

REFERENCE CASE REFINERY



Advanced Non-Destructive Testing Solutions for an Energy Group in Germany

When one of the largest oil refineries in Germany required material testing of its pipelines during the shutdown period, reliable technical expertise was essential. That is why they turned to TÜV Rheinland for providing advanced non-destructive testing (NDT) services.

Basic Facts

Client	Global group of petrochemical and energy companies
Timeframe	2013
Project location	Germany
Main services	<ul style="list-style-type: none">■ Non-destructive testing of pipe girth welds■ Third party inspection services■ Verification of pipes

Initial situation and requirements

The oil refinery is one of the largest refining facilities in Germany, with a crude oil processing capacity of 17 million tons per year.

During the shutdown period of the refinery, several pipelines were slated to be replaced by newer ones. The corresponding pipe girth welds are traditionally inspected by means of classic film radiation. During this conventional testing method, the facility needs to be shut down as radiography affects human health. Our experts at TÜV Rheinland looked for an intelligent advanced testing method to be carried out during operation in order to reduce inspection time while providing equivalent or even better inspection quality.

Solutions, results

In the search to find a solution for the special requirements, our NDT experts from Germany and the Netherlands sent samples to one of our laboratories to be tested using the radiography method. Another laboratory from our network tested the samples applying the advanced ultrasonic method. Results found by both methods were consistent, so the client selected the proposed advanced NDT technique.

The client was able to save resources as parallel activities related to the shutdown were carried out during inspection. With our help, the NDT part of the shutdown period was shortened, which meant enormous savings in both time and resources.

Did you know?

Our clients profit from our dedicated management platform for the cross-regional exchange of technical and operational knowledge.

Benefits for the client

The client profited from:

- Tailored NDT method solving a special requirement.
- Replacement of the classical film radiography by intelligent advanced ultrasonic testing method.
- Inspections during operation – saving time and resources.

About TÜV Rheinland:

Founded more than 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.

We can provide a full range of conventional and advanced non-destructive testing services through our global network. With our state of the art inspection technologies, you will save overall maintenance costs, improve production quality and ensure reliable operating processes.

Your contact:

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