

Tomnavoulin WTW Cryptosporidium Failures 31 May 2012

DWQR Inspector:
William Byers

Summary of Incident

An incident was declared by DWQR following failure of the Cryptosporidium standard and the necessity to provide alternative water supplies to consumers in Tomnavoulin, Aberdeenshire in early June 2012. Tomnavoulin water treatment works essentially consists of a membrane process and this was subject to an extended period of non-compliance of the cryptosporidium standard through 2011. DWQR also declared this to be an incident and the Assessment of this can be viewed on our website. The final actions resulting from this were completed in April 2012 and DWQR visited the site at that time to view the works carried out.

The further failures, commencing on 31 May 2012, indicated that the remedial works had not been fully effective and the membrane plant required further, more detailed examination. Investigations by Scottish Water and specialist contractors were inconclusive as to a definite cause and given the history of problems at the site, a decision was taken to completely remove the membrane plant and replace it with a more modern version. Over this period and following discussion with the Consultant in Public Health Medicine, a restriction on water use (Boil Notice) was placed on consumers. With removal of the membrane plant, Scottish Water cleaned the clear water storage tanks at the works and provided water by tanker from the Aviemore system, to maintain the level in the tanks and thereby serve consumers in the village. After a series of satisfactory samples had been obtained, the restriction on water use was removed on 22 June.

The new membrane plant was positioned on site in mid July and after a commissioning period and a series of clear samples had been demonstrated, the new plant was introduced into service on 1 August 2012.

DWQR Assessment of Cause of Incident

It is disappointing that further failures were experienced so soon after the previous attentions to the plant. It seems likely however that difficulty in obtaining an effective seal on the membrane tubes was the cause of the problems.

DWQR Assessment of Actions Taken by Scottish Water

DWQR acknowledges the considerable efforts taken by Scottish Water to investigate and understand the problems at this site and to implement remedial actions. Staff took appropriate measures in the escalation of their investigations and ultimately, replacement of the membrane plant ensures that consumers should not experience further disruption to their water supply.

Scottish Water identified a number of actions from this incident. DWQR accepts that these were appropriate and will be monitoring to ensure all are completed prior to signing off the incident.