

# REFERENCE CASE PIPELINE



## Independent inspection services for transmission system of steel pipe network in Greece

When Hellenic Gas Transmission System Operator S.A. (DESFA) began construction of the steel pipe network and polyethylene (PE) network in the Thiva Region of Greece, they required an experienced partner to test and inspect the medium pressure transmission system. That's why they turned to TÜV Rheinland.

Basic facts	
Client	Hellenic Gas Transmission System Operator S.A. (DESFA)
Timeframe	July 2007 – March 2008
Project location	Thiva Region, Greece
Main services	<ul style="list-style-type: none"><li>▪ Third party inspection, including witnessing of welding, lowering and backfilling, cathodic protection, hydrotesting, cleaning, calibration, drying, processes</li><li>▪ Non-destructive testing</li><li>▪ Issuance of final certificate</li></ul>
Involved regulations/standards	<ul style="list-style-type: none"><li>▪ EN 287-1</li><li>▪ EN 15614-1</li><li>▪ EN 10208-2</li><li>▪ API 1104</li><li>▪ Owner's specifications</li></ul>

### Initial situation and requirements

The Hellenic Gas Transmission System Operator S.A. (DESFA) was established as a subsidiary company of DEPA S.A., the public gas corporation of Greece. The scope of DESFA is to operate, maintain, manage, exploit and develop the National Natural Gas System and its interconnections, ensuring that the system is both financially viable and technically reliable in order to meet customers' needs as safely and competently as possible. When the DESFA constructed the steel pipe network and polyethylene network for industrial customers, they needed a reliable partner to conduct inspection services of the medium pressure transmission system.



## Solutions, results

Due to its advanced knowledge of inspection services in the oil and gas industry, TÜV Rheinland was the preferred choice for DESFA.

In order to provide the full raft of inspection services DESFA required, we provided a breakdown of the statutory work that had to be undertaken. The inspection was to be conducted along the medium pressure 19 bar transmission system of the steel pipe network and the PE network 4 bar, both of which are part of the Greek Natural Transmission System.

To conduct the statutory third party inspection works, we witnessed the welding, lowering and backfilling processes during construction. As part of post-manufacture inspection works, we conducted non-destructive testing (NDT), such as ultrasonic testing and radiographic testing, and recorded the process of cathodic protection, stringing, hydrotesting and drying of the pipework.

We were able to provide our full complement of inspection services, thus enabling DESFA to achieve the EN 10204 certification they had aimed for. The competitive nature of our bid did not compromise on quality, reliability or the responsible conduct and performance of our expert services.



### Benefits for the client

With the benefit of TÜV Rheinland's services, DESFA was able to enjoy:

- On site inspection, conducted during network production, enabling the elimination of delays to project progress and completion.
- Consistent and thorough application of high standards during inspection process.
- Achievement of EN 10204 certification standard.
- Use of reliable and competent technical expertise, including the use of different NDT methods as part of the inspection service provided.

### Your contact:

TÜV Rheinland Group  
Industrial Services  
is@tuv.com  
www.tuv.com

### Did you know?

The National Natural Gas System transports gas from the Greek-Bulgarian border, the Greek-Turkish border and the Revythousa Island in the Gulf of Megara to consumers in continental Greece.

### About TÜV Rheinland:

Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

We inspect technical equipment, products and services, oversee projects and help to shape processes for companies around the world. Since 2006 we have been a member of the United Nations Global Compact to promote sustainability and combat corruption.

As one of the leading provider for inspection services in the oil and gas industry, we can help you to reduce risk, prevent material defects and ensure maximum safety and optimal functions of your plants and pipelines. Throughout the entire project we can support you with certification, inspection and consulting services and help you meet your obligations for all applicable standards and regulations.