INP Reference

Industrial Power Plant near Cologne

LOCATION: Wesseling, Germany

SYSTEM/TECHNOLOGY: Siemens Teleperm XP, HIMA H51q

SERVICES: Production monitoring, Commissioning, Project management, Quality assurance, Site management, Documentation, As-built status and data recording, Pre-project planning and tendering, Basic-engineering and pre-engineering, Detail engineering, Installation supervision, Operations, Maintenance

INDUSTRY BRANCH/TYPE OF PLANT: Large Plants, Power Generation, Chemical plants, Power plants

PROJECT SIZE: > EUR 4 m

POINTS OF CONTACT

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Tasks

Our customer is the world's largest producer of polypropylene and polyethylene. The company's own industrial power plant at its Wesseling site near Cologne was to be modernized.

Project description

The emphasis was above all on increasing availability and restructuring the automation solution, in order to avoid expensive downtimes in production. The task involved migrating all systems and ancillary systems from Teleperm M, ME and B to XP. Specifically, this involves four fossil fuel-fired boilers, six steam turbines, oil and gas supply, coal feeding (dry lignite), feed water, process steam, flare gas compression, condensate system and cooling water system.

Ultimately, because of its expertise in the Teleperm XP control system, INP International Projects received the order to migrate all systems during ongoing operation. A feasibility study was undertaken in a preliminary project, while the resulting concept was started in close cooperation with various service departments of the customer.

INP services

PROJECT MANAGEMENT AND BASIC ENGINEERING

- Consulting, design and structuring of the plant
- Coordination and project management
- Working out and updating the complete project schedule

DETAILED ENGINEERING

- Uniform and consistent automation structure for facilitating troubleshooting in case of malfunction
- Adaptation of the operating pictures for customer-specific requirements and wishes of the operating personnel
- Simplification and revision of existing and new message sequences, message suppression for avoiding message overflow
- Standardized abbreviation of long and short texts, signal statuses according to VGB standard
- Concept and project planning for function groups and control structures
- Concept of the E/H modules over the entire plant
- Division of the entire plant into functional areas and technical availability columns for unpicking the dependencies between sub-systems

FUNCTION TEST AND COMMISSIONING

- Control systems with all operating pictures and interfaces before function test (FAT)
- Function tests (loop check)

SUPPORT AND TRAINING

- Customer support
- Training of the operating personnel

SUB-PROJECT DESCRIPTION

MIGRATION OF THE LIGNITE SUPPLY FOR BOILER 5

Before migration of the boiler system for the lignite-fired steam generator, the lignite supply was migrated from the old PLC technology in 2009, and completely integrated into the control system. The lignite supply chiefly consists of a bunker silo for the lignite dust and subsequent pneumatically filled storage and receiver container.

INP SCOPE OF SUPPLY

- Preparation of the hardware and software concepts
- Basic engineering and working out technological function diagrams as well as control schematics
- Programming and visualization
- Commissioning