



## DRINKING WATER INSPECTORATE

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DWI Information Letter 04/2012

### **To: Board Level and Day to Day contacts of Water and Sewerage Companies, Water Companies and licensed water suppliers in England and Wales**

Dear Sir/Madam

### **Water supply hygiene – summary findings of technical audits of distribution depots and associated network operations between July and November 2011**

#### **Purpose**

1. The role of technical audits by the Inspectorate is to confirm that water suppliers are securing the wholesomeness of water at the time of supply in fulfilment of their duties as set out in The Water Industry Act and the Water Supply (Water Quality) Regulations.
2. The Inspectorate considers that any network intervention and any equipment used in such interventions must meet the highest hygiene standards, (outlined in RSPH document in section 6 below), in order to safeguard public health. This letter is to inform you of the summary findings and conclusions from a series of audits for the purpose of industry learning.

#### **Background**

3. During 2011, the Inspectorate carried out a series of audits involving the network activities of eleven companies across all regions and focussing on the hygiene arrangements. This followed an assessment of heightened risk based on information available to the Inspectorate. Audit site selection was risk based with a random element as the risk was considered to be applicable to the industry as a whole, not to the activities of the eleven companies subject to audit. Each water company visited was the subject of at least two audits.

4. The audits, of which there were thirty-five in total, covered depots, (11), work gangs carrying out mains repairs, replacement and maintenance, (15), meter fittings, (4), the vans used by the water companies or contractors for these purposes, (4) and a miscellaneous records audit
5. Individual audit reports were produced for each company. In total, the Inspectorate made 15 recommendations on matters where a foreseeable risk of breaching a regulatory duty was evident. A further 46 suggestions were made on matters of good practice.
6. This letter should be read in conjunction with Principles of Water Supply Hygiene Document April 2010, (Revised December 2010): Royal Society for Public Health (RSPH) and Water UK

## Conclusions

7. The majority of audits were satisfactory (13) or generally satisfactory (14) with some excellent examples of the best practice and the high standards of water supply hygiene expected of water companies.
8. Recommendations were not made in relation to audits at four companies where all proved satisfactory or generally satisfactory, particularly commendable were the three companies exhibiting satisfactory outcomes in all the audits.
9. The Inspectorate was pleased to be able to record some excellent examples in applying the principles of water hygiene, for example, regular audits by the water companies of both direct labour and contract gangs to manage and control standards and expectations of all involved.
10. Underpinning quality orientated operations were examples of good organisation, appropriate storage, signage and markings, tidiness, availability of clean equipment, facilities, personal protective equipment and crucially, well trained staff with the awareness to ensure all operations are carried out to the highest standards.
11. In the four companies with satisfactory audit outcomes the Inspectorate observed how clear policies, procedures and managerial support throughout the company, both direct and contractor staff, enables a high standard irrespective of the company or contractor.
12. Conversely, audits at two companies out of 11 were unsatisfactory and accounted for half of all unsatisfactory audits (8), the remainder of unsatisfactory audits were shared between three companies.
13. Whilst recommendations and suggestions were specific to water companies, there were a number of recurrent deficiencies as well as a number of examples of poor practice which could have resulted in serious contamination of drinking water.
14. The most common recommendation was about pipe storage (12 out of 15). These related to the manner of storage of pipes, where they were stored or how they were stored either on-site or, in the depot or in work vans.

15. Any failure to store pipes intended for use with drinking water with an inadequate clearance off the ground, within vegetation or in dirty muddy conditions without any kind of end-caps poses a risk of contamination within the pipe from vermin, soil and other environmental matter. Although companies clean and disinfect pipes prior to use, the presence of dried mud or worse still faecal material from wildlife that have sheltered in the pipe reduces the effectiveness of any cleaning regime because organic matter reacts with chlorine. During one audit the inspectors observed faecal droppings in a pipe where the end-cap had been jammed in sideways. This combined with a failure to ensure adequate clearance under mains allowing dirty pit water to enter the main, would compromise the cleaning regime.
16. For logistical reasons larger diameter pipe is delivered without end caps and in these circumstances companies should inspect the pipe and fit caps, or some other suitable covers at the time of delivery.
17. Inadequate clearance in an excavation was observed in relation to an audit of meter fitting. This practice presents a direct and significant risk of contaminated water entering the customers supply and the Inspectorate wishes to remind companies that such practice is unacceptable.
18. On the theme of storage; appropriate, designated, marked and signed storage, as well as general tidiness should be a key consideration in the management of depots, sites and vans for equipment, materials and consumables. One recommendation and a significant number of suggestions were made on this theme. Failure to store waste (used equipment or materials) can lead to cross-contamination or accidental reuse without appropriate safeguards. Failure to store chemicals and fuel appropriately in bunds could contaminate pipes with hydrocarbons and this may result in leaching of these substances into drinking water at a later date causing taste and odour complaints. Failure to use signage or appropriate markings can cause operators to accidentally take and use unclean equipment, use chemicals that are out of date or of the wrong concentration or a container filled with another chemical.
19. The hygiene, and the awareness of hygiene, of operators is paramount and therefore it should be auditable through record keeping and checks. The Inspectorate was disappointed to note the need for suggestions in this area of best practice. Unfortunately in two audits the hand washing facilities were inadequate defeating awareness right at the outset.
20. As part of this audit, hygiene training records were checked. It is recommended that regular audits are carried out to ensure that all individuals working on restricted operations are in possession of a valid scheme card and therefore understand the importance of good hygienic working practices.
21. The National Water Hygiene computer based learning package is available from EU Skills. The Inspectorate supports the use of this package for water company personnel as refresher training but currently does not support its use as initial training or use by contractors. All contractors' staff must be trained by a registered trainer in a presentation style training session. Water companies must have means of appropriate candidate verification, quality assurance and hold appropriate records of hygiene training.

22. In summary, these technical audits highlighted inconsistencies in hygienic working practices across the industry and whilst there were some excellent examples of good practice there were also some serious deficiencies. Those companies informed of poor practice are expected to review arrangements and procedures and take action to improve where necessary. Where companies have not been audited, the Inspectorate expects them to use this report to prompt a review the arrangements in place.
23. Finally, companies need to consider water supply hygiene in relation to contractual agreements to ensure that the same standards, and expectations, are applied to all contractors' staff and with the same controls, all of which should be under the control of the water company.

## Enquiries

24. Copies of this letter are being sent to Pamela Taylor, Chief Executive, Water UK; Mike Walker, John Bourne, WaFERR, Department for Environment, Food and Rural Affairs; Olwen Minney, Water Management Team, Welsh Assembly Government; Susan Petch, Drinking Water Quality Regulator for Scotland; Margaret Herron, Drinking Water Inspectorate for Northern Ireland; Tony Smith and Chairs of the Regional Consumer Council for Water; Noel Wheatley, Ofwat; Nick Cartwright, Environment Agency; Philip Flaherty, Food Standards Agency; and Frances Pollitt at the Health Protection Agency
25. This letter is being sent electronically to Board Level and day to day contacts. Please acknowledge receipt by email to [dwi.enquiries@defra.gsi.gov.uk](mailto:dwi.enquiries@defra.gsi.gov.uk). Hard copies are not being sent but the letter may be freely copied. Any enquiries about the letter should be addressed directly to me using the contact details above.

Yours sincerely



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Deputy Chief Inspector (Operations)