

The Evolution of Non-Ferrous Recovery at The Solid Waste Authority of Palm Beach County's North County Resource Recovery Facility

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The North County Resource Recovery Facility is a 2,000 tpd refuse derived fuel (RDF) Waste to Energy facility located in West Palm Beach, FL. Palm Beach Resource Recovery Corporation (PBRRC), a wholly owned subsidiary of The Babcock & Wilcox Company (B&W), operates and maintains the facility under a long-term operation and maintenance (O&M) agreement with the Solid Waste Authority of Palm Beach County.

This paper describes how this facility's non-ferrous recovery has evolved and expanded from its initial operation with manual hand-picking stations strictly for the removal of used beverage containers (UBCs) to its present day configuration collecting multiple non-ferrous streams using five (5) eddy current separators throughout the facility. In addition, the recovery of coins from the waste stream has been tested and is in operation.

Of primary importance to the facility is the reduction in waste to the adjoining landfill. Since commissioning in 1989 the plant has strived to increase annual waste throughput, now averaging 866,000 tons over the past five years. Additionally non-ferrous metal pricing over the years has contributed to make investments justified, in addition to the saving of landfill space.

Pertinent data included within the paper will include but not be limited to the following:

- Facility waste throughput by year
- Total non-ferrous recovered in tons by year
- Total non-ferrous recovered in lbs per ton of waste processed, by year
- Curbside recycling UBC recovery in fiscal year recovery
- Residue test data for project development
- Coin recovery