

A program sponsored by the City of New York, Department of Sanitation, the New York State Energy Research and Development Authority, and the U.S. Environmental Protection Agency Region II

Retail Food

What Is Waste Prevention?

New York City is home to more than 7,600 retail food stores, including 4,700 grocery stores. In addition, New Yorkers operate more than 1,000 bakeries and approximately 800 meat and fish markets. New York City retail food stores have sales of approximately \$8.1 billion per year. Almost 80 percent of retail food sales are attributed to grocery stores. All of these activities offer opportunities to reduce waste and make operations more cost efficient.



Many major beverage distributors ship product in reusable plastic crates. This reduces waste for stores and reduces purchasing costs for the distributor.

The secret is found in a common message: 'All waste is lost profit.' In the City's

retail food industry, the potential for behind-the-scenes savings is tremendous, especially considering that New York's food retailers generate about 433,000 tons of waste each year. That is almost 19 percent of the total quantity of commercial waste generated in the City each year.

► continued on page 4

Save-A-Bag: Good Business for ShopRite



ShopRite in Staten Island offers customers a 2¢ discount for reusing grocery bags in the store.

Wakefern Foods Corporation/ShopRite Supermarkets, a NYC WasteLe\$\$ partner, is the largest retailer-owned food cooperative in the U.S. With more than 190 stores in New York, New Jersey, Pennsylvania, Connecticut, and Delaware, ShopRite's waste prevention efforts have made a significant impact on the communities in which they

operate. Wakefern/ShopRite has sponsored environmental education programs, beach and river cleanup campaigns, and was named 1998 Corporate Philanthropist of the Year.

In 1990, ShopRite began a customer bag reuse program — Save-A-Bag — in its stores, ► continued on page 3

Stop, Look and Calculate: It May Be Time to Rebid

You may find money hidden in your trash compactor or dumpster if you have not reviewed your waste carting invoices recently. Although exorbitant waste carting costs were reduced and capped when the New York City Trade Waste Commission (TWC) established the *Carting Customer's Bill of Rights*, there may be opportunities for you to reduce your costs further, says Eugene DiToro, an inspector with the TWC.

Simply analyzing your invoices and observing occasional pick-ups may highlight the fact that you are paying more than necessary to have your waste collected. By ensuring that you are charged only for the quantity of waste



What would your waste carter charge you for this container of waste?

and recyclables that you put out for collection, waste prevention efforts that decrease the quantity of materials generated will pay off by reducing your carting costs.

During a NYC WasteLe\$\$ seminar, Inspector DiToro offered retail food managers and personnel tips for working with their waste carters. He stressed that the key to successful waste management is to review your waste carting contract to ensure that your trash is being collected in the most economical way to best suit your operation. If you are paying a flat fee, take a look at the number of pick-ups and determine if a "per pull" system might be more economical.

► continued on page 2



DISCLAIMER:
NYC WasteLe\$\$ is funded by the New York City Department of Sanitation, the New York State Energy Research and Development Authority, and the United States Environmental Protection Agency. This document may not reflect the views of these Agencies and no official endorsements should be inferred. Vendors or organizations mentioned do not constitute a complete list of products or services available.

- In Partnership With:**
- The Association for Resource Conservation • Aramark Corporation • Bell Atlantic • Blue Ridge Farms, Inc. • The Brearley School • British Airways • Bryant Park Restoration Corporation
 - Con Edison • Council on the Environment of NYC • Culinary Institute of America
 - D'Arigo Brothers of New York, Inc. • D. M. Rothman Company, Inc. • Delight Studios
 - Eagle Electric Manufacturing Company, Inc. • East Williamsburg Valley Industrial Development Corporation • Empire State Development Corporation, Environmental Management Investment Group • Empire State Restaurant and Tavern Association • Food Industry Alliance of New York • Food Marketing Institute • Grand Central Partnership • Greater Jamaica Development Corporation • Greater New York Hospital Association • Hotel Association of New York City • Industrial Development Corporation of East New York • Jacobi Medical Center
 - The Jacob K. Javits Convention Center of New York • Hunts Point Terminal Produce Market
 - Long Island City Business Development Corporation • Met Food • New York City Board of Education • New York City Department of Business Services • New York City Department of Parks and Recreation • New York City Trade Waste Commission • New York Convention & Visitors Bureau • New York Hospital • New York State Restaurant Association • Pizzeria UNO
 - The Port Authority of New York & New Jersey at LaGuardia • Public School 48, Bronx
 - Shea Stadium • Sheraton New York Hotel and Towers • ShopRite • Sign City • South Street Seaport • Staten Island University Hospital • 34th Street Partnership • US Airways at LaGuardia
 - Volume Services America, Inc. • Wakefern Corporation

Inside Look:

Spotlight On: Waste Prevention

What Is Waste Prevention?	1
Save-A-Bag: Good Business of ShopRite	1
Stop, Look and Calculate: It May Be Time to Rebid	1
Spotlight on Lighting	2
Donate Your Way to Cost Savings	3
How the Electric Energy Market's Deregulation Can Affect Your Business	4
The New Bottom Line – Leading the Nation to a New Sustainable Growth Economy	5
Food Marketing Institute: Why Consumers Want Retailers to Join the "Green" Brigade	5
Toxicity Reduction Prevents Waste	6
Managing Organics: Back to the Farm	7
Joining EPA's WasteWise Program	7
Advances Continue in the Recycled Product Market	8

Spotlight on Lighting

When Doug Sheppard breaks out his sample products, he is in the spotlight, quite literally. Nothing makes a stronger impression than seeing a new product in action. Sheppard, President of Advanced Energy & Lighting, Inc. in New York City, presented the newest in lighting technologies at the *NYC WasteLe\$\$* seminar for retail food store managers. He demonstrated each lamp's light quality and explained the cost and energy savings to be gained by considering different types of lighting in a facility.

Sheppard's company, Advanced Energy & Lighting, specializes in delivering energy efficient system designs that are reliable and affordable. He works with individual businesses and organizations to redesign lighting systems, often improving the quality of light, while reducing costs. "Customers are always amazed that they often have more light when the retrofit is complete, but the overall wattage of the fixtures is less," says Sheppard.

Among Sheppard's samples were LED exit signs, several small compact fluorescent lamps, and an induction lamp that can last for up to 30 years. This lamp gives off 6,000 lumens using only 85 watts. He described the additional benefit with many of the new



Doug Sheppard of Advanced Energy & Lighting, Inc., demonstrates several new lighting technologies at a *NYC WasteLe\$\$* seminar.

fixtures in that most manufacturers offer a two-year maintenance warranty on lamps and ballasts.

Seminar attendees were most interested in learning about fixtures that can create the desired atmosphere for displaying products. Sample T-5 lamps that Sheppard had on hand are an efficient source of bright light that can be used directly or indirectly in fixtures. Sheppard also explained that today's full spectrum fluorescent lamps allow you to choose the level of warmth or coolness you would like from the lamp's lighting color. Lamps are available in a wide array of light colors to suit any retail setting, from spacious aisles to more intimate specialty sections.

In addition to the nuts and bolts of lamps and fixtures, Sheppard also described studies conducted by the U.S. Department of Energy and the Rocky Mountain Institute that found by improving lighting, workers are more comfortable and more productive. According to the Rocky Mountain Institute, an increase of one percent in productivity can provide savings to a company that exceed its entire energy bill. He offered a report that documents eight cases in which efficient lighting, heating, and cooling have measurably increased worker productivity, decreased absenteeism, and improved the quality of work performed.

For example, Wal-Mart opened a prototype store in 1993 that experimented with energy efficient features. Skylights were installed on half of the roof, leaving one half without direct sunlight. An energy management system monitored the daylight to adjust energy efficient lighting as necessary. Sales per square

foot were significantly higher on the side of the store with daylighting and higher than similar departments in other stores.

Lockheed's engineering development and design facility saved nearly \$500,000 a year on energy bills, gained 15 percent in productivity, and reduced absenteeism by 15 percent by designing daylighting into its new facility. Boeing's retrofitting project in which more than one million square feet of space in the hangar-sized assembly plants received new lighting, reduced its lighting electricity use by up to 90 percent, with a two-year payback period and reduced product defects at the same time.

For more information about increasing productivity through energy efficient design, contact the Rocky Mountain Institute at (970) 927-3851, and ask for *Greening the Building and the Bottom Line*. For more information about lighting options for New York City businesses, contact Doug Sheppard of Advanced Energy & Lighting, Inc. at (212) 589-4313. ■

Stop, Look and Calculate → continued from page 1

If you are currently charged on a per pull basis, check to see that you are not paying for compactors and containers to be removed when they are less than full. Your waste prevention efforts will only pay off financially if you reduce the cost of waste disposal by reducing the number of pulls you pay for.

Six Simple Steps That Can Save You Money

- Ensure that your compactor is operational, has working gauges, and that staff checks gauges prior to pulls to make sure compactors and dumpsters are full.
- Confirm that your trash bills comply with the TWC's maximum legal rates for removal of waste.
- Request a waste stream survey by your carter to help you establish a baseline waste generation rate.
- Monitor your containers to ensure that recyclables are not being discarded with general trash.
- Reduce the frequency of pick-ups as recycling and waste prevention activities reduce the quantity of waste discarded.
- Ensure that your carter has not incorrectly classified your open dumpsters as construction and demolition (C&D) debris, for which there are no maximum rates. Waste from normal daily activities should not be considered C&D waste.

If you have a trash compactor, you are paying the higher rate charged for compacted waste. Consider what type of waste you discard in your compactor. Is it waste that can be compacted? For some materials that can be compacted significantly, a compactor may be

much more economical than a dumpster, but many businesses find that they are paying for a compaction ratio that is not possible to achieve. For example, food waste is not easily compacted. Therefore, collecting food waste in a dumpster instead of a compactor may be less expensive. However, you also must consider the odor and vector problems caused by food waste and weigh the advantages and disadvantages of collecting in an open container versus a sealed compactor.

One New York City business recently switched from a flat fee to a "per pull" system and discovered that its carter was billing based on loose waste prices. However, the business had both compactors and open-top dumpsters. To make the billing uniform, the carter elected to charge the loose waste price by converting the compacted waste volumes to a loose waste volume using a conversion ratio.

Not only did these converted volumes create a higher price, but the carter used conversion ratios that were unreasonable (2:1 or 3:1 are standard), making the volumes and, therefore, the price even higher. Using the business's waste volumes and TWC's maximum prices as an example, the business estimated that they were being overcharged almost \$10,000 per month — a significant cost to the company.

TRADE WASTE COMMISSION MAXIMUM RATES

Rate	Weight (by volume)
\$30.19 →	per cubic yard for compacted trash
\$12.20 →	per cubic yard for loose trash
\$ 2.66 →	for 55-gallon trash bags > 80% full
\$ 1.45 →	for 30-gallon trash bags > 80% full

For more information, contact the New York City Trade Waste Commission at (212) 676-6275.

Save-A-Bag ➔ continued from page 1

including all of its New York City stores, in an effort to reduce costs internally and to reduce the solid waste burden on customers. The program involved distributing educational materials and offering a refund of 2¢ per bag. Every bag was printed with information about the bag reuse program and signs were posted in stores. The refund was tracked through the computerized cash registers and stores with the highest bag reuse rate were rewarded with prizes at the end of the year.

"We found that reusing bags is good for the community because it reduces the amount of waste that goes to the landfills. It's also good for business

According to Competitive Edge, January 1997, an average supermarket will save approximately 4.4¢ (labor and bag cost) per paper bag returned to the store. A 100-store chain that offers a 2¢ per bag refund and experiences a 10 percent reuse rate, can save approximately \$337,500 per year. Any refund over 4.4¢ per bag is more expensive than the cost of a new bag.

Posters in the Staten Island ShopRite let customers know about the bag reuse program and help baggers and customers pack bags efficiently.

because buying and warehousing fewer bags leads to significant savings for the company," says Tim Vogel, Wakefern Corporation's Manager of Environmental Affairs.

Since 1990, the bag reuse rate has climbed steadily from about five million bags per year to about 8.4 million bags per year in 1998. Approximately 182 ShopRite stores now participate in the program. "Our customers have reused over 50 million bags, getting two cents back for each bag," says Vogel.

At a cost of 2¢ per bag (after subtracting the 2¢ rebate), ShopRite saves about \$168,000 per year in reduced bag purchases. If labor, storage, and transportation are factored in, ShopRite saves closer to \$300,000 to \$800,000 per year. The wide range is a result of differences in bag type, material, size, and use (i.e., partially full versus completely full). Since its inception, the Save-A-Bag program has saved customers \$1.2 million and has saved ShopRite \$1.5 million. ■



Donate Your Way to Cost Savings

Businesses throughout the City effectively reduce the cost to manage and dispose of unneeded items by donating usable material and edible food to receiving organizations. Donors also are eligible for tax deductions when donating items to not-for-profit organizations.

Food retailers donate thousands of tons of nutritious, edible food every year to one of the City's food collection programs that feeds the homeless and others in need. Still, despite the fact that hundreds of retail food operators participate in the various donation programs, there are many more retailers not taking advantage of this cost-effective method of reducing the quantity of edible food destined for disposal and the opportunity to join forces to help hungry New Yorkers. According to Julia Erickson, Executive Director at City

Harvest, "In 1998, City Harvest picked up 10 million pounds of food. This is estimated at only 20 percent of all the food that is wasted in our City."

In addition to removing edible food from the waste stream, retail food operation managers buying new furniture, appliances, display shelving are reducing the quantity of waste carted for disposal. Usable items may find a new life at a local non-profit, school or other organization in need. Food retailers across the City benefit in several ways 1) eliminating the cost of disposing of unwanted items, 2) reducing the burden on landfill capacity, and 3) spreading goodwill and enhancing their positive public image.

Each year, many non-profit organizations in the City facilitate the exchange of usable, high-quality items between retail food stores and receiving organi-

zations. According to Susan Glass, Director of Materials for the Arts (MFA), 514 tons of material, worth more than \$3 million, were donated through the organization during New York City's fiscal year 1999. MFA, a program sponsored by the New York City Department of Cultural Affairs in partnership with the Department of Sanitation and Board of Education, makes the items available to the New York City-based, non-profit cultural organizations; health, social and community service organizations; schools; and City agencies.

The next time you are about to discard edible food or usable material goods, consider contacting one of the many charitable organizations throughout the City. Many organizations offer guidelines, donation packaging and tax advantages. Save money while helping others.

Fear of Liability — Not Necessary

New York City retail food operators that donate food in good faith are protected under Federal law by The Bill Emerson Good Samaritan Food Donation Act. In 1981, New York State enacted Article 4-D, Section 71-Z, "Liability for Canned, Perishable Food or Farm Products Distributed Free of Charge." Many collection organizations also have implemented safe food handling procedures to further protect donors and recipients. Fear of liability is no longer an issue for those who wish to make good faith food donations.



FOR MORE INFORMATION:

Food Donations:

- City Harvest, Inc. – (212) 463-0456, fresh, prepared, and packaged foods.
- Food for Survival Food Bank – (718) 991-4300, canned and packaged foods.
- Island Harvest (Long Island) – (516) 294-8528, fresh, prepared, and packaged foods.

Materials Donations:

- Goodwill Industries of Greater New York, Inc. – (718) 728-5400, accepts clothing furniture, and furnishings.
- Helping Hand Community Center – (212) 722-0400, accepts anything, and will pick up

- Materials for the Arts - (212) 255-5924, accepts almost anything in usable condition with at least one week notice, and will pick up.
- New York WaSteMatch – (212) 240-6920, helps identify potential donors and users of waste materials.
- NYC Stuff Exchange (contact the Sanitation Action Center at (212) 219-8090 for more information), toll-free telephone system with listings of reuse outlets in the City
- Salvation Army – (212) 337-7200, accepts clothing, furniture, furnishings.
- St. Vincent de Paul Society – (718) 292-9090, accepts clothing, furniture, furnishings.
- United Way of New York City – (212) 973-3800, accepts office furnishings and equipment.
- Wilson Major Morris Community Center – (212) 234-4661, accepts almost anything, and has limited collection service.

For additional organizations and ideas, contact the Sanitation Action Center at (212) 219-8090 and request a copy of *Reuse It, Repair It, Rent It — But Don't Throw It Away!* ■

How the Electric Energy Market's Deregulation Can Affect Your Business

Following in the footsteps of the telecommunications industry and the telephone company, the electric utility industry in New York, and specifically Con Edison, will undergo a deregulation process over the next few years. At a *NYC WasteLe\$\$* seminar, Ron Slosberg, of SAIC Energy Solutions Division, explained the impact that these changes will have on food retailers in the City. In New York City, Con Edison is implementing a phased approach to deregulation. Phase III of the deregulation process is in effect as of April 2000 and systemwide by the end of 2001. Resulting from this change, energy service companies (ESCOs) will emerge and customers will have the option of selecting an electricity commodity provider or remaining with Con Edison.

Slosberg assured food retailers that energy deregulation will not affect the energy system's reliability, but it will provide customers with an opportunity to save money. The first step to getting the best energy deal for your business is to select an ESCO and negotiate an agreement that will reduce your electricity costs. The ESCO will be responsible for providing electricity to Con Edison who in turn delivers the electricity to you.

As a customer, you will receive a bill from Con Edison and your selected ESCO. Whether or not you will save money depends on the ESCO price versus shopping credit or commodity component. Rate reductions apply to all customers. An ESCO offer may include other services that will benefit your business, such as completion of an energy audit to identify cost reduction opportunities, bill aggregation, and energy project implementation assistance.

Energy customers who decide to buy energy on the open market from a service provider may want to do some research prior to selecting a supplier. Consider the company's background and shop around to compare prices and services of various ESCOs. Also, consider the terms of agreement, available customer service features, and the billing and payment options provided by each potential supplier.

Con Edison's new role begins to move the company out of the electric generation business and



into delivering electricity supplied by the ESCOs. One important note, Con Edison will continue to provide and maintain transmission and delivery services and systems and will respond to emergencies.

Small food retailers that don't consume significant electricity may find the greatest savings by joining forces with other businesses to purchase electricity in greater amounts. Slosberg suggested that businesses join together and identify an aggregator to help them save money as a result of increased buying power. The aggregator's role will be to organize group of electricity customers, enroll group members through an ESCO and leverage the groups buying power. Check with your local development corporation, trade association or business organizations to determine if there is an effort underway to join together to purchase electricity.

For further information or assistance, contact NYSERDA at (518) 862-1090 or your local Con Edison utility representative. ■

Numerous public programs are available to encourage consumers to implement energy efficiency in their buildings. These programs provide technical assistance and financial incentives to help customers identify and install energy efficient equipment. The New York State Energy Research and Development Authority (NYSERDA) has developed various Energy Smart Programs. These include the Flexible Technical Assistance, New Construction, Standard Performance Contract, and Building Commissioning program. In addition, NYSERDA funds a variety of technology research and development projects. All of these programs are focused on reducing energy consumption while improving the operation of energy systems. For more information regarding these programs visit www.nyserdera.org/engyser.html.

What Is... ➡ continued from page 1

So what is waste prevention in the context of operating and managing a retail food operation? In this business, waste prevention means reviewing and changing those practices that result in wasted food, wasted supplies, and discarded packaging. It means implementing systems that eliminate waste paper and cardboard, food, other organic materials, plastics, pallets; conserve energy; and reduce toxicity.

According to Tim Vogel, Manager of Environmental Affairs for Wakefern Food Corporation, one of the challenges of making waste prevention and other environmental programs a success at ShopRite supermarkets is getting the programs to make sense for the business leaders and for the people making the operational decisions, then applying them so that they can save the stores money and be environmentally friendly to the community. This shows the community that business can do these kinds of things.

In many cases, wastes can be eliminated simply by using durable items, or reusable products rather than disposables. Waste can be prevented by changing ordering schedules to minimize spoilage, or teaming up with a food donation organization for daily



Offering bulk foods reduces packaging and associated costs to retailers and customers.

pick up of edible perishables. Offering your customers waste preventing options, such as reusing grocery bags and purchasing bulk items, also reduces waste for you and your customers.

Waste prevention is as much about what you buy as it is about what you throw away. It also is about when you buy and how you use what you buy. Keep an eye on what fills your dumpsters each day or over a week, and ask yourself if *and how* that wasted material could have been prevented.

You can also review the type and amount of packaging waste that you pay to dispose each month, and ask yourself if you could specify alternative packaging that would help you to reduce waste and therefore lower your trash bill.

Essentially, waste prevention is inventorying the waste in your operation and taking deliberate steps to eliminate it. In this issue of *NYC WasteLe\$\$*, we present strategies and success stories of waste prevention; reducing waste at its source, before it is even generated. Preventing waste saves money, saves time, and conserves resources. It makes good business sense. ■

The New Bottom Line — Leading the Nation to a New Sustainable Growth Economy

What do DuPont, Texas Industries, Interface Carpets, Intel, the George Washington University Business School, Anheuser-Busch, and Baxter International have in common? These organizations are part of a rapidly growing global movement, attracting large and small businesses of all types, that not only recognizes but races in hot pursuit of a new bottom line. That new bottom line measures the sustainability of business enterprise; sustainability achieved through direct and deliberate efforts to minimize waste.

Proponents of this movement are searching for new and better ways to eliminate practices that waste natural resources and human capital. In so doing they are enhancing their stature in both the business and consumer communities, and they are increasing their profits in the process.

This new and growing breed of business leaders recognizes environmental, social, and financial efficiency as factors influencing profit, and as inroads to strengthened consumer confidence and growth in market share. As Craig Barrett, CEO and President of Intel, stated recently "Business is on the *front line* in making sustainable development a reality. Companies need to take a hard look at how they make their products and deliver their services."

This new hard look is what will ultimately determine which businesses will prosper in the new economy; an economy that increasingly recognizes the ultimate limits of our natural and human resources and values and conserves them accordingly. This way of thinking has thus given rise to a new set of metrics that reflects the new bottom line.

Nowhere are the potential gains of conservation, reuse, and waste prevention more evident than in densely populated urban centers, such as New York City. Here, in a city of eight million, the gains to be realized by even modest behavioral changes are enormous simply because of the population scale. Here business leaders have enormous potential to initiate and fuel trends that can spur literally millions of other enterprises as well as consumers to adopt sustainable consumption — more commonly termed waste prevention.

Across the country, industry leaders are adopting the new sustainable growth paradigm. DuPont's sulfur products business minimizes chemical waste and reduces worker and consumer hazard through their acid handling and recovery services. Though this service, customers are freed from having to own or handle the chemical substances, and the acids

can be treated for reuse by DuPont when the customers' needs are met.

Meanwhile Texas Industries is conserving natural resources by producing steel from recycled scrap and cement from steel mill slag, thereby eliminating two waste streams and at the same time conserving virgin materials. In the area of carpet products, Interface Carpet is enjoying enormous public recognition and customer loyalty based on their strategy of leasing of flooring systems to customers, thereby eliminating consumer disposal of end-of-life carpet. Rather, Interface collects the used carpet for reprocessing and reuse.

Intel has adopted a corporate policy mandating a design-for-the-environment strategy to achieve 50 percent reduction in VOC emissions per product unit, a substantial achievement against their new bottom line accounting. In the academic arena, more and more colleges and universities are developing curricula to train their students in the new math of the bottom line.

For example, The George Washington University Business School encourages emerging business leaders to think and plan in terms of the sustainable growth metrics, as conveyed through courses in International Environmental Policy and Management, Environmental Ethics, Environmental Policy, and Environmental Values and Strategies. Students also can sign up for a course on eco-tourism to study the business cross-roads of the natural environment and the tourist economy.

Such thinking also is valuable to business leaders trading in products as wide ranging as computer hardware to beer and pretzels. For example, Compaq has reduced waste and packaging costs dramatically through their recent introduction of a reusable shipping container that can be reused for as many as fifty round trips.

Anheuser-Busch, also mindful of the costs and wastes generated by packaging material, has formed an alliance with a local mail service to divert packaging waste from disposal to reuse. Baxter International, a manufacturer of medical products found that by reducing packaging by one million pounds they could reduce costs by \$1.3 million. The company is now en route to realizing its corporate goal of 20 percent packaging reduction over ten years, by 2005.

The efforts of these companies and scores of other manufacturers, service enterprises, schools, stores, and consumer groups are raising the bar for waste prevention. They are the leaders of today and charting the way for the economy of the future. These businesses will enjoy a powerful competitive advantage as waste carting costs are likely to rise in the future.

You as a business leader have a clear choice. You can plan for, and capitalize on opportunities to lead by example — charting the way for constructive change — or you can wait until the quantities of waste and the costs of waste management force your hand. ■

Food Marketing Institute

Why Consumers Want Retailers to Join the "Green" Brigade

Today's consumer is becoming more discerning when it comes to making decisions based on environmental factors. Grocery stores are responding with "natural" and "organic" food sections, displaying products with reduced packaging, and otherwise meeting the demands of environmentally conscious shoppers. In fact, numerous businesses have sprouted that manufacture and distribute "environmentally preferable" foods, cleaning supplies, and health and beauty products.

As a food retailer, how can you be sure that you are responding to the environmental preferences of your customers? The Food Marketing Institute (FMI) may be able to help. FMI is a nonprofit association providing research, education, industry relations, and public affairs on behalf of its 1,500 mem-

bers. FMI's retail membership is composed of large multi-store chains, small regional firms, and independent supermarkets.

One FMI publication available to members and nonmembers alike is "The Greening of Consumers." The guide is designed to help food retailers consider the levels of interest in purchasing environmentally friendly products. The guide identifies the four different segments of consumers that are "green," which represent 52 percent of the U.S. population, and what they are looking for.

According to the guide, environmentally sensitive consumers prefer to purchase green products in stores where they normally shop, if possible — traditional supermarkets, and for some, warehouse stores or natural food stores. Consumers' desire for

green products represents an opportunity for you to evaluate your current product selection and merchandising support.

For example, emphasizing the recyclability of products and packaging or providing in-store recycling programs may attract "Young Recyclers," while educating the "New Green Mainstream" about environmental terms will increase sales of products that have recycled content or that use less packaging. ■

For more information:

Food Marketing Institute
800 Connecticut Ave., NW
Washington, DC 20006
(202) 452-8444
www.fmi.org

Toxicity Reduction Prevents Waste

Some cleaning products commonly used in food preparation areas, customer service areas, and restrooms can pose health hazards to your staff, and to those who handle your waste after it is removed. When compared to traditional products, environmentally preferable cleaning products have a reduced impact on human health and the environment.

Take a close look at the products used in your daily operations to identify opportunities to consider testing and switching to alternative products. Look on your shelves, review the material safety data sheets (MSDSs), and talk to staff. You may be surprised at what you find. Review the ingredients in products used to disinfect counter surfaces and you may find these products contain ammonia.

Are Your Employees Informed?

Material safety data sheets (MSDSs) are mandatory information sheets that accompany all potentially toxic products and materials. The Occupational Safety and Health Administration (OSHA) requires that MSDSs be readily available to all staff using or handling the materials. Each MSDS contains pertinent information about the material's or product's ingredients, its harmful characteristics, and how to respond to spills, accidental contact, and other exposure. An MSDS can provide life-saving information, as well as data about using the product safely and most effectively.

Disinfectants and other cleaners can be replaced by alternatives that offer the same performance standards. For example, the Enviro-Solutions company offers a food service disinfectant cleaner that is essentially non-toxic according to Workplace Hazardous Materials Information System regulations. Don't stop after you look at the primary cleaners used in the food preparation area; look also at the products used to clean the dining areas and restrooms.

When considering switching to a reduced toxicity cleaner, check the labels of your current products to see whether they contain any of the chemicals listed in the adjoining box. This list is not comprehensive, but includes some of the more common, toxic chemicals found in cleaning products.

TARGETING TOXICS Common Toxic Chemicals Found in Cleaning and Maintenance Products Targeted by the U.S. EPA for Reduction or Elimination	
Acetone	Aluminum oxide
Ammonia	Benzene
Carbon Tetrachloride	Chloroform
Ethyl benzene	1,2-Dichloroethane
Ethylene glycol	Freon 113
Glycol ethers	Hydrochloric acid
Lye	Methyl ethyl ketone
Methyl isobutyl ketone	Methanol
Methylene chloride	Naphtha
Phenol	Sodium hydroxide
Sulfuric acid	Tetrachloroethylene
Toluene	Trichloroethylene
1,1,1-trichloroethane	Xylene

When environmentally preferable products were first introduced, as with any new product, some were not as effective as the products they were meant to replace. However, based on approximately thirty years of research, environmentally preferable cleaning products now meet all of the same standards as traditional cleaners. In addition, most vendors will ship samples so that you can test the effectiveness of the product before making a purchasing decision.

While you may not be able to find environmentally preferable cleaning supplies for all your needs, alternatives to traditional cleaning supplies are available. Everyday new products are introduced to the market that have eliminated constituents of concern such as 1,1,1-trichloroethane, toluene, and methyl ethyl ketone.

Consider the following benefits of using environmentally preferable cleaning products:

- May be less expensive than traditional cleaning supplies.
- May help reduce worker exposure to harmful chemicals, reduce the number of sick days taken by workers, increase worker productivity, reduce workers' compensation claims, and improve compliance with OSHA regulations.
- May reduce the quantity of toxins going down your drain, which may help you to comply with wastewater treatment permit requirements.
- May help to reduce customer exposure to certain chemicals, thus reducing the potential for adverse reactions.

Environmental Attributes To Consider When Selecting Cleaning and Maintenance Products:

- Irritation potential
- Chronic health risks
- Time to ultimate biodegradation
- Bioconcentration factor
- Percentage of volatile organic compounds
- Presence of ozone depleters
- Potential exposure to the concentrated cleaning solution
- Flammability
- Presence of cosmetic additives
- Energy needs
- Amount of product packaging

Source: Cleaning Products Pilot Project, U.S. EPA, 1997

Many web sites highlight environmentally preferable cleaning supplies, with product descriptions and information on the environmentally preferable substitute for particular hazardous chemicals.

Green Seal, an independent, nonprofit organization that promotes the manufacture and sale of environmentally responsible consumer products, sets environmental standards and awards a "Green Seal of Approval" to products that cause less harm to the environment than other similar products.

Green Seal-recommended 'green cleaners' must satisfy the following criteria:

- non-toxic to humans and aquatic life;
- pass specific aquatic toxicity tests;
- phosphate and phosphonate concentrations must be less than 0.5% by weight;
- biodegradable; work optimally when diluted with cold water; and packaged as a concentrate in recyclable/refillable containers with post-consumer recycled content. For more information, visit Green Seal's web site at www.greenseal.org or call (202) 872-6400.



Defense Logistics Agency

www.dscr.dla.mil/products/epa/eppcat.htm

Although the DIA site was designed for military customers, its information is valuable and accessible to the commercial sector, as well. You can request a hard copy of the list of product substitutes by calling (800) 345-6333.

Joint Service Pollution Prevention Technical Library

www.enviro.nfesc.navy.mil/p2library

This site offers anyone information about less toxic alternative products and services.

U.S. General Services Administration Commercial Cleaning Supplies

This catalog lists hundreds of commercially available, environmentally preferable cleaning supplies. Call (800) 241-7246.

New York State Department of Environmental Conservation, Pollution Prevention Unit

Environmental Compliance and Pollution Prevention Guide for Small Quantity Generators
www.dec.state.ny.us

This guide offers a straightforward summary of regulations for air, water, and hazardous waste. Call (800) 462-6553 or visit their website.

FEEDBACK . . . Tell Us What's On Your Mind. We would like to hear from you. Please take a few minutes to let us know: (1) if you find the information provided in *NYC WasteLeSS* useful (2) what waste prevention, recycling, and energy efficiency topics you would like to learn more about and (3) any other thoughts and comments, including your own waste prevention, recycling, and energy conservation success stories. Simply write to us at *NYC WasteLeSS*, NYC Department of Sanitation, 44 Beaver Street, 6th Floor, New York, NY 10004, or you may fax information and comments to us at (212) 837-8255 (attention: *NYC WasteLeSS*). Thank you for your input.



Instead of going into the trash, these pretzels can become a nutritious meal for pigs or cattle.

Managing Organics

Back to the Farm

Organics represent as much as 70 percent of a typical grocery store's waste stream; of that, up to 50 percent may be food waste. After recycling the higher quality paper and cardboard, disposal is not the only option left for organics. Several other options include donation of edible foods to food banks and food distribution programs and composting.

A more unusual option, although one that has been around for centuries, is to send food scraps to a pig farm or an animal feed processing facility. Produce wastes, past date perishables, and waste products from in-store bakeries and delis all can offer nutritious meals to animals.

Several states surrounding New York City, including Connecticut, New Jersey, Pennsylvania, and upstate New York have lists of licensed "garbage feeders" or farmers who have the equipment and training to feed food waste to their pigs. Farmers will collect food wastes, cook it, and feed it to pigs as a supplement to or replacement for regular feed, depending on the nutritional value of the food scraps they collect.

Through the East Williamsburg Valley Industrial Development Corporation's Waste Assessment and Reduction Program (WARP), (718) 388-7287, several New York City businesses have cut waste disposal costs by working with farmers.

Rolet Foods, a manufacturer of potato sticks, cotton candy, and pork rinds was disposing of more than 30 compacted cubic yards of food waste per month, at a cost of \$875 per pull. Since 1997 the company has been working with a New Jersey farmer that takes Rolet's food wastes at no cost to feed pigs and cattle. Rolet's disposal costs have been cut in half and pigs and cattle are enjoying the benefits of unusable potatoes, and off-spec and damaged products.

Voila! Bakeries works with a pig/cattle farmer in Pennsylvania who takes 30 cubic yards of bread and dough waste every two to three weeks. Yearly disposal costs are reduced by \$2,400.

Terra Chips pays less than the \$10/yard disposal cost to a New Jersey farmer to take vegetable peelings and pulp waste.

If enough businesses in the New York City area can cooperate to form a collection route, this may be a productive use of food waste and an economical way to dispose of the waste.

Check with the Departments of Agriculture in New York, New Jersey, Connecticut, and Pennsylvania for a list of farmers licensed to feed food waste or contact Ed Campbell, Environmental Management Investment Group, at (518) 486-6291 for more information. ■

Joining EPA's WasteWise Program

The U.S. Environmental Protection Agency's WasteWise program can provide a framework for your waste prevention program and other waste reduction efforts. WasteWise is a free, voluntary partnership program that encourages organizations to reduce waste through waste prevention, recycling, and buying or manufacturing products with recycled content. WasteWise provides partners with technical assistance, publications, and public recognition opportunities. WasteWise partners saved an estimated \$26 million in avoided disposal costs in 1997, and avoided paper purchasing costs for all the program's partners in 1997 could be as high as \$60 million, according to the Fourth Year WasteWise Progress Report, published by U.S. EPA in September 1998. For more information, visit the WasteWise Web site at www.epa.gov/wastewise or call the WasteWise helpline at (800) 372-9473 for a free information packet. ■



Lorraine Graves, an Environmental Specialist with the U.S. Environmental Protection Agency, Region II, explains the benefits of the WasteWise program at a *NYC WasteLeSS* seminar.

Advances Continue in the Recycled Product Market

In addition to preventing waste at the source of generation, guaranteeing that reused and recycled products are incorporated into business practices is a key component in improving efficiencies in business. Comparing the original Official Recycled Products Guide, published only a decade ago by American Recycling Market, Inc., to the myriad publi-

cations and on-line resources available today, one can quickly see the advances achieved in the recycled-products industry.

Innovative manufacturers and product engineers have improved recycled material processing technologies and developed new systems to create products from an expanding variety of recyclable materials. Traditionally, consumers tend to think of paper when they think of recycled-content products. But in the past decade, entire industries have sprung up around manufacturing recycled products.

Today, there are a wide variety of high-quality, cost competitive products made from recycled materials. For example, if you are replacing floor covering, consider installing the Dodge-Regupol ECOSurfaces rubber flooring made from recycled rubber or post-production rubber scrap. According to Laura Dodge, Marketing Director, of the Lancaster, Pennsylvania based-company, "ECOSurfaces comprising five new flooring lines with a total of 38 refreshing color patterns is made from a combination of recycled SBR tire rubber and reprocessed post-production EPDM colored rubber."

In addition, anti-skid fatigue mats and flooring for walk-in coolers are available with recycled-content materials. Energy and material efficient lighting fixtures can be made from post-consumer recycled glass. Even the clothing your staff wear can be made with recycled materials. You may want to consider T-shirts made from recycled PET soda bottles, when purchasing new uniforms.

The Central Market, an Associated Grocers store in Poulsbo, Washington, demonstrates the use of recycled, cost-effective building products. The 68,000-square-foot store was built on a \$40-per-square-foot budget. The project shows that recycled-content building products can be used cost-effectively in a commercial building. More than a dozen different recycled materials were used in the construction, including:

- 150 gallons of 100% recycled paint;
- 10% recycled asphalt hot mix;
- 54 tons of 15% recycled concrete with fly ash;
- fiberglass insulation (25% recycled glass);
- acoustical ceiling tile (82% recycled mineral wool);
- a drainage system made with 100% recycled polyethylene;
- parking stops and curbs of 100% recycled plastic; and
- a bike rack containing recycled steel.

In addition, all rubber mats in the store are made of recycled rubber, and grocery carts and baskets are of 100% post-industrial recycled plastic. For more information, call the King County Commission for Marketing Recycled Materials at (206) 296-4439.

Additional products that store owners and managers may consider specifying with recycled content include:

In-store Products

- Trash bags
- Computer supplies
- Rubber mats
- Racks and trays

Landscaping Products

- Garden and soaker hoses
- Planters



The New York State Aquarium installed ECOnights™ recycled rubber flooring (Photo courtesy of Dodge-Regupol, Inc.).



FOR MORE INFORMATION:

For additional information on sources of recycled-content products, specification criteria, and product evaluations check the following:

- Buy Recycled Alliance of New York (518) 292-5340
- U.S. EPA's Comprehensive Procurement Guidelines www.epa.gov/epaoswer/non-hw/procure/index.htm RCRA Hotline (800) 424-9346
- U.S. General Services Administration www.pub.fss.gsa.gov/environ/ (817) 334-5215
- Green Building Resource Guide — a database for purchase of more than 600 building materials and products with recycled-content material. www.greenguide.com Fax request for guide to (650) 364-5116.
- King County Department of Natural Resources, Solid Waste Division www.metrokc.gov/procure/green — King County's Environmental Purchasing Program www.metrokc.gov/greenworks/products.pdf — a recycled-content building materials resource (206) 296-6542
- Association of New Jersey Recyclers — view the New Jersey Business Guide to recycled products. www.anjr.com/resources/buyrecycled (908) 722-7575
- California Integrated Waste Management Board www.ciwmb.ca.gov/rcp/rcpdrint.htm — California's Recycled-Content Product Database (916) 255-2708

Bulk Rate
U.S. Postage
PAID
Brooklyn, NY
Permit #2189

NYC WasteLe\$\$ Program
P.O. Box 156
Bowling Green Station
New York, NY 10274-0156