

REFERENCE CASE POWER PLANT



Third-Party Inspection Services for Lignite Power Plant in Germany

For the construction of the lignite power plant in Neurath, Germany, RWE Power AG required a qualified expert to perform the necessary third-party inspection and on-site inspections in order to ensure quality and prevent delivery delays. That's why they turned to TÜV Rheinland.

Basic facts	
Client	RWE Power AG
Timeframe	November 2006 – December 2011
Project location	Grevenbroich-Neurath, Germany
Main services	<ul style="list-style-type: none">▪ Third-party inspection at manufacturers▪ On-site inspection

Initial situation and requirements

RWE Power AG is a leading German energy production and generation company. The German electricity producer banks on a broad energy mix and is largely able to draw on its own raw material base. To further extend its portfolio of power plants, RWE constructed a new lignite power plant in Neurath, Germany. The power plant, with a total capacity of 2200 MW, consists of two boilers with a height of 173 meters. It was built according to a special concept of increasing the degree of efficiency up to more than 43% while reducing CO₂ emission. To ensure quality and prevent delivery delays, RWE needed an experienced partner to conduct required third-party inspection and on-site inspection services.

Solutions, results

Thanks to our extensive experience in inspection services for power plants, our global network of experts and our profound knowledge of regulations and standards, TÜV Rheinland was the preferred choice for RWE Power AG.

For the successful completion of the new lignite power plant in Neurath, we provided RWE Power AG with third-party inspections and on-site inspections. These included a review of documents regarding material specifications and of test and inspection plans based on EN standards, RWE specifications and other relevant standards and regulations. In addition, we monitored manufacturers in more than 16 countries worldwide. This comprised 1523 inspection visits performed by 72 experts from Germany and the producing countries. During these visits, deviations in the manufacturing process were pinpointed and evaluated, and non-destructive testing during the production process was monitored. Our experts further conducted pre-shipment inspections in order to ensure proper quality of the components and prompt delivery. To guarantee successful project implementation, we supported RWE Power AG at the building site with on-site inspections. Thanks to our support, RWE was able to identify and solve problems with the new boiler material T24 (7CrMoVTiB10-10) in order to put its lignite power plant into operation.

Finally, we provided RWE Power AG with a comprehensive inspection report.

Did you know?

The RWE lignite power plant in Neurath, Germany, has the biggest lignite-fired boiler worldwide.

Benefits for the client

TÜV Rheinland supported RWE Power AG by providing:

- Experienced experts from around the world with knowledge of applicable standards and regulations.
- Prompt reporting regarding deviations enabling fast reaction times.
- Experienced proficiency in joining technology, expertise regarding relevant materials and manufacturing processes and essential skills in non-destructive testing.

About TÜV Rheinland:

Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

We inspect technical equipment, products and services, oversee projects and help to shape processes for companies around the world. Since 2006 we have been a member of the United Nations Global Compact to promote sustainability and combat corruption.

We offer you extensive energy sector experience, providing specialized solutions for all types of power plants – traditional, renewable and nuclear – as well as oil and gas plants and pipelines, and manufacturing plants for industrial products. Our comprehensive portfolio offers a wide range of services in all project phases including design, manufacturing, construction, commissioning, operation and maintenance. We can also provide consultancy for safety, environmental, system certification and data management issues.

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