

MRF of the Month

The Rhode Island Resource Recovery Corporation Materials Recycling Facility



Technical Specifications*

The Rhode Island Resource Recovery Corporation Materials Recycling Facility

Location:

Johnston, Rhode Island

Start-up date:

May 1989

Number of processing lines:

Three

Throughput:

380 tons per day

Tons of material processed in 2010:

98,000 tons

Residue rate:

10.6 percent

Serving all of Rhode Island's 1.05 million residents for over two decades, the Rhode Island Resource Recovery Corporation (RIRRC) Materials Recycling Facility has handled materials from all 39 of the towns and cities in the U.S.' smallest state (by area).

Located just outside of the Ocean State's biggest city, Providence, the RIRRC MRF processed just under 100,000 tons of recyclables in 2010. The 77,260-square-foot facility is mostly fed by dual-stream residential collection programs (95 percent of total volume), with two-thirds coming from curbside and one-third from drop-off programs around the state. The mix is approximately 55 percent fiber and 45 percent commingled.

Fiber materials accepted at the facility include newspaper, cardboard and mixed paper (mail, magazines, boxboard). Accepted commingled materials include: No. 1 PET and No. 2 HDPE plastics (natural and pigmented) tin, aluminum beverage cans and foil, glass containers, aseptic packaging and scrap metal.

The facility will be undergoing a redesign this fall and will be converting to a single stream processing system with a completion date set for April 2012. The facility will then be adding Nos. 3-7 mixed plastics to its list of acceptable materials and the revamped system will employ optical scanning technology to sort plastics.

Material is processed on three lines at the facility – one fiber line served by a Bollegraaf/Lubo fiber system and two lines managed

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by a Machinex commingled system. The fiber line has an average rate of 32 tons per hour (tph) and the two commingled lines process at an average rate of 10 tph for a total throughput for the facility of 52 tph.

One notable feature of the MRF is its education center where visitors to the facility – mostly school field trips – can learn about the how recycling works. The center includes interactive displays, a “tower of trash,” showing its size pre- and post-recycling, and a “compost cave.” Additionally, there is a gallery area for visitors to view the MRF at work. The gallery runs the length of the facility, including both lines and the commingled bale loading dock. The MRF’s education center hosts thousands of visitors each year, and is the only one of its kind in New England.

There are 61 people employed at the RIRRC MRF working one shift that varies between 8 to 11 hours per day, depending on incoming material volume. Currently, the facility operates with 14 staff members on the fiber line, 33 staff members for commingled production, and an operations support staff of 14 that consists of supervisors, mechanics, operators, janitors and a driver.

*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 dylan@resource-recycling.com, and your facility may just be highlighted in a future “MRF of the Month” column.

