MOD 300 Step Up Migration and Modernization of the Control System at Petrocel & Temex, subsidiaries of Alpek group

The Alpek group, one of the leading petrochemical firms in Mexico producing DMT-PTA to the domestic and international market, is investing in the modernization of the Control system through its subsidiaries Petrocel (DMT) plant located in Altamira, Tamaulipas and Temex (PTA) plant located in Cosoleacaque, Veracruz, Mexico.

Client: Petrocel & Temex
Location: Altamira and Cosoleacaque, Mexico
Scope of Work: Turnkey Project for the step up migration and control system modernization including design supervision, commissioning and startup.

“We chose ABB for their expertise in process automation and their Industrial IT technology. ABB really understood our process requirements and offered a customized and innovative solution to modernize our outdated control system to prepare our plant for the market requirements of the new century.”

Mauro Gonzalez
Procurement Manager
Petrocel Temex

When a control system becomes obsolete or to the end of its entire “product” life-cycle, an overall support policy has to be established. ABB’s control systems are designed for continuous evolution. It is ABB’s goal to protect our customers’ intellectual investment beyond the life-cycles of the underlying platform products (i.e. hardware and software) by offering an equivalent replacement to those products and systems and by providing support for as long as there are significant customer needs after “Manufacturing End” through field service, repair and by making replacement spares (new or refurbished modules) available.

The ABB – Temex history started in 1986 with the installation of a MOD30 control system and grew to a MOD300 control system with Multibus in 1988 for the Temex plant in Cosoleacaque, Veracruz. In 1996 ABB supplied another MOD300 control system with Advant stations to the Temex (PTA) plant in Altamira, Tamaulipas. Both systems remained in satisfactory operation according to Temex.

In 2002 Petrocel and Temex chose ABB’s Industrial IT migration technology to migrate the existing control system. The Temex Cosoleacaque plant experienced minimum plant shutdowns with the migration process because of the re-use of existing databases. The project consisted of the replacement of the Model B controller with its direct I/O’s and SC Model controllers to AC460 controllers and S800 I/O’s including the database conversion, engineering supervision, commissioning and start up.

“I am very impressed with ABB’s transparent and fast migration technology to assure a minimum plant shutdown and a reliable plant start up,” said Alonso
Benefits

- Open Control System e.g. for ERP connectivity and real-time data access
- Industrial IT Aspect Objects for improved maintenance activities
- Single source for service and products
- Modern, state-of-the-art DMT-PTA production plants
- Cost savings from low maintenance operations
- Reduced number of plant shutdowns
- Common platform for future migrations

Iparrea, Temex’s Maintenance Manager at the Cosoleacaque plant.

Alfa – Alpek has also awarded ABB the modernization of the Control system at their Petrocel (DMT) plant. The project includes the replacement of the obsolete Forney Control system with ABB’s Operate IT platform, AC800F controllers, S800 I/O’s, the configuration supervision, commissioning and start up of the project.

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