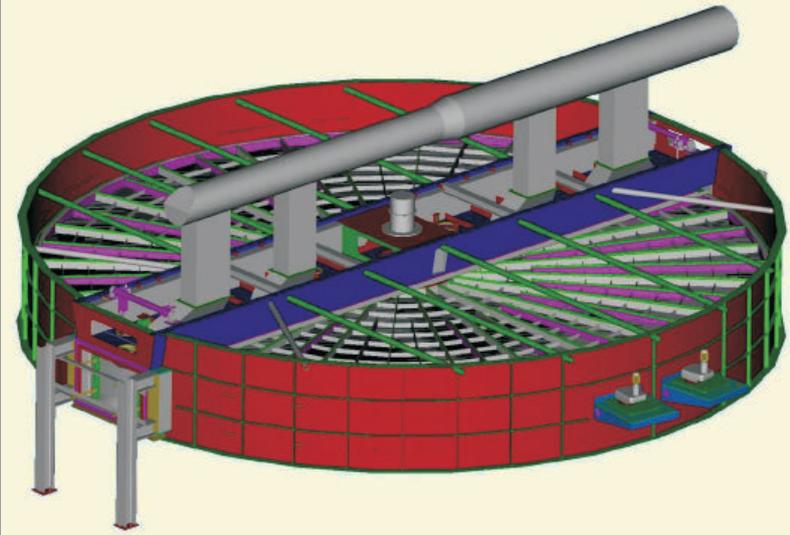


West Burton Power Station

4 Gas-Gas Heaters for FGD Plant



In 2000 BWSC (then: FLS miljø) in consortium with MHI was awarded the contract for the delivery of four FGD plants to be installed at the 4 x 500 MWe West Burton Power Station in Nottinghamshire, England operated by EdF Energy. As part of the scope of supply BWSC installed four Gas-Gas Heaters (GGH) for reheat of the treated flue gases.

The West Burton FGD plants use the Double Contact Flow Scrubber (DCFS) process and in each unit more than 2 mio. Nm³/h of flue gases are

cleaned and the four units are thereby removing 150,000 tons of sulfurdioxide per year.

The GGH is used to reheat the treated flue gas in order to secure the necessary lift of the flue gas. The necessary heat for this reheating is taken from the hot untreated flue gases entering the FGD plant.

The GGH is of the counterflow rotary regenerative type with a matrix of heating elements which transfers the heat by alternately being

heated by the untreated gas and cooled by the treated gas.

As the untreated flue gas is very aggressive the heating elements are protected with enamel as corrosion protection.

The GGHs are provided with an automatic, sensor controlled, sealing system for the upper radial seals which ensures very low leakage of untreated gas to the treated gas side.

Performance Data:

Untreated Flue Gas:

Flow, inlet 578 Nm³/s
 Temperature, inlet 130 °C
 Temperature, outlet 84 °C

Treated Flue Gas:

Flow, inlet 640 Nm³/s
 Temperature, inlet 44 °C
 Temperature, outlet 85 °C

Dimensions:

Type: GVI 33.5 / 975

Rotor diameter 16.11 m
 Rotor height 1,000 mm
 Rotor speed 1.0 min⁻¹
 Heating elements UNF+E
 Height 750 mm
 Heating surface 25,620 m²
 Total weight 430 tons

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