



Case Study

Transforming Waste to Value! Municipal Recovery Facility saves Resources and Dump Space

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Municipal waste contains a high percentage of materials, whose recycling can be profitable due to the substitute of (limited) resources as well as saving valuable dump space. In Perth, Western Australia, a highly advanced facility has just gone operative.

(From the archive of "[bulk solids handling](#)", article published in Vol. 37 (2017) No. 3, © 2017 bulk-online.com) Cleanaway is an Australian waste management company that operates a network of unique collection, processing, treatment and landfill assets from approximately 200 locations. following their philosophy that all waste is a resource which should be recycled and re-used the company has opened a new 50-tonne-per-hour single stream Materials Recovery Facility (MRF) in Perth, Western Australia. Designed, manufactured and installed by Eugene, Oregon, USA, based Bulk Handling Systems the facility, known as the Perth MRF, is able to process 250 000 tonnes per year, enough capacity to sort all of the city's residential recyclables. According to Cleanaway, their Perth MRF is the most advanced recycling facility in the Southern Hemisphere. The system applies an abundance of recovery technologies to achieve high rates of throughput while maximizing the recovery and purity of recycled commodities. BHS Tri-Disc screens are the core of the sorting process, screening out glass and producing

clean paper and container streams. The Debris Roll Screens are employed early in the process to quickly break and remove the high volumes of glass that are typical in Australia, which is then purified by two Nihot single drum separators. NRT optical sorters are employed in both recovery and quality control applications throughout the plant. Two new ColorPlus-R optical sorters, able to analyze the color of opaque objects, remove small cardboard from the news stream. To achieve Cleanaway's extremely high standards of over 97% recovery of plastic containers whilst meeting purity rates in excess of 98.5%, six SpyDIR optical units target fiber and polymers to produce PET, HDPE and mixed plastics. According to a Cleanaway spokesperson the high-tech facility will be able to address Perth's recycling needs for the next decade and beyond. Capable of recycling both household and business wastes will make recycling easier in the workplace, giving businesses the ability to recycle just the same way as households.

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