MRF of the Month

DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER

The small town of Walton, N.Y. calls itself the "scarecrow capital of the world," but the local MRF operator has not been spooked by single-stream collection or the evolving ton.

Similar to other communities, the recycling program in Walton and surrounding Delaware County has seen a drop in fiber products and a significant shift in the quantity and quality of plastics. Those realities sparked a recent change in processing strategies.

Technical Specifications

Delaware County Solid Waste Management Center

Location:
Walton, N.Y.

Start-up date:
November 2014

Number of processing lines:
Two

Throughput:
5,000 tons expected in 2016

Residue rate:
Less than 2 percent

"When we had the opportunity to develop our new MRF we tried to recognize the changing nature of waste, recyclables and material handling. Single-stream [collection], for all its shortcomings, is here to stay," said Susan McIntyre, solid waste director at the Delaware County Department of Public Works Solid Waste Division. "By combining automation, where practical, with energy-efficient design, we were able to more than double the number of products we can recover for recycling while keeping labor and operating costs flat."

Delaware County's 27,000-square-foot MRF opened in fall 2014, replacing an older MRF that was formerly at the site. Situated near Walton, population 5,500, the MRF is adjacent to Delaware County's composting facility and landfill.

The MRF receives curbside and commercial recyclable materials from throughout Delaware County, which is one of the least densely populated counties in the state, at about 33 people per square mile. About three-quarters of the material arrives via private haulers, with the rest being self-hauled materials.

The facility is designed to sort materials from both single-stream and dual-stream collection.

Set up to sort 8 tons per hour but capable of 16 tons per hour, the Delaware County MRF was engineered by Clark Davis Engineering & Surveying of New Lebanon, N.Y. and includes equipment from Plessisville, Quebec-based Machinex and a baler from Excel Manufacturing of St. Charles, Minn. The facility is owned and operated by the county.

The system includes a bulk live floor in-feed drum, a pre-sort conveyor, an OCC screen, a glass breaker, a ballistic separator, a magnetic separator and an eddy current separator.

The facility's biggest challenge is dealing with "out and out garbage being intermixed with loads of recyclables," McIntyre said. Loads from institutional sources can be particularly difficult in this regard.

Still, the new facility has resulted in far less residue going to the landfill, said Tony Vespro, solid waste crew supervisor at the facility. And it was also built to enhance work conditions. It includes clerestory windows to allow for ample natural light, and it has climate-controlled mezzanines where sorting staff work.

Near the MRF is the county's advanced composting system, into which is fed all of the collected trash, minus large and clearly non-compostable items. It's the only composting system in the state processing compost from full bags of household garbage.

"Delaware County has extended the life of the landfill by many, many years," said Sally Rowland, environmental engineer at

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the New York Department of Environmental Conservation, in a video documenting the history of Delaware County's waste management program. "We really consider it a model for the state – even the country – of how it can be done properly."

The Delaware County MRF employs 15 people, including maintenance workers, equipment operators and sorters, on one shift. The sorters are part time and remaining staff are full time. Workers are employed largely through an agreement with ARC of Delaware County, which provides employment for adults with developmental disabilities.