UNISPOWER

BROWNFIELD BOILER PLANT RETROFIT AT DUBAI, UNITED ARAB EMIRATES

UNIS Power in consortium with local construction company has supplied as technology leader complete boiler island rehabilitation project within Dubal Aluminium plant, UAE.

The project included dismantling of existing equipment and installation of

- Five heat recovery steam generators with by-pass stack systems
- Common feed water station
- Overall plant control system upgrade

The typical brown field project has been executed for extremely demanding customer. The project has been challenged by the fact that all the technology had to fit existing structures, foundations and battery limits. The control system upgrade has included not only supplied technology but also existing plant infrastructure.

The project has been running for several years as long as the client approved dismantling of existing technology in three steps always after the precedent step had been fully completed and commissioned. As long as number of interfaces with existing technology there was always extremely short time allowed for integrating the new systems when the complete plant put out of operation.

The HRSGs are of vertical design, generating low pressure steam with natural circulation at evaporator circuit. The by-pass stacks serve not only for simple cycle operation but also represent a controlling device of steam generation output. All the equipment is supplied in compliance with ASME Code and local norms and standards.

Client

Dubal Aluminium

Year of Completion

2015 - 2017

Boiler data

- 228 t/h
- 20 bar(a)
- 215 °C
- single pressure
- vertical design
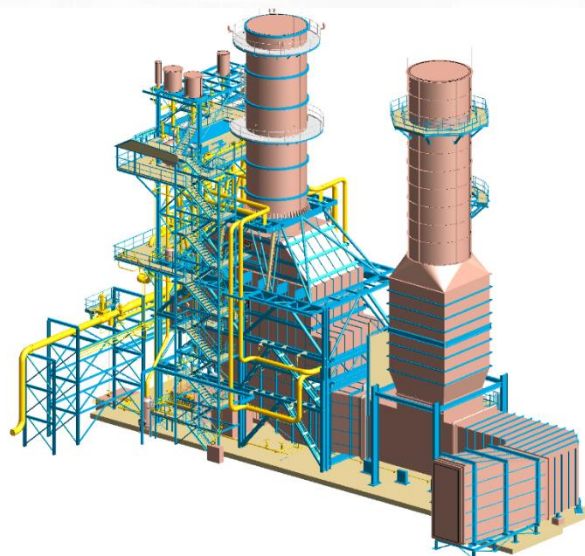
UNIS Power scope of work

Design, manufacturing, site delivery including advisory services within erection and commissioning of five HRSGs including by-pass system, common feed water system, chemical dosing equipment, field instrumentation, overall plant control system etc.

Gas turbine

GE 9 BE

Overall plant view

3D model of HRSG with by-pass stack system