The Client

RWE is one of the five leading suppliers in the gas and electricity industry and the German market leader in this sector. At their plant in Niederaußem, located in the western part of Germany, electricity for base load supply is generated from brown coal. This large-scale nine block power plant has a gross output of 3,949 MW. 1,000 MW are originated in a BoA-block with optimized equipment technology and an efficiency of 43%.

The Client’s Needs

In spring 2012, RWE Power undertook an extensive plant overhaul at Block H of the brown coal power plant. To supply the large volume of water needed to restart the block, an additional demineralisation unit was required. The temporarily solution with a flow rate of 450 m³/hr was needed for 10 days, to treat boiler feed water with a conductivity of <0.1 µS/cm and silicate of <10 ppb.

The Solution

With a combination of Mobile Water Services water treatment plants Berkefeld covered the water demand efficiently and reliably. 18 reverse osmosis units – installed on four trailers and two containers – pretreated the feed water to achieve a salinity of 5%. The conditioned water was backed up in four mobile tanks with a volume of 70 m³ each. The demineralisation then took place in four trailers that each had two streams of cation, anion and mixed-bed ion exchangers. Multiple pressure boosting stations ensured an optimised operating pressure.

The Benefits

The comparatively high flow rate of 450 m³/hr could easily be achieved by combining different mobile systems from the wide range of Mobile Water Services products. Trained service technicians provided continuous on site support to manage the installation and commissioning of the units, without any disruption to the supply.

For further information:
Veolia Water Technologies – Mobile Water Services
Whittle Road, Meir, Stoke on Trent, Staffordshire
Tel: +44 (0) 203 567 7548 / +44 (0) 203 567 7517
www.mobilewaterservices.com