

# Incident Summary

## Glenfarg WTW Failure of disinfection 8 August 2019

DWQR Inspector:  
Bill Byers

Event No. 10414

### Event Category: Significant

On 3 August, the standby operator was called out to investigate changes to coagulation pH suspected to be caused by large fluctuations in inlet flows. These stabilised and no impact on treated water was apparent on process monitors. A similar further indication of unstable coagulation pH was noticed by the control centre the following day but this recovered after a short time and no attendance to site was required. A routine review of process trends by the site Operator on the Monday morning, 5 August, however, indicated there was a wider issue with changes to inlet flows and this was escalated to the Team Leader and Managers. A fault with a control valve on the inlet to the main Service Reservoir downstream of the site was subsequently found which caused it to change from flow based to tank level control settings. Some interim changes on 7 August were made to revert the valve to flow based but further work was also required on the process controller which could not be done immediately. A new Process Logic Controller was put in place on 9 August but in the intervening period, elevated inter-stage and final turbidity values were experienced in the works and increasing changes being made by process control systems to maintain coagulation and disinfection process. A failed microbiological sample of the final water taken on 8 August emphasised the stress that treatment processes were being put under. All resamples and the wider system sampling showed no other failures of water quality standards.

DWQR is content that the treatment issues at the works were caused by a defective flow control valve at the primary distribution system Service Reservoir. This was due to a power blip during a thunder storm on 2 August, causing the valve and process controller settings to become corrupted. There is however an underlying issue of widely varying flows through the works causing a strain within process controls, which is due to an inadequately sized clear water tank.

The event has been categorised as Significant. Scottish Water has identified five actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made no additional recommendations.