

HEAT RECOVERY
BIOMASS
PRIMARY FUELS
SOLID RESIDUES
LIQUID & GASEOUS RESIDUES

RHEINLAND REFINERY B7 WESSELING, GERMANY



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Fuel	Heavy Fuel Oil, Production Residues (gaseous), Production Residues (liquid)
Heating Value	39,530 MJ/kg
Fuel Throughput Rate (max.)	14 t/h
Rated Thermal Input	168 MW
Steam Capacity	200 t/h
Steam Temperature	520 °C
Steam Pressure	112 bar
Feed Water Temperature	145 °C
Waste Gas Temperature	165 °C
Operating Approval	13th Federal Immission Protection Ordinance (13. BImSchV /SVTI)
Year of Commissioning	2012

THE TASK

Shell Deutschland Oil GmbH operates a power plant at the Wesseling location for supplying the adjacent refinery with electricity and process steam. To fulfil the new environmental guidelines, two old boilers have been set out of operation and the installation of two new boilers has been planned. Standardkessel Baumgarte was entrusted with the task of constructing the new boilers No. 7 and No. 8 in order to secure the energy supply to the refinery and to dispose the production residues. It was particularly important for Shell to meet its energy requirements from its own production residues in order to save primary fuels.

THE SOLUTION

The new boiler No. 7 is mounted on the existing foundations of an old boiler house. The flue gas desulphurisation plant was already provided by the customer for boiler No. 6 and designed for a later extension. Within the scope of the construction of the new building, the new boiler was connected to the existing flue gas desulphurisation plant. The new boiler is designed in vertical construction and operates in natural circulation. The burner system is arranged in the front wall of the boiler's combustion chamber.

SCOPE OF SUPPLY

- Steam Generator
- Firing System for Liquid and Gaseous Fuels
- Air and Flue Gas Ducts
- SCR System, Electrostatic Precipitator
- Piping
- Electrical and Instrumentation and Control Components
- Structural Steelwork, Stairs and Platforms

SERVICES

- Engineering and Obtaining Approvals / Licences incl. Liaising with Authorities
- Delivery, Erection and Commissioning
- Trial Operation

