

Recycling Markets

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New MRF:

Recycle Central Debuts On San Francisco Pier

by Anna S. Dutko

Recyclables are literally "sitting on the dock of the bay" in San Francisco. Recycle Central, a new Materials Recovery Facility (MRF), officially opened for business earlier this month on San Francisco's Pier 96. On March 5, City of San Francisco Mayor Willie Brown and Norcal Waste Systems, Inc.'s President Mike Sangiacomo threw the switch to power up the 200,000-square-foot processing plant capable of sorting and baling up to 2,100 tons of recyclables per day.

Recycle Central brings the most effective mechanical systems for sorting recyclables under one roof, according to Norcal Waste, owner of the MRF. Recyclables in the new \$38 million facility are being separated using a combination of sorting equipment and hand sorting.

Norcal Waste is the designated service provider in San Francisco collecting all particulate waste and most recyclables. The company had been using several different recovery facilities for processing different types of scrap materials. Norcal had a multi-facility approach prior to the roll out of the new recycling collection program. With the advent of the new single-stream recycling program Norcal has taken a single-facility approach. The new facility will be capable of taking three very distinct types of material: The single stream curbside material generated by the "Fantastic 3" cart program (a blue cart for recyclables, a green cart for compost and a black cart for garbage); dry mixed commercial waste; and source separated recyclables from Recycle Central's buy back program.

"Once the city went to a single-stream collection pro-

gram two years ago, Norcal Waste decided to look into a multi-facility approach for all recyclables," said Maurice Quillen, General Manager of Sanitary Fill Co., a subsidiary of Norcal Waste and operator of Recycle Central. "Sanitary Fill handles over 2,500 tons of waste per day and we need a facility that is capable of processing over 1,000 tons of recyclables per day," he added. The current permitted processing (excluding door trade) capacity for is 1,200 tons per day.

Two years ago, Norcal Waste found the prime location on Pier 96 and built a completely new facility, which took 18 months to finish.

Recycle Central receives scrap fiber, plastic, aluminum and metals from residential recycling programs and commercial accounts in the San Francisco area. The plant also accepts scrap materials from individuals dropping off recyclables.

Sorting Process

Once the recyclables are dropped off at the facility, they are diverted to two sorting systems comprised of six sorting lines: three for mixed commercial recyclables, two for res-

idential single-stream collections, and one for commingled containers.

Central to the facility's processing operation are two News Sorters and two polishing screens manufactured by Bulk Handling Systems of Eugene, Oregon. "The spinning disk screens send bottles and cans in one direction, float paper to another BHS screening system and is further sorted into independent streams of Old Corrugated Containers (OCC), Old Newsprint (ONP), and mixed paper," said Quillen.



Recycle Central, a new MRF in San Francisco, made its debut earlier this month. The facility, which overlooks the Golden Gate bridge, processes up to 2,100 tons of recyclables per day.

The performance of BHS screening systems has been excellent, noted Quillen. "The system gives us the perfect separation of fiber from cans and bottles. It can sort out the curbside fiber into ONP and mixed paper," he added.

The remaining scrap material is diverted to a sorting belt. Sorting order is: plastics, tin, aluminum, and glass. A magnet pulls steel and tin cans off the sorting belt and flips them into a large storage cage. Aluminum cans move from the conveyor belt to an eddy current separator. "Plastics are sent to another sorting line where workers sort



Above, BHS's News Sorter system. Below, a vacuum system designed for removing fiber from a conveyor belt directly to a baler.



out plastics by grade into bunkers. Commingled commercial waste is sorted by hand on another conveyor belt. Workers pull out wood, metals and paper," said Quillen. A two giant vacuum (air conveyor) system sucks computer paper, envelopes and letterhead paper off the conveyor belts and automatically sends the clean material to balers. Recovered fiber constitutes about 70 percent of Recycle Central's scrap stream. The facility has five balers manufactured by Enterprise Co. and one baler by Logeman capable of processing in excess of 1,500 tons per day.

Most of the material that Recycle Central processes is sold to export end-users. Old Corrugated Containers are sold to domestic mills such as Weyerhaeuser's, aluminum cans are sold to Alcoa, and mixed plastic bottles are sold to a local manufacturer of plastic bender boards for landscaping applications Epic Plastic. Mixed paper, office pack, ONP, and white ledger are sold overseas to Asian markets.

The manufacturers of paper, bottles and cans require high-quality source materials and Recycle Central has the ability to meet that market demand thereby reducing the need for virgin materials, said Norcal Waste. For example, the sorting systems at Recycle Central have the flexibility to adjust to changing market conditions and produce specific grades of paper, it added.

Residential Recycling

Most of the scrap material comes from San Francisco's residential single-stream collection program. Residents place paper, bottles and cans together in a blue cart for weekly pickup. "We currently have 110 routes out of 150 set up serving about 150,000 households," said Quillen. "The remaining routes will be implemented by this summer," he added.



Above, workers sort Old Corrugated Containers for baling. Below, a baler producing a serpentine-like bale.



San Francisco's Board of Supervisors has set a goal of achieving 75 percent recycling citywide by 2010. Recycle Central provides the industrial sorting systems necessary for San Francisco to process its own recyclables and divert hundreds of thousands of tons of recyclable materials from landfills, said Norcal Waste.

"We are not just recycling," Sangiacomo noted at the MRF's grand opening, "Recycle Central and the people of San Francisco are demonstrating that environmental practices can meet market demand. This is the premier recycling facility in this country and it is going to keep San Francisco the leader in recycling."