

Case Study

Electric actuators provide safety function at combined cycle gas power plant



Industry: Conventional Thermal Power - Turbine Steam Handling

Client: Didcot B Power Station, Oxfordshire, UK

Product: CVA

Summary

Rotork installed and commissioned CVL linear control valve actuators at Didcot B is an efficient combined cycle gas power plant with a net capacity of 1,440 MW approx. power to meet the demands of one million households.

Overview

Didcot B power station is a combined cycle gas power plant that has supplied electricity to the National Grid since 1997.

Challenge

Existing hydraulic actuators controlled the supply of the spray water that is used as an emergency quench in the condensers should the steam turbine trip. An emergency quench within a condenser reduces temperatures and controls gases and is as such a key safety function within a natural gas power plant. These hydraulic actuators needed to be updated to an electric solution as part of a wider modernisation project.

Solution

The choice of actuators from within the CVA range ensures highly accurate and responsive continuous modulation of control valves within the emergency quench system.





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PUB000-279-00 Issue 04/20

Customer Benefits

This installation was part of a wider project at Didcot B to improve equipment reliability and obsolescence/future-proof planning.

The CVL actuators offer precise and reliable control in EX environments. They are also waterproof to IP68, which is essential for this application. The terminal compartment is sealed, vastly reducing the chance of water ingress.

The choice of Rotork for this essential part of the smooth running of the turbines at Didcot B Power Station shows the importance of effective, reliable actuation technology.

The CVL units replaced existing hydraulic actuators and now provide improved reliability and reduced maintenance costs.