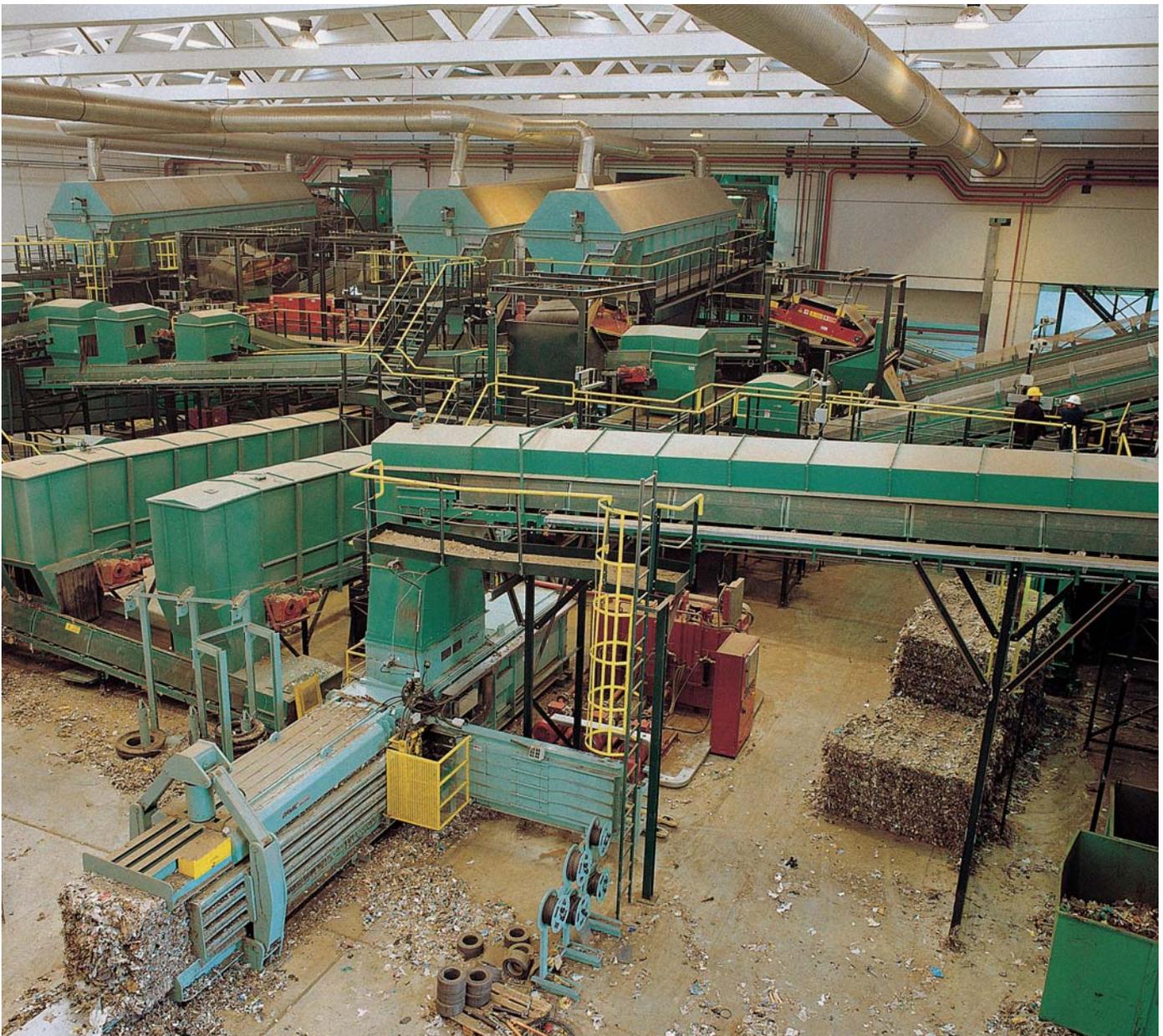


08 PARONA (PV) ITALY

Year	1998
Client	FOSTER WHEELER ITALIANA SpA
Operator	LOMELLINA ENERGIA Srl
System description	Sorting
Waste processed	Mixed municipal solid waste
Plant capacity	200,000 T/year



Ecomaster supplied a turn-key system for RDF production and stabilization of process rejects, which is part of the Lomellina Energia waste-to-energy project built by Foster Wheeler Italiana.



Ecomaster supplied a turnkey system for producing RDF (refuse derived fuel) and stabilizing the organic fraction of municipal waste, which is part of the Lomellina Energia waste-to-energy project. This facility, generating electric power from municipal solid waste, was built by Foster Wheeler Italiana for Lomellina Energia, owner and operator of the project.

The plant processes 200,000 tons per year of municipal solid waste and other waste with a high heating value pre-selected in other facilities.

The sorting sub-system includes three lines; two are used for operations while the third remains on stand-by. The waste stored in the pit is loaded onto the line-feeding hoppers by means of a bridge crane with a hydraulic grapple.

Each line is equipped with a feeder with a movable floor consisting of hydraulically operated elements, which move at turns. The movable floor unloads waste into the slow-speed primary shredder, reducing waste size and preparing it for the following screening operation.

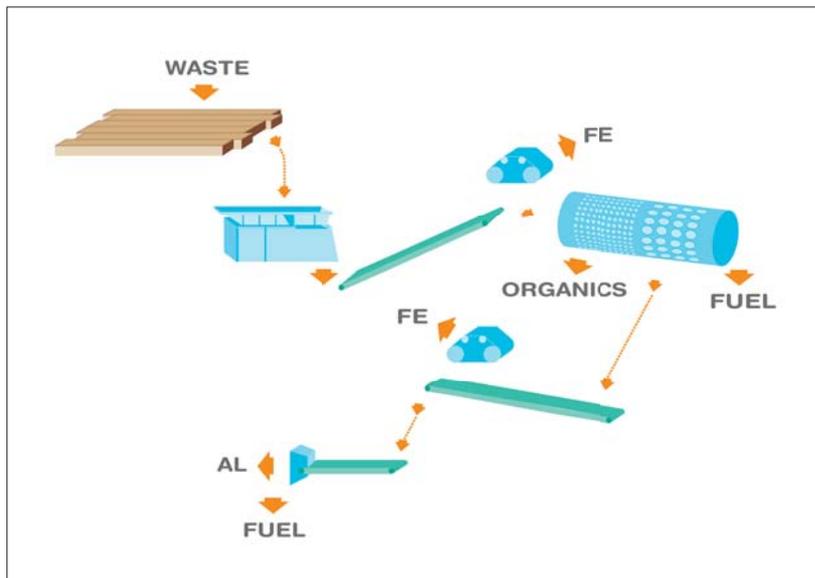
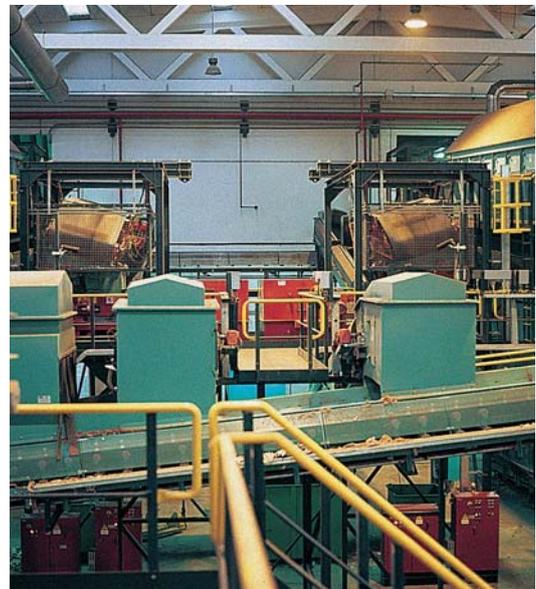
An electromagnet separates magnetic ferrous materials before waste goes into the rotary screen. The ferrous materials recovered by the various separators are collected by a transfer system which takes them to roll-off containers outside the building.

The screen is a two-stage trommel and separates three fractions:

- A small size fraction, with a high content of organic material, that is sent to the composting system;
- A mid size fraction, containing metals, which is treated for recovering ferrous and non ferrous metals;
- A large size fraction, consisting mainly of plastic, paper, wood and textiles.

Mid-size fraction metals are first separated by a conventional magnetic separator, which separates magnetic ferrous metals, and then by an induction separator which automatically selects non ferrous metals.

The separation of metals is particularly important as the system using the fuel produced by Foster Wheeler is based on a steam generator with a fluidized bed. This system has significant advantages from the point of view of environmental impact and has to be fed with fuel containing virtually no metals.



Once the metals have been separated, the mid-size fraction is added back to the large-size fraction coming from the rotary screen. These two fractions together constitute the material that is treated to produce fuel.