

4.11.1 Common Operations: General Office

Case Study #1

BUSINESS: Aid Association for Lutherans; Appleton, Wisconsin
WASTE ORIGIN: General Office Operations
WASTE TYPES: Paper Products (Office Papers, Newspaper, Cardboard, Phone Books, Magazines, Dishes, and Cups), Polystyrene Containers, Used Motor Oil, Used Cafeteria Grease and Cooking Oils, Yard Wastes, and Construction Materials

COMPANY BACKGROUND

Aid Association for Lutherans (AAL) is a fraternal benefits society, providing insurance, benefits, and educational programs to Lutherans and their families.

MOTIVATION

Reduce wastes and disposal costs.

STRATEGIES

Source reduction, recycling, and reuse programs through employee education and involvement.

ORIGINAL PROCESS

The volume of many liquid and solid wastes required expensive disposal costs. Wastes were generated in offices, the cafeteria, vehicle maintenance shop, grounds maintenance, and remodeling activities.

NEW PROCESS

Employee participation ranged throughout all office operations. Offices recycled all papers. Cafeteria managers replaced paper plates and cups with reusable ceramic ware, while recycling grease and cooking oils with a rendering firm. Used motor oils were recycled. Yard wastes were composted and used for mulch. Construction materials like steel and other metals were collected for recycling.

RESULTS

Waste Reduction

Reduced volume of office paper waste 5,250 cubic yards/year.

Economics

Savings: \$10,000 savings estimate based on reduced disposal costs.

Capital Cost: \$7,700 for a paper/cardboard compactor.

Operating/Maintenance Cost: Information not available.

Payback Period: Information not available.

PROBLEMS

The main problem was achieving total employee participation in waste reduction programs.

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Case Study #2

BUSINESS: Norand Corporation; Cedar Rapids, Iowa

WASTE ORIGIN: Incandescent Office Lighting

WASTE TYPES: Energy Consumption

COMPANY BACKGROUND

Norand manufactures sophisticated hand-held computer systems and related equipment. The company manufactures virtually all components and products through machining, fabrication, assembly, plating, soldering, and finishing operations.

MOTIVATION

High electricity costs.

STRATEGIES

Replace inefficient incandescent light bulbs with lower energy-consuming, longer-lived fluorescent bulbs, where possible.

ORIGINAL PROCESS

The company identified 40 locations where traditional incandescent lighting was being used in stairwells.

NEW PROCESS

Incandescent bulbs were replaced with compact fluorescent bulbs that screw directly into existing incandescent fixtures in the stairwells.

RESULTS

Waste Reduction

Reduced energy consumption.

Economics

Savings: Reduced electricity costs by \$2,954 per year. Reduced maintenance costs of replacing shorter-lived incandescent.

Capital Cost: Information not available.

Operating/Maintenance Cost: Information not available.

Payback Period: Information not available.

TECHNOLOGY TRANSFER

Compact fluorescent bulbs (ballast/bulb unit) are made to fit into traditional incandescent lighting fixtures.

PROBLEMS

The fluorescent units are more expensive than traditional incandescent bulbs.

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Case Study #3

BUSINESS: University of Wisconsin-Madison Solid Waste Alternatives Project (SWAP); Madison, Wisconsin
WASTE ORIGIN: Facilities Operations and Maintenance
WASTE TYPES: Office Materials, Furniture, Computer Equipment, and Construction Materials

PROJECT BACKGROUND

Started in November of 1994, and known as the “SWAP Shop,” this university program redefines junk on the UW-Madison Campus by finding new users for tons of formerly discarded property. Materials can include antiquated computers and office supplies to old construction materials.

MOTIVATION

SWAP’s mission is the design of new programs to expand the UW’s procurement of recycled products, reduction of waste at the source, reuse of unwanted materials, and recycling of non-traditional products.

STRATEGIES

The project concentrates on finding new customers for campus property of lower value than surplus property which has traditionally been sent to the landfill. The program differs from existing campus recycling programs that focus on the daily operations of traditional recycling.

ORIGINAL PROCESS:

Most university wastes and unsalable surplus was landfilled.

NEW PROCESS

This unique approach also provides one-on-one outreach and education for university buyers and decision-makers. Offices with unwanted are encouraged to call the SWAP Shop, which will pick up these materials free of charge. The program maintains an interactive World Wide Web site that lists its total inventory.

RESULTS

Waste Reduction

SWAP has redistributed in its first seven months more than 136,000 pounds of previously “unwanted” property to the UW campus and the public. While much of the material is reused or repaired, some has been broken down into high-grade salvage. These efforts have saved an estimated 60 percent of these reused materials from the landfill.

Economics

SWAP charges buyers the market rate for salvage, about 5 cents a pound.

Other SWAP services include an information campaign on environmentally sensitive purchasing (ESP), which helps UW-Madison buyers understand how they can save money and identify recycled or surplus supplies.

TECHNICAL ASSISTANCE

SWAP received a Wisconsin Department of Natural Resources matching grant in 1994 for its first year of operation. In 1996, the program merged with the University's surplus services to offer a comprehensive collection and redistribution program.

SOURCE REFERENCE

For more information on SWAP, call 608/262-9641 or 608/265-3417; or find its web site at <http://env.fpm.wisc.edu>.