

MRF of the Month

Tri-County Single-Stream Recycling Facility



The brand spanking new Tri-County Single-Stream Recycling (TCSSR) facility, located in Appleton, Wisconsin, is a byproduct of the newly-combined recycling programs of Brown, Outagamie and Winnebago counties. The largest public-sector single-stream MRF in the Badger State and one of the larger publicly owned and operated single-stream plants in the U.S., the TCSSR presently serves some 60 communities (over 200,000 households) within the three counties, handling both residential and commercial recyclables.

"We have brought a new era of recycling to Wisconsin," says Philip Stecker, Outagamie County's director of solid waste. "This facility allows us to serve some 500,000 residents in Northeastern Wisconsin; that's 10 percent of the state's total population."

Operated by Outagamie County, the \$9.9 million regional facility includes a state-of-the-art single-stream processing system designed, engineered, manufactured and installed by Bulk Handling Systems. Outfitted with the latest in screening, optical and air-separation technologies, the system was created by BHS to process an average of 25 tons per hour, all while generating minimal residual material.

According to company representatives, the single-stream system employs the use of integrated processes that emphasize mechanization, and the extraction of recoverable materials, all on the first pass. As a result, this technology allows the TCSSR to experience a high-value material capture rate of nearly 100 percent, and produce an end-product with extremely low residue values (projected to be less than three percent). In addition to including a large old corrugated cardboard separator and steel disc debris roll screen, in order to remove virtually all glass at the front end (currently, glass content is approximately 25 percent of the overall material flow), the processing system also includes a unique filtration system that provides a cleaner, dust-free working environment for the plant's 20 total employees.

The system's main sorting stations include presort, paper post-sort and container sort, with three other smaller sorting stations located

Technical Specifications*

Tri-County Single-Stream Recycling Facility

Location:

Appleton, Wisconsin

Start-up date:

July 2009

Number of processing lines:

One (single-stream)

Throughput:

Single-stream:
25 tons per hour

Estimated tons of material to be processed:

Designed with an 80,000-ton capacity, MRF will initially process 50,000 tons annually

Residue rate:

Projected to be less than three percent

2007-2008 Materials Processing and Recycling in the United States: Yearbook and Directory

5th Edition — Print or CD-ROM

The 1,300 page Yearbook is the only comprehensive guide to Materials Recovery Facilities (MRFs) in the United States, providing information on 583 operating, planned and shut projects. A nationally recognized resource, it provides a strategic analysis of the post-consumer recycling industry and a database of U.S. Material Recovery Facilities. It is an invaluable reference tool for solid waste decision makers, planners, consultants, and organizations interested in the present and future of recycling.

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along the processing line. Altogether, 17 sorters work under one shift to handle material coming into the facility.

And, though the TCCSR is projected to process 50,000 tons per year, initially, BHS actually designed the system to handle up to 80,000 tons annually, thus allowing the MRF to serve larger portions of Wisconsin as more single-stream programs come on-line. "There are no firm plans yet, but we are talking with several other municipalities and counties," says Stecker.

"For our grand opening and open house, we had between 700 and 800 community and business officials, as well as members of the public, visit and tour the facility," says Stecker. "The level of interest for this facility has far exceeded our expectations."



*Know of a North American-based materials recovery facility 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.