

Incident Assessment

Loch Calder WTW
Ammonium Failure
8 February 2016

DWQR Inspector:
Moir Malcolm

Event No. 7483

Event Category: Significant

Summary of Incident

On 8th February 2016 an ammonium sulphate sample result above the prescribed concentration or value (PCV), taken from Loch Calder WTW was reported to Scottish Water's public health team. A routine bench test carried out by the site operator on the 10th February discovered that the ammonium dosing pump had been overdosing, and reduced the dose rate to an appropriate level. The previous bench test had been taken on the 3rd February, so the pump had increased speed at some point between the 3rd and when the sample was taken on the 5th February. It was not noted by the Intelligent Control Centre (ICC) as the ammonium monitor had been offline since 1st February.

No customer complaints were received as a result of this incident.

DWQR Assessment of Cause of Incident

The cause of the incident was the ammonium pump speeding up and overdosing ammonium to the treatment works. This was not noticed because the ammonium monitor was offline and bench tests were only being taken weekly.

DWQR Assessment of Actions Taken by Scottish Water

The Scottish Water operator who attended site on 10th February to conduct the scheduled bench test noted the high result and reduced the dosing speed appropriately. However it is not satisfactory that the non-compliant regulatory sample was not passed to operational staff for immediate action, and that even when informed, no test was conducted until the scheduled weekly test on the 10th.

It is also not satisfactory that ammonium sulphate dosing pump calibration tests and bench tests for ammonium were only being carried out weekly, despite site operators awareness (a) of a known problem of drift with the dosing pumps and (b) that the ammonium monitor was offline due to a fault.

The event has been categorised as Significant. Scottish Water has identified a number of actions and DWQR accepts that these are appropriate. In addition, DWQR has made one recommendation and will be monitoring to ensure both it and the actions are completed prior to signing off the incident.