PRIVATE WATER SUPPLIES – CASE STUDY 2013/09

Magistrates dismiss an appeal by a private supply owner against a Regulation 18 Notice

This case study is about a large historic building open to the public regularly throughout the year. The private water supply comprised two sources: a borehole and well. The borehole water was combined with well water and disinfected with UV light just prior to where it was used in the kitchens. Untreated borehole water was used to supply a shower block, toilets and animal troughs.

Historically, under the old 1991 regulations, the local authority monitored the water quality of each source six times a year. Between February 2002 and August 2004 the borehole samples failed for coliform bacteria on ten of the 16 occasions, with four samples containing *E.coli*. The results from the well supply showed this to be of worse quality, with coliform bacteria detected in 11 out of the 16 samples and *E.coli* present in five. Under the old regulations the local authority took no action until they received sample results with higher than usual counts in a well sample in August 2004. At this point the local authority advised cessation of the use of the well supply for any domestic purpose. Believing the well to have been taken out of service, the local authority then continued to monitor just the borehole. Between 2005 and 2009 the results show that coliform bacteria continued to be present in borehole samples (eight out of 27 samples with *E.coli* present on one occasion).

When the new 2009 regulations came into force, the local authority carried out a risk assessment of the supply. A report was sent to the owner making a number of recommendations to improve the safety of the supply. This report reinforced the earlier advice that the well supply should not be used for domestic purposes without boiling due to its poor microbiological quality. However, it also identified manganese concentrations above the standard and a concern that this would deposit on the UV bulb rendering disinfection ineffective. Notwithstanding this potential health risk (ineffective disinfection), the local authority served a Section 80 improvement Notice (not a Regulation 18 Notice) requiring treatment for manganese removal on the grounds that the water was not wholesome by virtue of manganese being present above the standard. The Notice was put in place in July 2011 and the owner subsequently installed filtration on the borehole; however, the level of manganese at the kitchen tap continued to exceed the manganese standard. The owner attributed this to deposits in the pipes, but agreed to put in place a programme of maintenance for the UV unit.

In September 2012, a planned audit sample contained *E.coli* and coliform bacteria. When the local authority investigated it found the well was back in use and the UV treatment unit was not being adequately maintained. The owner explained the well had been brought into use earlier in the year

because low rainfall had reduced the yield from the borehole. The local authority advised the owner to take remedial action to make the wellhead watertight (to prevent the ingress of surface water) and to examine the capacity of the UV unit to ensure that it is designed to treat the maximum flow rate. At this time, there was a large public event due to take place with many visitors on site over a weekend. The local authority therefore asked the owner to provide the public attending this event with bottled water or boiled water (hot drinks).

At this stage the local authority had clear information showing that the owner had only carried out one of the actions identified as necessary by the risk assessment report in 2010 (capping of the borehole). There was no regular maintenance programme for the UV unit, no log being kept of any maintenance or other operational actions, and the well was being used. It was also realised that the requirement for water for other domestic purposes (shower block) to be wholesome had not been adequately addressed before this point in time. A Regulation 18 Notice was therefore issued setting out the following: restriction of the drinking water supply so that consumers were informed about the safeguards they should take to protect public health (achieved through notices around the site), work to render the well watertight, treatment to ensure water supplied to the shower block was wholesome, a maintenance programme and the development of a water safety plan.

The owner appealed the Regulation 18 Notice. His objections were as follows: he considered the Notice invalid because it did not specifically refer to which of the two sources it applied (the well or the borehole). He also felt that the grounds for serving the Notice had not been set out and he disputed that the supply was a risk to human health because not all of the samples had failed. The local authority sought advice from the Inspectorate and this enabled them to be satisfied that the Notice was set out correctly as it applied to ‘the water supply’, and a water supply comprises ’all of the physical assets, from source(s) to tap(s) including all pumps, tanks, pipes, valves, treatment units and taps inside every building’. Furthermore, the Notice clearly set out the grounds on which it was served. The risk assessment verified by the historic monitoring had confirmed the risk to health from faecal contamination and the elevated manganese had been shown to interfere with the disinfection. Additionally, the supply arrangements were not safe because the well disconnection was not permanent; it was by means of a valve that could be operated at any time.

The appeal was heard in the magistrates’ court in March 2013. A drinking water inspector attended as expert witness for the local authority. The court upheld the definition of a water supply as the entire supply system, including all sources, treatment and distribution system. The court further confirmed that the grounds for serving the Notice were adequately described and the supply presented a potential risk to human health on the basis of the risk assessment. The court ruled that the Notice should stand and the appeal by the owner was dismissed. Within two months the owner had carried out most of the remedial actions, including the physical disconnection of the well from the supply system.

This case illustrates the weaknesses inherent in the old regulatory regime and reinforces, for local authorities, the robustness of the new regulatory regime when remedial action identified through risk assessment is set out in a Notice. It also provides a good example of the ineffectiveness of informal action and advice, and the need for this approach, if used, to be put in a letter and strictly

time bounded. *The Inspectorate recommends that those local authorities that have adopted a policy of informal action to improve failing private supplies take note of this case study and reconsider their policy. At the very least, such local authorities must satisfy themselves that they could demonstrate, if challenged, that their policy of informal action is effective and in the public interest.*