Drinking Water Quality Regulator for Scotland

Incident Summary

Marchbank WTW
Loss of disinfection
11th June 2025

Event No. 15798

Event Category: Significant

There were two related failures of the disinfection system within less than 24 hours of each other. The first, no disinfectant was added to the supply for 20 minutes, and the ECt was less than the target of 10mg.min/l for 28 minutes. The second, the ECt was below 10mg.min/l for ten minutes. There were no failures of regulatory standards from samples taken.

Crystallisation of sodium hypochlorite in the standby dosing line caused the line to block when it was used, and the flushing valve became stuck in the open position. Instead of hypochlorite being dosed to the chlorine contact tank, it was recirculated back into the storage tank. There was no chlorine dosing for 20 minutes and the ECt was below target for 28 minutes. Crystallisation had been occurred as the standby dosing line had not been used for six months, there had been no routine changeovers between duty and standby for several months, and there had been no inspections or maintenance of the system. The system had previously been changed from auto changeover to manual, but the correct procedure had not been followed, and the appropriate escalation and maintenance tasks were not put in place. Critical repairs by E&M staff were arranged the same day, and while the dosing line was cleaned, the valve was not replaced at this stage. The Operator did not communicate this to other staff or note this in the site diary.

The following morning the duty Operator switched doing to the standby dosing line, unaware that the valve had not been replaced, and then attended to contractors on another part of the site. Chlorine levels dropped, but there was no call from the ICC as there was an open operations log on the site as contractors were working on the site. Operators were not aware

of a further loss of hypochlorite dosing and ECt was below target for around 10 minutes. The Senior Operator noted that there had been a slight drop in final chlorine, and inspected the flush valve - a manual valve was fitted and a replacement ordered.

The event has been categorised as significant. Scottish Water has identified ten actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made zero additional recommendations.