



PRIVATE WATER SUPPLIES – CASE STUDY 2014/08

Dealing with common enforcement challenges: as illustrated by a case of a Regulation 18 Notice served on a large private supply to a school

This case study concerns a boarding school with around 300 pupils and staff. The premises is situated in a suburban area, but enjoys its own expansive private grounds. The school is served by a private water supply which draws water from a borehole, into a storage tank. Chlorine dioxide is generated on-site and is dosed into the borehole water just prior to where it enters this storage tank. There is a standby mains supply to this tank, fitted with appropriate backflow protection (air gap). The dose of chlorine dioxide is continuously monitored with an alarm setting of 0.42mg/l which triggers an SMS message to maintenance staff and shuts down the chlorine dioxide system.

The supply was originally risk assessed by the local authority in 2011. The monitoring history was satisfactory and no high risks requiring mitigation were identified, although the range of hazards covered by the risk assessment methodology was fairly limited. The compliance sampling strategy was confirmed as two checks and two audit samples annually. Four convenient sampling locations were identified for these purposes and each was sampled annually by means of two sample visits a year. In October 2014, one of these planned samples was reported as containing both *E.coli* and Enterococci. The tap in question was located in the caretaker's lodge and was used mostly by cleaning staff and by pupils changing after sports lessons. The sample was collected by a company contracted to the local authority (working towards accreditation under ISO17025) and, a UKAS accredited laboratory carried out the analysis.

On receipt of the unsatisfactory sample report, the local authority served a Regulation 18 Notice on the relevant persons to restrict the supply while an investigation was carried out. The school was given options for restricting the supply – boiling all water for domestic purposes or use of an alternative supply (mains water, bottles, bowsers etc.). The school concluded that boiling water was impractical and challenged the need for and proportionality of the Notice. The water service contractor to the school then sought independent advice from the Inspectorate. It was explained that the local authority had a duty to serve the Notice to protect public health in the short term, allowing time for an appropriate investigation and implementation of any identified remediation measures found to be needed.

The Inspectorate was concerned to note that only the contractor knew about the existence of a back-up mains supply. If this information had been known to the school management or the local authority then it would have been straightforward for alternative supply arrangements to have been put in place without delay. The risk assessment tool provided by the DWI includes the need for a documented plan for alternative supply arrangements and flags this as an essential requirement, particularly for a supply serving a public building. The tool generates a high risk if an emergency plan and communication strategy is not in place. The school has since put in place such a plan.

Investigational resamples taken from the original tap continued to fail for *E.coli* and Enterococci and this led both the school and its contractor to argue that the compliance sample should be from the storage tank instead. It was



necessary for the Inspectorate to give further advice, explaining that the definition of the point of compliance, which derives from the EU Drinking Water Directive, is 'at the point where water is drawn off for use', i.e. taps. The school was very persistent in explaining that water drawn from the tap in question was only used by cleaning staff and for hand washing, and also that water consumed from the tap would always be boiled in a kettle before use. It therefore became necessary for the Inspectorate to explain Section 218 of the Water Industry Act 1991 which defines the 'domestic purposes' which fall in scope of the Regulations: drinking, food preparation, cooking and washing (sinks, baths, showers) and other sanitary purposes.

Following this event, the local authority has updated the regulatory risk assessment using the Inspectorate's tool. While improvements had been made around documentation, records, alternative arrangements etc. there were still some recommendations made (e.g. recording dates for tank cleaning). The school has also implemented a water safety plan approach, which requires the supply assets and management arrangements to be comprehensively documented so that there is a schematic diagram and clear procedures covering alternative supply arrangements and the responsibilities of the various parties for maintenance and communications. Additionally, the school instructed its maintenance staff to inspect taps around the site and take steps to remove or put in place 'not for drinking' signage for any tap at high risk of becoming contaminated. This facilitates the local authority collecting future compliance samples from any tap used for domestic purposes at random, thereby building up a monitoring history representative of water 'at the point of use' over time.

This case study illustrates some of the common misperceptions that tend to cause either private supply owners or their contractors to challenge the enforcement activities of local authorities. Whereas the Inspectorate will always step in, when asked, with impartial authoritative advice aimed at helping all the parties to a common understanding of their roles and duties, local authorities could reduce the number of occasions when such interventions were necessary if they were to provide clear information to supply owners about the duties and powers of relevant persons and themselves, as set out in the Water Industry Act. The Inspectorate has observed how most of the information provided to private supply owners by local authorities is focused on the changes to the Regulations that came into force in 2010 therefore lacking the wider context of the legal framework. When supply owners and managers do understand their responsibilities for the sufficiency and wholesomeness of a water supply provided for domestic purposes, and realise that these duties are nothing new (set out in Acts of Parliament dating back as far as 1934), they are more inclined to compliant behaviour and more accepting of the process of regulatory risk assessment, monitoring and enforcement as valuable reassurance that they are doing the right thing.

