



Wuppertal

Energy from waste

Faced with waste disposal challenges and lack of local landfill sites in the rural region north of Cologne, the cities of Wuppertal and Remscheid took the forward-thinking step of establishing a joint waste disposal unit back in the 1970s, to handle waste for a population of nearly one million people. The incinerated municipal waste from the area, including a portion of commercial waste, amounts to approximately 375,000 mg/a.

The unit's five incineration lines incorporate a roller grate incinerator, electrostatic precipitators, semi dry/wet flue gas cleaning and activated lignite carbon AOC/SCR units.

The waste generates power with two steam turbines to supply the district heating system and feed into the local power grid.

FEATURES OF PROJECT

Customer: AWG Wuppertal

Project type: Energy from waste

Contract award: DATE

SCOPE OF PROJECT

Supply and installation of roller grate incinerator, electrostatic precipitators, flue gas cleaning system and lignite carbon AOC/SCR units.

ACHIEVEMENT AND RESULTS

- Early energy-from-waste reference providing solution to local waste disposal challenge
- Heat and electricity generation from approximately 375,000 mg/a of waste

KEY PROJECT DATA

Customer	AWG Wuppertal
Location of plant	Wuppertal, Germany
Main fuels	municipal waste
Award date	XXX
Total capacity	12 - 15 Mg/h
Calorific value	8 - 12 MJ/kg
Incineration lines	5
Operation mode	24 hours/day
Steam parameters	340 / 40°C/bar
Steam generation	50 Mg/h
Electricity generation	2 x 20MW
Flue gas cleaning system	2 semi-dry 2 wet
AOC / SCR lines	3
Guaranteed emissions (acc to 11% O ₂ , dry)	XXX CO (10-minute mean value) Corg NO _x Dust SO ₂ HCl Dioxins
	100 mg/m ³ 20 mg/m ³ 300mg/m ³ 25 mg/m ³ 50 mg/m ³ 30 mg/m ³ 1 ng/m ³ TE

- 1 Roller grate incinerator
- 2 Steam generator
- 3 Electrostatic precipitator
- 4 Spray absorber
- 5 Electrostatic precipitator
- 6 Scrubber
- 7 Droplet separator
- 8 Scrubber
- 9 Packed column
- 10 AOC adsorber
- 11 Plate-type heat exchanger
- 12 SCR catalyst
- 13 Turbo generator set
- 14 Steam condenser
- 15 Boiler discharge
- 16 Wastewater treatment
- 17 Stack

