



Drinking Water Quality Regulator
for Scotland

Incident Assessment

Glenlatterach WTW
Coagulation Failure
17 October 2011

DWQR Inspector:
William Byers

Summary of Incident

On 17 October 2011, at 02:30hrs, the standby operator was called out to the site to investigate a high pH alarm. On arrival at site, he found the aluminium sulphate dosing pumps were running but no alum was being dosed and this was due to the duty alum tank being empty. The standby tank was then brought on line and the process restarted. A check on the final water quality from the works showed this to be satisfactory but the quality of the filtered water was poor showing elevated aluminium, colour and turbidity. The inlet flow was reduced to allow recovery of the processes and the plant production was diverted to waste to prevent any undue contamination of the stored treated water. Once the process had been restored and the monitoring showed parameter values returning to normal, the operation of the plant was resumed.

DWQR Assessment of Cause of Incident

Scottish Water has identified the failure of the alum dosing was due to human error. The dosing system at this works is manually operated and the operative failed to swap the dosing line over to the full standby tank to ensure sufficient alum would be available for continuous overnight operation. More immediate response to the failure could however have been achieved and final water quality preserved if appropriate alarms had been set on the dosing plant. Records show that alum dosing ceased at 23:30hrs on 16 October, some 3 hours before the pH alarm generated an operative response.

DWQR Assessment of Actions Taken by Scottish Water

DWQR is satisfied that the actions taken to recover the treatment process and to ensure any detrimental effect on final water quality to consumers was minimised, were appropriate. The incident however did cause failures for manganese and aluminium in 3 final water samples taken over the following days to be recorded. DWQR considers that this was a basic and entirely avoidable event and that steps should be taken to provide failsafe methods of maintaining production and water quality at this works.

Scottish Water identified one action from this incident. DWQR accepts that this is appropriate and will be monitoring to ensure it is completed prior to signing off the incident. Additionally, DWQR made one recommendation following the incident:

