Drinking Water Quality Regulator for Scotland

Incident Summary

Loch Calder WTW
Loss of Ammonia Dosing
Date: 17th January 2025

Event No. 15345

Event Category: Significant

Following planned activity on the ammonia dosing skid, human error resulted in a valve being left shut. This resulted in a loss of ammonia dosing and the supply of water with a free chlorine residual for 48 hours. Subsequent low chlorine residuals were experienced towards the extremities of the distribution network, however all samples complied with regulatory standards.

Scottish Water received 6 consumer complaints relating to the taste/odour of the water supply, with additional comments about taste issues highlighted on social media and an article reported in a local newspaper.

The loss off ammonia dosing was caused by human error, when the dosing skid inlet feed valve was accidentally left shut following a drop test.
The loss of dosing was exacerbated by the following factors:

- The ammonia monitor had flat-lined the day before the event, holding it's last known value (0.39mg/l);
- The ammonia dosing flow switches had not been set up correctly, so did not control or alarm effectively after ammonia dosing was not restored following a drop test;
- A lack of checks or communication with the ICC following the initiation of a prime / calibration of the ammonia monitor;

- The final water free chlorine monitor showing on telemetry is not present on site. This contributed to Scottish Water's Intelligent Control Centre (ICC) incorrectly interpreting a Low-Low ammonia alarm following the ammonia monitor calibration as an instrument issue rather than a genuine alarm.

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