Incident Summary

Cargen WTW
Disinfection Failure
16th February 2022

DWQR Inspector:
Moira Malcolm

Event No. 12416

Event Category: Significant

On 16th February 2022 Cargen WTW was placed on generator power to mitigate the effects of potential mains power failure due to an amber weather warning and the forecasted Storm Dudley. When the operator arrived on site the following morning they discovered that the borehole pump generator was running but the generator serving the chlorine dosing pumps had stopped with no disinfection dosing for 16 hours. They set the dosing pumps to run at a higher setting to reverse the shortfall and normal dosing was resumed on the morning of the 18th February. Reactive sampling from the final sample tap and in distribution found no failures. Due to the loss of signal from the chlorine monitors it is not possible to evaluate how quickly the chlorine level in the clear water tank fell, however there was a small residual noted in distribution during sampling.

Scottish Water's investigation into the incident found several failings that contributed to the incident. The Intelligent Control Centre (ICC) who were monitoring and triaging calls to the incident team due to the high volume during the storm were unaware that there were two generators running Cargen WTW. This lack of information led them to interpret the alarms they received as issues with the instruments being affected by the lack of mains power, rather than a generator failure. The ICC updated the incident team at 20:00hrs to notify them that Cargen had a high final water turbidity alarm, however the instruments reading a negative value (due to the generator failure) were not raised in the report. In addition, the auto shutdown on low chlorine failed as there were issues with communications between the two sites

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