

Introducing Recycling

Since the establishment of the mandatory commercial recycling program in 1992 (Local Law 87), many New Yorkers traveling through the City's airports and heliports have had the option to recycle. This second issue in a series of *NYC WasteLe\$\$* newsletters addresses recycling and provides airports, airlines, and associated industries with technical information and resources to enhance and expand their current recycling programs.

The Fresh Kills Landfill, which has provided a low-cost waste disposal option for New York City for years, is now scheduled to close by December 31, 2001. After that date, all non-recycled residential and institutional solid waste generated in New York City will be exported. Commercial waste already is shipped out of the City and the additional residential waste is likely to increase waste disposal and transportation costs for everyone in the City.

As partners in the *NYC WasteLe\$\$* program, The Port Authority of NY & NJ at LaGuardia Airport, U.S. Airways and British Airways all identified ways to enhance recycling. Recycling can benefit New York City airlines and airports by reducing carting costs, generating revenue, and streamlining operations. This newsletter shares the successes of *NYC WasteLe\$\$* partners and other businesses in New York City and across the country. For more information about recycling, visit the *NYC WasteLe\$\$* Web site at www.nycwasteless.com

LAX Airport: Anything But Lax In Its Approach to Recycling

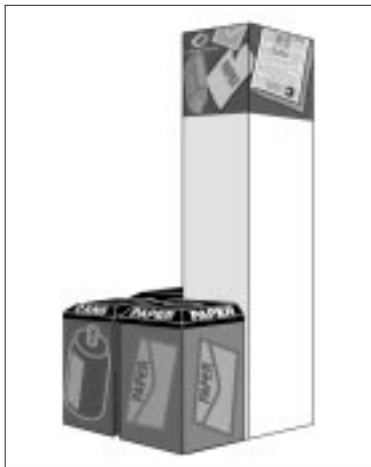
Los Angeles International Airport is the fourth busiest airport in the world, based on number of passengers served. It also ranks second in the world in terms of the tons of air cargo handled. Moving swiftly and efficiently to serve the needs of more than 61.2 million passengers and 700,000

flights per year, LAX is home to more than 80 passenger airlines, 20 cargo operations, and more than 250 businesses operating on site. Despite the size and complexity of its operations, LAX is fast emerging as a waste prevention and recycling pace-setter for the airline industry.

One of the country's primary international gateways, LAX, and its tenants also represent one of Los Angeles' largest commercial generators of waste. Louise Riggen, the driving force behind the Airport's recycling activity, has been on board at LAX since 1992, serving both as its Recycling Coordinator and Airport Maintenance Superintendent. Under her leadership, more than 31,000 tons of material are diverted for recycling annually from the area's landfill.

Among the airport's signature waste reduction initiatives is a program under which packaged and prepared food is redistributed from airline caterers to local charitable organizations. In recent years, as much as 100,000 pounds of food has found its way from LAX to the LA Regional Food Bank and the LA Mission annually. Other successful programs involve the diversion for recycling of mixed paper and magazines from airplane cabin cleaning, cardboard from commissary operations and office paper, as well as plastic film, wood, and metals. Recycling

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Recycling station towers at Los Angeles International Airport enhance the visibility of the public recycling program in the busy terminals.

What To Do With Difficult-to-Recycle Materials

Besides the standard recyclable materials that are required in recycling programs across New York City, such as mixed paper, beverage containers, and corrugated cardboard, many airports, airlines, and associated industries generate large quantities of other, not-so-easy-to-recycle materials. Some common, difficult-to-recycle materials include fluorescent lamps, barrels and buckets, pallets, and computers/electronics, to name a few.

Numerous companies now recycle or reuse the fast-increasing quantity of electronics scrap generated in New York City.



Some airports and airport services may generate enough of these materials to make it worthwhile for a recycler or broker to collect them. Others may need to create cooperatives with other, similar airline operations, service providers at the airport, or nearby businesses to generate sufficient quantities of certain recyclable materials before a broker would be interested in accepting it. The requirements vary greatly, so call several vendors before deciding on one or giving up altogether.

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NYC WasteLe\$\$

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Spotlight On: Recycling

Next Issue Spotlight On: Waste Prevention

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 WasteLe\$\$* 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 WasteLe\$\$*, 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 WasteLe\$\$*). Thank you for your input.

Recycling Requirements For Airlines and Airports

Recycling isn't just a good idea; it's the law in New York City. Local Law 87 of 1992 requires all commercial establishments to recycle certain materials, based on the nature of the business.

Airlines and Airports must recycle:

- Corrugated cardboard • High-grade office paper
- Newspaper • Phone books • Catalogs
- Magazines • Bulk metal

Airline/Airport Food and Beverage Service Establishments must recycle:

- Corrugated cardboard • Bulk metal • Metal cans
- Glass bottles and jars • Plastic bottles and jugs
- Aluminum foil wrap and trays

Cafeterias within airport or airline operations, airport restaurants and bars, and all other food or on-premises beverage service establishments licensed by the NYC Department of Health or the New York State Liquor Authority are required to separate for recycling the materials listed above.

In addition to implementing recycling behind the scenes, in offices, kitchens, and other work areas, building owners or managers are responsible for establishing public recycling in airport terminals.



One airport's recycling program succeeds with the use of strong visuals and an airline theme.

Owners or managers must place labeled recycling containers in public areas where recyclables are routinely discarded, if recycling containers are not otherwise accessible to the public. In addition, airport operators are required to keep recyclables that have been sorted by tenants and vendors separated and post signs in maintenance areas so that employees are aware of the recycling program rules and can maintain a clean recycling stream.

According to the City's Trade Waste Commission, which regulates waste carting and sets maximum carting rates, commingling bagged recyclables and bagged waste in compactors is not an acceptable practice for your carter to request. Recyclables must be separated at the *source*, which means by the business generating the waste. For more information, the Trade Waste Commission can be contacted at (212) 676-6275.

Visit the NYC Department of Sanitation's Web site for more information about commercial recycling at www.ci.nyc.ny.us/html/dos/html/bw_comm/ or call the Sanitation Action Center at (212) 219-8090. ■

Recycling Resources

Local, state, and national organizations offer recycling information and assistance to businesses. The following are just a few of the on-line resources, publications, and organization contacts available to help you get a recycling program up and running, identify markets for recyclables, and locate recycled-content products.

New York City Department of Sanitation

www.ci.nyc.ny.us/strongest
The NYC Department of Sanitation's Recycling Program page offers information and publications about commercial, institutional, and residential recycling, including instructions for preparing and separating recyclables, collection schedules, and drop-off sites. DOS publications about recycling are available on the DOS Web site or order by calling the Sanitation Action Center at (212) 219-8090.

U.S. EPA's Comprehensive Procurement Guidelines (CPGs)

www.epa.gov/epaoswer/non-hw/procure/index.htm
RCRA Hotline (800) 424-9346
EPA's CPG site introduces the government's buy-recycled program including the materials listed in the procurement guidelines, levels of recycled content required, and lists of product and material suppliers.

U.S. EPA's Jobs Through Recycling Program

www.epa.gov/epaoswer/non-hw/recycle/jtr
In Region 2 (NY,NJ,PR,VI) contact Barbara Belasco at (212) 637-4182

The Jobs Through Recycling (JTR) program brings together the economic development and recycling communities through grants, networking, and information sharing. JTR builds recycling expertise within economic development agencies and places business development tools — technical assistance, financing, and marketing — in the hands of recycling professionals.

Empire State Development, Environmental Management Investment Group

One Commerce Plaza
Albany, NY 12245
(518) 486-6291

www.empire.state.ny.us/environment/
EMIG invests in projects that produce measurable waste prevention, reuse and recycling results. Projects should enable New York State businesses and institutions to capture the economic benefits associated with waste prevention, including increased productivity and competitiveness, job creation and retention, and increased recycling capacity. Program funds support capital investments, technical assistance, and research, development and demonstration.

New York State Energy Research and Development Authority

Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399
(518) 862-1090 ext.3218 (Tom Fiesinger)
www.nyserda.org

The Environmental Research and Development program funds municipal, industrial, and utility end-users of technologies; businesses that perform waste management and pollution control activities; and industries that develop, manufacture, and commercialize new, energy efficient waste management and pollution control products and processes.

Recycler's World

(519) 767-2913
www.recycle.net/recycle
Recycler's World was established as a world-wide trading site for information related to secondary or recyclable commodities, by-products, used & surplus items or materials. The New York Recycling Directory was established to promote trade in the recycling industry in the State of New York.

National Recycling Coalition

1727 King Street
Alexandria VA. 22314
(703) 683-9025
www.nrc-recycle.org
NRC is a national voice for the recycling organizations throughout the U. S. and around the world. The NRC was created to increase awareness of recycling and to provide information and assistance to businesses, public officials, and the general public.

LAX Not Lax About Recycling

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services are offered at no extra charge to tenants and currently, participation is voluntary. However, plans are underway for the development of contract language for inclusion in operating agreements, concession contracts, and leasehold contracts specifying required waste reduction and recycling practices.

To date, Ms. Riggen and her team have engaged more than 130 different companies in the effort, including food service networks, retail hubs, passenger service enterprises, and cargo operators, successfully diverting more than 45 percent of the solid waste stream generated at the airport facilities. Says Ms. Riggen of her planning and initial implementation efforts, "The most difficult hurdle in the initial implementation of our program was convincing people that recycling could become part of routine airport operations."

"Being the agent of change was tough work, but once we got the first programs running smoothly, adding new programs was fairly easy," says Riggen. Between 1992 when the program was introduced, and 1995, LAX initiated more than 17 additional recycling initiatives and tripled the airport-wide recycling rate, setting a goal for a 50 percent recycling rate to be achieved by the year 2000. The program remains on target in its progress toward that goal.

"Meetings and training sessions help strengthen our partnership and help us to identify program weaknesses so that we can address them efficiently. In fact, improved efficiency is the foundation of our overall program — our tenants endorse that," says Ms.

Riggen, adding that the recycling program typically has yielded waste collection savings on the order of \$30,000 per year for a participating major airline. Her office also provides technical assistance in waste prevention and recycling to tenant organizations and refers them to hotlines for Federal, state, and city recycling offices to aid their efforts to procure recycling equipment and services and to identify vendors.

When asked what elements of the program are key to its success, Ms. Riggen recommended that site managers routinely check their waste hauling operations to see if they are being over-served. Reducing pick-ups can reduce costs by eliminating partially full pick-ups. Frequent dumpster checks to ensure that operations are not disposing of material that could easily be recycled using existing services, also can increase savings. ■

Recycling Tips from LAX:

- Establish a formal recycling coordinator position.
- Enlist and obtain upper management support.
- Conduct a waste audit with each participant and encourage routine follow-up audits to maximize cost-saving opportunities.
- Ensure that the program is convenient for participants and request constructive feedback and suggestions for enhancement.
- Outsource as much hauling and collection as possible; the people who provide these services for a living do it most efficiently and effectively.
- Locate collection systems so that personnel don't have to go through security screening with hoppers and barrels.
- Work closely with security personnel who may express concern over the location of bins in public areas.
- Conduct periodic training programs for new employees and refresh training as necessary.
- Meet routinely with your core team of participants to review progress and resolve problems.
- Measure and announce results.
- Recognize successes with awards and press releases.
- Always look for opportunities to expand, enhance, and improve.

Northeast Recycling Council

193 Main Street, Suite 401
Brattleboro, VT. 05301
(802) 254-3636

www.nerc.org

NERC's mission is to ensure the long-term viability of recycling in the Northeast while maximizing its full environmental and economic benefits. The site offers a Green Procurement List Serve, business forums, and recycling cooperatives.

Global Recycling Network

www.grn.com

The Global Recycling Network is dedicated to recycling related information. It offers markets, and allows access to Chicago Board of Trade for recyclable commodities.

Air Transport Association

1301 Pennsylvania Ave., NW Suite 1100
Washington, DC 20004-1707
(202) 626-4000

www.air-transport.org/

The Air Transport Association offers an airline handbook on-line. Chapter 9 discusses Airlines and the Environment.

American Airlines Environmental Programs

www.amrcorp.com/amr/enviro.htm
(817) 963-1234

AMR, American Airlines' parent company, has an environmental program that is as broad and wide-ranging as the corporation itself. AMR is committed to developing and implementing environmentally sound business practices.

Did You Know?

American Airlines started its in-flight recycling program in 1989 at San Jose International Airport. The program was started by American's flight attendants and now is responsible for recycling more than 336,000 pounds of aluminum annually. American also has an "Anything that Tears" program at Fort Worth, Texas, which recycles 41 tons of magazines, newspapers, colored paper, and cardboard, as well as 700 pounds of white paper annually. The Fort Worth operation also recycles almost 16,000 pounds of aluminum cans annually. For more information, visit American Airlines' Web site at www.flyaa.com.



WasteWise partners receive technical assistance, as well as public recognition for their successes.

Recycling — A Good Way to Be WasteWise

Recycling is hot — and whether you run an airline, ground service provider or an airport, you can benefit from recycling. Recycling includes the whole process of collecting recyclables, using recovered material in the manufacture of new products, and purchasing these recycled-content products. It can save you money while conserving resources. In 1994, the U.S. Environmental Protection Agency (U.S. EPA) established the WasteWise program to champion businesses that implement and measure successful recycling and waste prevention programs.

In 1997, WasteWise's 700 partners collected more than 6.8 million tons of recyclables, purchased nearly \$3 billion in recycled-content products, and used nearly two million tons of recovered material in their manufacturing processes. In addition, businesses and institutions across the country saved an estimated \$218 million in avoided disposal fees by recycling.

Source: U.S. Environmental Protection Agency WasteWise Program

Did You Know?

Southwest Airlines' Salt Lake City provisioning base provides food and beverages for 39 flights a day. That amounts to almost 24,000 cases of peanuts and more than 49,000 cases of juice and soda each year. In 1996, the facility recycled more than 7,800 pounds of aluminum and corrugated cardboard. Jim Hinna, Southwest's Director of Provisioning, stated "Recycling the products at the end of a flight is about as important as making sure each of our customers has enough to eat and drink while they are with us. The recycling effort made by our Salt Lake City provisioner saves us money as a company and helps save our environment at the same time." For more information, contact Southwest Airlines at 801-521-2903.

Airlines, airport operators and service providers can join WasteWise and tailor their program to meet the basic requirements: expanding or improving your internal recycling operations, implementing three significant waste reduction programs and making a commitment to increase the number of items, containing recycled content, purchased by your business.

U.S. EPA's WasteWise program can help you with your recycling collection program and other waste reduction efforts. WasteWise is a free, voluntary program that provides partners with technical assistance, publications, and public recognition opportunities. 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. ■

Difficult-to-Recycle continued from page 1

Here are a few resources for recycling these difficult-to-recycle materials:

Fluorescent Lamps

Below are several companies that offer lamp recycling services. Some vendors will pick up lamps, while others require you to ship spent lamps. Contact the individual vendors for more information.

American Lamp Recycling
Fishkill, NY
(800) 315-6262

Mercury Waste Solutions
Albany, NY
(800) 741-3343

Global Recycling Technologies, Inc.
Rahway, NJ
(732) 388-3005

Full Circle Ballast Recyclers
Bronx, NY
(718) 328-4667

HELPLINE

New York Wa\$teMatch
can help identify recycling markets for your hard-to-recycle materials.

Contact information:
NY Wa\$teMatch
c/o Industrial Technology Assistance Corp.
Phil Vos, Operations Coordinator
253 Broadway, Room 302
New York, NY 10007
Ph. (212) 240-6966
Fax (212) 240-6879
Email: wastematch@itac.org
URL: www.wastematch.org

Look for more details about Wa\$teMatch and its successes in the upcoming Waste Prevention issue.

Pallets

Pallets are a major waste management concern for airports, airlines, and associated industries. The following vendors accept both damaged and usable wood pallets. Check with individual vendors for requirements; some require full truckloads, some pay for good pallets and charge to take broken pallets, and some will pick up pallets.

Franchise Reconditioning Co.
Brooklyn, NY
(718) 342-6965

Nationwide Recycling
Queens, NY
(718) 526-0100

Hunts Point Pallet Company
Bronx, NY
(718) 589-8343

Paul's Pallets
Bronx, NY
(718) 842-3530

Lou's Pallets
Staten Island, NY
(718) 727-5013

Russo Whitlock Services, Inc.
Bronx, NY
(718) 842-4666



Wood pallets gain a new life after being refurbished.

Buckets/Barrels/Drums

Plastic buckets, barrels, and drums from cleaning supplies, vehicle fluids, and food service products can be recycled or refurbished for reuse. Below are several vendors who will accept them for recycling and one that refurbishes.

AAM Container (Refurbish)
Brooklyn, NY
(718) 381-3575

Drum Service of Richmond
Staten Island, NY
(718) 494-0255

Menna & Son, Inc.
Brooklyn, NY
(718) 388-4171

BFI, Inc.
Brooklyn, NY
(718) 497-4000

National Drum & Barrel Corp.
Brooklyn, NY
(718) 388-5810

Waste Management, Inc.
Brooklyn, NY
(718) 533-5360

Computers/Electronics

Management of computer/electronic waste is becoming more critical as previous generations of computers become obsolete at an ever-increasing rate. A staggering number of computers, monitors, and other electronics are discarded daily as newer, cheaper models become available.

Many discarded computers can be used by others. Some have been scavenged for parts and are worthless except for the value of their materials, such as scrap metal, precious metals, and plastic. Below is a partial list of vendors and organizations in the Northeast region that either accept computer components for recycling or accept reusable computers for donation and reuse.

Recycling:
Advanced Recovery Inc.
Belleville, NJ
(973) 450-9797
Electronic/computer products.

Reuse:
Reused Goods
Freeport, NY
(516) 223-2522
Electronic/computer equipment.

Alco Refiners
Wheatley Heights, NY
(516) 491-3041
Mainframe computers and PCs, but no monitors.

Computers for Africa Project
New York, NY
(212) 608-2150
PCs and laptops, preferably Radio Shack PCs and Toshiba 1000 laptops.

Colt Recovery Group
Electronics Processing Assoc.
Rahway, NJ
(732) 382-4000
Electronic/computer products.

Electronic Resource Recovery
Newburgh, NY
(914) 561-1900
PCs, 486 or better with multimedia capabilities.

Monmouth Wire & Computer Recycling Inc.
Tinton Falls, NJ
(732) 922-3320
Electronic/computer equipment.

Materials for the Arts
New York, NY
(212) 255-5924

RCR & R
Rochester, NY
(716) 546-6620
Electronic/computer equipment.

Accepts only working equipment not in need of repair and PCs 486 or better.
Nonprofit Computing Inc.
New York, NY
(212) 759-2368
Most working office equipment.

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

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

NYC WasteLe\$\$ In Action

Fluorescent Lamp Recycling at Port Authority of NY & NJ, LaGuardia Airport

Fluorescent lights are one of the most energy efficient lighting sources available. However, fluorescent lamps contain mercury, which is hazardous if released into the environment. The Port Authority of NY & NJ at LaGuardia Airport (PA-LGA), a NYC WasteLe\$\$ participant, has implemented a program to recycle its mercury-containing fluorescent lamps. PA-LGA replaces all of its fluorescent lamps each year as part of its regular maintenance schedule. As a result, it generates and recycles approximately 8,750 lamps per year.

From April 1996 through May 1998, PA-LGA spent \$7,377 to recycle its fluorescent lamps. The cost of disposing of the lamps as hazardous waste would have been \$12,562. Therefore, this saved PA-LGA approximately \$5,000 by recycling its fluorescent lamps instead of disposing of them as hazardous waste.

Did You Know?

Fluorescent lamps are recycled into new glass and metal products, effectively eliminating the lamps as a source of disposed waste. When the recycler receives the lamps for processing, aluminum end caps, insulators, and wires are separated from the glass, then melted for reuse. The glass is used in concrete, fiberglass insulation, or nonfood-use glass products. Another process extracts and captures the mercury from the lamps for reuse. In 1994, the average four-foot, 40-watt T-12 fluorescent lamp contained 22.8 milligrams of mercury.

Historically, fluorescent lamps have been discarded in landfills. When the lamps broke, mercury was released to the environment. Under current Federal law, mercury-containing lamps, such as fluorescent and HID lamps, may be hazardous waste. New York State requires that these lamps be managed as hazardous waste if they fail applicable testing protocols.

In accordance with requirements of the Federal Resource Conservation and Recovery Act (RCRA), generators of spent mercury containing fluorescent lamps are responsible for determining whether their lamp wastes are hazardous. If a generator does not test used fluorescent lamps and prove them to be non-hazardous, he/she must assume they are hazardous waste and dispose of them accordingly. Studies performed by U.S. EPA indicate that mercury-containing lamps exhibit the toxicity characteristic. Those facilities that are lit using low mercury lamps are not subject to these requirements as the low mercury lamps do not fail the test.

Recycling used fluorescent lighting lamps offers an environmentally sound, NYS Department of Environmental Conservation-acceptable and cost-effective alternative to expensive hazardous waste disposal. Additionally, recycling may relieve the generator of future liability concerns associated with tube disposal. For assistance, see the list of lamp recyclers provided in this issue.

After January 6, 2000, lamps classified as hazardous waste will be added to the Federal list of universal wastes, which are subject to less stringent standards for storage and transportation.

New York State rules also classifying fluorescent lamps as a Universal Waste are anticipated soon and will impact current requirements. For further information, contact the NY State Department of Environmental Conservation at (518) 485-8988.