Turkish Community Protected During Gas Pipeline Maintenance

Sistem Dogalgaz Engineering and T.D. Williamson partner to provide safe line isolation and bypass for valve replacements on Kahramanmaras-Hatay Natural Gas Pipeline in Turkey

#PIPOLENSAFETY

NIVELLES, Belgium – April 1, 2015 – Turkey’s Kahramanmaras-Hatay Natural Gas Pipeline recently required a series of valve replacements in a heavily populated, high consequence area. To safely accomplish this without shutting down the line and significantly disrupting flow, the work area had to be isolated, gas rerouted, and the valves replaced in the shortest time possible.

As the Hatay gas transmission line runs through Hatay, Akbez – a busy community filled with homes, businesses and schools – safety was the top priority.

Sistem Dogalgaz Engineering, the primary contractor, determined the best course of action:
- Isolate the valve station (approximately 35 meters)
- Create a temporary bypass that would ensure continued gas flow to end-users during maintenance
- Replace the valves
- Quickly return the line to full operational pressure and working order

Here is an infographic to walk you through a slightly more complex isolation and bypass.

When performing work of this nature, especially in high consequence areas, there is no such thing as too safe. So Sistem Dogalgaz Engineering contracted pipeline specialist T.D. Williamson (TDW) to perform the required hot tapping and isolation operation.
TDW chose a proven, double block and bleed isolation method – reliant on the patented STOPPLE® Train isolation system – to ensure the safety of both the pipeline workers and Turkish citizens. Watch how a double block and bleed isolation system works.

The team hot tapped a section on each side of the valve station and inserted a 16-inch STOPPLE Train system at each entry point. The technology delivers two independent seals through a single opening to create a double barrier to the line’s pressure. Once set, a bleed port is affixed to the line to bleed the pressure from in between the two seals, creating a safe zone of zero energy.

Once the line was safely isolated, the temporary bypass was connected to the housings of the two STOPPLE Train systems. This approach allowed the Hatay line to maintain consistent pressure above 50 bar (725 psi) during the 10 day isolation and bypass, resulting in reduced cost, increased safety and minimal downstream disruption.

Once the valves were replaced and isolation systems removed, the entry points were sealed, and the line was returned to normal operating conditions, leaving the Turkish citizens and environment undisturbed.

“We hold the safety of the Turkish people as our highest priority,” says Harun Kurt, owner of Sistem Dogalgaz Engineering. “TDW helped us honor that by providing us with a best-practice isolation method and innovative technology to meet our customer’s needs.”

About T.D. Williamson

Optimize throughput and extend asset life – two goals central to every pressurized piping operator, regardless of onshore or off, refinery, transmission or distribution. For more than four generations, the industry has trusted T.D. Williamson (TDW) to help it consistently achieve these mission-critical goals. And TDW has delivered by providing safe and proven pipelines solutions, including:

- Anomaly detection, characterization, and assessment (inline inspection)
- Offshore isolation for valve replacement, riser repair, tie-in, EPRS
- Batching, cleaning, and corrosion control (pigging)
- Hot tapping and plugging for maintenance, repair, tie-in, emergency response

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