Intelligent Rotork solution introduces improved torque control at hydroelectric facility

Forrest Kerr Hydroelectric Facility in Canada recently installed Rotork IQ multi-turn electric actuators for improved torque control.
The Forrest Kerr Facility consists of a diversion weir, intake structure, de-sanding facility, power tunnel, underground powerhouse, tailrace tunnel and an associated electrical substation and transmission works. Unlike regular hydroelectric plants that impound water within a dam, Forrest Kerr redirects a part of the river water to an intake structure near to the meeting point of Forrest Kerr Creek and the Iskut River. This process leaves behind a smaller environmental footprint and minimises the impact on terrestrial and aquatic ecosystems.

The solution at Forrest Kerr consists of Rotork IQ40 actuators mounted on custom-designed knife gate valves.

The IQ actuators replaced electric actuators from another manufacturer at the intake structure and divert 250m³ of water per second. The original actuators, mounted on conventional knife-gate valves, were unable to meet the increased operating torque requirement when excessive sand and grit build-up was experienced around the valves. Rotork representative Summit Valve and Controls Inc. were invited to present a solution and were ultimately awarded the contract for valve and actuator replacement. The solution consists of Rotork IQ40 actuators mounted on custom-designed knife gate valves with 35 ft (10 m) extended bonnets. The replacement IQs are oversized by design, allowing Forrest Kerr to temporarily increase torque output via Bluetooth® remote when the application conditions are more demanding.
Furthermore, the IQ onboard datalogger offers an insight to the application, monitoring and comparing valve torque requirements relative to the initial 'clean' reference stroke and identifying when excessive sand is building up within the basin.
Forrest Kerr is a 195 MW hydroelectric facility owned and operated by Canadian energy company AltaGas Ltd. It is capable of generating enough electricity to power approximately 70,000 homes in British Columbia and will offset more than 450,000 tonnes of greenhouse gases annually.

Nuclear valves for South-Ukraine NPP

The Ivano-Frankivsk Valve Plant has completed production of nuclear group products for South-Ukraine NPP. Produced valves will be used for implementation of a project to replace the iron valves in the reinforcement VF system of unit No2 of South-Ukraine NPP. After successful acceptance testing a batch of 12 valves with a diameter of 300 mm and 350 mm were shipped to the customer.
JSC Ivano-Frankivsk Valve Plant is a manufacturer of valves in Ukraine for the energy sector, oil and gas, chemical and nuclear areas in particular. Products of JSC IFAZ are supplied to nuclear power plants, industrial and chemical plants around the world.

ARAKO delivers high-pressure gate valves

In February 2017, the Company ARAKO dispatched 8 high-pressure gate valves S43 (DN 65, DN 100, DN 200) for the Bulgarian company Toplofikatsiya Sofia. According to the customer's requirement, all the gate valves were equipped with external bypasses and three DN 100 were produced of special material 1.4903 (F91), due to high operating parameters. It was the second delivery of a contract concluded in 2016, where the first delivery took place in late 2016 and included 190 high-pressure globe valves V46.2 and V46.3. The total contract value amounted to EUR 100 000.