Detention Center space) but is willing to work collaboratively with the City throughout the remainder of the City Hall building.

Staff felt it was extremely important to properly test items prior to full implementation for the entire City. Staff strongly believes that the environmentally preferred products must be: 1) effective in performance from a health and safety standpoint 2) readily available at a similar cost (per unit used) to traditional products, 3) utilize readily available standard equipment at a similar cost 4) require similar amount of labor (per unit or area) and effort, 5) be available in concentrated (for mixing stations) or pre-mixed containers, 6) be colored coded, and 7) that the manufacturer provided appropriate training materials.

All groups are committed to continue to improve their cleaning operations and to continue to reduce their inherent impact to the environment.

### **What are the Barriers to Full Implementation?**

#### **Standards:**

As with many environmentally preferred products there are many manufacturers that claim to be environmentally preferred. There are several governmental and non-profit institutions that review products to ensure that a variety of harmful chemicals are not included. Of the current standards institutes associated with the cleaning industry, Green Seal, a non-profit organization dedicated to safeguarding the environment, is the most widely recognized and the industry leader. The work team is recommending that the Green Seal standard be adopted as the standard for the selection and specification of low environmental impact cleaning products and supplies.

#### **Standardization and Training:**

In order to benefit from the economy of scale of purchasing and to be able to keep as custodial service providers current with an ever-changing and improving industry the work team recommends standardizing products lines across the enterprise whenever possible. Purchasing will convene the work group on a regular basis to standardized product lines where possible and to facilitate bidding processes to make the products readily available.

#### **Available Products:**

There are several cleaning situations that require traditional cleaning products in order to meet regulatory requirements. As an example, bleach is the standard product for safely managing blood and body fluids situations. The work group is committed and will continue to test alternative products as they become available.

### **What will be the Key Benefits of a Low Environmental Cleaning Program?**

Low Environmental Impact Cleaning is part of the long-term strategy to transition our municipal operations to more environmentally preferred practices that not only reduce the City's impact on the environment but also reduce risks to our employees, citizens and visitors. Low Environmental Impact Cleaning practices also support several of the City's Sustainability Indicators. A comprehensive program will provide for all of the City's needs in organized and efficient manner.

Having an established work team with appropriate expertise will provide for improved communication and decision-making at the departmental level. Real and measurable progress will be more easily managed and achieved.

Development of standardized product lines, equipment, training, specifications, internal policies and procedures with associated internal education will provide for measurable progress and more rapid conversion.

### **Citizens Environmental Advisory Committee – Review**

The Citizens Environmental Advisory Committee has reviewed this proposal and recommends the City's adoption, the use of Green Seal, and further recommends that Park and Library facilities adopt similar programs.



# U.S. Environmental Protection Agency

## Environmentally Preferable Purchasing

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## Greening Your Purchase of Cleaning Products

### A GUIDE FOR FEDERAL PURCHASERS

*Environmentally Preferable Purchasing, or EPP, seeks the overall best value, taking into account price competitiveness, availability, regulatory requirements, performance, and environmental impact. Because purchasers typically have clear sources of information on procurement and regulatory requirements and well-established methods for evaluating price and performance, the US EPA has developed these purchasing guides to help government purchasers consider environmental factors in purchasing decisions. EPA realizes that there are not universal answers for all scenarios and that purchasers must take into account local conditions when weighing the various attributes of a particular product. Please note that EPA is not endorsing any of the products, services, or organizations described in the guides, and has not verified information provided by these organizations. For more information about the EPA EPP Program, managed by the Office of Pollution Prevention and Toxics (OPPT), and its history, tools, and resources, please visit <http://www.epa.gov/epp/>.*

### Introduction

Cleaning products are necessary for maintaining attractive and healthful conditions in the home and workplace. In addition to the obvious aesthetic benefits of cleaning, the removal of dust, allergens, and infectious agents is crucial to maintaining a healthful indoor environment. But cleaning products can present several health and environmental concerns. They may contain chemicals associated with eye, skin, or respiratory irritation, or other human health issues. Additionally, the concentrated forms of some commercial cleaning products are classified as hazardous, creating potential handling, storage, and disposal issues for users. Reducing the human health and environmental concerns is an important incentive for implementing an EPP cleaning products program. Many of the recommendations in the guide are based on the fundamental pollution prevention principles of reducing the quantity and hazards of materials used.

The purpose of the guide is to provide practical information that will assist federal purchasers in making purchasing decisions. The guide is not a risk assessment document nor is it intended to substitute for Material Safety Data Sheets (MSDS), labels, or similar documents that provide information on proper storage, handling, use, and disposal. More comprehensive information on cleaning processes and practices is available from a variety of sources, a number of which are listed in the "Contacts and Resources" section of the guide.

### Why Green Your Cleaning Products?

#### Environmental and Health Concerns

**NOTE:** The following discussion primarily addresses hazards associated with cleaning product ingredients. The actual risks from these chemicals at typical exposure levels are often uncertain, and in many cases are probably low. Regardless of the expected risk levels, however, reducing the intrinsic hazard of a product is a desirable pollution prevention objective as part of decisions that also take into account other important product attributes.

- Cleaning products are released to the environment during normal use through evaporation of volatile components and rinsing down the drain of residual product from cleaned surfaces, sponges, etc. Janitorial staff and others who perform cleaning can be exposed to concentrated cleaning products. However, proper training and use of a Chemical Management System (a set of formal procedures to ensure proper storage, handling, and use) can greatly minimize or prevent exposure to concentrated cleaning product during handling and use.
- Certain ingredients in cleaning products can present hazard concerns to exposed populations (e.g., skin and eye irritation in workers) or toxicity to aquatic species in waters receiving inadequately treated wastes (note that standard sewage treatment effectively reduces or removes most cleaning product constituents). For example, alkylphenol ethoxylates, a common surfactant ingredient in cleaners, have been shown in laboratory studies to function as an "endocrine disrupter," causing adverse reproductive effects of the types seen in wildlife exposed to polluted waters.
- Ingredients containing phosphorus or nitrogen can contribute to nutrient-loading in water bodies, leading to adverse effects on water quality. These contributions, however, are typically small compared to other point and non-point sources.
- Volatile organic compounds (VOC) in cleaning products can affect indoor air quality and also contribute to smog formation in outdoor air.

(Sources: Choose Green Report on General Purpose Cleaners, Green Seal, March 1998; Green Seal Standard and Environmental Evaluation for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes, October 2000; Hormonally Active Agents in the Environment, National Research Council, National Academy Press, 1999)

## **Magnitude of Potential Exposure**

- The cleaning industry employs about 2.8 million potentially exposed janitors. In addition to these professional janitorial staff, who can be assumed to use cleaning products daily, many other building occupants perform light cleaning on a routine or occasional basis, e.g. dusting, wiping off desks and counters, etc. All building occupants are potentially exposed to the volatile components of cleaning products.
- Data from Washington State show that about 6 percent of janitors experience a job-related injury from chemical exposure to cleaning products every year.

(Sources: Green Seal Standard and Environmental Evaluation for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes, October 2000; Greening the Janitorial Business- How to Select and Use Safe Janitorial Chemicals, Workshop for NISH, US Dept. of Interior, November 2001)

## Benefits of Buying Green

- Choosing less hazardous products that have positive environmental attributes (e.g., biodegradability, low toxicity, low volatile organic compound (VOC) content, reduced packaging, low life cycle energy use) and taking steps to reduce exposure can minimize harmful impacts to custodial workers and building occupants, improve indoor air quality, and reduce water and ambient air pollution while also ensuring the effectiveness of cleaning in removing biological and other contaminants from the building's interior.
- Buying cleaners in concentrates with appropriate handling safeguards, and reusable, reduced, or recyclable packaging, reduces packaging waste and transportation energy.
- Buying less hazardous cleaners may reduce costs when it comes time to properly dispose of any leftover cleaners.

## Federal EPP Authority and Mandate

Spending approximately \$230 billion annually on a large quantity and wide variety of products and services, the federal government leaves a large environmental "footprint." However, by purchasing environmentally preferable products and services, the federal government can wield its spending power to increase national demand for greener products as well as to help meet environmental goals through markets rather than mandates.

In 1995, in response to Executive Order 12873 ("Federal Acquisition, Recycling, and Waste Prevention" (PDF, 9 pp., 32 Kb, about PDF)), EPA established the Environmentally Preferable Purchasing (EPP) program to encourage and assist Executive agencies in the purchase of environmentally preferable products and services. The Federal Acquisition Regulation (FAR), which establishes uniform procedures and policies for federal acquisition, was amended on August 22, 1997 to support federal procurement of "green" products and services. And in 1998, Executive Order (E.O.) 13101, entitled "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition", directed Executive agencies to "consider . . . a broad range of factors including: elimination of virgin material requirements; use of biobased products; use of recovered materials; reuse of product; life cycle cost; recyclability; use of environmentally preferable products; waste prevention (including toxicity reduction or elimination); and ultimate disposal" when making purchasing decisions and to "modify their procurement programs as appropriate."

Similarly, the Biomass Research and Development Act of 2000 (page 72 of the Agricultural Risk Protection Act of 2000, P.L.106-224) (PDF, 100 pp., 339KB, about PDF), Section 9002 of the 2002 Farm Bill (also known as the Farm Security and Rural Investment Act of 2002), and Executive Order 13134 on "Developing and Promoting Biobased Products and Bioenergy" (PDF, 6 pp., 71KB, about PDF), have emphasized the potential importance of biobased products to national economic and environmental interests. Together these authorities encourage a strong federal role in the development and early adoption of biobased products and recognize the role of procurement as part of an overall federal policy on biobased products.

## Five Guiding Principles

To help federal government purchasers incorporate environmental considerations into purchasing decisions, EPA developed five guiding principles. The guiding

principles provide a framework purchasers can use to make environmentally preferable purchases. The five principles are:

1. Include environmental factors as well as traditional considerations of price and performance as part of the normal purchasing process.
2. Emphasize pollution prevention early in the purchasing process.
3. Examine multiple environmental attributes throughout a product's or service's life cycle.
4. Compare relative environmental impacts when selecting products and services.
5. Collect and base purchasing decisions on accurate and meaningful information about environmental performance.

[More information on the five guiding principles.](#)

[More information on life cycle perspective.](#)

## **What Can You Do?**

When purchasing cleaning products, the overall best value takes into account performance, price, availability, regulatory requirements, and environmental impact. Purchasers should examine as many relevant product attributes as possible, recognizing that tradeoffs are inevitable. For example, one product may be made with renewable resources (a desirable characteristic), while another product has a lower VOC content (also a desirable characteristic).

Purchasers should be especially careful in interpreting vague or generic claims such as "environmentally friendly," "eco safe," etc. Purchasers should ask vendors and manufacturers offering green cleaning products to clearly and specifically define their green claims. Guidance on the use and interpretation of environmental marketing claims is available from the [Federal Trade Commission](#).

In addition, purchasers should ask manufacturers if they have conducted life cycle studies on their products. In the absence of comprehensive life cycle data, purchasers must simply make the best decision possible with the information available. Purchasers have to make a decision about the overall best value, taking into account their own organization's policies and priorities.

So how can you make an informed purchasing decision? Consider this list of attributes, in addition to price and performance, when selecting environmentally preferable cleaning products. Many organizations incorporate some of these attributes into their cleaning service contract specifications.

## **Product Content and Use**

- Minimal presence of or exposure to potentially harmful chemicals, such as:
  - Corrosive or strongly irritating substances.
  - Substances classified as known or likely human carcinogens or reproductive toxicants by authorities such as the National Toxicology Program, the U.S. EPA, the International Agency for Research on Cancer or the State of

California.

— Ozone-depleting compounds as listed in Clean Air Act regulations.

— Regulated hazardous materials (e.g. products classified as hazardous waste; products that trigger OSHA hazard communication requirements).

- Use of renewable resources, such as biobased solvents from citrus, seed, vegetable, and pine oils.
- Low VOC content.
- Biodegradable by standard methods and definitions, e.g. ready biodegradability as defined by the Organization for Economic Cooperation and Development (OECD) EXIT Disclaimer. "Ready biodegradability" is a definition meant to ensure that a material degrades relatively quickly in an aquatic aerobic environment.
- Low toxicity in aquatic species such as fish or aquatic invertebrates, e.g. LC50 or EC50 > 10 mg/L (chronic) reported on MSDS or other product literature.
- Low flammability, e.g. flash point > 200 degrees F.
- Designed for use in cold water in order to conserve energy.
- Limit use of disinfectants to areas where people are likely to come into contact with contaminated surfaces (e.g., bathroom fixtures, doorknobs, other high-touch surfaces). Many general purpose cleaning tasks do not typically require the use of disinfectants (e.g., walls, floors, other surfaces with minimal hand contact).
- Conduct training on proper use of products.

## Product Packaging and Shipping

- Concentrated formulas with appropriate handling safeguards.
- Efficient packaging (e.g., light weight, reduced volume).
- Recyclable packaging.
- Recycled-content packaging.
- Refillable bottles.
- Pump sprays rather than aerosols.
- Packaging and dilution systems designed to reduce exposure to the product.
- Products shipped in bulk.
- Clear labeling and information on use and disposal.

## Corporate Environmental Performance

- Does the company have a formal environmental management system? (e.g., steps to reduce waste and emissions, efficient use of energy and materials, use of alternative fuels or renewable energy)
- Does the company have International Organization for Standardization (ISO) 14001 certification?
- Does the company have a formal partnership with the Design for the Environment Formulator Initiative?

## **Contacts and Resources**

### Design for the Environment (DfE) Formulator Initiative

The DfE Formulator Initiative encourages and assists formulators in designing products with more positive environmental and health profiles than conventional products. DfE can provide formulators with information on chemical characteristics and toxicities of raw materials and additives.

### The National Park Service

The National Park Service (NPS) conducted a comprehensive evaluation of the janitorial products and work practices (PDF, 71 p., 3934 KB, about PDF) used at Grand Teton and Yellowstone National Parks, including the management and training issues associated with this "greening" initiative.

### Department of Interior Headquarters

The Department of the Interior (DOI) included environmental preferability as a major factor in the selection of the new janitorial services contractor for its headquarters buildings.

### U.S. General Services Administration (GSA)

GSA makes a wide range of products and services available to the federal community, including many cleaning products. The GSA Global Supply Web site and the GSA Advantage! Web site provide information to assist customers in finding environmentally oriented items. In addition, GSA's annual Environmental Products and Services Guide includes cleaning products.

### Commonwealth of Massachusetts

Describes in detail the process Massachusetts used to identify environmentally preferable cleaning products and establish state purchasing specifications.

### State of Minnesota

Provides comprehensive information on the process Minnesota used to evaluate the environmental preferability of cleaning products.

### King County, Washington

Includes excerpts from the county's 1996 environmentally preferable cleaning specifications.

### The City of Santa Monica, California

Santa Monica has been a leader in green purchasing and their contract specifications have served as a model for specifications developed by a number of other local, state, and federal institutions. Here is the EPP Program's case study on the city's success (PDF, 31 pp., 725 Kb, about PDF).

### Canada's Environmental Choice Program

Includes a copy of the specifications for earning Environment Canada's EcoLogo for industrial and commercial cleaners. Included are criteria for window cleaners,

hard surface cleaners, floor care, and carpet and upholstery cleaners.

#### ASTM International

<[www.astm.org](http://www.astm.org)>

ASTM International is one of the largest voluntary consensus standards development organizations in the world and a trusted source for technical standards for materials, products, systems, and services.

#### Center for a New American Dream

The Center's Cleaning Products Work Group convened a group of state and local officials who agreed upon a set of mandatory and desirable environmental criteria for cleaning products.

#### Consumer Specialty Products Association

Trade association representing the interests of the consumer specialty products industry that provides households, institutions, and industrial customers with products that help provide a cleaner and healthier environment.

#### Green Seal , (PDF, 14 pp., 137 kb, [about PDF](#))

Contains Green Seal's voluntary environmental standards for industrial and institutional cleaners. The Web site also includes the Choose Green Report for household cleaners.

#### INFORM, Inc.

Issued a comprehensive guide to environmentally preferable cleaning products and methods that have been effectively used in office buildings, schools, and hospitals in the United States and Canada.

#### Janitorial Products Pollution Prevention Project

Sponsored by the US EPA, California EPA, and several cities and counties in California, this project has developed guidance and information resources that address a range of topics related to janitorial products and work practices.

#### The Soap and Detergent Association

Contains information on a wide range of topics related to cleaning products, including health, safety, and environmental issues.

#### Washington Toxics Coalition

Provides information regarding public health and environmental issues associated with a variety of products, including cleaners.

#### Unified Green Cleaning Alliance (UGCA)

Supports the development and dissemination of sustainable cleaning formulations into industry and the marketplace.

#### Perrigo

Perrigo, a leading manufacturer of generic and "store brand" consumer products, wanted to minimize the environmental impact of the cleaning services in its facility. After reviewing material safety data sheets and interviewing a number of suppliers, Perrigo developed a list of desirable product attributes, including environmental factors, cleaning effectiveness, and price. For more information, visit the EPP Program's case study, [Private Sector Pioneers](#) (PDF, 44 pp., 1.75 Mb, [about PDF](#)).

## **EPA's Purchasing Tool Suite**

EPA's EPP Program has developed the following Web-based tools to help purchasers consider the environment, along with price and performance, when

buying a product or service.

Database of Environmental Information for Products and Services

A searchable database of product-specific information (e.g., voluntary environmental standards and guidelines, regulations, and contract language) developed by government programs, both domestic and foreign, as well as third parties.

Promising Practices Guide for Greener Contracts

A series of short case studies highlighting successful strategies for incorporating environmental factors into a variety of product and service contracts.

General EPP Training Tool

Covers basic EPP principles and mandates, along with some more in-depth applications of EPP, in an entertaining and multimedia format.

Tips for Buying Green with the Government Credit Card

Tips to help government credit card holders make greener choices when buying products, such as cleaning products.

For additional information on environmentally preferable cleaning products, contact Jim Darr (darr.james@epa.gov) or by phone at 202-564-8841.

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## U.S. Environmental Protection Agency

# Environmentally Preferable Purchasing

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## Green Cleaning

Proper sanitation and cleaning are important for a healthy building environment. Some cleaning products, however, can contain harmful chemicals that contaminate the environment and endanger human health. Implementing "green cleaning" practices can reduce these health, safety, and environmental risks. Green cleaning involves selecting alternative products, using those products properly, and taking other steps to reduce risks while maintaining a satisfactory level of cleanliness and disinfection.



Consider the following attributes when deciding which biodegradable cleaners and degreasers to purchase. Visit [Environmental Attributes Defined](#) for more detailed information.

[Skin Irritation](#)

[Air Pollution Potential](#)

[Fragrances](#)

[Dyes](#)

[Reduced/Recyclable Packaging](#)

[Minimizes Exposure to Concentrates](#)

### Buying Green Cleaners

For several years, EPA's EPP program has worked with the U.S. General Services Administration (GSA) to help purchasers select environmentally preferable cleaning products. GSA's current catalog for [Cleaning Equipment, Accessories, Janitorial Supplies, Cleaning Chemicals and Sorbents](#) (PDF, 840 KB) [EXIT Disclaimer](#) helps government purchasers compare the environmental attributes of cleaning products. All products in this catalog comply with the Organization for Economic Cooperation and Development's definition of ready biodegradability (60 percent to 70 percent biodegradable within 28 days), for each organic component above 1 percent in the ready-to-use product. The products do not constitute a hazardous waste, as defined in 40 CFR Part 261, when offered for disposal. The products in this catalog also must show evidence that the oral lethal dose (LD) 50 toxicity (rat) is greater than 50 milligrams per kilogram; that the inhalation lethal concentration 50 toxicity (rat) is greater than 2 milligrams per liter; and that the dermal LD 50 toxicity (rabbit) is greater than 200 milligrams per kilogram. Environmentally preferable, biodegradable cleaners/degreasers are formulated to be readily biodegradable, have low toxicity, and contain no phenolic compounds or petroleum solvents. See pages 4 and 33-36 for environmental attribute descriptions and a biodegradable products attribute matrix. Please refer to these attributes and matrix when purchasing cleaning products and supplies from GSA's catalog. Also see the Federal Efforts section of this Web site, which contains information on the [Cleaning Products Pilot Project](#).

### Other Green Cleaning Resources

The EPP program has compiled an extensive list of other green cleaning resources, including state and local government Web sites, third-party product certifiers, and nonprofit organizations.

The Green Cleaning Pollution Prevention Calculator quantifies the projected environmental benefits of purchasing and using "green" janitorial services and products. It is designed to forecast the environmental benefits of reducing chemical use by doing some or all pollution prevention measures typically involved in the routine interior cleaning of an office building. This tool also enables users to identify which green cleaning measures will have the greatest impact in reducing their use of hazardous chemicals and in preventing pollution.

For additional information on environmentally preferable cleaners, contact Jim Darr of EPA at (202) 564-8841 or [darr.james@epa.gov](mailto:darr.james@epa.gov).



**PLEASE NOTE:** Some of the documents mentioned in this Section are in Adobe's Portable Document Format (PDF). To view or print them you will need to have the Adobe Acrobat Reader program installed on your computer. The Reader can be downloaded and used with no charge; check here for [more information on the Adobe Acrobat Reader](#).

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Last updated on Tuesday, September 12th, 2006  
URL: <http://www.epa.gov/oppt/epp/pubs/products/cleaner.htm>



## U.S. Environmental Protection Agency

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## Carpet Resources

### **Green Seal** [EXIT Disclaimer](#)

Green Seal is the independent, nonprofit organization dedicated to protecting the environment by promoting the manufacture and sale of environmentally responsible consumer products. It sets environmental standards and awards a Green Seal of Approval to products that cause less harm to the environment than other similar products. The Choose Green Report on Carpets offers a list of recommended carpet brands, their manufacturers, and contacts. Green Seal's consensus Environmental Standard for Commercial Adhesive, GS-36, covers carpet adhesives. Both the report and the standard are available through Green Seal's Web site.

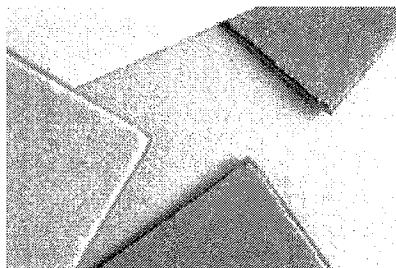
### **Comprehensive Procurement Guidelines (CPG)**

Designates products that can be made with recovered materials and recommends minimum recovered material content levels.

### **The National Negotiated Outcomes Group on Carpet** [EXIT Disclaimer](#)

Partnership of several states, the carpet industry, and EPA; addressing concerns about the large quantity of carpet that enters the solid waste stream.

Collects and separates used carpet; processes into new products.



### **Antron® Carpet Reclamation Program** [EXIT Disclaimer](#)

1-877-5ANTRON

Collects and separates used carpet; processes into new products.

### **Carpet and Rug Institute** [EXIT Disclaimer](#)

General information on the carpet industry and information on the CRI Green Label program.

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Last updated on Tuesday, February 20th, 2007  
URL: <http://www.epa.gov/oppt/epp/pubs/products/carpets.htm>



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## Green Copier Attributes

### Document Reproduction Services

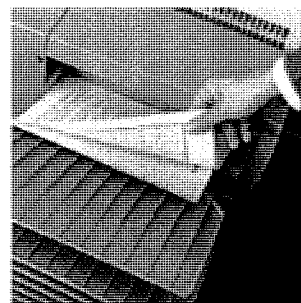
It is important to consider all of your options when making the decision of how to handle your organization's copying needs. One option to consider is purchasing document reproduction services. This option entails actually sending your copies to a company who makes the copies and returns the work. Often this is used for large copy jobs. This may often be the more environmentally preferable option - but is not always practical in every situation (i.e. where there is often a need for immediate copies throughout the day).

### Multifunction Machine

You also might want to consider a multifunction machine, combining a printer, fax, scanner and copier into one package. Especially if your office is small with lower equipment usage, it can often be the most economically and environmentally sound decision. They often provide you with the office necessities that would cost over one and a half times that amount if bought separately. Their compactness and multi-capabilities from a single print engine mean that less energy is being consumed-one print engine idling uses less energy than three print engines (fax, copier, printer) idling.

### Cost-Per-Copy

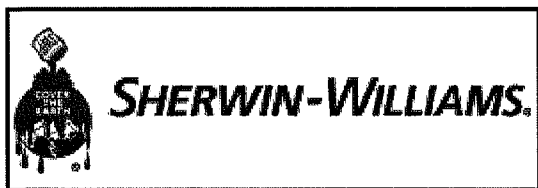
A recent trend in copy services is the cost-per-copy contract. Read the [success story of NASA](#), who created their own environmentally preferable system for purchasing document reproduction.



### Copiers should

- Be EPA Energy Star Program - Tier II (standard size) or Tier III (large format) Compliant
- Be programmable or clearly marked with duplexing options which can be set as default
- Use returnable or recyclable and remanufactured toner cartridges
- Use an organic photoreceptor (if not organic, must not contain arsenic, cadmium, or selenium)
- Not use wet process technology
- Not emit ozone at a concentration in excess of 0.02 mg/m<sup>3</sup>
- Not emit dust at a concentration in excess of 0.25 mg/m<sup>3</sup>
- Not emit styrene at a concentration in excess of 0.11 mg/m<sup>3</sup>
- Contain no polybrominated biphenyls (PBB) or diphenyl ethers (PBDE)
- Use toner which is free of carcinogenic, mutagenic and teratogenic substances
- Offers line of refurbished/reconditioned/remanufactured copier machines
- Make use of remanufactured parts
- Contains materials made with recycled content
- Use minimal packaging and/or arrange for packaging taken back for reuse
- Be taken back by vendor at the end of its useful life for reconditioning or recycling of parts

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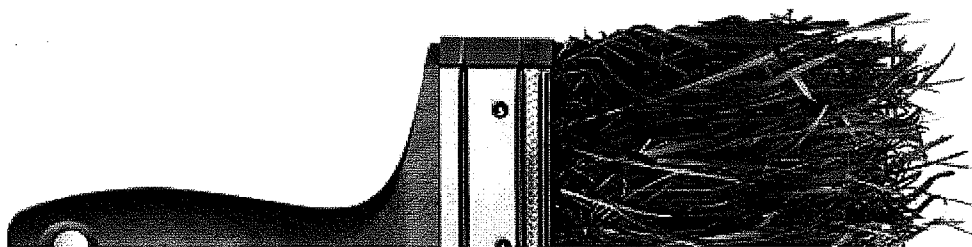
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## GreenSure Initiatives



We understand the concerns about protecting the earth's environment. Sherwin-Williams commitment reaches beyond supplying environmentally friendly paints. It extends throughout our laboratories, manufacturing facilities and distribution systems.

We are continually looking to develop new products and procedures within our organization to reduce the impact we have on nature. We've pioneered the use of environmentally-preferable solutions in our business practices and we are putting our green ideas to work.

- We use sustainable raw materials, like soy and sunflower oil in our paints.
- We've reduced the amount of solvent in our formulations, so the vapors being omitted into the atmosphere are more environmentally friendly.
- New techniques in our manufacturing processes have helped produce less waste and we've implemented energy efficient methods in our plants.

- We've streamlined national distribution processes, helping to conserve fuel, energy and other natural resources.
- We've formulated many of our coatings to clean easily and to resist mildew and harmful bacteria improving the indoor and outdoor environments.

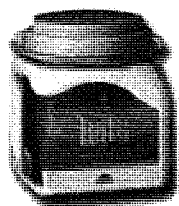


To help you easily identify our green coatings we have introduced the GreenSure™ designation for our environmentally friendly products. Our Greensure products offer maximum performance, long-term durability and the highest indoor air quality ratings.

Duration Home® and Harmony® carry the GreenSure logo designation and both have earned the Good Housekeeping Seal of Approval - proof that you can enjoy a beautiful room while still respecting nature's beauty.

**Meet Sherwin-Williams environmentally friendly products:**

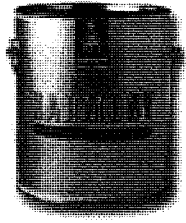
## **Duration Home® Interior Latex**



What is  
GreenSure?

This environmentally preferred product is specially formulated to be low in odor, resist mildew and have lower levels of smog-producing pollutants (volatile organic compounds or VOC's). Most stains wipe clean with mild soap and water so no harsh cleaning chemicals are needed for clean-up. The durable formula reduces frequent repaints - providing the ultimate in beauty and washability.

## **Harmony® Interior Latex**



Harmony is a natural choice for environmentally preferred interior paint. It is low-odor allowing you to immediately move into your newly painted spaces. It contains less solvents and zero-VOC's (volatile organic compounds) so what is emitted into the air is more environmentally friendly.

## Sherwin-Williams Logo



Our historical logo is one of the most recognized company logos in existence. Created in the late 1800's, the logo's purpose was to represent the company's desire to help beautify and protect the buildings of the world. It was a symbol of a young company's enthusiasm, idealism and hope regarding its future and the possibility for achievement that hovered on the nation's horizon. Over the years our "Cover the Earth" logo has become a figurative emblem signifying integrity and service.

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# no more excuses.

The results are in. Paper containing 30 percent post-consumer fiber (30% PC) works just fine. Three office equipment manufacturers (Canon U.S.A., Inc., Hewlett-Packard Company, and Lexmark International, Inc.) and the U.S. Government Printing Office (GPO) recently evaluated the quality and performance of multipurpose recycled content copy paper containing higher levels of post-consumer fiber than ever before. Their tests show that the paper is equivalent to other similar papers.

*“Increasing the use of post-consumer fibers in printing and writing paper is critical to expanding market demand for recycled paper while conserving resources and reducing waste. The study presented by the U.S. Conference of Mayors adds validity, once again, to the old argument that performance, together with price and availability, should not be impediments to using recycled content copier paper. Now, more than ever, it is incumbent on the federal government to maintain its commitment to purchase 30% post-consumer content copier paper.”*

—Fran McPoland, Federal Environmental Executive

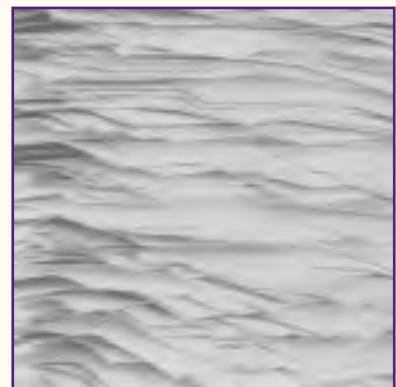
## why 30 percent PC?



30% PC paper contains fiber from used paper collected for recycling. President Clinton's executive order required federal agencies to use paper with 20 percent post-consumer content by the end of 1994. In December 1998, the level increased to 30 percent, to further expand recycling markets. The 30% PC level will result in a 13 percent reduction in the amount of solid waste requiring disposal.

## why test 30 percent PC paper?

Ten years ago, producing high quality copy paper with **any** post-consumer content was thought to be impossible. Since then, advances in paper recycling technologies and improved office paper collection efforts have made it possible to use increasing amounts of post-consumer fiber in printing and writing papers. When the 30% PC content goal was announced 5 years ago, U.S. paper companies accepted the challenge. They took advantage of the lead time to perfect and expand their recycled paper manufacturing technologies and operations. Member companies of the *Recycling at Work* program, including office equipment manufacturers and paper producers, decided to evaluate the quality and performance of the new generation of recycled content papers to facilitate a smooth transition toward their use.





# does the paper work?



During the Fall and Winter of 1998, Canon U.S.A., Hewlett-Packard, and Lexmark, evaluated three brands of 30% PC multipurpose recycled content paper, using paper with 20%-25% PC and virgin fiber content as controls. GPO also tested over a dozen brands of 30% PC copy paper. Altogether, over 2 million sheets were tested on various types and models of copiers, laser printers, and ink jet printers for physical properties and performance. Tests covered paper feeding, reliability, image quality, toner fixability, smoothness, and curl, among other things. The 30% PC studies showed equivalent performance to 20%-25% PC and virgin papers.

**There are no more excuses. Multipurpose recycled content paper containing 30% PC fiber works in your office equipment.**

*Recycling at Work* is a program of the National Office Paper Recycling Project (NOPRP), a collaborative effort by leaders in the public and private sector to establish an office recycling ethic in America. The project's goal is to maximize recycling and minimize disposal of office paper. This study was sponsored by the following NOPRP members:

Boise Cascade Corporation  
Canon U.S.A., Inc.  
Fort James Corporation  
Hewlett-Packard Company  
Lexmark International, Inc.  
Union Camp Corporation

NOPRP gratefully acknowledges the donation of paper for printing this flyer from Fort James Corporation and Union Camp Corporation. NOPRP also extends its gratitude to Canon, U.S.A., Inc., Hewlett-Packard Company, Lexmark International, Inc., and the U.S. Government Printing Office, for their donation of project management, labor, and time to evaluate 30% PC copy paper.



## resources

For lists of multipurpose recycled content papers containing 30% post-consumer fiber, see the following Web sites:

[www.ofee.gov/html/gsa.htm](http://www.ofee.gov/html/gsa.htm)

[www.epa.gov/cpg](http://www.epa.gov/cpg) then choose "Products," scroll down to "Paper and Paper Products, List of Manufacturers and Suppliers, Printing & Writing Papers"

You can also order a printed copy of EPA's list by addressing an e-mail to: [rcra-docket@epamail.epa.gov](mailto:rcra-docket@epamail.epa.gov). Request document #EPA530-B-99-006 entitled, *Mills, Converters, and Distributors of Printing and Writing Paper Containing Postconsumer Recovered Fiber*. You can also call the RCRA Hotline at 703-412-9810 or TDD 703-412-3323 in the Washington Metropolitan Area. Long distance callers may call 800-424-9346 (TDD 800-553-7672).

For a copy of the federal copier paper specification JCP 0-65, Plain Copier, Xerographic, White and Colored (30% Postconsumer Fiber), see the GPO Web site at: <http://www.access.gpo.gov/qualitycontrol/paperspecs/index.html>.