



A Yokogawa Commitment to Industry

vigilanceTM

SUCCESS STORY

ATC

Aromatics Plant

Location: Rayong, Thailand

Order Date: November 2000

Completion: December 2001

Industry: Chemical



Yokogawa has successfully completed a project for a large Aromatics plant in Thailand in end of 2001.

Aromatics Thailand is a huge Petrochemical Complex located at Rayong, Thailand. It processes Condensate as the main feed and produces Benzene, Toluene, Paraxylene, Orthoxylene and Mixed Xylenes including by-products like Light Naphtha, Raffinate, LPG, hydrogen-rich gas, Condensate Residue and Heavy Aromatics.

The Process Units include Feed Fractionation, Naphtha Hydrotreating, CCR Platforming, Feed Preparation, Sulfolane, Benzene/Toluene Fractionation, Xylene Fractionation, PAREX Unit, Tatoray and Isomar Process Units. The Unit produces roughly 200 KMTA of Benzene, 322 KMTA of para-Xylene, 52 KMTA of Toluene, 15 KMTA of mixed-Xylenes and 29 KMTA of ortho-Xylene.

Exasmoc/Exarqe/Exacoast packages were implemented in all the process areas. The plant uses CENTUM CS system for process control. Totally 18 SMOC Controllers and 19 RQE's were implemented, in addition to 7 Exacoast ZBAL Controllers for the various Heaters.

It was a significant achievement for Yokogawa as great satisfaction was expressed by our customer and our alliance partner, Shell Global Solution International. The entire Project was completed in a record of 14 months. The major benefit was realized through the Exasmoc Controller that had demonstrated that CCR feed could be comfortably raised by additional 3% by weight. The payout period is less than 4 months.

The Aromatics (Thailand) Public Company Limited (ATC) recently celebrated the success of implementing Yokogawa's advanced process control solutions at the Reformer units and aromatics units. The reformer units comprise the basic process units: Naphtha/Condensate Fractionater, Naphtha Hydrotreater and Continuous Catalytic Regeneration (CCR) Platforming Unit. The Aromatics mainly consist of Sulfolane, Benzene/Toluene Fractionation, Parex, Isomar, Tatoray and Xylene fractionation. Overall process control is maintained by a modern computerized Distributed Control System (DCS) from Yokogawa. Several key factors have contributed to the success of the project. One of the reasons is the superiority in the technology which is both easy to apply and maintain. Nevertheless, strong commitment to succeed and effort contributed by the team from ATC and Yokogawa, have been found to be far more significant than advanced process control mechanics.

System: CENTUM CS
System Configuration: 23x ICS, 13x FCS, 1x EWS
Scope: Including Exasmoc, Exarqe, Exaopc direct to CENTUM CS

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