INDUSTRIAL RDF APPLICATIONS

THE **RIGHT THING** TO DO

WESTERN PENNSYLVANIA-BASED YERECIC LABEL GOES THE EXTRA MILE TO DIVERT ITS LABEL WASTE FROM LANDFILLS THROUGH ITS ALTERNATIVE FUELS PROGRAM.

BY KRISTIN SMITH

"The **alternative fuels** program actually costs about **30 percent more than landfilling,** but with the millennial generation **so focused on environmental consciousness**, it is not only the **right thing to do for the environment**, but it **goes a long way with our associates**." – BRIAN HURST, YERECIC

Yerecic Label has been designing and manufacturing labels for the consumer goods, grocery and perishable food industry since 1969. The company, based in New Kensington, Pennsylvania, just north of Pittsburgh, has been practicing lean manufacturing since 1992.

Today, under the direction of Arthur M. Yerecic, the company continues to share the values that were set forth by his father, Art Yerecic Sr.

Yerecic Label defines lean manufacturing as a systematic methodology for implementing rapid change through elimination of waste. "We continually examine our process looking at the seven types of waste (defects, overproduction, movement of materials, motion, waiting, inventory and over processing) found in organizations to be sure every process adds value to our customers," its website states.

The company's 45,000-square-foot print facility was designed for lean, cellular manufacturing. Its presses are designed to reduce set-up time and make Yerecic Label's waste numbers nearly half of the industry average, according to the company.

In addition to high-tech presses; the company equipped all presses with vision inspection systems that scan every label for possible defects including blemishes, missing print or registration issues. Automatic roll changers keep the press running, eliminating downtime and saving waste; turret rewinders also allow the press to print exact order quantities with no over- or under-runs.

BEYOND THE PRESSES

Yerecic has streamlined its production processes to reduce the amount of waste it generates, however, printed labels have a backing on them that remains once the labels are attached to the product. The company was sending hundreds of thousands of pounds of this material to the landfill each year because it could not be recycled.

Brian Hurst, vice president of manufacturing, says the search to find a landfill alternative for the label backing began in 2010. "It was not an easy search," he says. "When it comes to materials that we have in our industry, there are no local outlets for it."

He describes the material as pressure-sensitive paper attached to a silicone-based liner. It contains acrylic and/or hot-melt adhesive. Hurst finally found a home for this material through a cement kiln located about 150 miles away. The cement manufacturer uses the backing as a coal alternative in its kilns. According to Hurst, the label backing burns at a higher British thermal-unit rate than coal.

The company is now shipping 126,000 pounds of material per month to the cement kiln, material that all used to go to the landfill. Yerecic sends about one truckload every two weeks to the kiln, which Hurst says is on the other side of the state. Transportation costs are the largest expense of the program, which Hurst says costs more than landfilling the material.

"It is saving us landfill and that is all that it is saving us," says Hurst. Despite the extra cost, Hurst says the company is committed to keeping it out of the landfill and notes landfill rates in Pennsylvania are low.

"The alternative fuels program actually cost about 30 percent more than landfilling, but with the millennial generation so focused on environmental consciousness, it is not only the right thing to do for the environment, but it goes a long way with our associates," says Hurst.

MAKING AN INVESTMENT

In order to more efficiently transport the label backing material to the cement kiln, Yerecic decided to invest in a baler that could effectively bale the material. Yerecic purchased a ProPak 60 baler from Maren Engineering, South Holland, Illinois, which was delivered and installed in February 2013.

Michael Blais, regional sales manager recalls the application and material being different from the company's typical baler customer. "The Maren equipment was installed for an application where the commodity was not going to be sold to a recycler," he says. "Instead the bales are being shipped to a company that is using them as waste to energy."

The label matrix is a resilient material and the size of the matrix rolls varied from 1 pound to 50 pounds. "We wanted to design a baler with the structural integrity to hold up under the point loading stress common with label matrix," Blais recalls, "The cus-

"Our goal is to leave something **for the next generation**. By engaging in our **recycling practices**, we've been able to **engage our millennials** to work here. When you **see their excitement about it,** it makes everybody want to do **a better job at it.**" – BRIAN HURST

tomer had a learning curve of getting the proper mix of large and small rolls to make a more stable bale."

Some of the wire positions for the bales require two wire strands. Blais said the ProPak 60 was able to easily accommodate this because it features an operator tie-off instruction screen. "The screen is specific to each programmed commodity and lets the operator know how many wire strands to use in each of the six positions," he says.

In addition, Hurst says the shear blade was able to cut through the rolls without any issues.

Yerecic is making 1.5 bales per shift and 4.5 bales per day. Each bale averages 2,000 pounds. Blais estimates the ProPak 60 could bale about 3 tons per hour of the material.

While Yerecic has not been able to reduce the costs associated with the waste matrix, the compactor that once used to landfill the material is now being used for recycling as yet another part of the company's waste reduction efforts.

Hurst says, ultimately, the company would like to find a repurpose use for the label matrix, but for now, working with the cement kiln has been the best option.

"The whole environmental initiative that we do here at Yerecic is supported from the very top down," says Hurst. "Our goal is to leave something for the next generation. By engaging in our recycling practices, we've been able to engage our millennials to work here. When you see their excitement about it, it makes everybody want to do a better job at it." e

The author is editor of Renewable Energy from Waste and can be reached at ksmith@gie.net.