

MODERNIZATION OF COAL FIRED POWER PLANT IN KAKANJ, BOSNIA AND HERZEGOVINA

UNIS Power, as an EPC supplier, has played significant role in the overall rehabilitation and modernization of Kakanj Power plant located near-by of capital city Sarajevo in Bosnia and Herzegovina. The plant has total installed capacity 420 MWe. The plant is firing specific local coal and thus the boilers are designed with wet bottom ash discharge concept.

Block 6 rehabilitation included:

- Boiler total refurbishment including auxiliary equipment
- Fuel handling system and milling station
- NOx and CO emissions reduction
- Overall plant control system, field instrumentation and complete electrical part

Increase of the plant efficiency and reliability together with environmental measures has been key focus of the rehabilitation. Further, operational improvements and replacement of the components at the end of their life time were included. Except of steel structure and boiler drum, all the boiler pressure and non-pressure parts were redesigned and delivered new to enable the Block 6 safe and reliable operation additional 15 years.

Block 5 rehabilitation included:

- Boiler total refurbishment including auxiliary equipment
- Fuel handling system and milling station
- NOx and CO emissions reduction
- Field instrumentation and complete electrical part

The project was first power investment in Bosnia after national war to secure electricity supply into the national grid. Again operational reliability but also environmental measures to improve climate in Sarajevo area were of the rehabilitation focus.

Despite difficult conditions at the site both projects were delivered, erected and put into operation in accordance with project time schedule. The blocks achieved guaranteed performance and were put into commercial operation at full customer satisfaction.



Client

Elektroprivreda Bosne i Hercegovine

Year of Completion

2005 / 2015

Boiler data

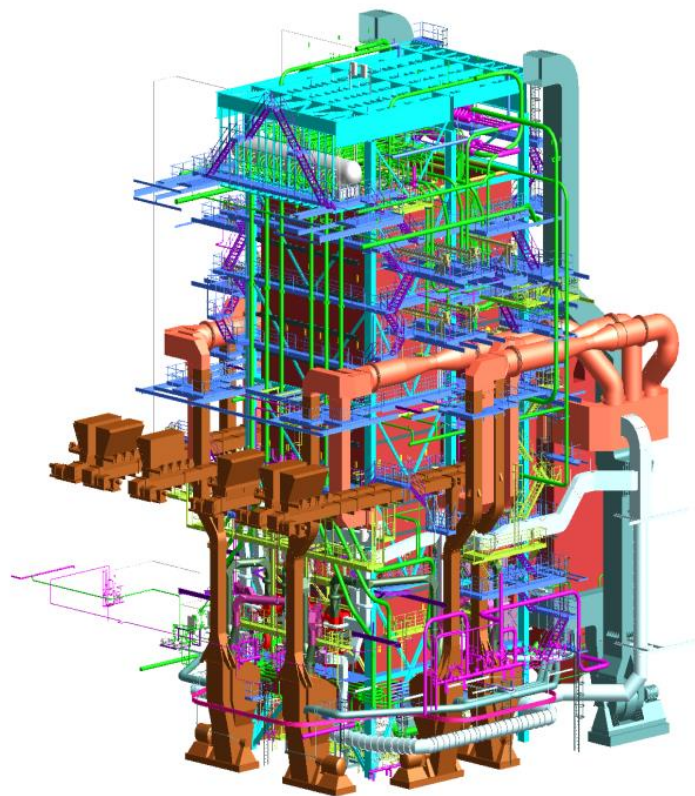
- 375 t/h (355 t/h)
- 140 bar(a) superheated steam
- 32 bar(a) reheated steam
- 540 °C
- wet bottom discharge PC boiler

UNIS Power scope of works

Design, manufacturing, site delivery, erection and commissioning of the whole power plant control system, boiler rehabilitation including complete new firing system, field instrumentation, electrical parts etc.



Boiler first fire



3D model of K6 boiler