

**Technical Inspection of**

**TORRA WTW**

**Date of Inspection**

**Date** 19/02/2015

**DWQR Staff Present**

Moira Malcolm, Sue Petch, Matt Bower

**Scottish Water Staff Present (& Titles)**

Iain Ogilvie (Regulation Team Leader), Robert White (Area Manager), Martin Dunne (Operations Team Leader), Scott Lambie (Process Science Team Leader), Pamela Hamilton (Asset Planner), Euan Fraser (Senior Operator)

**Summary of Inspection**

Torra is a small treatment works (0.9Ml/day) serving the Southern part of Islay. The process consists of a coagulation, clarification (FBC's), filtration, manganese removal and disinfection which are robust processes for the type of raw water encountered. The process is operating well and the quality of water produced is very good. Disinfection does not meet current best practice with contact time affected by a very high pH of disinfection. A number of issues were noted in relation to record keeping - instrumentation calibration and filter records. The condition of the rapid gravity filter media was unknown and concerns noted by Scottish Water in relation to sand loss, plans were already in place for a specialist contractor to carry out a review. Site was tidy and generally in acceptable condition, though issues were noted related to flaking pain on the interior surfaces of process tanks.

**Observations**

*Issue*

*Intervention*

<b>Observations</b>	<i>Issue</i>	<i>Intervention</i>
Sample point for dosed water pH at risk of blockage (located at base of flash mixer)		Relocate sample point
RGF's - media condition unknown and concerns over media loss		FIITech to carry out an assessment - already planned
Paint flaking on interior surface of flash mixer, flocculators, FBC's and MCT's		Review condition of tanks and remedy
Aztec Al monitor for RDF's A&B and Raw not operational		Repair monitor
Soda ash dosing pipework leaking		Repair as necessary
Calibration records not being completed		Implement procedure as documented
No telemetry link for final water monitors		Install appropriate remote link
Alum delivery point bolted flange, but not chained		Improve security of dosing point
Final water pH monitor not operational		Repair as necessary
No separate backwash water tank, water pulled from contact tank, potential to impact on CT and affect Chlorine control loop		Assess feasibility of provision of a separate tank and implement recommendations from feasibility study
Disinfection pH is high, with a significant impact on CT		Review options for improving CT
Chlorine dosing control loop time is very long		Assess feasibility of moving the chlorine residual control point and implement improvements
No means of carrying out on-site assessment of effectiveness of manganese removal available		Consider the provision of a bench Mn monitor