Research and Development

EPA/600/SR-96/114

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# **Project Summary**

# Pollution Prevention Assessment U.S. Postal Service Post Offices, Pittsburgh, PA Area

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As part of its Waste Reduction Evaluation at Federal Sites (WREAFS) Program, the U.S. Environmental Protection Agency (USEPA) National Risk Management Research Laboratory (NRMRL) worked cooperatively with the U.S. Postal Service (USPS) to integrate waste prevention and recycling activities into the waste management programs at various postal facilities through the conduct of pollution prevention opportunity assessments (PPOA). This summary report describes the findings of the PPOA for the USPS Post Offices in Bridgeville, Hickory, Houston, McDonald, Morgan and Wash-

The report describes the various Post Offices, including operations performed, processes and materials employed and the wastes and emissions generated. The report makes recommendations concerning the procurement of office supplies, maintenance supplies and hazardous materials; management of hazardous materials and wastes; purchase of chemicals on USEPA's 33/50 list; improvement of source separation and recycling of paper and paper products, metals and plastics; management of unwanted equipment; and other options for reducing or eliminating pollution.

This Project Summary was developed by USEPA's National Risk Management Research Laboratory, Cincinnati, OH to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

#### Introduction

Since 1988, EPA's National Risk Management Research Laboratory (NRMRL) has managed a technical support effort known as the Waste Reduction Evaluations at Federal Sites (WREAFS) Program. WREAFS was established to provide pollution prevention solutions to environmental issues through research, development and demonstration of pollution prevention techniques and technologies, and transferring lessons learned within the federal community and related private sector industries.

The United States Postal Service (USPS), in cooperation with NRMRL's WREAFS program is engaged in an effort to integrate pollution prevention and recycling activities into the waste management programs at postal facilities. The purpose of this project was to perform pollution prevention opportunity assessments (PPOAs) at Postal Service facilities, recommend implementation strategies, and develop facility guidance that can be incorporated into a revision of the USPS Waste Reduction Guide. The project was funded by the U.S. Postal Service through an interagency agreement (IAG) with EPA NRMRL.

This report describes the findings of the PPOA conducted for six United States Postal Service Post Offices located in Bridgeville, Hickory, Houston, McDonald, Morgan and Washington, PA. The site

assessments were conducted during the week of June 12, 1995.

## **Facility Description**

The PPOA Team visited six USPS Post Offices located southwest of Pittsburgh, PA. The McDonald, Morgan and Bridgeville Post Offices are located in Allegheny County and the Hickory, Houston and Washington Post Offices are located in Washington County. Exhibit 1 provides a summary of relevant information for each of the six facilities.

#### **Waste Description**

Wastes generated by the six different facilities are summarized in Exhibit 2, along with current management practices and pollution prevention opportunities for each waste. Further details regarding pollution

prevention are provided in the following section.

# Pollution Prevention Opportunities

The PPOA identified several pollution prevention opportunities at the sites. Some of these opportunities simply reduce the quantity or toxicity of the waste stream, while others offer economic as well as environmental benefits. The pollution prevention opportunities identified by the PPOA are addressed below.

#### Cardboard

 Encourage suppliers to deliver products in reusable containers and make

- cardboard boxes available to customers for reuse.
- Establish corrugated cardboard recycling programs and source-separation policy.

#### Paper

- Establish a duplex copying policy for all multi-page documents; expand and encourage the use of electronic mail; limit distribution lists; encourage staff to proofread on screen.
- Identify and participate in community recycling programs.

Exhibit 1. Summary of Facilities Assessed

Facility	Hickory	Morgan	Houston	McDonald	Bridgeville	Washington
Size Sq ft	585	1,836	3,850	5,331	14,439	51,885
USPS Owned or Leased	Leased	Leased	Leased	Owned	Owned	Owned
Employees (Full-time, Part-time)	2 FT, 2 PT	1 FT, 1 PT	10 FT	18 FT, 1 PT	43 FT, 3 PT	135 FT
Deliveries	474	479	2,143	3,435	9,403	17,559
Mail Volume Lin Ft per Week/ Number of Parcels per Week	112/320	40/40	300/300	600/400	1500/600	3200/500
Number of Vehicles	No USPS Vehicles	1 vehicle from Bridgeville Fleet	3 vehicles	7 vehicles	16 vehicles	37 vehicles
Avg Electric Cost per Month	\$42	\$100	\$100	\$85	\$678	\$2,548
Waste Disposal Cost per Month	\$11.67	\$25	\$15	\$32	\$205.47	\$319.30
Size of Container	7 bags	6 cu yd	3 55-gallon drums	6 cu yd	6 cu yd	8 cu yd
Number of Times Emptied per Week	1	1	1	1	2	3
Typical UBBM* per Week Ln Ft	3	3	10	18	75	84
Gas Cost per Month	Paid by Landlord	\$100 to \$200	\$55 to \$289	\$270 to \$510	\$500 to \$1430	\$180 to \$1078
Sewer Cost per Month	Paid by Landlord	\$10	Paid by Landlord	\$24	\$21	\$62
Water Cost per month	\$14	\$10	Paid by Landlord	\$30	\$59	\$121.50

<sup>\*</sup>UBBM = Undeliverable Bulk Business Mail

Exhibit 2. Solid Waste Generation and Pollution Prevention Opportunities

Waste	Current Practices	Pollution Prevention Opportunities		
Paper: computer printout, white/mixed office	Discarded as waste	Affirmative procurement Reduce paper use Reuse, recycle		
Paper: UBBM, magazines and newsprint	Typically discarded, hauled for recycling by larger offices	Reduce incoming quantity Reuse, recycle		
Corrugated cardboard	Typically discarded, larger facilities recycle	Reduce incoming corrugated Recover and recycle		
Plastic film	Discarded as waste	Reduce incoming material Seek recycling option		
Plastic strapping	Discarded as waste	Seek recycling option		
Pallets	Discarded as waste	Reuse, recycle		
Products containing 33/50 chemicals	Discarded as waste	Alternative products Product exchange		
Cleaning supplies	Discarded as waste	Non- or less- toxic substitutes		
Leaves, grass and yard trimmings	Discarded as waste	Leave grass cuttings on lawn Compost		
Toner cartridges	Discarded as waste	Remanufacture and reuse		
Fluorescent tubes and ballasts	Discarded as waste	Recycle		
Food and beverage containers	Discarded as waste	Recycle		
Obsolete, damaged or defective equipment	Discarded or sold as scrap	Repair and reuse		

 Establish waste hauling contracts that include recycling services.

## Undeliverable Bulk Business Mail (UBBM)

- Determine whether reduction or recycling is the most cost effective management practice for UBBM.
- Reduce UBBM by expanding its mailing list maintenance service.
- Recycle UBBM to avoid the disposal costs.

#### Fluorescent Lighting Tubes

 Establish fluorescent tube recycling program.

#### Other Materials

Consolidate metals and excess equipment. Evaluate potential for repair and reuse.

- Set up recycling bins for other recyclable materials. Separate metal food and beverage containers and establish a recycling option for these materials.
- Identify local pallet refurbishers. Collect pallets and consolidate for recycling.

#### Affirmative Procurement

 Establish preference programs and adopt specifications for the purchase of products made with the percentages of recovered materials specified in USEPA Guidelines.

#### Vehicle Maintenance

Enter into written agreements with private service stations, rather than performing maintenance activities onsite where waste recovery equipment is absent or minimal. The agreement

should specify compliance with USPS environmental standards.

### Vehicle Washing

- Consider washing vehicles at an offsite installation that recovers and reuses wash water.
- Evaluate the toxicity and pH of the product and the impacts of wastewater discharge to the sanitary sewer.

#### **Grounds Maintenance**

- Small quantities of leaves and yard trimmings can be composted onsite. The finished compost can be applied to lawns and shrubs as a soil amendment. Local farms or community compost operations may provide alternative composting sites.
- · Leave grass clippings on the lawn.

## Lighting and Energy

 In accordance with the Energy Policy Act of 1992 and Executive Order 12902 that require Federal agencies to reduce energy consumption 20% by the year 2000 and 30% by the year 2005, increase the use of motion sensitive lighting; establish a "Lights Out" policy; obtain technical assistance from Green Lights Program; and procure computers that meet Energy Star requirements.

# Chemical Storage and Hazardous Wastes

 Establish a policy to purchase only what is needed and used within a reasonable time and adopt a first-in/ first-out policy.

## Conclusions and Recommendations

The Pollution Prevention Opportunity Assessment report documents the processes performed, wastes generated and current waste management practices at six USPS Post Offices southwest of Pittsburgh, PA. The PPOA identified opportunities to reduce both the quantity and toxicity of the wastes generated by this facility and recommended techniques for implementation of those pollution prevention options.

The full report was submitted in partial fulfillment of Contract No. 68-C2-0148, Work Assignment No. 3-10 by Science Applications International Corporation under the sponsorship of the U.S. Environmental Protection Agency.

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James S. Bridges and Theresa T. Hoagland are the EPA Project Officers (see below). The complete report, entitled "Pollution Prevention Assessment U.S. Postal Service Post Offices, Pittsburgh, PA Area" (Order No. PB97-100051; Cost: \$21.50, subject to change) will be available only from:

National Technical Information Service 5285 Port Royal Road Springfield, VA 22161

Telephone: 703-487-4650 The EPA Project Officers can be contacted at:

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