



WHR BASED POWER PLANT

7.3 MW Waste Heat Recovery Based Power Plant at Kallur, Gulbarga for Chetinnad Cement Corporation Limited, India

Chettinad Cement Corporation Limited (CCCL), incorporated in 1962, is engaged in the business of manufacturing cement. The company was promoted by Dr. Rajah Muthiah Chettiar. Apart from cement, the group has business interests in Power, Education, Medical, Construction etc. in India.

CCCL has installed the WHR based captive power plant at Gulbarga to utilize the waste heat available in the exhaust gases from the preheater and clinker cooler. The cement plant with an installed capacity of 7000 TPD, was commissioned in 2012. Their main equipment supplier is FLSmidth (India).

The WHR power Plant is getting commissioned soon.

Owner

Chetinnad Cement Corporation Limited



Project Consultant

Holtec Consulting Private Limited, India

Supply of Main Machinery

Transparent Energy System Private Limited, Pune India

Scope of Consulting Services

- Basic study for the waste heat recovery system
- Procurement Services

- Project Engineering Services for the waste heat recovery system.
- Civil and structural design
- Supervision of site activities
- Supervision of plant commissioning

Key Project Data

Quantities

Project Drawings	250 Nos.
Execution Agencies	3 Nos.

Main Equipments

AQC Boiler (1 nos)	14.772 tph
Preheater Boilers (2 nos)	13.609 tph each
Air Cooled Condenser	42 TPH
Steam Turbine	7.3 MW (Gross) 6.9 MW (Net)

Salient Features

- Plant comprising two number of Preheater boilers and one number of AQC boiler.
- Installation of one number of air cooled condenser (4 modules) of design temperature 45 Deg.C.
- One number of single pressure steam turbine.
- Installation of the one number of generator.
- Installation of the one number of auxiliary cooling tower.

Significant Accomplishments

- Electricity generated from the unused heat from preheater and the clinker cooler
- The electricity generated from the WHR system replaced the equivalent amount of electricity drawn from the captive thermal coal based power plant.
- Due to the replacement of the captive thermal coal based power plant from the clean and green power generated from the WHR system reduction of considerable amount of Co2 emission.
- Minimizing the utilization of the CPP power and conserving the natural resources like Coal.
- Clean and the green environment.