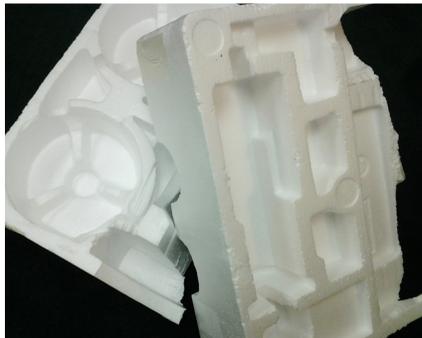




Zero Waste to Landfill Guide

*Eliminating Waste While Making It
a Resource for Others*



This publication is a resource from the S.C. Smart Business Recycling Program and is provided by the S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling.

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www.scdhec.gov/smartbusiness

What is Zero Waste?

While there are many definitions, the internationally accepted definition as adopted by the Zero Waste International Alliance on August 12, 2009 is as follows:

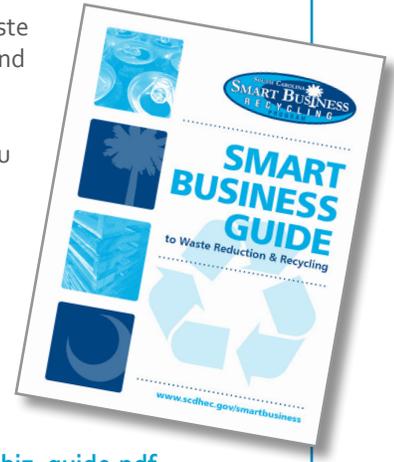
"Zero Waste is a goal ... to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use."

Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them.

Implementing Zero Waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health."

Most businesses see zero waste as eliminating the need to send any material to the landfill. If you are considering a zero waste to landfill program, you most likely already have a recycling program in place.

If you do not, refer to the "Smart Business Guide to Waste Reduction & Recycling" at www.scdhec.gov/HomeAndEnvironment/docs/SmartBusRecy/smart_biz_guide.pdf for information on how to start a recycling program. If you already have a program in place, you are ready to take it to the next level.



Things You Can Do ...

Dumpster Dive

When you embark on a zero waste journey, it is a good idea to conduct a waste audit or dumpster dive. During a waste audit, you gather a day's or week's worth of waste and separate it into categories. This will help you determine your waste streams and where to start your efforts.

See the Smart Business Recycling Waste Audit Tip Sheet at www.scdhec.gov/HomeAndEnvironment/docs/SmartBusRecy/its_waste_audit.pdf for more information.

Reusable Packaging

A lot of the waste going to landfills is packaging (e.g., cardboard boxes, plastic strapping, stretch wrap, plastic bags, Styrofoam, etc.). While many packaging materials such as cardboard boxes are recyclable, it is always better to reduce material generated. One way of doing this is to use reusable or returnable packaging.

Reusable packaging can be implemented in several ways. You can work with your customers to accept reusable



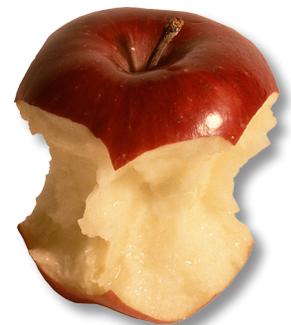
packaging and with vendors to determine whether they can use returnable packaging. You probably will need to work with your procurement area to handle the logistics.

There also are companies that will work as a middle man for your reusable packaging. Your customer or vendor can send the used packaging to this company and they will clean and prepare it for reuse.

Organics

Determining what to do with food scraps is difficult. If you produce compost, you can use it on-site without the need for a permit. There are many ways to compost such as in-vessel composting, traditional windrow composting and vermicomposting. More information is available at www.scdhec.gov/compost.

You also can send your food scraps to a composting facility. Check with your local government solid waste department or with DHEC to see what composting options may be available in your area.



Food composting regulations were posted in the State Register June 27, 2014 and, now that the rules are in place, more composting companies should be coming to the state. Visit www.scdhec.gov/Agency/docs/lwm-regs/R61-107_4.pdf to view the regulations on composting.

If you have a cafeteria or food vendors on-site, consider donating food that is still edible to local food charities.

Partner with Businesses in the Area

Many businesses have recyclable material but do not have enough for a recycling company to accept it. This material is usually packaging.

If you would like to recycle this material, it is a good idea to work with the businesses in your area to see if you can combine material so a recycler will be able to accept it. This could be done by putting the material in the same area of

Cardboard is a good material for businesses to combine for recycling.



an office park, having one business collect the material, or working with a recycler to service each facility on the same day.

Process By-products

Many companies often have a process by-product that seemingly cannot be recycled or reused. There are a few options for these materials. One is to determine if the material can be run back through the process. Another option is to contact the raw material manufacturer to see if they can use the material.

You also can list the by-product on the S.C. Materials Exchange (SCME) at www.scdhec.gov/scme. SCME is a "matchmaking" service that provides information on materials available or wanted and can help you find an outlet for a process specific material.

Finally, if the by-product has fuel value, a fuel blender can use it to make fuel for boilers or cement kilns. Fuel blenders can be found in the "Green Resource Index." Visit www.scdhec.gov/recycle to view the Index.

Continued on the back

Success Story: Fruit of the Loom

Fruit of the Loom's Palmetto Distribution Center has emerged as a recycling leader in South Carolina. Having reached the status of 100 percent landfill free in 2012, the facility recycled about 1.7 million pounds of material. Additionally, the facility has been able to generate more than \$60,000 from the sale of recyclables.

Fruit of the Loom is not only recycling, but also sending cardboard to its manufacturing facilities and retail establishments for reuse. During 2012, the company reused 208,000 pounds of cardboard.

In order to maintain the recycling program, Fruit of the Loom has established a "Recycling Orientation" program that is required for all employees. The company also posts monthly recycling reminders on televisions in the facility, conducts weekly housekeeping inspections

for each department and encourages employees to recycle at home.



Pictured above are a variety of collection containers used in Fruit of the Loom's recycling program.

Online Resources

- Composting
www.scdhec.gov/compost
- DHEC's Office of Solid Waste Reduction and Recycling
www.scdhec.gov/recycle
- Green Resource Index
www.scdhec.gov/recycle
- S.C. Materials Exchange
www.scdhec.gov/scme
- S.C. Green Hospitality Program
www.scdhec.gov/HomeandEnvironment/BusinessesandCommunities-GoGreen/HospitalityIndustryGoGreen/
- S.C. Smart Business Recycling Program
www.scdhec.gov/smartbusiness
- S.C. Smart Business Guide to Waste Reduction & Recycling
www.scdhec.gov/HomeAndEnvironment/docs/SmartBusRecy/smart_biz_guide.pdf
- Smart Gardener Handbook
www.scdhec.gov/HomeAndEnvironment/Docs/sb_handbook_all.pdf
- Waste Audit Tip Sheet
www.scdhec.gov/HomeAndEnvironment/docs/SmartBusRecy/ts_waste_audit.pdf



You Can Do It ...

The following is a list of some companies – in addition to Fruit of the Loom and Honda (highlighted below) – that have gone zero waste to landfill in South Carolina.

- AFCO
- Akebono
- Boeing
- Bridgestone Firestone
- Eaton Hydraulics Corporation
- Freightliner Custom Chassis
- Glen Raven
- International Automotive Components Group
- Owens Corning
- Meritor
- Milliken & Company
- Sealed Air Corporation
- Shaw Fiber Extrusion

Success Story: Honda of South Carolina

In July 2010, Honda of South Carolina Manufacturing, Inc. (Honda), an ATV manufacturer, achieved zero waste to landfill status.

Honda recycles plastic and all plastic products, cardboard, all metal, some rubber products, all paper and paper products and magazines. Through these recycling efforts, Honda was able to generate revenue of more than \$60,000 in 2013.

In addition to recycling, Honda sends material such as filter cake and waste die-cast sand for fuel blending. This reduction in material going to the landfill has helped Honda decrease waste disposal costs by more than \$2,000 per year. Honda also is helping close the recycling loop by ensuring all parts that are used in the facility are shipped in recycled-content boxes.

Providing incentives to employees helps companies encourage zero waste efforts. Honda is using part of the money that is generated from the recycling

program for employee bonuses. In addition to the facility's sustainability efforts, Honda is helping the environmental quality of the community by working with the Keep Florence Beautiful and Adopt-A-Highway programs.



Honda of South Carolina uses the machinery above to reduce the amount of Styrofoam going to a landfill. Pictured on the far left is densified Styrofoam that is recycled.