



# 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.

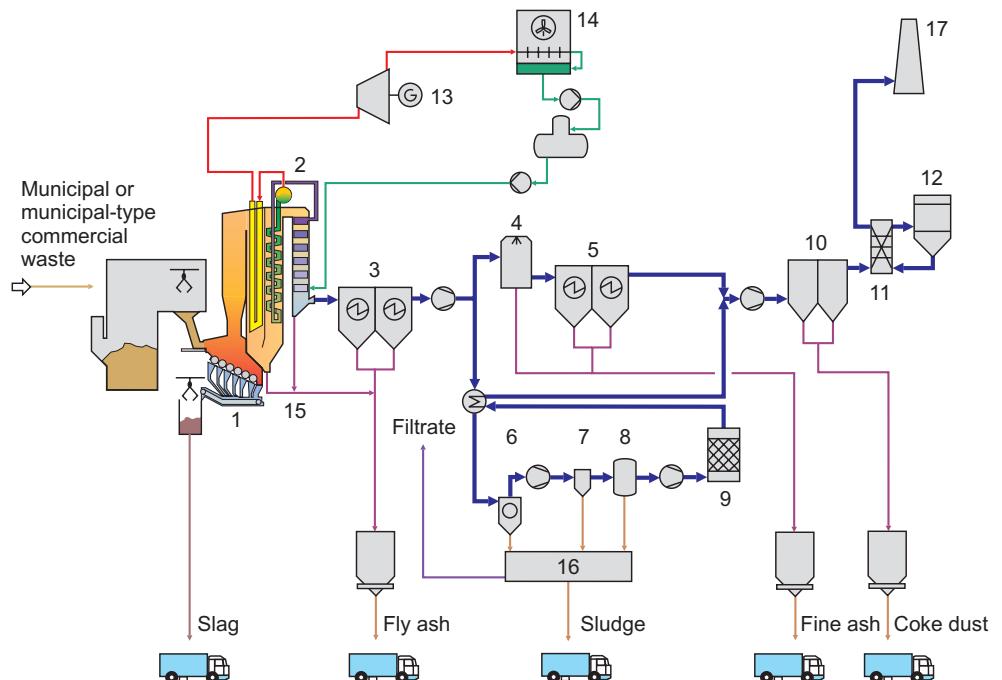
### ACHIEVEMENT AND RESULTS

- 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

<b>Customer</b>	AWG Wuppertal
<b>Location of plant</b>	Wuppertal, Germany
<b>Main fuels</b>	municipal waste
<b>Award date</b>	XXX
<b>Total capacity</b>	12 - 15 Mg/h
<b>Calorific value</b>	8 - 12 MJ/kg
<b>Incineration lines</b>	5
<b>Operation mode</b>	24 hours/day
<b>Steam parameters</b>	340 / 40°C/bar
<b>Steam generation</b>	50 Mg/h
<b>Electricity generation</b>	2 x 20MW
<b>Flue gas cleaning system</b>	2 semi-dry 2 wet
<b>AOC / SCR lines</b>	3
<b>Guaranteed emissions (acc to 11% O<sub>2</sub>, dry)</b>	<b>XXX</b> CO (10-minute mean value) Corg NOx Dust SO <sub>2</sub> HCl Dioxins
	100 mg/m <sup>3</sup> 20 mg/m <sup>3</sup> 300mg/m <sup>3</sup> 25 mg/m <sup>3</sup> 50 mg/m <sup>3</sup> 30 mg/m <sup>3</sup> 1 ng/m <sup>3</sup> 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



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