

- HEAT RECOVERY
- BIOMASS
- PRIMARY FUELS
- SOLID RESIDUES
- LIQUID & GASEOUS RESIDUES

WTE PLANT FRANKFURT NORDWESTSTADT GERMANY



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Number of Lines	4
Fuel	Household Waste, household-type Industrial Waste
Heating Value (min./max./nom.)	8.0 / 14.0 / 11.3 MJ/kg
Fuel Throughput each (min./max./nom.)	12.0 / 22.0 / 20.0 t/h
Rated Thermal Input each	62.8 MW
Steam Capacity each	67.2 t/h
Steam Pressure	60 bar
Steam Temperature	500 °C
Feedwater Temperature	130 °C
Flue-Gas Flow each	122,500 m ³ i. N/h
Exhaust-Gas Temperature	220 - 240 °C
Operating Approval	17. BlmSchV
Year of Commissioning	2006 / 2008

THE TASK

The waste incinerator technology developed by Standardkessel Baumgarte was applied not just when the new waste incineration plant Frankfurt Nordweststadt was built in 1964, but also when it was partly renewed in 1983. Already during the offer phase of the second part renewal, which was commissioned in 2004, the general contractor Lurgi Lentjes AG involved us intensively. The task was to develop a waste incineration plant designed for demanding steam parameters in consideration of the latest technologies. In addition, the very restricted space conditions had to be taken into consideration when developing the boiler concept and the increased performance.

THE SOLUTION

Development of a boiler concept designed as a two-pass system with furnace area followed by a radiation area in vertical construction and a downstream horizontal pass with the installation of convective heating surfaces. Through this concept an increased plant performance by around 35 % could be realised by maintaining the existing space conditions. So as to protect the superheaters from corrosion in the presence of main steam temperatures normally unusual in waste incineration plants, the heating surface tubes were clad with the high-grade Inconel material. The plant was renewed in two construction stage, i. e. two lines were revamped in one stage with the other two in full operation.

SCOPE OF SUPPLY

- Main Steam Generator with Fittings
- Heating Surface Cleaning Plant as Mechanical Rapping Device
- Heating Surface and Furnace Area Cladding
- Steel Structure with Stairs and Platforms
- Thermal and Sound Insulation
- Refractory Lining

ENGINEERING SERVICES

- Engineering incl. Approval and Official Engineering
- Installation incl. Provision of Lifting Devices
- Commissioning and Trial Run

