

Recycler diverts beds from Mass. sites

by Jim Konkoly

FRAMINGHAM, MASS. – With some financial assistance from the state, a Massachusetts company is trying to put a sticky disposal issue to rest.

Conigliaro Industries opened the first commercial mattress recycling facility in the country last year after securing a \$50,000 grant from the state Department of Environmental Quality and making a \$450,000 investment of its own.

In the first year, the facility recycled 20,000 mattresses, recovering 10 tons of metal along with tons of felt, fabric and foam for end-use markets, company President Greg Conigliaro said.



WHAT'S LEFT: Shredded cloth and foam roll down a conveyor belt at Conigliaro Industries in Framingham, Mass., after metal and wood are separated at the mattress recycling facility.

“It’s definitely growing, every month we’re doing more business,” he said.

The company expects to increase mattress recycling as more landfill operators realize that accepting this bulky, hard-to-compact product generates only one-sixth the revenue of typical waste. Furthermore, the Department of Environmental Quality has targeted mattresses for recycling since 150,000 of them are disposed of in Massachusetts’ dwindling landfill space each year.

In laboratory tests, engineers of Conigliaro Industries compared compaction rates for a typical mattress to standard landfill wastes. Based on a \$75 per ton tipping fee, mattresses produce revenue of \$9.38 per cubic yard, compared to \$56 per cubic yard without compresses mattresses.

“Our comparison and cost analyses are very conservative,” said Conigliaro, who places average Massachusetts tipping fees at \$85 per ton.

So far, only a small percentage of mattresses sent to Conigliaro Industries for recycling are collected at landfills. Most come from 22 colleges, 40 hospitals and other institutional clients such as the U.S. Coast Guard, which the company already served for other recycling needs.

Tufts University recently sent about 400 old mattresses to Framingham-based Conigliaro Industries.

“The cost of recycling versus disposal is probably a wash,” said Dana Andrus, residential facilities coordinator at Tufts. “Even if it is a little higher, our university tries to as ‘green’ as possible. Environmentally, it’s the right thing to do.”

Initially, customers paid more to recycle a mattress than for disposal, Conigliaro said. “Now we’re just about even with what landfills charge, and we see recycling becoming less expensive,” he said. “Waste costs are rising, and we’re becoming more efficient, learning how to do it faster and smarter.”

From its founding in 1990 as a one-person recycling operation to a 40-employee firm on track to do \$4 million in business this year, the company grew by finding ways to recycle products that hadn’t been recyclable, Conigliaro said.

“We’re not your typical MRF,” he said. “I don’t think anybody else of our size in this industry has two full-time engineers to find innovative solutions to tough problems. We grew as a result of our customers asking, ‘Can this be recycled?’ and we tackled the tough materials.”

The company recycles 150 products, including 80 types of plastics and foam.

Recycling mattresses was the toughest challenge, Conigliaro said. “You have so many materials held together, and they have to be separated. If you’ve ever taken a mattress apart, you know the industry does a great job in putting them together.”

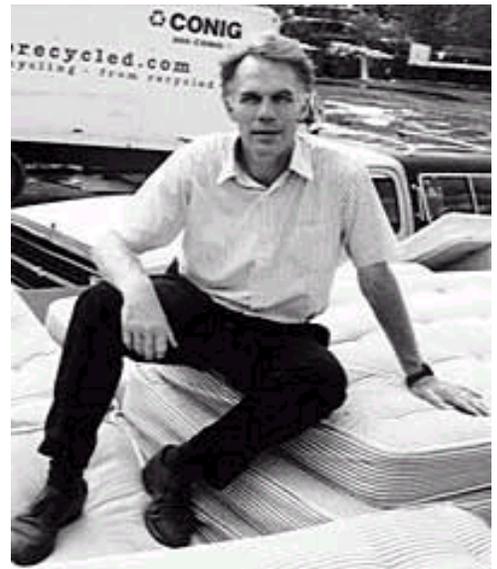
Between 90 percent to 100 percent of a high-quality mattress can be recycled, Conigliaro said.

“We file it like a fish, peel back the felt, the foam and the fabric, bale them and send them to end markets,” he said.

The steel carcass then goes into a special shredder. About 60 percent of a low-grade mattress, which goes straight into the shredder, are recovered.

Nationwide, a projected 9.5 million mattresses are discarded annually, according to the International Sleep Products Association.

The only other large-scale mattress recycling facility in the country is operated by the St. Vincent de Paul Society in Oakland, Calif. The International Sleep Products Association and the Alliance for the Polyurethane Industry provided grants and technical assistance to open the Oakland site in December 2000, said Josiah McClellan, a publicist for API.



SITTING DOWN ON THE JOB: General Manager Rich Garrison sits among some of the thousands of mattresses that Conigliaro Industries recycles annually. The company operates the only large scale, commercial mattress recycling business in the country.



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