

Technical Inspection of Scottish Water Distribution System

Invercannie Regulation Zone, East Region

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Summary of Inspection

Overall Summary

An audit on aspects of the operation and maintenance of the Invercannie water supply distribution system in the Banchory area, taking in Broomhill service reservoir, boundary valve management and Operations activity on the distribution system. There had been repeated low level microbiological failures of samples taken from the Service Reservoir within the past two years with the asset condition attributed as being the root cause in all cases. The tank was in service with remedial work carried out clear to see and appearing to be of a good standard. There were minor deficiencies noted in the requirements for the management of boundary valves.

Scottish Water's provisions for repairs within the distribution system was found to be of a very poor standard. Whilst no pipeline repair activity could be witnessed, the condition of two repair vehicles attendant at the site were entirely unsuitable to the requirements for hygienic working practice. Both appeared to be carrying an excessive degree of equipment and materials resulting in a dirty, cluttered and cramped workspace where the safe access to fittings and hand tools was clearly not possible. The two vans illustrate a number of concerns not only at a track-side level but also the support given to repair squads and the overall arrangements made for transport of materials and equipment to ensure safe working.

Number of Findings:

9

Quality of Water

There were two water quality events for low level Total Coliform failures at Broomhill service reservoir at the turn of the year 2018 -2019 with the asset condition attributed as being the root cause. Consequently temporary repairs had been made and the tank cleaned. The tank was bypassed and fully refurbished before being returned to service on 20th March 2020. A further two low level Total Coliform failures have since occurred with the root cause still being investigated.

Asset Robustness

At the time of audit, the SR was in service following remedial works being carried out. The site was well maintained with good access, stock proof post and wire fence all round and a padlocked gateway. The remedial works carried out to both the SR and the bypass tank are clear to see and appear to be of a good standard. Access covers were opened to check on their internal condition and these were in order.

Operational Practices

Scottish Water's provisions for repairs within the distribution system was found to be of a very poor standard. Whilst no pipeline repair activity could be witnessed, the condition of the two repair vehicles attendant at the site were entirely unsuitable to the requirements for hygienic working practice. The two vans illustrate a number of concerns not only at a track-side level but within the overall arrangements for transport of materials and equipment to ensure safe working and the support given to ensure vehicles meet the required standard. A number of recommendations are made.

Management of Risk

The requirements for management of boundary valves between distinct supply areas were not met in the valve audited, where a deficiency in either the use of the reporting line or recording of information and the re-foaming of valves following changes in valve status was apparent.

Recording Information

Information on the water supply system is maintained in the Geofield GIS on field laptops. All NSO's etc. have access to the up to date information on layout and valve status. This was demonstrated to inform on the boundary valve subject to audit. The new format of tank inspection reports provided by the Contractor are much improved, now containing a high level of information on internal apparatus and internal/external condition.

Water Safety Plan

N/A