

August 2011

Kimberly-Clark Experimental Mill – Zero Waste to Landfill

Kimberly-Clark Corporation produces family and personal care brands such as Kleenex®, Scott®, Huggies®, Pull-Ups®, Kotex®, Poise® and Depend®. The Kimberly-Clark Experimental Mill in Neenah employs about 50 people in developing and delivering a continuous stream of innovative product and process solutions for the Family Care business sector.

Challenge

Kimberly-Clark's corporate Environment, Health and Safety team sets major corporate environmental goals every five years. In 1995, the company set a goal of sending no waste to landfills. This challenge was especially relevant for the Neenah Experimental Mill (X-Mill), which must prevent the proprietary trial products made at the mill from becoming available to the public.

In the late 1990s, unused research products were disposed of through "supervised destruction," in which a mill employee followed the disposal service from the mill to the landfill and watched the products get buried. This system failed when unscrupulous landfill operators returned to unearth and sell the "disposed-of" products. The X-Mill began searching for a way to avoid landfills and ensure confidential disposal.

Strategy

The X-Mill sought partners for each of its waste streams. Wood disposal was simple; pallet providers collected broken pallets for free and ground them to make mulch for landscaping. Steel disposal was similarly uncomplicated, with a number of willing recyclers. The X-Mill's main disposal challenge was its paper products.

About ten years ago, the X-Mill found companies that accepted virgin tissue and used the fiber to create recycled napkins. Additionally, Madison General Fuels Corporation (MGF) took the finished products and associated waste to shred and pelletize; the pellets were burned in Madison Gas & Electric's Blount Station power plant.

In 2010, MGF stopped accepting tissue from the X-Mill, so the plant turned to Greenwood Fuels, LLC, a new waste-to-energy company in Green Bay that produces renewable fuel pellets from a broad array of industrial waste streams. At first Greenwood Fuels didn't have the equipment to accept the different containers used to ship the waste from the X-Mill. The X-Mill team worked with Greenwood Fuels on necessary infrastructure



Kimberly-Clark Experimental Mill, Neenah, Wisconsin

development. Now Greenwood can create fuel pellets from any container used to ship wet or dry tissue waste.

Any waste that needs to be separated into multiple waste streams is sent to Elof Hansson USA. Elof Hansson separates the waste and sells it to the appropriate recyclers.

Results

Since 2005, the X-Mill has sent approximately 1,200 tons of material to waste-to-energy facilities instead of landfills. Setting up the appropriate recycling streams and sending the solid waste for recycling was achieved with no cost increase over sending the same material to a landfill. The X-Mill is both serving the corporate zero-waste-to-landfill goal and ensuring confidential disposal without a cost premium

At employee requests, the nominal excess usable products from research trials are donated to local charities. The products undergo an approval process to ensure only safe and non-confidential products are donated.

A key lesson that Kimberly-Clark has learned is that a company doesn't have to know how they'll achieve a goal in order to set that goal. By setting the visionary zero-waste-to-landfill goal in 1995, the company showed the importance of the initiative, and the employees were engaged to develop the innovative solutions that achieved the goal.

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