

Lakeside Energy from Waste Plant

Client :
Lakeside Energy from Waste

Main Contractor :
Itochu / Takuma

Location :
Colnbrook, Berkshire

Date :
2005 - 2008



The Lakeside Energy from Waste plant was constructed in Colnbrook, West London to provide a new facility capable of incinerating 400,000 tonnes of household waste a year and generating 34 mega-watts per hour from the energy released.

BAM Nuttall supported the main process contractor, Japanese consortium Itochu-Takuma, throughout the procurement and, on award of the main contract, was appointed civil and building design and construct contractor.

Works involved:

- Demolition of an old clinical waste incinerator
- Design and construction of a new 1.25 tonnes per hour clinical waste incinerator.
- Construction of waste bunker.
- Erection of precast tipping hall.
- Construction of building superstructure
- M & E fit out of office buildings.
- Construction of turbine hall and ancillary buildings.
- External finishes and landscaping.

Waste Bunker Construction

One of BAM Nuttall's main tasks was the construction of the 32m tall waste bunker which extends 11m below ground.

Construction of the subsurface portion began with secant piles marking out the footprint of the tank, topped off with a capping beam at ground level. This allowed the 11m deep pit to be excavated without the need for temporary props or waling beams.

In order to keep within the client's tight construction programme, BAM Nuttall proposed a slipforming solution rather than a traditional jump form shuttering system. This cut construction time down from 6 – 8 months to just three weeks and provided a safer working environment. The slip form was successfully constructed in 18 days, in advance of the programme, incorporating 4000m³ of concrete and 350 tonnes of reinforcement.

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