

Case Study

Rapid Gravity Filtration (RGF) assisted by Rotork at Welsh water treatment plant

Industry: Potable Water Treatment

Client: Dŵr Cymru Welsh Water

Product: IQT

Summary

Rotork intelligent electric valve actuators were installed to control water flow through a new state-of-the-art extension to a water treatment plant at Cwellyn, Wales.

Overview

Dŵr Cymru Welsh Water is a not-for-profit water company that serves the majority of Wales and Herefordshire.

Challenge

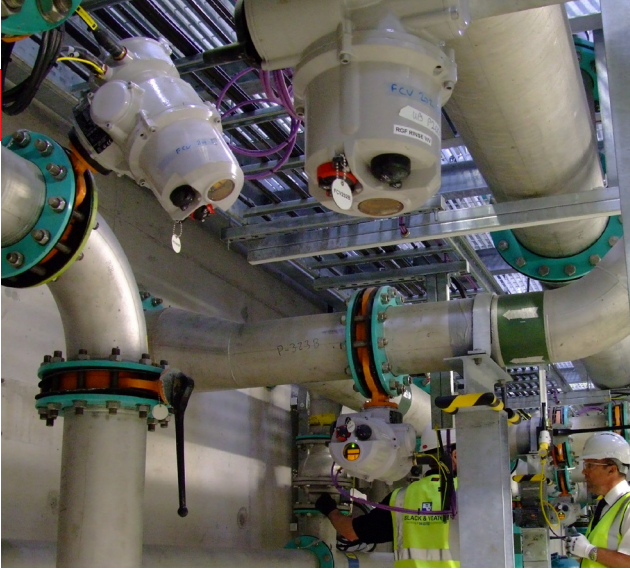
The new treatment and filtration system was designed to clarify the water before it enters the existing works to deal with changing raw water conditions and consistently meet all water quality standards. Appropriate flow control was required.

Solution

Rotork IQT direct drive quarter-turn intelligent electric actuators were installed to operate butterfly valves controlling the flow of water throughout the plant.

Clarified water (after an initial flocculation process) from the Llyn Cwellyn reservoir is filtered through first stage RGF before being pumped to the existing treatment works through ultraviolet disinfection.

IQT actuators now control all valve operations including the inlet works flow control, automatic de-sludging of the dissolved air flotation (DAF) cells, automatic backwashing of the RGF plant and the plant treating the effluent created by the clarification and filtration processes.



Customer Benefits

The successful completion of the upgrade project at Cwellyn ensured drinking water quality for 70,000 Dŵr Cymru Welsh Water customers in the Caernarfon area.

IQT actuators were chosen because of their reliability, low cost of ownership and operator familiarity.

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