

# World's Best Power Plants



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One of the two facilities used to house the Caterpillar 16CM32 engines at the Rostok test site in Kiel, Germany.

## PARADIGM SHIFT IN BUILDING POWER PLANTS

### CATERPILLAR POWER GENERATION SYSTEMS

The Rostok test cell site, located in Kiel, Germany, consisted of a two-facility, 18-engine (130 MW) power plant built to exact specifications to match a plant being built simultaneously in the Middle East during 2008. The Rostok site was utilized to complete full load testing on the 7.5 MW Caterpillar 16CM32 engines, demonstrate fuel consumption and complete all necessary equipment adjustments. Another significant purpose of the test site was to provide an innovative solution to travel restrictions at the twin site, allowing hands-on training for engineers and other essential plant operators. With the exception of the buildings used to house the equipment, the entire Rostok test facility, including all electrical and cooling equipment, has been dismantled, shipped and will be reassembled in its permanent location. This test cell concept is the first of its kind for Caterpillar Power Generation Systems (CPGS) — and may be the first of its size and scope in the world.

This new concept in building power plants allowed members of the future plant team unprecedented access to the Kiel, Germany, test cell site, including weeks of formal in-person training on the same equipment they will be using at the permanent facility. CPGS produced a full-length training video at the Rostok site with step-by-step processes to ensure smooth installation, maintenance and troubleshooting for

the “real” plant. The video is accompanied by more documentation, including a handbook and other instructions with photos, and will serve as a reference point once the new facility is functional. There are also plans to use the video and its related materials for other future projects.

In addition to the training video, CPGS will also provide a full support team to aid in all phases of construction and operation of the permanent facility. From e-mail and telephone communication to webcams, workers will be able to supplement the video materials already provided with real-time conversations and decision-making assistance. Qualified engineers will be available to efficiently answer questions. Despite the large amount of distance between the test cell site and the new site in the Middle East, CPGS engineers will be dedicating their time to ensure the success of the plant.

While the Rostok test cell site was an unusual project for Caterpillar, this site has proven to be a successful approach to “train the trainer” on all aspects of building and operating new power plants. Future power plant projects could be handled in a similar fashion going forward — creating a genuine paradigm shift in the development of power plants around the world. 🗣️