

Fully Integrated Control and Safety in the Oil and Gas Industry

Mexico's Pemex Utilizes ABB's Integrated Safety and Control Systems at its Gas Processing Center in Burgos



"The precision that ABB's 800xA control system gives us permits us to take the parameters of control to the limit."

System 800xA allows us to visualize the integrated system of security, the fire system and the control system of the processing plants, which represents an enormous reduction in risk.

We have many functions, spread out over large areas. Visualization of the whole plant in one control room, in one point, is in itself a reduction of risks."

*Mr. Israel Martínez
Chemical Engineer,
Superintendent of
Gas Processors
Pemex, Burgos
Complex (Reynosa)*



System Owner – Pemex

Location – Burgos Basin in Reynosa, Tamaulipas, Mexico

Industry – Oil and Gas / Refining

Scope of Work – System 800xA Extended Automation with Emergency Safety as well as Fire & Gas Systems. Also the control systems for both cryogenics plants, the distribution and storage terminal, fluid treatment and the security systems for process and fire. Additionally, the electric panels of all the substations, transformers and entire electrical distribution of the complex.

Background

Petróleos Mexicanos – or, "Pemex," is Mexico's state-owned petroleum company. It is the 10th largest oil company in the world in terms of revenue and ranks 42nd on the list of Fortune 500 companies. It is the largest company in Mexico, accounting for some one-third of the Mexican government's revenues and about 7% of its export earnings. The integrated company's operations, spread throughout Mexico, range from exploration and production to refining and petrochemicals. Pemex's P.M.I. Comercio Internacional subsidiary manages the company's trading operations outside the country. In 2007, Pemex produced about 3.1 million barrels of crude oil per day. Pemex has approximately one hundred forty thousand (140,000) employees.

The relationship between ABB and Pemex Gas (one of four operating subsidiaries of Pemex) began in 1984. Since then the client – provider relationship has grown.

Customer Issues/Business Needs

Pemex Gas requires an automation and safety system that is robust, flexible and powerful; one that enables visibility of information, integration of 3rd party solutions, quick response time, process optimization and the ability to evolve in a logical, cost-effective manner.

In 2002, Pemex Gas began construction of a cryogenics complex near Reynosa (Tamaulipas) to take advantage of the natural gas deposits in



Mexico's Burgos Basin. Pemex' Burgos Complex processes eight hundred million cu. ft. of gas per day, with twenty-four thousand barrels of condensate per day.

Pemex Selects System 800xA

Pemex Gas selected ABB's 800xA Extended Automation Technology to automate process control and safety at its Burgos Complex.

"From my viewpoint as superintendent of production at Burgos-Reynosa, both process control and the safety of this installation depend on the control system," said Mr. Israel Martínez, Chemical Engineer and Superintendent of Gas Processors at Pemex, Burgos Complex. "Correct control of the process and the necessary security for daily activity depend on it. ABB's 800xA control system was selected because it met all our rigorous specifications; including versatility and speed of application. The selection of this control system was made because it totally met our expectations. Our specifications are hard when it comes to versatility and speed of the application."

The 800xA Extended Automation control system allows Pemex the advantage of visualizing the integrated safety system, the fire system and the control system of the processing plants - which represents an enormous reduction in risk.

For more information about ABB safety and control solutions in Mexico, contact the local ABB Mexico organization via phone or email at: + 52 (55) 3601 9500 or: ventas.automatizacion@mx.abb.com.



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