Technical Inspection of Scottish Water's Water Treatment Works

Finlas WTW

28/08/2019

DWQR Staff Present	Colette Robertson-Kellie, Hollie Armstrong, Rosemary Greenhill
Scottish Water Staff Present	Pat McClafferty, Iain Lobban, David Seales, Amy Gove, Stacey Mellon, Fruzsina Foldes, Craig McKee, Jennifer Burrows

Summary of Inspection

Overall Summary

At the time of the audit, the quality of the supply leaving Finlas WTW was good. Finlas appeared to be a well run site, with very knowledgeable and experienced Operators. General housekeeping at the site was good and task scheduling was consistently well completed. The works coped well with an extreme weather event earlier in the year, which generated unusually poor raw water quality, though significant Operator intervention was needed to maintain final water quality. Polyelectrolyte dosing was started earlier in the year, which the Operators reported had significantly stabilised the operation of the flocculation process; there had been Cryptosporidium detections at the works prior to the installation of the polyelectrolyte, and it is likely that polyelectrolyte dosing will help lower this risk.

Labelling across the site needs to be reviewed, with particular priority given to the alum delivery point and filtered water turbidity monitors. It was noted that phosphate levels were highly variable, and staff reported that this is likely due to damage sustained by a spillage of sodium hydroxide (caustic) during a chemical delivery ten years ago, during which 5,000 litres of sodium hydroxide spilled over the MCC panel. Staff also reported that other spurious events have been occurring on the site, potentially linked to this panel, and it is recommended that Scottish Water carries out an urgent risk assessment on this MCC panel.

In the past two years there have been numerous exceedances of the manganese standard at the works and from consumers' taps. At the time of the audit it was reported that the manganese removal stage had been started up earlier in the year, but the DWSP states that the manganese removal stage is not operational, and that raw water manganese levels are 'well within the treatment process capability'. The DWSP should be updated to reflect this clear risk.

There were no records of calibrations or servicing of bench water quality instruments. This is unacceptable and must be addressed promptly.

Filter 3 backwash was observed - visual inspection showed an even airscour and good clarity of backwash water at the end of the wash.