

REFERENCE SERVICE/REPAIR

REFIT IN RECORD TIME

Optimal planned maintenance of safety ball valves enables recommissioning on schedule



The natural gas field Völkersen located in the north-western part of Lower Saxony and operated by DEA is one of the most productive in Germany. When operating, as well as during service and preventative maintenance of the surface facilities and the production wells conducted by DEA Niedersachsen, safety has top priority. All components of the plant have to fulfill the highest technical requirements at any time. In the course of regular 5 yearly maintenance of the Central Gas Drying Plant about 20 ball valves manufactured by Hartmann Valves were inspected and overhauled in September 2016. Thanks to early planning and close cooperation all valves could be reconditioned in a short period and taken back into operation right on schedule.



Technical data on the ball valves of the maintenance measure

Refit/Repair

| Quantity | Size | Pressure Class | Feature |
|----------|-----------------|----------------|---|
| 9 | 10" (DN250) | PN100 | 4x fail-safe-close valves with hydr. actuator |
| 6 | 4 1/16" (DN103) | PN520 | fail-safe-close valves with hydr. actuator |
| 2 | 2 1/16" (DN52) | PN690 | |
| 1 | 1 13/16" (DN46) | PN690 | |
| 1 | 1" (DN25) | PN100 | |

New valves procured in preparation for conversion

| Quantity | Size | Pressure Class | Feature |
|----------|-------------|----------------|---|
| 2 | 10" (DN250) | PN100 | fail-safe-close valves with pneum. actuator |
| 3 | 1 13/16" | PN690 | |

„Cooperation with Hartmann's service personnel on-site and during the processing of the different maintenance steps was conducted in close coordination – without any problems.“



Meiko Lindhorst
Maintenance Master,
DEA Deutsche
Erdoel AG

EARLY PLANNING AND CLOSE COOPERATION

A rolling overhaul of safety ball valves took place during the maintenance period of three weeks. For a number of valves, a short time frame of only one week between removal and re-installation was available. Inspection, assembly including mounting of actuators and all pressure and functional tests witnessed by TÜV were conducted at Hartmann's facility in Ehlershausen.

With an early and detailed notification of the maintenance operation by DEA, the measures could also be planned in detail at Hartmann. Thus it was possible to provide the right spare parts in order to react quickly - depending on the valves' condition - even in cases of extensive repair.

The overhaul comprised 19 ball valves of the sizes DN 25 to 250 in pressure classes PN 100 to 690, most of them with safety functions. During inspection the valves were found to be in good condition despite ten years in operation. Notwithstanding this, balls, seatings and seats were exchanged and the painting was restored on all safety valves. During the repair DEA and Hartmann worked together closely and the regular, almost daily coordination contributed to the project's success. The removal of the valves was supported by Hartmann's service personnel, perfectly integrating into the DEA HSE system.

FLEXIBLE REACTION TO UNPLANNED WORKS

Besides the planned maintenance valves from separate construction phase with an unexpected need for repair (due to corrosion and erosion caused by changing operational conditions) were identified. This demand was not planned and thus acquisition of spare parts upfront was not possible. But together with DEA feasible solutions for these issues were found within a short time frame. Some parts for example were available since they are generally on stock or alternative valves could be equipped with an actuator and used as replacement. Thus, all required valves could be installed in time and the plant was re-commissioned on schedule.

NEW EQUIPMENT FOR PARALLEL RECONSTRUCTION

DEA made also use of the maintenance shut-down period for modification of some facility areas. Therefore, additional new ball valves with safety functions, manufactured by Hartmann and delivered and installed together with the overhauled valves were supplied. Hence DEA is ideally equipped for further trouble-free operation.

DEA is delighted with the pure metal-to-metal sealing ball valves which are characterized by durability and low-maintenance during operation. For decades Hartmann has been delivering ball valves and wellhead equipment for DEA for oil and gas production and storage. Furthermore, Hartmann also serves diverse industries such as (petro-) chemicals, power plants and renewables worldwide.

„Based on very good planning and provisioning of spare parts upfront, combined with high flexibility and reliability, all maintenance and project related measures were realized in due time. Especially in view of unplanned maintenance work Hartmann has proven to be a reliable partner developing solutions immediately while focusing on the project's success.“

Frank Nußpickel
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