

“Less is more” – noise protection at Neurath power plant

Client
RWE AG,
Grevenbroich-Neurath

Site:
Neurath power plant

KAEFER services:
> Anti-noise walls, head insulation, turbine insulation
> Doors and gates for cooling towers

Timeframe
February to October 2009

The lignite-fired power plant in Neurath went into service in 1972 and is one of the biggest of its kind in Europe. In January 2006 construction work began on the new blocks F and G, housing a “Lignite-fired power plant with optimised plant engineering”. The residential area situated 840 metres away from the power plant meant that noise limits had been defined, requiring precise calculations. KAEFER completed the noise protection work on schedule and accident-free, with all specifications verified in subsequent testing during ongoing operations. In addition, KAEFER was able to demonstrate other competences in Neurath, including head insulation, doors and gates for cooling towers and spray turbine insulation.

> Heat insulation



> Cold insulation



> Noise protection



> Fire protection



> Scaffolding



Scope of work

- > Reduction of noise pressure level at the cooling tower from 122 dB(A) in summer and 125 dB(A) in winter to a maximum of 33 dB(A) at a distance of 840 metres (residential area)
- > Acoustic and static calculation and design

Implementation

- > Anti-noise walls 12.5 metres high
- > Two cooling towers, each fitted with 5,300 m² of noise baffles consisting of 2,150 individual elements
- > Approx. 1,000 metres of fastening profiles per tower, fabricated in-house out of high-quality stainless steel (1.4541)

Customer benefits

- > Full service from a single supplier – from the first calculation to successful verification in ongoing operations
- > Design, structural and acoustic engineering were individually planned and executed by KAEFER
- > A combination of standard and custom components from our own factory in Delmenhorst near Bremen enabled precise compliance with the anti-noise specifications

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Are you interested in more examples of our services? A selection of references is available from www.industrie.kaefer.com

