

Case Study

Honeywell Provides Automation Solution for Transgas Atlantico LNG Terminal



“We needed a partner that had a history in LNG terminal solutions and could provide the safest, most efficient environment possible. Honeywell’s state-of-the-art Experion system included the safety features we needed and a very robust single point of control that optimizes process management, operational costs and plant performance.”

Miguel Martin, General Manager, Transgas Atlantico, Sines LNG Terminal

Benefits

At the end of the 1990s, supply and pricing studies showed a need for more flexible and diverse sources of gas supply to the Iberian Peninsula. To meet this need, a new LNG terminal was constructed in Sines, a city on Portugal's Atlantic coast. After a thorough selection process, contractor Tractebel Engineering International selected Honeywell to provide a comprehensive automation solution including Honeywell's Experion® Process Knowledge System (PKS), Fail Safe Controller (FSC®), and fire and gas detectors. Honeywell's integrated automation solution allows Transgas Atlantico's Sines terminal to run with the greatest possible operating efficiency, safety and security. Other benefits include:

- Proven, advanced technology improves employee productivity and reduces exposure to potential industrial hazards
- Maximum security at a plant level and protection at a personnel level
- Operating efficiency with the ability to integrate various subsystems
- Robust, single point of contact optimizes plant operations and process management
- Proven reliability for continuous operations increasing safety and security



Transgas Atlantico's Sines LNG terminal implemented Honeywell automation solutions for continuous safe and reliable operations.

Background

In 2000, the Portuguese government created Galpenergia as a holding company incorporating the national interests in Petrolgal (the state-owned oil company), GDP (the state-owned gas holding company) and Transgas (the natural gas concessionaire) to capture the synergies between the oil and gas sectors. Galp Transgas is the business unit that secures the efficient and reliable supply of natural gas to Portugal. Operated by Transgas Atlantico, an affiliate of Galp Energia, the Sines LNG terminal started commercial operations in January 2004.

The project comprises marine facilities for the reception and unloading of LNG tankers, two LNG storage tanks, LNG re-gasification facilities and natural gas send-out equipment to an export pipeline. The facility occupies a 23-hectare site with some of the largest storage tanks in Europe.

Challenge

Since the 1970s, natural gas supplies to Portugal have been imported via a pipeline running from Algeria and Morocco, which also supplies the Spanish market. At the end of the 1990s, there was a need for more gas supply sources to the Iberian Peninsula. As a result, the Portuguese government approved the construction of a new LNG terminal at Sines.

Prior to the opening of its new Sines terminal, Transgas Atlantico worked with EPC contractor Tractebel Engineering International to identify an automation solution provider.

"A project of this scope required an automation technology that offered superior interoperability and had the ability to grow with our facility," said Miguel Martin, General Manager, Transgas Atlantico, Sines LNG Terminal. "We needed a partner that had a history in LNG terminal solutions and could provide the safest, most efficient environment possible."

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Honeywell Process Solutions

Honeywell
1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Arlington Business Park,
Bracknell, Berkshire, England RG12 1EB UK

Shanghai City Centre, 100 Junyi Road
Shanghai, China 20051

www.honeywellprocess.com

Solution

Transgas Atlantico selected Honeywell because of its 25-year proven history in LNG terminal solutions, and flexibility and depth of offerings. Transgas turned to Honeywell, currently the world's largest supplier of automation solutions for LNG terminals, as part of its commitment to comply with safety, environmental, legal and ethical regulations.

The complete solution installed by Honeywell includes a control system, a fire safety system, fire and gas detection installations, closed-circuit TV, access control and anti-intrusion solutions, all controlled through a single architecture.

"In terms of overall plant performance improvement, Honeywell's solution delivers maximum plant uptime, which is essential to uninterrupted energy supply," continued Martin.

Most important, the solution provides maximum security for the sprawling site and protection for employees, allowing for the safe handling of potentially hazardous materials. Honeywell's advanced technology also enables Transgas Atlantico to operate this LNG terminal with the lowest staffing levels of any LNG terminal in Western Europe.

The main control room provides a single point of control for all systems with full integrity data storage capabilities, a backup upgrade and automated alarm management with full audit trail.

The Experion system integrates applications into a single technology platform, increasing safety and reliability at the terminal, and optimizing process management.