



PRIVATE WATER SUPPLIES – CASE STUDY 2012/8

Oil contamination of a private supply

This case study relates to a former private estate, which has been redeveloped in recent times and now comprises 18 domestic dwellings and a church. The properties are owner occupied and collectively the owners are responsible for maintaining the communal part of the development such as the road and car park, and including the water storage tanks and the water main to which each house is connected by individual supply pipes. A Residents Association maintains these jointly owned assets and pays the local water company for the supply to the whole estate.

Mains water entering the estate is fed into a green coloured water tank split into two compartments. From the tank, water is distributed to each property through black plastic pipes. The exact route and location of these pipes is unknown. The water tank is located at the estate boundary in an area screened off by fencing. Adjacent to the water tank, in the same fenced area, are two green coloured oil tanks labelled with hazard warning stickers. None of the access hatches to any of the tanks are locked.

In December, the residents of the estate noticed an oily taste in water at the tap and contacted the water company. A fittings inspector was sent to the site who confirmed an oily odour in water drawn from taps and arranged for an emergency supply of bottled water to be delivered to the estate in accordance with the Inspectorate's guidance entitled *Provision of alternative supplies in emergency and non-emergency situations*. (<http://dwi.defra.gov.uk/stakeholders/guidance-and-codes-of-practice/pws-alt-supplies.pdf>). The cause of the odour was traced to one compartment of the water tank, which contained a layer of oil on the surface. Residents confirmed that there had been a fuel oil delivery earlier that day, however, this had not been supervised because the resident who normally carried out the task had been admitted to hospital. The oil delivery company have not admitted liability, but their insurers have paid for the isolation and cleaning of the tanks and the replacement of all pipework on the estate on the recommendation of an environmental consultant. The residents were advised by the water company not to drink the water until the remediation works had been completed.

The water company fittings inspection identified a number of other infringements and have required the Residents Association to make improvements to safeguard the wider mains supply as well as that on the estate. The local authority was informed of the event and also the Regulation 8 supply arrangement on the estate.



This case illustrates a number of important distribution network risks covered in the most recent version of the Inspectorate's risk assessment tool, issued to local authorities in July. The questions in the relevant section of the tool guide local authorities to ask about how the supply is operated and managed, and to check if there is a history of events or complaints about water quality that may point to deficiencies. Specific questions in the tool prompt local authorities to ask about the location and security of fuel oil stores and deliveries. The tool also identifies the need for the relevant person to draw up an accurate schematic plan of the water supply, from source to tap, and use this to record any modifications or repairs. For example, in this case, replacement of the contaminated network presented an opportunity to create records of the location, size and material of the pipes, information that was previously not known. The question in the tool that asks 'Do any third parties have access to hydrants or other points in the distribution network?' allows local authorities to highlight the causative factor in this case, namely the oil company had access to the fenced off area containing the water tanks. The appropriate control measure to prevent this type of contamination event is for water tanks to be clearly labelled 'drinking water' and for the hatches to be locked to prevent unauthorised access. Additional control measures would be for there to be formal procedures included as part of any contract for delivery of chemical supplies (in this case oil deliveries).

This case study highlights the effective discharge by a water company of its responsibilities in respect of Regulation 8 supplies: emergency response, including short-term alternate water supply; fittings inspection and enforcement; notification of the local authority and the provision of ongoing technical advice to enable the local authority to carry out a regulatory risk assessment using the tool provided by the Inspectorate.

