

CASE STUDY

Detect and localize leaks in Natural Gas Storage Installations



Underground natural gas storage facility in Empelde near Hannover, Germany.
Gerd Fahrenforst/CC BY 3.0

Natural Gas Storage Installations (NSGIs) are remote sites where large volumes of gas are stored. These facilities provide a back up gas reservoir to face consumption peaks due to seasonal variations, among other reasons. Uptime of NSGIs is critical and they need to be available 365 days a year. The maintenance team requires the ability to quickly and effectively scan large areas from a safe distance with the certainty of reliability and accuracy.

Location

Natural gas storage facilities across EMEA

Application

- Natural gas leak detection and location within the facility
- Safe site inspection from facility's perimeter

Time savings

Greater than 80 %

Why use the Fluke ii900 Sonic Industrial Imager?

- Ease-of-use
- Quick scan of a large areas
- Safe inspection distance
- Report generation capabilities
- Time saving

Today's practice

NSGIs need to be maintained and operated to the highest possible standards; as the pressure ranges from 35-100 Bar where they process and condition, filter and remove moisture; both pressurizing and depressurizing then distribute back into the network.

Leak detection at NSGIs is currently performed using conventional methods such as listening and through the use of soap and water. This is, however, not always possible due to safety restrictions and the nature of the area to be tested. Single point ultrasonic leak detectors have also been used but this method is very time consuming and does not guarantee that all leaks will be captured even with trained, dedicated personnel.

Our solution

Fluke ii900 sonic industrial imager enables technicians to quickly and easily locate leaks in the gas storage system at distances of up to 100m away. The sound source (leakage point) is visualized and precisely localized on the display using 64 ultrasonic MEM sensors and a digital camera. A short tour around the installation is enough to get a good "picture" of the situation.

We asked a maintenance leader from a Natural Gas Storage Installation: **"Why did you choose the Fluke ii900?"**



"The ii900 is a fantastic aid to emergency response, so the location of any significant gas leak can be quickly identified from a safe distance, allowing appropriate elements of equipment to be remotely isolated and ventilated from the control room if required."

"After just a few tests, we found how reliable the ii900 is and the versatile ways it can be used."