

Amlaird WTW

24 January 2012

DWQR Staff Present

Matt Bower, Bill Byers, Sue Petch

Scottish Water Staff Present (& Titles)

Les Stirling, Stephen Hogg, Chris McIntyre, Derek Cook, Hugh McAully, Peter Ross, Andy Grant
Ejaz Rasool, Lesley Crawford

Summary of Inspection

Overall Summary

Amlaird is a medium sized water treatment works supplying the towns of Kilmarnock, Galston, Kilmaurs, Stewarton and Dunlop. The works is well maintained and the staff very competent. However, during 2011 there were ten event notifications made to DWQR for a variety of reasons. Of these, five were classified as water quality incidents - this indicates a lack of robustness at this site. There has been a substantial deterioration in raw water colour which presents significant challenge to the existing processes at certain times of the year. A full process review has been undertaken by external consultants and the recommendations to improve the robustness of treatment are currently being implemented. In addition to this Scottish Water are carrying out a strategic review of the future supply arrangements for this area.

Number of Findings: 12

Score (out of 6)

Quality of Water Produced

3

Adequate

Amlaird generally produces satisfactory water quality. There have been instances over the previous two years where levels of trihalomethanes, iron and manganese have exceeded regulatory standards. Scottish Water is currently making some interim remedial interventions to improve both the robustness of the treatment process and minimise the impact of highly coloured raw water.

Robustness of Treatment Asset

2

Weak

The treatment process at Amlaird should be appropriate for the raw water to be treated but a step change has occurred in raw water colour in recent years. During periods of exceptionally high colour usually experienced in Summer months this requires a coagulant dose beyond that of the design of the works and can result in higher than normal levels of iron and organic carbon in the treated water.

Operational Practices

3

Adequate

The staff are highly competent and have a good understanding of the treatment processes. High levels of operational input are required to optimise the treatment under all conditions. The necessary checks and optimisation were being carried out though some tasks not completed as frequently as scheduled during Summer months.

Maintenance of Asset

4

Good

Key maintenance tasks appeared to be being undertaken and specialist maintenance contracts were in place for critical items of plant such as the DAF compressors.

Safeguards and Procedures

3

Adequate

The treatment process had appropriate alarmed monitors though no on-line monitoring for raw water quality. Power failure procedure needs to be updated and plans are in place to automate the contact tank outlet valve which should improve the speed of shutdown should a critical component fail.

Water Safety Plan Development and Implementation

4

Good

The water safety plan was reviewed and found to be thorough in the risks assessed. Timescales were all acceptable.