

Environmental Best Management Practices for Small Businesses

Introduction

An environmental best management practice (BMP) is an action or combination of actions implemented to reduce the environmental impacts of business operations. There are two types of pollution prevention: source reduction and recycling. Source reduction reduces or eliminates the generation of waste. Recycling takes used materials, modifies their form, and makes them available for future reuse. The BMPs provided in the fact sheets listed below are a combination of source reduction and recycling strategies, which provide economic as well as environmental and safety benefits.

Each BMP fact sheet focuses on a particular sector, and draws information from several sources, which are listed in the endnotes section of each fact sheet. The BMPs listed in each fact sheet may be used as a guide for your business. Depending on your business' individual needs and technical and financial capacities, the BMPs may require modification. When adapting a BMP to your business, it may be necessary to contact your local regulatory agency to determine permit requirements. It is important to note that the BMPs listed in these fact sheets are intended as a starting point for your business' environmental management plan, and are not all-inclusive. Further information is available through links at the end of each fact sheet. For additional information about regional specific BMPs, or BMPs not covered in these fact sheets, contact your local authorities and regulating agencies. It is not expected that each BMP will work in all situations; each small business must factor in their own needs, resources, and capacities to find the ones that work best for them.

The fact sheets are intended to work in conjunction with the Environmental Protection Agency's *Practical Guide to Environmental Management for Small Business* and its companion book, *Documenting Your Environmental Management Plan*. For copies of these guides, please refer to the links provided on this website.

Each fact sheet is divided into five sections:

- 1) **Sector Introduction:** Provides basic background information on environmental impacts associated with the sector.
- 2) **Best Management Practices:** Divided into two or more subsections. Each subsection consists of a paragraph describing a particular environmental impact, followed by a list of BMPs which address the problem.
- 3) **Investments in Technology:** Supplies additional information on technologies mentioned in the BMPs or provides information on new technologies to consider when making your choice of BMPs to use. Information about returns on investment is provided where possible, but the true payback period will vary greatly, dependent upon your situation. To determine if a particular technology is right for your operations contact a local vendor for more information.
- 4) **Case Study:** Demonstrates the effectiveness of a BMP used in a business.
- 5) **Other Sources:** Provides links to BMP information listed in the fact sheet. Also provides additional resources available to small businesses.



Best Management Practice

Retail Store

Sector Introduction

The retail industry's goals are to bring consumer goods to market in a profitable manner. These goals can go hand-in-hand with pollution prevention. Many consumers prefer businesses that operate in an environmentally friendly manner, and Best Management Practices (BMPs) can help differentiate your business from your competitors. Your business can save money by reducing costs of disposal and reducing the amount of raw materials purchased. In addition, your business can promote itself publicly as an environmentally friendly enterprise.

The BMPs listed in this fact sheet are a starting point for your business. Additional suggestions for a wider range of activities can be found using the links in the "Other Sources" section.

Best Management Practices

Retail Space

Retail space must appeal to consumers. To do so, it should be clean, well lit, and maintain a comfortable temperature. Chemicals used to clean the store are potentially hazardous. Lighting and climate control use large amounts of energy. The use of energy not only contributes to pollution, but it is also a significant expense.

- Investigate cleaning products that are less toxic, such as citrus based products. This will reduce the amount of indoor air pollution, and reduce employees' exposure to harmful chemicals. Along with using less toxic cleaning chemicals, try to reduce the number of different types of cleaning chemicals used. Look for multipurpose cleaners to perform several different jobs and reduce costs.³
- Switch to more efficient lighting to reduce energy use and save money on energy costs. Consider using compact fluorescents in light fixtures. The light bulbs may be slightly more expensive, but they use less energy and last longer. Compact fluorescents will pay for themselves in the long run. They also give off less heat, reducing costs for air conditioning.⁷
- Make sure that fluorescent lighting has low mercury content. Some fluorescents contain mercury, and should be disposed of as hazardous waste or recycled through a licensed recycler. Low mercury content fluorescent lighting is not considered hazardous waste. There are also fluorescent lights that have the same amount of mercury as regular tubes but have an extra chemical added to prevent mercury from being released into the environment. However, even though low mercury content fluorescent lights are not considered hazardous waste, they should still be

recycled if possible. Contact your state to determine applicable hazardous waste regulations for disposal of fluorescent lighting.⁷

- Install a programmable thermostat. Your store does not need to be cooled and heated as much during non-business hours. A programmable thermostat will automatically reduce the energy used during the hours your business is closed.³

Shipping

Shipping products to and from the store involves high use of resources. Packaging material can be a large source of waste. Often, materials are packaged in a cardboard box with packing material such as Styrofoam peanuts, and/or on pallets. These materials take labor hours to break down and increase disposal service costs.

- Investigate the possibilities of using reusable/returnable containers for shipping materials from vendors. This will reduce the amount of waste disposal for your store and the associated costs.⁶
- Recycle the cardboard boxes you receive if your store cannot use reusable/returnable containers. If you ship merchandise out to customers, reuse boxes that the merchandise came in. Cardboard boxes can also be sent to a recycler.⁴



Investments in Technology

- Retrofit your store's lighting with T8 fixtures instead of T12 fixtures. T8 fixtures are more energy efficient. Talk with your local electric company to see if they provide a rebate or financial assistance for retrofitting your store. Switching to T8 fixtures benefits both you and the electric company.³
- Invest in systems that will pre-measure and dispense the appropriate concentration of cleaning supplies. This will reduce the amount of cleaner wasted, because only the amount needed will be dispensed. Many of these systems use "multi-purpose" cleaners, reducing the number of different kinds of chemicals needed.⁸
- Upgrade or replace equipment, such as heating and cooling systems, to Energy Star® approved appliances or partner with the Energy Star® program to improve your energy performance.⁷

CASE STUDY Ashland Flower Shop

- Installed efficient electronic ballasts for fluorescent lights.
- Installed an occupancy sensor to turn lights off when room is not in use.
- Installed an ultra low flow toilet.
- Installed a new hot water heater. The new water heater significantly reduces the amount of time waiting for hot water at the faucet, and saves water.

FINANCIAL SAVINGS: \$400/year (all activities).

Source: The Oregon Department of Environmental Quality, <http://www.p2pays.org/ref/20/19966.htm>

Other Sources of Information

- ¹ University of Wisconsin-Extension Madison, Wisconsin, *Small Business Waste Reduction Guide*, <http://www.uwex.edu/ces/ag/sus/sbdc/>
- ² Ohio Environmental Protection Agency, *Pollution Prevention for Retail Facilities*, www.epa.state.oh.us/opp/retail_p2.html
- ³ Minnesota Office of Environmental Assistance, *Retail Hardware Best Practices for Waste Management*, <http://www.moea.state.mn.us/berc/hardware.cfm>
- ⁴ U.S. EPA Waste Wise, *Retail and Direct Sales Industry*, <http://www.epa.gov/wastewise/pubs/retlfact.pdf>
- ⁵ Public Works Department, Santa Cruz, California, *Retail and Commercial Businesses Best Management Practices*, <http://www.ci.santa-cruz.ca.us/pw/environmental/RetailCommercialBMPs.pdf>
- ⁶ Connecticut Department of Environmental Protection, *Pollution Prevention Options for Industry*, <http://dep.state.ct.us/wst/p2/industry/p2options.pdf>
- ⁷ U.S. EPA Energy Star®, *FACT SHEET: Mercury in Compact Fluorescent Lamps*, http://www.energystar.gov/ia/products/lighting/buyers_guide/Mercury.pdf
- ⁸ New York State Department of Environmental Conservation Pollution Prevention Unit, *Environmental Self-Assessment for Health Care Facilities, General Housekeeping Recommendations*, <http://www.dec.state.ny.us/website/ppu/esahcf.pdf>