



A Yokogawa Commitment to Industry

vigilance[™]

SUCCESS STORY

Safe and efficient power plant operation Tuas 1, Tuas Power Pte Ltd.

Location: Tuas, Singapore

Order Date: July 1995

Completion: March 1999

Industry: Power

The Tuas Power Station and its associated facilities are located on reclaimed land along the western shore of Singapore. The station occupies an area of approximately 75 hectares and is being built in two stages.

Stage I of Tuas Power Station is comprised of two 600 MW oil-fired steam-generating sets. The power station entered commercial operation in March 1999 when the first of these units was fully commissioned.

Stage II will consist of four combined cycle gas turbines, each capable of generating up to 367.5 MW of electricity. Blocks 1 and 2 of Stage II are already in commercial operation, and the development of blocks 3 and 4 is expected to be completed by 2005.

As part of its work in stage I of this project, Yokogawa supplied the CENTUM CS integrated production control system (DCS) for the plant's very large power generation units. Yokogawa Electric Asia Pte. Ltd., Singapore produced the control system in Singapore and carried out all engineering work.

In addition to supplying Instrumentation & Control (I&C) equipment, Yokogawa handled system design/engineering, configuration, project management, commissioning services and maintenance.

A full scope, high fidelity training simulator was supplied by a wholly owned Yokogawa subsidiary, TechComm Simulation Pty Ltd. This simulator provides training in all aspects of operating complex plant systems and has made a significant contribution in raising the skill levels of the highly motivated Tuas Power Station workforce.

Yokogawa also designed the Tuas Power Station's Central Control Room (CCR), which has won praise from users for its good operating environment. Our CCR design methodology emphasizes the importance of sound ergonomic design in reducing operator errors and facilitating the smooth running and control of processes.

The Tuas Power Station successfully entered commercial operation on schedule and the plant owner has attributed this in part to Yokogawa's good performance in delivering both products and services.

System: CENTUM CS
Total I/O: 43,410 (DIO: 37,300, AIO: 5,840)
System Configuration: 51xFCS, 3xEWS, 29xOperation CRT, 4xAlarm CRT, 2xCCTV,
3xSEM/Visual Annunciator System, 2xOn-line Performance Monitoring System,
3xHistorian System

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