Case Study

Valves



Summary

Industry: Power Gen - Nuclear

Application: Cooling System Valves

Actual Saving: Superior re-engineering

Payback Period: Immediate



Re-Engineered Superior Replacement for Obsolete Valves

ISSUE

During a walk down at a nuclear power station, ERIKS Valves Core Competence Centre, were asked to assist with the identification of large bore wedge gate valves on a seawater cooling system. The customer wanted replacement valves, or a suitable alternative if replacements were not available.

The valves were identified as 20" / 500 mm nb 'Ham Baker' Cast Iron Gate Valves; there were seven valves in total. The valves were operated via Rotork actuators and in some cases via extension stems and all were located in very tight spaces (pits etc) as additional plant had been added after the initial installation.

The OEM was no longer trading and the original valves were obsolete.

SOLUTION

ERIKS measured and recorded all relevant data and dimensions and had valves re-engineered whilst improving on the original material specification to the exact dimensions which permitted the station to accept and order via an EVAL as opposed to undertaking a complete EC.

The valves supplied were:

500mm Wedge Gate Valves.
Bolted Bonnet, Outside Screw - Rising Stem.
BS1400 LG2 Bronze Body, Bonnet & Wedge C/W Pedestals.
Flanged Ends PN16 FF & Drilled.
Supplied with ISO 5210 F14 Top Mounting Flange.
Max Test Pressure - Body: 23.25 bar

Max Test Pressure - Body: 23.25 bar Max Test Pressure - Seat: 11 bar.

Operated via Rotork electric actuator 16A F1 with Base Flange ISO 5210 F14.

The same situation occurs frequently at power stations across the UK due to the age and original equipment supplied.

know-how makes the difference

OTHER BENEFITS

- Technical know-how
- Improved product supplied
- Reduced life costs

FURTHER COMMENTS...

Where and when possible we strive to offer direct replacements to meet with the Fit, Form and Function requirements of the industry and where this is not possible or practical then we look to improve via materials of construction or operation methods with a view to reducing whole life costs.

MORE INFORMATION

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