Composting of source separated biowaste in the MBT plant of EDSNA

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MECHANICAL AND BIOLOGICAL TREATMENT PLANT, ANO LIOSIA
The MBT plant is part of Attica’s solid waste management plan.

The solid waste processing facility is located in the municipality of Ano Liossia, West Attica. The plant occupies 45 acres including four buildings that comprises 12 acres.

The processing capacity of MBT plant is 1,200 tons of MSW per day.
INTRODUCTION TO MECHANICAL AND BIOLOGICAL TREATMENT PLANT
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WASTE FEED

GREEN WASTE

SRF

Fe, Al

RESIDUALS

LANDFILL

RESIDUALS

COMPOST
INTRODUCTION TO MECHANICAL AND BIOLOGICAL TREATMENT PLANT
INTRODUCTION TO MECHANICAL AND BIOLOGICAL TREATMENT PLANT
NOVEMBER 2012, LAUNCH OF SOURCE SEPARATED BIOWASTE COLLECTION IN KIFISSIA – DOOR TO DOOR COLLECTION

30lt bins outside houses

Collection with dedicated vehicles (continuous monitoring through GPS) and trained personnel
OCTOBER 2013, LAUNCH OF SOURCE SEPARATED BIOWASTE COLLECTION IN ATHENS – KERBSIDE COLLECTION

660lt και 1.100lt bins outside block of flats and restaurants/catering facilities

Collection with dedicated vehicles (continuous monitoring through GPS) and trained personnel
RECEPTION FACILITIES OF SOURCE SEPARATED BIOWASTE AT MECHANICAL & BIOLOGICAL TREATMENT PLANT

Biowaste Reception Area

Biowaste Feeder
(manufactured for Athens Biowaste)
RECEPTION OF SOURCE SEPARATED BIOWASTE AT MECHANICAL & BIOLOGICAL TREATMENT PLANT

Reception of Biowaste

Remove of impurities (plastic bags, packages, etc)
RECEPTION OF SOURCE SEPARATED BIOWASTE AT MECHANICAL & BIOLOGICAL TREATMENT PLANT

Feeding of Biowaste into the feeder
COMPOSTING PROCESS

Biowaste conveyor belt

Biowaste composting channel
COMPOSTING PROCESS

Refinate: Impurities removal (Rotary screens – Trommels, Gravimetric separation beds, Vibration screens)

Final product - Compost
BIOWASTE QUALITY CONTROL
COLLABORATION OF EDSNA & NTUA
A series of laboratory tests to control and monitor the composting process and to characterise quality of the produced compost (containing impurities, pH, heavy metals, pathogens) were carried out and appropriate software developed to correlate the quality of compost to the collection and processing of biowaste.
• Expansion of source separated biowaste collection in all Attica.
• Production of high quality compost in the existing Mechanical Biological Plant (Ano Liosia).
• Compliance with Greek Law 4042/2012 targets (EU 2008/98/EC)
• Less waste to landfill.