

COMPOSTING PLANT FOR THE PRODUCTION OF COMPOST IN CASAL DI PRINCIPE

The project concerns the construction of a composting plant for the aerobic biological treatment of the organic fraction of municipal solid waste (OFMSW), collected separately, in order to allow the waste recovery through the production of high quality compost.

This plant falls within the scope of the interventions financed among 2014-2020 by the Campania Regional Operational Program (POR) based on the European Fund for Regional Development (ERDF).

The Joint Venture formed by Technital S.p.A., Owac Engineering Company S.r.l. and IA Consulting S.r.l. has awarded the Lot 2 (prov. CE) of the Framework Agreement and has signed the contract on 14/03/2019, Rep. N.14550.

The plant has an overall treatment capacity of 30,000 t / year, of which:

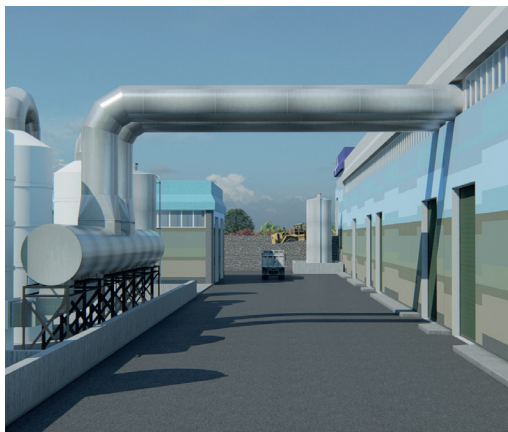
- 24,000 t / year dedicated to the treatment of the OFMSW;
- 6,000 t / year dedicated to the treatment/reuse of the wood-cellulosic fraction as structuring material in the biological process.

The OFMSW is mixed with the shredded structuring green and arranged in aerobic biocells for the accelerated biostabilization process (18 days). The treated compound is sent to the primary maturation process in ventilated lanes (45 days) and, following an intermediate refinement, is sent for the final maturation (27 days) in 6 static heaps periodically turned over. The obtained compound is ulterior refined to complete the process.

In the Project delivery, in order to limit the environmental and visual impacts of the plant in long and short terms/space, a full attention has given not only to the process layout design but even to:

- environmental mitigation measures
- landscape integration

It was decided to use colour as a camouflage tool. Eight colour nuances of the surrounding landscape are sampled and translated into RAL colours to be applied in the panels of the buildings. Such panels will be positioned alternating colours and gradation in order to camouflage the compost plant in the landscape.



DESIGN DATA

Public client Campania Region
Type of service Definitive design
Project cost € 13.837.625,75
Location Casal di Principe (CE)
Total area 25,600 m²
Design period 2019

TECHNICAL DATA

Process typology composting process in reinforced concrete biotunnel. Final maturation through dynamic aerated piles (STAGE 1) and static piles (STAGE2).
Capacity 30.000 t/year
Produced compost 8.700 t/year
Bio-cells 5 of 550 m³ each
Primary maturation 5 insufflate lanes
Second maturation 6 turned heaps
Final refinement compost screening and oversize deplastification
Biofiltration section 1.200 m²
Air treated volume 180.000 m³/h