

## 3.1.1 Common Operations: General Office

Tip Sheet #1

WASTE ORIGIN: **General Operations**

WASTE TYPES: Shipping/Packing Materials and Office Materials

### WASTE REDUCTION AND RECYCLING METHODS:

- ! **Office operations** can reduce or eliminate waste from the start:
  - ! Choose suppliers who provide **recyclable packaging and packaging** containing recycled content; reuse shipping/packing materials;
  - ! Improve purchasing and inventory management to **prevent overstocking supplies** that are not used within one month or have limited shelf life;
  - ! Remove company name from **direct-mail** lists;
  - ! Make double-sided copies, reduce **number of paper copies** of receipts, and use recycled copy and register papers;
  - ! Buy products or materials with **recycled content**; reuse materials that would have been disposed of after one use;
  - ! Save **polystyrene “peanuts”** to return to supplier for reuse or donate;
  - ! Shred non-recyclable **paper items for packing materials**;
  - ! Enclose a **note in packages** asking people to reuse packaging materials;
  - ! Encourage **all employees to get involved** in waste reduction programs. Use incentives to involve all staff, and encourage suggestions to improve programs.
- ! Make **recycling** easy for staff and office patrons:
  - ! Provide **separate bins for trash**, one for paper/cardboard, and one for mixed recyclables;
  - ! Create a **list of waste items**, laminate it, and hang it in clear view to tell people the destination of each item.
- ! Use a **recycling and source reduction program** that includes the following:
  - ! **Management must support** the program by allocating staff time and supporting ideas generated by employees;
  - ! **Select a lead person** to be the program manager with planning, implementing, and monitoring responsibility and authority;
  - ! **Involve employees** by encouraging ideas for waste and energy-reduction; support use of e-mail and suggestion boxes for ongoing communication;
  - ! Keep **employees involved**;
  - ! **Publicize attained goals**. Reward efforts by using promotions and incentives.
- ! Join with other businesses for **cooperative hauling** of trash and recyclables. Sharing trash and recycling bins and disposal costs saves money and fosters cooperation.
- ! **Donating usable wastes and recyclables** to community groups fosters goodwill, protects the environment, and is a positive marketing strategy:
  - ! Donate recycled aluminum cans to a **school’s environmental awareness program**. The money can go to teach students about the environment.

- ! Contact area or local recycling companies about **possible free pick up** of recyclables on a regular schedule.
- ! Work with **state, city, or county solid waste officials** to get contacts and ideas for reuse and recycling programs. These agencies can provide technical or financial aid in starting a program.
- ! Use the phonebook and **network with other businesses** to learn about their programs.
- ! Use your recycling and source reduction efforts as a **marketing tool**:
  - ! Local business or government agencies frequently recognize these efforts by sponsoring ***awards and recognition programs.***

**Sources:**

Fact Sheet: *Business Waste and Recycling: A Guide for the Workplace*, Wisconsin Department of Natural Resources, Waste Reduction and Recycling Program, Bureau of Solid and Hazardous Waste Management, June 1995, PUB-SW-128 95 Rev.

*Pollution Prevention: A Guide to Program Implementation*, Solid and Hazardous Waste Education Center, University of Wisconsin-Extension, July 1993.

Fact Sheet: *Waste Reduction Tips for the Office*, Inform, Inc., New York, NY.

Fact Sheet: *Popular Source Reduction Actions for Business*, Minnesota Office of Waste Management, October 1992.

### 3.1.1 Common Operations: General Offices

Tip Sheet #2

**WASTE ORIGIN:** General Operations

**WASTE TYPES:** Disposable Office Items, Durable Office Equipment (Photocopiers, Fax Machines, Computers, Typewriters, Coffee Makers, Light Bulbs, Furniture), and Toxic Office Materials

#### WASTE REDUCTION AND RECYCLING METHODS:

- ! When mailing or shipping, **switch from disposable**, one-time use materials, to reusables:
  - ! Ship your office's materials in **reusable/reused packaging**;
  - ! Encourage suppliers to ship material in **reusable containers**;
  - ! **Reuse envelopes** with metal clasps;
  - ! Use reusable envelopes for **interoffice mail**.
- ! Many **disposable lunchroom, breakroom, or cafeteria items** can become reusables:
  - ! Use **nondisposable tableware** like mugs, silverware, and plates;
  - ! Use **cloth towels** in kitchens and bathrooms;
  - ! Buy **reusable filters** for coffee machines;
  - ! Encourage employees to **reuse lunch bags**;
  - ! Consider purchasing a water cooler to **replace individual bottled water**.
- ! **Typical expendables** can become reusable:
  - ! Buy mechanical **pencils and refillable pens**;
  - ! Buy refillable **tape dispensers**;
  - ! Refill **laser cartridges** and re-ink typewriter ribbons;
  - ! Use **solar-powered** calculators and battery rechargers;
  - ! Use undated, erasable **wall calendars**.
- ! Extend the life of **durable office equipment**:
  - ! **Buy or lease durable and repairable equipment** such as photocopiers, fax machines, computers, typewriters, and coffee makers;
  - ! Consider length and coverage of **warranties and service contracts** when selecting products;
  - ! Give or sell outdated computer systems to a **computer reconditioning/repair business**;
  - ! Recondition or repair older office furniture or **donate it to local charitable groups**;
  - ! Buy **sturdy desk supplies**, such as bookends, file holders, and staplers;
  - ! Use longer lasting **light bulbs**;
  - ! Encourage the building manager to install **reusable air filters** in heating, ventilation, and air conditioning systems.
- ! **Purchase less toxic and nontoxic** alternatives to potentially harmful office materials:
  - ! **Replace aerosol spray** cans with reusable pump-spray bottles;
  - ! Buy cleaning **products with nontoxic content** in large reusable containers, or use homemade cleaners such as vinegar and baking soda;
  - ! Buy products with **less toxic ink and dye**;

- ! Purchase *unbleached paper* products;
- ! Use *low toxic correction fluid* or correction tape;
- ! **When redesigning an office**, use less toxic products:
  - ! Buy equipment that does not require *batteries that can leak* hazardous chemicals:
- ! **Other ways to reduce** office waste can include:
  - ! *Sharing newspapers and magazines* among departments or individual colleagues;
  - ! *Organizing swaps* of unnecessary items from home with co-workers;
  - ! *Donating* food, furniture, and other materials to local organizations like homeless shelters or charities;
  - ! *Sharing source-reduction ideas* among co-workers.
- ! Work with **city or county solid waste officials** to get contacts and ideas for reuse and recycling programs. Using the phonebook, talk with other businesses to learn about their programs.

**Sources:**

*Business Guide for Reducing Solid Waste*, U.S. EPA, Solid Waste and Emergency Response, September 1993, EPA/530-K-92-004.

Fact Sheet: *Waste Reduction Tips for the Office*, Inform, Inc., New York, NY.

Fact Sheet: *Popular Source Reduction Actions for Business*, Minnesota Office of Waste Management, October 1992.

*Waste Prevention Pays Off: Companies Cut Waste in the Workplace*, U.S. EPA, Solid Waste and Emergency Response, November 1993, EPA/530-K-92-005.

## 3.1.1 Common Operations: General Offices

Tip Sheet #3

**WASTE ORIGIN:** Light Bulbs and Lighting Fixtures

**WASTE TYPES:** Fluorescent, Incandescent and High-intensity Discharge Lamps, Chemicals (mercury, lead, and sometimes cadmium), Glass, Aluminum, and Ballasts (PCBs)

**WASTE REDUCTION AND RECYCLING METHODS:**

- ! **Convert overhead four-bulb** fluorescent fixtures to high-efficiency two-bulb fixtures:
- ! Change to **fluorescent exit sign** bulbs:
  - ! One fluorescent exit sign bulb *outlives six-eight incandescent bulbs*, creates less waste, requires less maintenance, uses 25 percent less electricity, and produces the same amount of light.
- ! Consider using **compact fluorescent table and flood lights**; be sure these units allow the bulb to be replaced separately from the ballast.
- ! **Disposing of lamps requires special handling** to prevent heavy metal discharge into the environment. These types of lamps include:
  - ! **Tube-style and compact globe** shaped fluorescent lamps;
  - ! Many different types of **high-intensity discharge (HID)** lamps, such as:
    - ! *Mercury vapor lamps* producing a blue-white light and often used outside;
    - ! *High-pressure sodium-vapor* lamps which produce a white-yellow light are generally used for street lighting, parking lot lighting, and outdoor security lighting;
    - ! *Low-pressure sodium vapor* lamps emit orange light and are used mainly in commercial settings;
    - ! *Metal halide* lamps are newer, more efficient HID lights found in homes and businesses.
- ! **Businesses that do not recycle their waste lamps** may have to obtain storage, transport and other licenses or approvals from state solid and hazardous waste regulators:
  - ! Contact state, county, local, or city solid and hazardous waste management agencies for current **regulatory requirements** or information on area lamp recycling businesses.
- ! Safe, **on-site lamp collection** and disposal methods include:
  - ! Place waste lamp in **original box or in special cartons** provided by the lamp recycler;
  - ! **Designate a safe, well-marked location** to store waste lamps to avoid breakage or accidental mixing with other wastes;
  - ! Separate and put **broken lamps** in a heavy plastic bag inside a rigid container and handle as a hazardous waste;
  - ! Do not place broken fluorescents in **metal receptacles**. Metal boxes will absorb mercury and will also become hazardous wastes
- ! The U.S. Environmental Protection Agency sponsors a “**Green Lights Program,**” which provides free regulatory and contractor information on lamp and ballast waste disposal if a business is considering a lighting system upgrade (contact the nearest EPA regional office).

**Sources:**

Briefing Paper: *How to Handle Your Waste Fluorescent Lamps and Incandescent Bulbs*, Wisconsin Department of Natural Resources, Bureau of Solid & Hazardous Waste Management, Hazardous Waste Management Section, 1994, Publ. SW 195-94

Fact Sheet: *What to do with Used Fluorescent and High-intensity Discharge Lamps*, Minnesota Pollution Control Agency, January 1993.

Report: *Lighting Upgrade Waste Disposal*, U.S. EPA, Green Lights Program Lighting Upgrade Manual, February 1992.

## 3.1.1 Common Operations: General Offices

### Tip Sheet #4

**WASTE ORIGIN:** Paper Use

**WASTE TYPES:** Photocopy, Laser Printer, Fax, and Memo Paper, File Folders, Paper Towels, Envelopes, and Calendars

#### WASTE REDUCTION AND RECYCLING METHODS:

- ! Eliminate **unnecessary copies**, notes, and memos by:
  - ! Posting office announcements in central locations on **bulletin boards**;
  - ! Sharing and **circulating** documents;
  - ! Setting up **central filing systems**;
  - ! Reformatting **faxes** to omit cover sheets;
  - ! Editing on the computer **before printing**;
  - ! Storing files on **computer disks**;
  - ! Using **small pieces of paper** for short memos.
- ! Use all paper on **two sides**; whenever possible, by:
  - ! Increasing **two-sided copying**;
  - ! Printing rough drafts and informal memos on the **unused side of draft paper**;
  - ! Loading laser printer paper trays with **draft paper**;
  - ! Reusing draft and computer paper for **notes and scrap paper**.
- ! **Further reduce** paper by:
  - ! **Single space** documents, where possible;
  - ! Setting **margins narrower** for drafts;
  - ! Changing margins to **avoid pages with little text**;
  - ! Using a **smaller type** size;
  - ! Refolding and **reusing file folders**;
  - ! Using **two-way envelopes** if regular correspondence occurs with other facilities;
  - ! Targeting specific audiences for **direct mail** to reduce contributions to direct-mail;
  - ! Avoiding **duplication** on mailing lists.
- ! Encourage **office managers** to buy:
  - ! **Laser printers** that can make double-sided copies;
  - ! A program that allows **faxing from a computer** to avoid print outs;
  - ! Fax machines that use **plain paper**;
  - ! **Narrow-lined** note pads;
  - ! Electronic mail (**e-mail**) systems;
  - ! **Photocopy machines** that are set for two-sided copying (adapt existing machine);
  - ! **Reusable calendars** that are hard-surfaced, perpetual calendars can be wiped clean and reused year after year (used with water-based markers);
  - ! Changing to modern **cotton towel dispensers** in place of paper towels.

**Sources:**

Fact Sheet: *Waste Reduction Tips for the Office*, Inform, Inc., New York, NY.

Fact Sheet: *Popular Source Reduction Actions for Business*, Minnesota Office of Waste Management, October 1992.

### **3.1.1 Common Operations: General Offices**

*Tip Sheet #5*

**WASTE ORIGIN:** **Recyclable Materials**

**WASTE TYPES:** Shipping/Packing Materials, Office Papers, and Food and Drink Containers

**WASTE REDUCTION AND RECYCLING METHODS:**

- ! **Office operations** can reduce or eliminate waste from the start:
  - ! Choose suppliers who provide **recyclable packaging and packaging** that contains recycled content; reuse shipping/packing materials;
  - ! Improve purchasing and inventory management to **prevent overstocking** supplies that aren't needed or have limited shelf life;
  - ! Remove company name from **direct-mail lists**;
  - ! Make **double-sided copies**, reduce number of paper copies of receipts, use recycled copy and register papers;
  - ! Buy products or materials with **recycled content**; reuse materials that would have been tossed after one use;
  - ! Buy in **bulk quantities** when appropriate;
  - ! Encourage managers and staff to get **involved in waste reduction programs**; use incentives to involve employees and encourage suggestions to improve programs.
- ! Make **recycling** easy for staff and office patrons:
  - ! Provide **separate bins for trash**, one for paper/cardboard, and one for mixed recyclables:
    - ! *Create a list of waste items*, laminate it, and hang it in clear view to tell staff or patrons the exact destination of every item.
- ! Implement a **recycling and source reduction program** that includes the following key features:
  - ! Management must **support the program** by allocating staff time and supporting ideas generated by employees;
    - ! **Select a lead person** to manage the program; duties could include planning, implementing, and monitoring the program;
    - ! **Involve the employees** by encouraging ideas for waste and energy reduction; support use of e-mail and suggestion boxes for ongoing communication;
    - ! **Keep employees involved**;
    - ! **Publicize attained goals**, reward these efforts; use promotions and incentives.
- ! Join forces with business neighbors to **create cooperative hauling** of trash and recyclables. Sharing the same trash and recycling bins and disposal service saves everybody money and promotes cooperation.
- ! **Donating usable wastes and recyclables** to community groups to foster goodwill, protect the environment, and to create a positive marketing strategy:
  - ! Donate recycled aluminum cans to a **school's environmental awareness program**. The money can go toward teaching students about the environment.

- ! Contact area or local recycling companies about **possible free pick up** of collected recyclables on a regular schedule.
- ! Work with **state, city, or county solid waste officials** to get contacts and ideas for reuse and recycling programs. These agencies can provide technical or financial assistance.
- ! Use the phone book and **network with other businesses** to learn about their programs.
- ! Use your recycling and source reduction efforts as a **marketing tool**:
  - ! Local business or government agencies frequently recognize these efforts by sponsoring ***awards and recognition programs.***

**Sources:**

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*Waste Prevention Pays Off: Companies Cut Waste in the Workplace*, U.S. EPA, Solid Waste and Emergency Response, November 1993, EPA/530-K-92-005.