

CASE STUDY



CHALLENGE

Materials management initiatives have become mainstream, but need support from front line employees to be successful. They're the ones at the copy machine and in the breakroom where materials can end up in the trash can without much thought. In the average workplace, about 80 to 90 percent of solid waste is recyclable, according to the EPA.

SOLUTION

Upper management needs to oversee the processes and resources for materials management, especially when it involves employee behavior change. Communication, continuous training, and recognition are key components to a successful program.



Overview

J.A. Woollam Company manufactures and sells spectroscopic ellipsometers for non-destructive materials characterization. The J.A. Woollam Company was founded in 1987 by Professor John A. Woollam. Starting as a spin-off from the University of Nebraska, the J.A. Woollam Company has rapidly grown to become a worldwide leader in spectroscopic ellipsometry. They have been perfecting their technology for over 30 years and have secured over 180 ellipsometry-related patents.

The company employs more than 50 people, the majority of whom are engineers and scientists dedicated to the advancement of ellipsometry. They recycle paper, plastic, glass, cardboard, cans, aluminum and steel. Their reuse program includes wooden pallets, packing materials and peanuts.

Waste Reduction Program Results

Waste diversion rate: 72%

Key Program Elements

Benchmarking & Establishing Goals

J.A. Woollam Company has been dedicated to reducing their environmental footprint for many years. Their paper consumption was reduced 75% by the use of new software. All of the lighting was changed to energy saving LEDs. Building employee awareness, monitoring, and rewarding have been the key components to their successful reduce, reuse and recycling program.

The recycling and trash bins are monitored daily for contamination and employee education opportunities. This inspires creative thinking for the materials that are not being recycled, and either finding solutions, or eliminating those materials altogether.

The money earned from aluminum and cables recycling is used to host recycling parties for the staff to reward their hard work and efforts. The staff fre-

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LESSONS LEARNED

- Placing recycling bins next to trash bins and slowly removing stand-alone trash bins has encouraged employees to recycle more.
- When hiring new employees, make sure they are aware of your expectations.
- Simply thanking employees encourages recycling.
- Encourage questions from staff, and ask your recycling provider when you're not sure if a material can be recycled.
- Negotiate with your recycling provider to add new materials that can be collected.
- You can always reduce more, reuse more and recycle more.
- Donating unneeded office items is rewarding.
- Keep politics out of the office recycling program.
- Communicating your expectations to the custodial service is essential.



J.A. Woollam Co., Cathy Rustermier
crustermier@jawaollam.com
(402) 477-7501

Implementation

A Step-by-step Approach to Implementing an Office Recycling Program

1. *Find out what's in your trash*—Visit all areas of your building and make a list of recyclables, organics and landfill items generated. Look for ways your office could reduce inputs or reuse materials.
2. *Organize your collection procedures*—Your goal is to make it as easy as possible for employees to participate and recycle correctly. Consider who will make sure the right items end up in the recycling container and out of the landfill? How will this be monitored? Is a custodial service involved? Who will be in charge of training?
3. *Determine indoor container and labeling needs*—Inventory your current containers and evaluate their usefulness. Every landfill container should have a recycling container next to it and each container should be labeled. Color-coded containers work best, making it easier for participants to quickly identify the right bin for their discards. The most effective labels have photo-images of acceptable materials, and are color-coded (blue=recycle, black=landfill, green=organics).
4. *Purchase labels and containers*—Purchase the appropriate containers and labels for the newly created program. Labels for the outdoor containers should be purchased, too. Recycle Across America labels (www.recycleacrossamerica.org) are endorsed by the Nebraska Recycling Council.
5. *Take your program for a test drive*—Pilot your program on a limited scale, such as one floor or department. This will allow you to identify any elements that aren't working and make adjustments before rolling out the program company-wide.
6. *Educate and motivate employees*—Regularly educate staff to share how your system works and answer any questions. Make recycling part of all new staff training.
7. *Evaluate your program*—You can't manage what you don't measure! Data is vital for promoting and adjusting your program. Work with all stakeholders, including haulers, to obtain diversion weights/volumes, to solve contamination issues, expand your program, and generate new ideas.

Training

J.A. Woollam Company has a “catalyst” in each department who monitors the trash and recycling bins and communicates with staff when contamination occurs. Frequent email reminders are used to increase awareness, encourage questions, report progress, and share the impact their program is having on the environment. They are always looking for ways to increase their Re-

Nebraska Recycling Council (NRC) is a statewide nonprofit organization supporting collaboration between communities, businesses, solid waste and recycling industries to improve recycling collection and infrastructure. NRC provides an online Nebraska Recycling Guide, recycling equipment grants, education and training, community and business waste assessments, green team training, and more. Visit www.nrcne.org or call (402) 436-2384 for more information.