

Pollution Prevention (P2) for Grocery and Convenience Stores

Grocery stores play a significant role in the state's economy and the local community which they serve. While providing products ranging from foods to home essentials to pharmaceuticals, grocery stores can practice source reduction and employ P2 activities as they grow sustainably.



Reducing Hazardous Waste

Know the regulations! Items such as detergents, sprays, hair dyes and soaps may need to be managed as a hazardous waste when discarded and not be disposed of in the trash.¹ Refer to Title 40 of the Codes of Federal Regulations Chapters 239-273 or the EPA guide to managing hazardous waste for small businesses.²

The following tips can help you reduce pollution and properly manage hazardous waste:

- Identify which products must be managed as a hazardous waste and do not dispose of those items in the trash or drain.
- Use unsalable items in-store such as pouring hand soap from damaged bottles into a reusable soap pump container that can be used by store employees in restrooms.
- Find a secondary market for good unused items such as trade colleges that can purchase items like paints, sprays or hair products at a lower cost.

- Maintain a detailed inventory program to track the expiration dates of items that have the potential to become a hazardous waste and ensure to use items with the closest expiration date first; First-In, First Out.
- Dispose of mercury containing lamps and batteries as universal waste and not hazardous waste to promote recycling and reduce hazardous waste volumes.^{3,4}

Nicotine Cessation Products and Pharmaceutical Waste

Unused nicotine patches and some pharmaceutical wastes fall under hazardous waste regulations and must be properly managed. To help reduce hazardous waste, contact your supplier of nicotine patches and pharmaceuticals to discuss a program to return unused products. Avoid the expiration of nicotine patches and pharmaceuticals by maintaining a detailed inventory system.

Energy Conservation

Grocery and convenience stores can start with an energy audit, often provided by

the utility company, to find out how their energy is used and first steps to reduce energy use. Stores can reduce their energy by purchasing energy-efficient refrigeration units as well as performing maintenance on existing units. Improvements in lighting are also helpful, including upgrades to existing lighting fixtures and replacing lights containing mercury with light-emitting diodes (LEDs) as well as motion sensors and night-time lighting controls. Maintain heating and cooling systems by changing air filters regularly and sealing, heating, and cooling ducts. Look into joining the group of stores in Arizona that have obtained Energy Star certification for their efforts in energy efficiency.⁵

If store's contain delis or kitchens for preparing food, see Food Service Technology Center's collection of "Green Sheets" with tips and information on saving energy and water in food service kitchens.⁶

See Energy Star's *Supermarkets and Grocery Stores* to learn about energy efficiency and conservation with lighting,

air distribution systems as well as heating and cooling.⁷ More information about profiling your store's energy use, tips to save energy and money and additional useful links can be found in Energy Star's Energy Tips for Small Business: Grocery and Convenience Stores.⁸

Green Chill Program

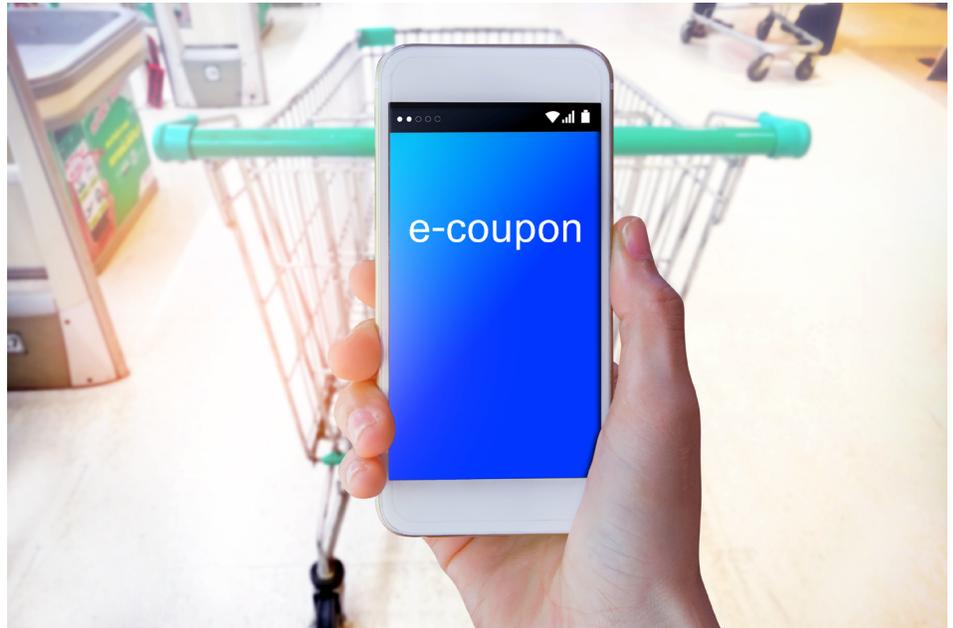
EPA's Green Chill program builds partnerships with retailers to reduce refrigerant emission and decrease their impact on the ozone layer.⁹ The Green Chill program helps retailers:

- Consider refrigerants that are environmentally friendlier.
- Eliminate leaks and charge sizes of refrigerants.
- Adopt green refrigeration technologies and best environmental practices.

Food Waste Reduction

As grocery and convenience stores deal with high volumes of foods, wasted food is routinely generated. Several steps can be taken to curb the amount of waste sent to the landfill including:¹⁰

- Implementing an inventory program to keep expired inventory waste to a minimum. Also, work with suppliers to make sure quality and expiration dates are labeled appropriately. If quality dates have passed but safety dates have not, consider using the food in a deli or prepared food section for day of sale.
- Donating safe, edible food that can be consumed by people and animals is a great way to divert food from the landfill. Consult with your local organizations including cities (such as senior centers), schools (public and private) and local farms to identify outlets to donate excess food that can still be consumed prior to discarding.
- Fats, oil, and grease (FOG), if used in on site kitchens, should not be disposed of in landfills or sewer systems. Send FOG off-site to be converted to new products or used in wastewater treatment plants to generate biogas.



- Composting by grocery and convenience stores greatly reduces the amount of waste going into landfills. Composting produces a soil that provides nutrients to gardens and it is environmentally responsible. Many resources exist in order to begin a composting program at your store.¹¹ If you would like to find a composter near you, checkout BioCycle's Find a Composter.¹²

Find additional tips in the Food Waste Reduction Alliance Best Practices & Emerging Solutions Guide.¹³

Reducing Overall Solid Waste

There are several ways to consider reducing solid waste at your store. For example, reconsider the number of circulars displayed at the store. Instead, perhaps offer a link to view the circular online and collect used circulars at the register, or set up a container to collect used or old circulars to reuse or recycle, rather than disposing of them.

In order to reduce paper waste, stores may offer digital coupons, receipts that are printed double-sided and consider asking customers if they would like a printed or digital receipt. Recycle common items such as cardboard, plastics, glass, aluminum and newspapers when possible. Find out if your city has bulk containers or a collection center in which those items can be taken for recycling.

Water Conservation

The impact of water used at grocery stores can be reduced through the following activities:

- Retrofitting or adding aerators on faucets in restrooms, deli and bakery areas and kitchens.¹⁴
- Using water brooms instead of hoses with nozzles when cleaning deli and kitchen floors.
- Upgrading bathroom equipment such as toilets and urinals to water efficient ones bearing the WaterSense label.¹⁵
- Maintaining and retrofitting cooling towers on a regular basis and seeking expert advice to increase water saving.¹⁶

References

- ¹ [EPA. Hazardous Waste.](#)
- ² [EPA. Managing Your Hazardous Waste: Guide for Small Businesses.](#)
- ³ [EPA. Universal Waste.](#)
- ⁴ [ADEQ. Managing Universal Waste Lamps for Businesses. March 2014.](#)
- ⁵ [Food Service Technology Center. Green Sheets.](#)
- ⁶ [Energy Star Certification.](#)
- ⁷ [Energy Star. Supermarkets and Grocery Stores.](#)
- ⁸ [Energy Star. Energy Savings Tips for Small Businesses: Grocery and Convenience Stores.](#)
- ⁹ [EPA. About Green Chill.](#)
- ¹⁰ [EPA. Sustainable Management of Food.](#)
- ¹¹ [University of Arizona. Cooperative Extension. Composting Resources.](#)
- ¹² [BioCycle. Find a Composter.](#)
- ¹³ [Food Waste Reduction Alliance. Best Practices & Emerging Solutions Guide.](#)
- ¹⁴ [Alliance for Water Efficiency. Supermarket Introduction.](#)
- ¹⁵ [EPA. WaterSense Products.](#)
- ¹⁶ [Office of Energy Efficiency & Renewable Energy. Best Management Practice #10: Cooling Tower Management.](#)

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