

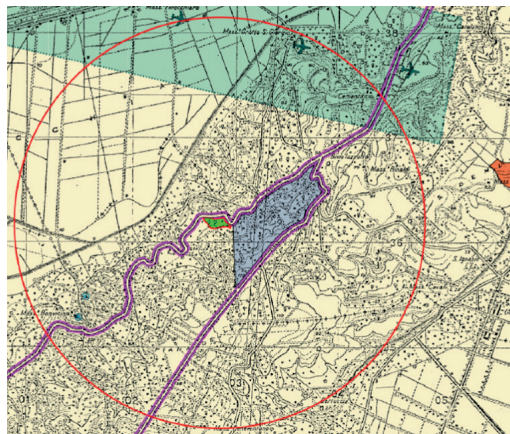


ASBESTOS - CONTAINING WASTE LANDFILL IN LENTINI

The system is configured as a strategic work in the integrated management of waste in order to reduce the disposal costs of Asbestos Containing Materials and it falls under the category of landfills for the transfer of hazardous waste, in accordance with D.Lgs. No. 36/03 and D.Lgs. No. 152/06 and further amendments. The main type of incoming waste will be constituted by asbestos-containing materials from remediation sites of these materials (EWC codes planned: 06 07 01*, 06 13 04*, 10 13 09*, 10 13 10, 15 01 11*, 16 02 12*, 17 06 01, 17 06 05*, 19 03 04*, 19 03 06).

The plant has been designed in such a way as to allow a waste management conferred in separate cells on the basis of the typology and the dangerousness of the same material; in total were provided five cells managed separately and independently from each other for a total volume of approximately 500.000 m³ available. Particular attention has been taken in the design of the waterproofing layer at the bottom and on the walls, in order to avoid any possibility of leaching of pollutants into the ground water; placed materials (carefully sealed) will be daily covered with inert material in order to avoid any possible air dispersion of fibers or waste.

On the bottom of the landfill has been arranged a double network for the uptake of the leachate from the waste delivered, the first for the ordinary drainage and the second, the lower one, for the safety drainage. The networks of leachate converge to two separate wells of the collection and recovery, in order to allow temporary storage of leachate within separate and dedicated units; leachate is then pumped to the treatment plant, from which is obtained a clarified effluent (compatible with the limits established by D.Lgs. No. 152/06 and further amendments, for discharges into the surface water bodies receptors).



DESIGN DATA

Private client

SICULA TRASPORTI s.r.l.

Tasks assigned and carried out

Final design, Environmental Impact Assessment and Integrated Environmental Authorization application

Cost € 20.253.775,00

Location Lentini (SR)

UTM Coord. (Zone 33S) 502,790
E - 4,135,950 N

Site area 35.000 m²

Surface of the landfill basin
27.000 m²

Total Volume 500.000 m³
divided into five lots

Design level final design

Design period 2008

TECHNICAL DATA

Operations according to Encl. B and C referring to Part IV of Law Decree No. 152/06 (D.Lgs. 152/06) and further amendments D1, D9, D15.

Potentiality: 40.000 t/year

Expected operating life: 7 years

Days of disposal per year: 350

Maximum production of leachate expected: 10 m³/d

Maximum theoretical biogas production expected: according to the non-biodegradable nature of asbestos-containing materials, any biogas production is not expected.

ACCESSORY EQUIPMENT

Leachate treatment system: ultrafiltration system divided into a safety conditioning section, a treatment section and a washing section of the membranes. The treatment capacity is approximately 12 m³/d