

**Client: AVG Köln**

**Project: New steam turbine station "2. Energieteil"**

**Services: Draft planning, approval planning, tendering, contract awarding, site management**



### General

As part of a project for the cogeneration of heat and power, the steam generated in the four incineration lines in the RMVA plant is used for the one part to generate electricity using an extraction condensing turbine with a nominal rated power of 56 MW. For the other part the steam is used to supply district steam for the local energy provider RheinEnergie AG. The exhaust steam of the turbine is condensed in an air-cooled condenser.

In the future, in order to cover scheduled turbine overhauls as well as unexpected downtimes at least in part, plans were made to install a second turbine with a nominal rated power of approx. 30 MW, thus creating a partial redundancy to ensure that disposal obligations could be met cost-effectively during any downtimes of the existing turbine.

The turbogenerator with various ancillary units was mounted in a new machine house, the energy building 2. The air-cooled condenser was also installed in this new building.

### Planning work

The scope of services provided by T&N covered the draft and approval planning. Moreover, T&N also carried out the implementation planning which formed the basis for the tenders.

Tendering and contract awarding took place in lots from the beginning of 2015 in a European-wide process.

### Implementation

The construction of new energy block and its commissioning, covering the new building as well as the turbogenerator and air-cooled condenser, was completed by the time of the overhaul of the existing turbine in mid-2017.

### Partners

In addition to Tiede- und Niemann acting as the general planner, the hanse-ing member companies Fiedler Beck Ingenieure AG were subcontracted for the civil part and Selck Planung Beratung Projektmanagement for the instrumentation and control engineering.

### Client

The services were performed for the AVG Köln mbH, Geestemünder Straße 23 50735 Cologne Köln, Tel.: 0221.7170-0, over a period from 2014 until 2017.