

MRF of the Month

Sunnyvale Materials Recovery and Transfer Station (SMaRT Station)

Before its recent retrofits, the SMaRT Station was missing an estimated 120 PET bottles and 90 aluminum cans per minute.

The CP Group installed new equipment, including separating screens to sort two-dimensional and three-dimensional material. The facility is now missing only about 2.5 PET containers and one aluminum container per minute, according to the equipment manufacturer.

“Bay Counties Waste Services (BCWS) believes this will continue to improve over time as the sorters get more accustomed to the new system,” a representative from CP Group stated. “BCWS also noted a significant increase in the baler use from the increased recovery of PET.”

In addition to serving commercial customers, the 100,000-square-foot mixed-waste processing facility takes in residential curbside materials from households in Mountain View, Palo Alto and Sunnyvale. The facility, located at the southern end of San Francisco Bay, has two lines sorting municipal solid waste and one line sorting curbside recyclable materials.

The facility receives about 760 tons of municipal solid waste (MSW), 126 tons of organic



Technical Specifications

Sunnyvale Materials Recovery and Transfer Station (SMaRT Station)

Location:

Sunnyvale, Calif.

Start-up date:

August 1993 (retrofits came on-line in May 2015)

Number of processing lines:

Three (two MSW, one dual-stream collected recyclables)

Throughput:

251,593 tons in 2014

Residue rate:

70 percent for MSW and 9 percent for dual-stream line



material and 82 tons of residential curbside recyclable materials per day, according to CP Group.

First opened in 1993, the facility's mixed-waste processing system was installed in 2009. It recently underwent a major retrofit with CP Group. In addition to the two new screens for separating 2-D materials from their 3-D counterparts, the retrofit included a MSS CIRRUS optical sorter on the container line to sort PET, HDPE and Nos. 3-7 plastics. The MRF also moved one of two eddy current separators from the MSW system to the recyclable container line.

In 2015, the facility expects to sort about 19,000 tons of fiber and 8,387 tons of commingled containers.

The SMaRT Station also sorts organic material for composting. The retrofit resulted in an increase in the recovery of organic materials 2 inches and smaller, according to CP Group. Before the retrofit, the trommel screen and flat metal disc screen collected an average of 17 tons per hour of this smaller-sized material. With the new screens, BCWS is collecting an average of 28 tons per hour of the material, a 65 percent increase in fine and organics recovery for composting.

The facility still has its challenges. Like other facilities, it is always trying to mitigate the effects of film plastics in the recycling stream. Built completely from recycled materials, the SMaRT Station has plans to use solar power for all of its electricity needs.

The MRF runs one shift, Monday-Friday, with 116 employees.



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