

## ENVIRONMENTAL IMPACTS

The following is a summary of the accomplishments and ongoing efforts that the Postal Service is currently making towards the environmental impacts of sustainability:

### *Environment*

#### **Alternative Fuel Vehicle Program**

The goal of the U.S. Postal Service's Alternative Fuel Vehicle (AFV) program is to integrate into the vehicle fleet alternative fuel vehicles (AFVs) and advanced vehicle technologies that are simultaneously friendlier to the environment and meet operational requirements. With over 37,000 AFVs the Postal Service operates the world's largest AFV fleet, and each year acquires additional vehicles that operate efficiently on cleaner-burning alternative fuels. By relying primarily on commercial fueling stations, the USPS AFV fleet helps generate higher demand for, and availability of, alternative fuels across the country. This helps build the nations refueling infrastructure, making alternative fuels available to the general public and helping to reduce our nation's dependence on foreign sources of oil.

The Postal Service continues to use commercially available alternative fuels where conveniently accessible and competitively priced. This usage decreases fleet emissions, creating the potential for the Postal Service to obtain emission reduction credits that can be traded on an emerging commodity market.

#### **U.S. Postal Service's Compliance with EPAct**

The Energy Policy Act of 1992 (EPAct) requires that 75% of all light-duty vehicle acquisitions (leases or purchases) be alternative fuel vehicles (AFVs). Initially, the requirement was set at 25% for fiscal year (FY) 1996, 33% in FY 1997, 50% in FY 1998, and then 75% for all subsequent years.

The U.S. Postal Service strives to acquire AFVs whenever they are available to meet their operational requirements. Consequently, the Postal Service has met or exceeded the EPACT requirement in nine out of the last ten years as shown in the table below. Most notably, the Postal Service exceeded (by over 9,000 credits) the total statutory requirement for AFV acquisitions over the past ten years.

<u>Fiscal Year</u>	<u>Light-duty vehicle acquisitions</u>	<u>Total AFVs and other credits*</u>	<u>USPS Actual EPAct %</u>	<u>Required EPAct %</u>	<u>USPS excess AFV credits*</u>	<u>Cumulative excess AFV credits*</u>	<u>Total inventory of light-duty AFVs</u>
FY1996	10,071	2,656	<b>26%</b>	25%	138	<b>138</b>	6,748
FY1997	2,916	825	<b>28%</b>	33%	-137	<b>1</b>	7,653
FY1998	12,223	10,767	<b>88%</b>	50%	4,656	<b>4,657</b>	18,397
FY1999	13,865	13,267	<b>96%</b>	75%	2,868	<b>7,525</b>	31,560
FY2000	2,838	2,452	<b>86%</b>	75%	324	<b>7,849</b>	33,554
FY2001	1,405	1,189	<b>85%</b>	75%	135	<b>7,984</b>	31,110
FY2002	855	641	<b>75%</b>	75%	0	<b>7,984</b>	32,001
FY2003	9,197	7,861	<b>85%</b>	75%	963	<b>8,947</b>	37,573
FY2004	1,434	1,126	<b>79%</b>	75%	50	<b>8,997</b>	36,852
FY2005	2,302	1,387	<b>80%</b>	75%	112	<b>9,109</b>	37,618

\*AFV credits include light-duty non-exempt AFVs, dedicated medium-duty vehicles, dedicated heavy-duty vehicles, zero emission vehicles, and Biodiesel fuel usage credits.

The Postal Service is doing its part to protect our nation's environment, improve air quality, and reduce our dependency on imported oil by employing delivery vehicles that use alternative fuel technologies. One such alternative is a fuel cell, an electrochemical device that converts chemical energy into electricity by using hydrogen as fuel.

### **USPS and GM Team Up to Move Mail with Fuel Cell**

General Motors and the Postal Service signed a two-year agreement in September 2004 to test a General Motors HydroGen3 fuel cell minivan to deliver mail in the Washington, D.C. metro area, the first commercial use of a fuel cell vehicle in the U.S.

This trial furthers the objective of the Postal Service™ to be recognized as a leader among government agencies in the use of alternative fuel vehicles. Ultimately, the fuel cell initiative will also help the Postal Service:

- Evaluate fuel cell vehicle technology
- Meet environmental laws for alternative-fueled federal vehicle fleets
- Reduce fleet operation cost
- Decrease maintenance costs
- Maintain its image as an environmentally-conscious organization

This test vehicle will be an addition to the 30,000 alternative fuel vehicles currently used by the Postal Service to deliver mail around the country.

A second hydrogen fuel-cell mail delivery minivan was recently deployed to Irvine, California. By serving as a test bed for this technology, the Postal Service is helping suppliers advance fuel-cell technology as well as demonstrate our commitment to environmental sustainability.

The fuel cell program is supported by the Energy Policy Act (EPA) of 1992, which was created primarily to reduce the United States' dependence on foreign oil by requiring that certain U.S. fleets use alternative fuel vehicles, and the Hydrogen Research and Development Task Force, which was established in 2003 and is co-chaired by the White House Office of Science and Technology Policy (OSTP) and the Department of Energy (DOE). It functions as a channel through which the eight federal agencies that fund hydrogen-related research and development can pool resources and make recommendations about hydrogen exploration to policy-level officials.

### **Advanced Vehicle Technology**

During 2005 the Postal Service conducted a number of vehicle research and development activities, including the purchase of ten advanced diesel vehicles and ten hybrid electric vehicles for test and evaluation; completion of a 24 thousand-mile durability evaluation of a hybrid vehicle on a postal accelerated driving schedule; completion of fuel economy and emission measurement of a hybrid on a postal driving schedule; deployment of two hybrid electric 2-ton vehicles in the Boston area; completion of a comprehensive engine tear-down evaluation of tractors and cargo vans that have operated on biodiesel for the last several years; and continuing the 2-year evaluation of a hydrogen-powered fuel cell minivan for mail delivery in the Washington, D.C. area. A Web site was created to support the fuel cell vehicle program and the interagency task force on hydrogen, for meeting EPACT 2005 requirements.

Moreover, eight additional 2-ton electric vehicles have been placed in operation in New York City. These "CitiVans" were added to the fleet of over 20 postal electric CitiVans already deployed in the Bronx and Staten Island. They are recognized by the EPA as zero emission vehicles and are recharged during off-peak hours. They can travel more than 40 miles on a single electrical charge, making them ideal for use in the demanding "stop-and-go" environment of New York City.

### **Safety and Environmental Performance Management**

In 2006, the Postal Service combined the existing offices of Safety Performance Management, Environmental Management Policy, the Ergonomic Risk Reduction Program, and the Occupational Safety and Health Administration (OSHA) Coordination Program. This new function manages all safety, health and environmental programs. It oversees employee and customer safety and health, and ensures regulatory compliance, operational efficiency, and cost effectiveness.

The Postal Service's policy is to integrate all environmental activities within day-to-day operations planning and decision-making. Environmental Policy and Programs is the headquarters-level focal point for executing the strategy. It provides leadership through planning, advocacy, and oversight. EMP also oversees several successful and award-winning environmental programs, including ISO 14001 Environmental Management Systems, Air Quality, Water Resource Management, Resource Conservation, Storage Tank Management, and Environmental Training. In 2004, the Postal Service had fulfilled over 80% of the action items set forth in Executive Order 13148: Greening the Government through Leadership in Environmental Management. This exemplifies our commitment to the environment, our customers and communities we serve, sets the standard for Federal Agencies, and creates a competitive advantage for our organization.

### **Environmental Management Systems (EMS) Program**

An environmental management system (EMS) is a framework for identifying and evaluating environmental and business issues. Historically, the Postal Service has used the EMS framework to achieve environmental excellence by addressing key business and environmental issues. In 2006, the Postal Service began upgrading and streamlining its EMS framework and integrating its activities with the safety organization. The new EMS framework utilizes elements from the international standard (ISO-14001) by incorporating environmental policies into daily business activities. Once revised, the new EMS framework will be elevated into a program review guide and will maximize efficiency for the organization.

### **NAEM**

The Postal Service is a corporate sponsor for NAEM (formerly the National Association for Environmental Management). By, for and about Environmental and EHS managers, NAEM is the leading professional association dedicated to advancing the principles and profession of EH&S management. NAEM consists of members who value life-long learning, continuous education, and professional networking. NAEM is an international organization with more than 1,000 corporate members. NAEM programs and initiatives focus on the management issues inherent to the environmental and/or EHS function of a regulated entity (business and service operations, governmental and municipal, and non-profit entities).

### **Environmental Compliance Review Program**

The goal of the Postal Service's environmental compliance review program is to gather information regarding environmental performance at operating locations. This information will be used annually to update and make appropriate modifications to environmental strategy and its applicable national environmental programs and corporate-wide activities.

### **Solid & Hazardous Waste Management**

The main objectives of the Solid & Hazardous Waste Management Program are to investigate opportunities, identify options, and perform feasibility analyses to reduce the amounts of potentially hazardous and toxic materials used by the Postal Service and to ensure that solid and hazardous wastes are handled in a way that will protect human health and the environment and meet all legal mandates.

On August 8, 2005, the Dallas Environmental & Maintenance, Repair & Operating (MRO) Supplies Category Management Center awarded a national contract to Safety-Kleen Systems, Inc. for purchasing Hazardous and Regulated Waste Management (HRWM) services. This contract includes: Waste Treatment, Recycling, and Disposal (containerized and bulk waste, vacuum services, pit/separator service, etc); Parts Washer, Brake Washer, Paint Gun Cleaning Services (leased or owned); Analysis and Testing; Incidental Supplies; Used Oil, and Filters (with incentives for payment); Incidental Spill/Cleanup Response (not national threat related); Universal Waste (lamps, bulbs, batteries) management; Manifesting and Reporting Requirements.

## **Recycling/Resource Sustainability**

The Postal Service is committed to fostering the sustainable use of natural resources by promoting pollution prevention, reducing waste, recycling, and reusing materials. Postal Service recycling programs must meet or exceed all applicable environmental laws and regulations in a cost effective manner.

Annually, the Postal Service recycles about one million tons of wastepaper, cardboard, plastics, cans, and other material. About \$10 million in revenue is generated from recycling activities. Also, the Postal Service annually purchases more than \$200 million worth of products with recycled content.

We have placed over 5,000 recycling bins that use a Gridcore construction made from recycled materials in Postal lobbies nationwide to test their effectiveness in collecting discarded items. In addition, the following retail and philatelic products contain recycled material:

- Stamped envelopes
- Post cards
- Stamp booklet covers
- Packaging materials
- Express and Priority Mail envelopes
- Hampers
- Plastic pallets
- Mail containers

Also, water-based inks are used to print stamps, and our new "self-stick" stamps use water-removable adhesives. We use refined bio-based oil, alternative fuels from converted to compressed natural or ethanol gas, and re-tread tires on our fleet of Postal vehicles.

During 2005, a renewed emphasis was placed on environmentally preferable purchasing. The Postal Service worked with suppliers to further expand green product offerings in the custodial, maintenance, repair, and operating categories. The Postal Service continues to advocate the elimination of products containing targeted chemicals and the purchase of products with environmental attributes, including those certified under the EPA's Energy Star Program.

## **Reuse or Recovery of Surplus and Obsolete Electronic Equipment**

The Postal Service continued successful partnerships with UNICOR Federal Prison Industries, Topeka Area Retarded Citizens Industries, and DOVEBID, Inc., which facilitate the reuse or recovery of surplus and obsolete electronic equipment. In 2004 these partnerships led to the recycling of over 350 tons of computers and parts, and 50 thousand computers were resold instead of being sent to landfills.

## **2005 Environmental Impact of Mail Study**

Environmental Management Policy recently announced the most current iteration of the Environmental Impact of Mail Study, which examines the primary environmental impacts and benefits of advertising mail.

## **Greening The Mail**

The Postal Service continues to work with mailing industry stakeholders, including the Direct Marketing Association (DMA), the Envelope Manufacturer's Association (EMA), and the American Forest and Paper Association to build on past efforts of the "Greening of the Mail" task force. These initiatives promote environmental and economic solutions to social issues.

To attain this goal, the Postal Service and its industry stakeholders are enhancing programs that encourage waste prevention through better mailing-list management, increasing the recycled content in mailings, and reducing the environmental impact of mail.

Studies based on data from the Environmental Protection Agency show that mail has a very minimal impact on municipal solid waste, and a cost-benefit analysis indicates that mail actually has a net benefit

to society. The Postal Service is also exploring opportunities to partner with firms needing some mechanism to help with returns of recyclable material.

The Postal Service is working with the DMA and the mailing industry to reduce unwanted mail. Increasing address accuracy to avoid duplication is part of this program. The Postal Service supports the DMA's "Mail Preference List." The Mail Preference service is similar to the "Do Not Call" list, and most DMA member firms check their lists against the Mail Preference List.

### **Undeliverable-As-Addressed (UAA) Mail**

The Postal Service will continue to increase the value of mail by working with the mailing industry to reduce undeliverable-as-addressed (UAA) mail by 50 percent by 2010. UAA mail is mail that must be forwarded, returned to sender, or treated as waste because the recipient information or address is incomplete, incorrect, or out of date. The handling and processing of UAA mail costs the Postal Service over \$1 billion annually. In addition, because the return on mailers' investments in mail is reduced by the amount of mail that cannot be delivered, address quality has been identified by the Mailers' Technical Advisory Committee as one of its major areas of focus.

The Postal Service is developing new or enhanced services to ensure that mail is delivered to the right recipient, at the right address, the first time. New address hygiene services such as Address Element Correction will be offered to improve the completeness and accuracy of mailing addresses. Mailing lists that are sold commercially will be certified as to their use of these hygiene services.

Mailers will be encouraged to update customer information more frequently and closer to the date of mailing to reduce the need for forwarding services. Policies such as MoveUpdate requirements will be reviewed and strengthened for these mailers. Other types of UAA will be reduced by providing mailers with address hygiene tools and products based on secure technologies that identify incomplete or incorrect delivery address information before mail entry. Once UAA mail is entered into the mail stream, new processes will become available with the implementation of the 4-state barcode, such as OneCode/Address Change Service, to provide efficient feedback to mailers regarding their UAA mail. This will ensure that addresses are corrected before the next mailing.

Customers will benefit from the Postal Automated Redirection System (PARS), which reduces the number of days required to redirect mail that requires forwarding to a new address by recognizing and redirecting mail earlier in the distribution process. PARS is expected to substantially reduce UAA costs and greatly reduce the need for computer forwarding units that handled this mail before.

### **Water Management**

The mission of the Postal Service's Water Management program is to meet applicable environmental standards for pollutant discharges, storm water runoff and safe drinking water. The Water Management Program also supports conservation programs to minimize the use of this important natural resource. The Postal Service National Environmental Policy Statement provides the cornerstone for establishing water management as a national goal and is demonstrated in the management's commitment to water management.

The Postal Service has developed a Water Management Strategy at the national level to encourage compliance with the requirements of the Clean Water Act and the Safe Drinking Water Act as well as Executive Orders 11738 and 12902. The Postal Service is committed to reducing EPA-targeted hazardous chemicals in our water system and using water efficiency at our facilities.

### **Asbestos Management**

The United States Postal Service is committed to providing a safe and healthful work environment for all its employees and building occupants. One method for accomplishing this commitment is to implement and maintain asbestos control programs that comply with all applicable federal and state environmental

laws and regulations, including regulations established by the federal Occupational Safety and Health Administration.

The mission of the Postal Service Asbestos Management program is to develop and implement a comprehensive National Strategic Plan based on quantifiable data that addresses asbestos issues as they pertain to postal employees, facilities, and operations.

### **Environmental Training**

Postal Service environmental training needs will be met through establishing internal training programs to generate worker awareness, create the knowledge base required to properly manage environmental obligations and advance the practice of environmental management corporate-wide. The Postal Service maintains a web portal to provide environmental professionals with a single gateway to the information required to successfully carry out their daily business. This portal provides the latest policy and guidance information along with news, regulatory updates and other information useful for Postal Service environmental professionals. The portal is continually updated to ensure it provides the knowledge and tools users require.

### **Clean Air Program**

It is the mission of the Clean Air program to establish a framework for ensuring Postal Service operations are conducted in compliance with all applicable aspects of the Clean Air Act, including implementing requirements imposed by state, regional, and local air quality management agencies. Maintaining and enhancing the USPS air quality compliance posture serves to reduce or mitigate Postal Service environmental liability and risks, and ensures a safe and healthy work environment for Postal Service facilities and operations across the country.

## ***Energy Use***

### **Energy Management Program**

The mission of the Postal Service Facility Energy Management Program is to integrate sustainable energy management principles into business functions, and to optimize energy decisions to the benefit of our employees, business and communities.

### **Shared Energy Savings Program (SES)**

Facility energy projects to improve efficiency, and building conditions

- Alternative financing mechanism available to Postal Service (no upfront funding required)
- Opportunity to implement Energy Saving Building Improvements
- Contracts with a third party to identify, finance and implement facility energy projects
- The Savings pay for the improvements over a period of up to 10 years from line 42 (Fuel and Utilities)
- The Utilities Category Management Center (UCMC), located in Windsor, CT, is the contracting authority for all SES contracts

By researching current purchasing practices in the federal and commercial marketplace and benchmarking against prior Postal Service SES project experience, the Purchase Team determined that the Postal Service should realize significant energy cost reductions and operational efficiencies through the national implementation of the SES program. Having made the decision to implement the SES program on a national basis, the Purchase Team began meeting over the next several months (Jan-Mar 06) to prepare and finalize the solicitation documents and developed an expedited milestone schedule and award process.

In May, the Postal Service awarded 10 Indefinite Delivery, Indefinite Quantity (IDIQ) Area-wide SES contracts in order to implement the SES program on a national basis. Over the next 10 years, the Postal Service will use these contracts to perform energy surveys and implement energy conservation measures (ECMs) in over 37,000 Postal Facilities. With these contracts, each Area will be able to reduce energy consumption by obtaining and installing energy efficient equipment to replace inefficient systems or

components and further reduce energy costs by providing improved energy management techniques. Under the SES contracting process, ECMs are identified, financed and installed by an Energy Service Company (ESCO). After installation, the ESCO receives a negotiated stream of payments (up to 10 years) from the resultant energy savings. These payments are charged to the facility's utilities expense budget.

ESCOs were invited to attend a pre-proposal conference conducted on January 13, 2006 at Postal Service Headquarters. Thirty-seven (37) firms attended and became eligible to submit proposals. A total of 18 proposals were received and after an exhaustive review an evaluation process awards were made to the energy service company (ESCO) that offered the best value in each of the 9 Postal Service Areas (2 separate awards were made in the Western Area due to its size). The work includes performing facility energy audits at Postal Service facilities throughout the United States, Puerto Rico, and Guam. The total estimated value of the work to be performed under these 10 Area-wide SES contracts over their 10 year term is \$1.3 billion.

In addition to reducing utility costs and energy consumption, the installation of ECMs will improve facility operating conditions, contribute to environmental and public health goals, decrease reliance on foreign energy sources, support alternative energy technologies and establish the Postal Service as a leader among Federal agencies in environmental stewardship.

### **Energy Call Center**

The Energy Call Center is a toll-free service that can provide simple-to-implement "low cost, no cost" energy savings for all postal employees. They offer best management practices and technical advice to those requiring expert help. Hotline number: 866-841-1073.

### **Utility Invoice Analysis**

The Postal Service is initiating utility invoice analysis for the 500 facilities that have the highest energy costs. Utility invoice analysis typically saves one to three percent in energy costs. Facility energy costs are expected to increase to nearly \$800 million in Fiscal Year 2006. These sites represent 80 percent of our facilities' energy costs, so invoice analysis at these sites could provide savings of \$8 to \$24 million annually. A listing of the Postal Service's 500 highest cost energy sites has been posted to the Energy page.

### **Telemetry**

The Postal Service is expanding its energy telemetry program to collect comprehensive energy usage data via remote automated electronic systems. This information is essential to monitoring the achievements of energy projects and progress toward the goals of Executive Order 13123, *Greening the Government through Efficient Energy Management*. Telemetry data can also be used real-time by postal facilities to monitor and control energy usage.