MRF of the Month

Deffenbaugh Recycling Materials Recovery Facility

Located not far from the banks of the Kansas River, the 70,000-square-foot Deffenbaugh Recycling Materials Recovery Facility (DRC/MRF) sits on approximately 25 acres and is considered the largest of its kind for the Kansas City Region.

Operated by Deffenbaugh Recycling Company, LLC, the MRF handles commercial and residential recyclables generated within the Kansas City metropolitan area, which straddles the Missouri/Kansas state line and includes seven counties and numerous municipalities. The DRC/MRF was upgraded in 2003 to handle fully commingled collection loads.

According to Jami Campbell, a strategic marketing campaigns representative for Deffenbaugh Industries, an estimated 70 percent of the material the MRF handles on an annual basis is generated by the commercial sector, with the remaining 30 percent broken up between the residential sector (25 percent) and outside third-party sources (five percent). Depending on the generator, recyclables are delivered to the facility in a commingled fashion or in straight full loads, and many commercial customers even provide recyclable material already baled. The DRC/MRF operates four processing lines for all incoming commodities.

Though tons processed during 2009 were off somewhat from previous years, of the roughly 123,000 tons processed in 2009 by the DRC/MRF, approximately 91 percent was fiber-related material, with the remaining nine percent being commingled containers. The MRF currently processes around 10,000 tons per month; however, Deffenbaugh officials say the facility's capacity will allow for considerably more, if needed.

For the first eight years of operation, the DRC/MRF utilized three Harris Waste Management Group balers (two HRB10s and one HRB918), Mayfran International conveyors and sorting platforms and a Dings Co. Magnetic Group overhead magnet for the container sort line. Then, when Deffenbaugh made the transition to single-stream in 2003, in addition to the aforementioned equipment, the company added a Walker Magnetics Group eddy current separator, a TiTech Polysort 1000 optical-sorting system, and a Bollegraaf 20-tons per hour system for the sorting of residential single-stream recyclables.

Campbell stated the biggest issue being dealt with at the facility involves the contamination of source-separated recyclables, most notably from food waste and plastic shopping bags. An even bigger, though seasonal, issue for the MRF involves Mother Nature's lack of cooperation, as winter weather conditions can play havoc on processing efforts and Mother Nature has not been too kind to the area over the last several months.

The staff employed at the Deffenbaugh Recycling Materials Recovery Facility, for the most part, work under one shift – from 7:00 a.m. to 3:00 p.m. – five days per week. The MRF runs a very limited swing shift, too, which operates from 3:30 p.m. to midnight.

echnical Specifications*

Deffenbaugh Recycling Materials Recovery Facility

Location:
Kansas City, Kansas

Start-up date:
Opened in 1995, went single-stream in 2003

Number of processing lines:
Four

Throughput:
Roughly 10,000 tons per month

Approximate tons of material processed (2009):
Approximately 123,000 tons

Residue rate:
Between five and seven percent, depending on the season

*Know of a North American MRF that you feel Resource Recycling readers should know about? If so, e-mail your recommendation, with hi-resolution pictures, to justin@resource-recycling.com, and your facility may just be highlighted in a future "MRF of the Month" column.