

# Incident Summary

## North Hoy WTW Failures of disinfection 25 January and 2 May 2017

DWQR Inspector:  
William Byers

Event Nos: 8268 and 8446

### Event Category: Significant

On 25<sup>th</sup> January 2017, an air lock in the sodium hypochlorite dosing pump resulted in a failure of the disinfection process for a period of some 12 hours. Although an alarm of process failure had been received by the Control Centre, they were unable to raise a field response due to poor mobile phone reception in the area. Even with escalation to the team leader, contact could not be made until early the next morning, over 11 hours after the alarm was generated. The problem was swiftly resolved upon attendance at the site. A further instance of an air lock on the sodium hypochlorite dosing pump resulted in a failure of the disinfection process in the early hours of 2<sup>nd</sup> May. This time, for a period of over 6 hours. Despite the Control Centre receiving a process alarm from the site, they were again, unable to contact either of the treatment works operators due to mobile phone connectivity problems. On attendance at the site, the air lock was quickly removed and disinfection reinstated. On further investigation of the issue, it was found that the disinfection controller, installed following the previous failure to enable automatic shut down on loss of disinfection, had not operated. The investigation found that this required the raw water pumps to be operating in automatic mode and they had been switched to manual control, negating the safeguard. Samples taken in both incidents to monitor water quality at the works, in distribution and at consumer taps did not fail microbiological standards.

The cause of both these incidents is the failure of the disinfection system due to air locking in the dosing pumps.

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