Oil, Gas and Chemicals T-MAC Plus integrated with 800xA in ATPC Success story



Customer & Requirements

ATPC is located in the Port of Antwerp and is connected to an extensive pipeline network and harbour infrastructure providing flexibility for hydrocarbon feedstocks, intermediates and finished products. In January 2010 ATPC was acquired by VTTI, re-directing operations from refining to a more commercial storage provider.

ATPC owns one of the largest dedicated bitumen processing plants in Europe with a capacity of 3,300 tons per day as well as a tank storage facility with a capacity of approximately 950,000 cbm, LPG storage and RTC and vessel handling installations. ATPC Petrochemicals is planning to develop 17 hectare of land for tehe petrochemical, liquid and gas industry.

ABB Solution

The objective was to fully automate the storage and handling of LPG. To automate the entire LPG handling process ATPC turned to ABB for help. The task was ambitious and complex and thanks to the strong collaboration between the two companies the project was a great success. "At a cursory glance, it was an easy project" explained Kris Vinck, the Distributed Control System (DCS) administrator for ATPC. "We wanted to automate the unloading of LPG from tankers moored at the quayside for storage in three spherical tanks or 'spheres' onshore, and from there pump the gas on to rail wagons, which could then deliver the gas to local industries. However, the process must also be reversible because sometimes we must transfer the gas from the wagons to the spheres and then on to tankers."

"Safety is essential because we deal with Liquefied Gas". Therefore we have secure processes, follow strict procedures and carry out rigid checks to maximize safety", confirmed Jan-Willen Bots, project manager at ATPC.

"The LPG train loading is for other reasons complex. Each time a wagon is connected or disconnected, we consider this as a separate administrative order to be processed. Recognition of the wagons, link the order to the wagon, determination of the quantities, starting and stopping the pumps, leak tests,... all this is now done completely automatically and is linked to our ERP (Enterprise Resource Planning) system".







Pictures courtesy of ATPC

Scope of the project

"The automation project took three months to complete", confirms Jan-Willem Bots. "Despite all our preparatory activities, which were made in advance, we had additional requirements that impacted our initial plans and caused several project modifications", such as for example the integration of an additional fire prevention and control system in the LPG project.

"The new automated LPG Loading and Unloading Installation only came into service, after the fire safety and prevention was secured. These adjustments did put pressure on the time frame to complete the project in time", commented Kris Vinck.

What our new system offered to ATPC?

- The project was complex with requirements to integrate many hardware and software components from dozens of different vendors, which made the data communication very complicated, a requirement were handled by ABB's Extended Automation System 800xA.

- ATPC were already familiar with System 800xA and were satisfied with its performance.

- Good experience with ABB having employed them previously to execute other process automation projects for ATPC.

- The entire logistics process and ERP links were set up from the Terminal Management System T-MAC Plus, which was to be integrated within the System 800xA DCS platform. For more information please contact:

Asea Brown Boveri, S.A Oil, Gas and Chemicals Madrid, Spain Phone: +34 91 581 93 93 E-Mail: terminals.automation@es.abb.com

www.abb.com/oilandgas

Note:

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document. We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.

