

Purchasing and Supply Chain Challenges *Accepting the Zero Waste-to-Landfill Challenge*

Understanding your upstream supply chain is an important component of achieving the challenge of being Zero Waste-to-Landfill, or ZWTL. Whether your organization is in the service, government or manufacturing sector, there are raw materials, supplies, or even packets of information that enter your facility that may generate waste. The decision to send this waste to the landfill, reuse it, or divert the material back into the economy by recycling may or may not be easily within reach. Having conversations or surveying suppliers, vendors, and contractors can be a great way to address your incoming material stream in addition to improving your organization's environmental performance. Companies may also find opportunities for reduction of single-use external purchases through internal reuse, choosing more durable or recyclable packaging, or other means of reconfiguring material handling.

Many Fortune 500 companies are using significant resources to build a more resilient supply chain. By doing so, they are experiencing substantial financial and environmental savings. Below are a few tips for getting started.

Assemble a Team

Creating a diverse, motivated and productive team is the foundation for providing the opportunity for innovative solutions. Like the Getting Started BMP, it is recommended that a group of individuals from a broad slice of the organization be gathered for the task of driving waste from the supply chain. It is vital that this group include an individual from the purchasing department, as well as shipping and receiving. This group could include players from major vendors or suppliers as well. Cooperation with outside suppliers takes clear communication on your program's goals and support from all levels of the organization.

Supplier Audit

One tool that can be used to gauge the ability or willingness of a supplier to assist or challenge your journey to ZWTL is a supplier audit. Just ask Wal-Mart and their many vendors.

Internal Reuse and Reduction Examples

- A major fiber-optic manufacturing facility recently completed a project to reduce the volume of used process oil that was sent to be recycled. Instead of sending this product out, the Environmental Health and Safety staff installed two units that capture and recycle this oil, which is then injected back into the production process. Since the facility is now recycling this oil "in-house," there is also less demand to purchase replacement supply. This project also contributes to a reduction in 3 tons of waste oil per year that the manufacturer would need to collect with a multitude of capturing techniques.



- A pork processor has been able to show a reduction of 30-40 tons a year of cardboard boxes by switching to reusable plastic Gaylord boxes to transport in-process product, as well as product between sister facilities. This switch also allowed for increased organization by having the Gaylord's color coded, reducing contamination of product.
- Wood waste and pallets comprise a large percentage of waste within the automotive industry. One bus manufacturer in North Carolina worked with its supplier to create a custom-made returnable crate used to ship windshields. This metal crate had a nine month payback after implementation due to a reduction in wood waste disposal. The switch actually reduces windshield breakage by ten percent, and increases the number of windshields per crate, which adds extra savings to the financial bottom line.
- A handful of facilities have collaborated with their lubricant and cleaning product suppliers to replace aerosol products with spray bottles. Not only does this reduce the compliance procedures associated with handling aerosol cans as universal or hazardous waste, but it can also reduce unnecessary purchases of new products since it is easier to see the content remaining in the spray bottles versus the solid metal aerosol cans.

The Ripple Effect of Purchasing Changes

From the project and system improvements mentioned above there are cascading direct and indirect effects of looking up and down the supply chain for identification of waste reduction efforts. When the fiber optic manufacturer installed the waste process oil capture and recycling system, the staff noticed there was a reduction in oil on various surrounding surfaces, and thus less need for cleaning. Less cleaning resulted in less water use, as well as a reduction in the purchase, use and disposal of cleaning products.

The journey to a ZWTL operation is rarely achieved alone and rarely has a single impact. Besides having a solid "green team," your suppliers and vendors can be a great ally in directing the incoming materials into your organization to be more reusable, recyclable, or made with more recycled content. By spending a little more time and energy up front on your supply chain, the type and amount of waste that leaves can be significantly reduced, recycled or repurposed. This will create a ripple of positive impact throughout your organization.

For assistance in looking for solid waste reduction opportunities within your supply chain, please [contact staff in the state Division of Environmental Assistance and Customer Service](#) at: <http://portal.ncdenr.org/web/deao/contacts>.