CRT processors indicate ample demand

By Bobby Elliott, E-Scrap News
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A webinar hosted by the U.S. Environmental Protection Agency this week featured presentations from four key processors hungry for more CRT glass.

The webinar, which was organized by U.S. EPA's Region 3 (Mid-Atlantic), received support from the Northeast Recycling Council and the Electronics Recycling Coordination Clearinghouse. It drew more than 200 listeners.

Representatives from processors Camacho, Nulife, Novotec and Kuusakoski provided updates on their operations and detailed their respective approaches to handling CRT glass.

From CRT to ceramics in Spain

Camacho Recycling, a company founded in 1959 and based in Spain, has been sourcing U.S. CRT glass since 2015.

During the webinar, Camacho's JJ Santos estimated Camacho could process 108,000 metric tons of CRT glass per year.

He said 20 companies from all over the U.S. are currently sending Camacho separated panel and funnel glass. The only cost to U.S. companies is shipping the material overseas.

"Logistics are not an issue," Santos said. "We don't charge any fee for the treatment process."

Santos explained to webinar listeners that CRT glass processed by the company gets sent to ceramic manufacturers. Demand for CRT glass also exists in the construction and X-ray equipment industries.

"Right now we have much more demand than supply for the CRT glass," he said.

He said Camacho is currently working with 10 to 12 tile manufacturers and also exploring alternative uses for the material.

He also addressed concerns about the lead content of tiles manufactured with leaded CRT glass, noting the concentrations of lead and cadmium in the tiles meet regulatory standards set by the European Union.

Santos said it would take conditions hotter than 2,500 degrees Fahrenheit to cause any lead leakage. "We're talking about a volcano," Santos said.

New York facility switches on furnace

Simon Greer, the owner and founder of U.K.-based Nulife Glass, explained to webinar listeners he recently turned on a furnace at a company facility in Dunkirk, N.Y. He said the operation is able to separate and recover lead and glass from CRT funnel glass.

"We were discouraged by many scientists over the years that said we weren't going to be able to do what we wanted to do," Greer said. "Against the odds, we've actually done it."

At its New York hub, the company receives whole CRT tubes and processes them for the furnace.

He said the company faced "endless amounts of delays" in attempting to build its furnace in 2015 but managed to complete construction earlier this year. Greer said the furnace is "designed to run for 10 years" and handle 200 million pounds of CRT glass over its lifetime.

Recovered lead is currently being sold into commodity markets, specifically to manufacturers of car batteries, and Greer said the recovered glass can be used in "aggregate products and concrete blocks." The company is also exploring additional possibilities in supplying other industries with non-leaded glass.

The company is planning to build a second furnace in Bristol, Va. Greer said funding is in place to begin construction this year, and he added the company has been in discussions to open a third site. An announcement on that location will come "within the next two months," he said.

"Finally, people have seen what we're doing is real," Greer said.

Conduit to North American smelter

Tom Bolon, the CEO of Columbus, Ohio-based Novotec, explained his company launched in 2008 to focus solely on CRT processing. "It was something really no one wanted to deal with and it was a real problem for people."

"Do one thing and do it right was our motto," Bolon said.

Novotec typically receives full truckloads of whole TV and monitor units but can receive tubes as well. The processor breaks down whole units and tubes and prepares leaded glass for shipment to Glencore, a smelter in New Brunswick, Canada.

Glencore uses funnel glass as a silica flux, and according to Bolon, the smelter's demand for CRT glass will continue in the years ahead. "They're going to need CRT
glass for much longer than the CRT glass is going to be around," Bolon said.

Bolon stressed the importance of following regulations and ensuring that any material sent downstream actually gets recycled properly.

“As long as the lead is used in something, that’s the direction we want to go in,” Bolon said.

Selling the cell approach

Kuusakoski US partners with a disposal company in Peoria, Illinois to place treated CRT funnel glass in “a dedicated cell” on the grounds of a non-hazardous solid waste landfill.

While the material can be stored indefinitely, Rich Hipp, the CEO of Kuusakoski US, said future recovery was possible.

“It maintains the option to fully recover the material when the end markets are more viable,” Hipp said. “The design of the mineable cell was with retrieval in mind.”

The company’s original plan was to use treated CRT glass as alternative daily cover (ADC) at the landfill. “Because of suggestions from many environmental groups, we went to a mineable cell,” Hipp said. E-Scrap News reported in March of 2015 that Kuusakoski’s ADC operation was only operating at about 25 percent capacity at the time of its switch to storage.

Once CRT glass that has been prepared for storage by the company, it is treated with a “proprietary chemical reagent” that “renders it non-hazardous and virtually unreachable,” Hipp explained.

The company currently has the capacity to store 50,000 to 100,000 tons of treated CRT funnel glass each year.

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