

Glenconvinth WTW Incorrect Ammonia Dosing July 2012

DWQR Inspector:
Matt Bower

Summary of Incident

A combination of errors and a lack of water quality monitoring caused ammonium to be overdosed into the treatment process for several days. This resulted in a number of exceedences of the ammonium standard in samples taken from the distribution system and some complaints from consumers about the taste of the water. There is likely to have been no impact on public health.

DWQR Assessment of Cause of Incident

A works operator made up a batch of ammonium sulphate which is added to chlorinated water as part of the chloramination process. No indication was left on the SCADA system that this had been done, and consequently a second operator added a further dose of ammonium sulphate to the tank, without checking the strength of the solution that had been made. Due to limited water quality monitoring, including one scheduled bench test for ammonium being missed, the overdoing was not identified for a number of days until another Scottish Water employee commented on an adverse taste to the water. There had also been a number of complaints from consumers. There were a number of other problems at the works at this time that may have delayed identification of the problem.

The incident was caused by poor procedures at the site and inadequate monitoring of water quality. During investigation of the incident by Scottish Water, a number of other issues came to light and were addressed.

DWQR Assessment of Actions Taken by Scottish Water

Once the problem was identified, correct ammonia dosing was restored.

In order to prevent a recurrence of this incident, Scottish Water has improved procedures for making up ammonium sulphate at the site and reminded staff of the importance of regular water quality monitoring. It has also increased the frequency of chlorine instrumentation calibrations, which was a peripheral issue highlighted during the incident. DWQR considers these actions to be appropriate