



guardians of drinking water quality

## DRINKING WATER INSPECTORATE

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30 March 2004

DWI Information Letter 4/2004

### **To: Board Level Contacts of Water and Sewerage Companies in England and Wales**

Dear Sir or Madam

### **WATER SUPPLY (WATER QUALITY) REGULATIONS 2000: REPORT ON THE RESULTS OF THE SURVEY OF ANALYTICAL PERFORMANCE FOR THE MEASUREMENT OF LEAD**

#### **Background**

1. On 25 December 2003, new standards for wholesomeness in the Water Supply (Water Quality) Regulations 2000 (the New Regulations) came into force. These included a stricter interim standard for lead of 25 µg/l. The final standard of 10 µg/l will apply from 25 December 2013. In addition, there is a water treatment requirement in the New Regulations that applies where there is a risk ("the prescribed risk") that water would, after leaving the undertakers pipes, contain a concentration of lead in excess of 10 µg/l.
2. In 2002, the Inspectorate had concerns that some of the analytical methods used by water companies and their laboratories for the analysis of lead may not be able either to adequately demonstrate compliance with the interim standard, or to demonstrate that the prescribed risk did not exist or had been eliminated or reduced to a minimum.
3. In Information Letter 9/2002 the Inspectorate requested information on the performance of analytical methods used for the analysis of lead. Mr Peter Walker, consultant, was appointed to assess the data provided by the industry and he has reported his findings to the Inspectorate

#### **Purpose**

4. The purpose of this letter is to present the findings of Mr Walker's report. The Inspectorate endorses his conclusions and recommendations.

#### **"A Report on the Results of the Survey of Analytical Performance for**

## **the Measurement of Lead within the Laboratories of English and Welsh Water Companies” (The Report)**

5. Mr Walker reviewed methodology, validation and quality control performance for each analytical method, and his general findings, conclusions and recommendations are contained in the Report.
6. You should ensure that copies of this letter and the Report are passed to all laboratories carrying out regulatory drinking water analysis for your company.
7. The Inspectorate will use the Report to inform its decisions on the appropriateness of current arrangements for the analysis of lead and assessing the degree to which companies have demonstrated optimisation of plumbosolvency control. Water companies and their analytical laboratories will be expected to implement the relevant recommendations.
8. In addition to the Report, water companies will be provided with detailed assessments of the information provided by them for the analytical systems used by their laboratories, or their contract laboratories, to analyse samples for lead. This will be sent electronically to day to day contacts.

### **Other matters**

9. During 2003 one laboratory advised the Inspectorate of problems it was experiencing with biased results of interlaboratory proficiency testing (external analytical quality control).
10. Investigations identified the the cause as the use of an inappropriate bought in stock lead standard for calibration. The laboratory was using a stock prepared for atomic absorption spectroscopy when using inductively coupled plasma mass spectrometry (ICPMS). Changing to a stock standard prepared for use with ICPMS cured the problem.
11. This has served as a timely reminder to all laboratories that they should ensure that they always use the appropriate grade and type of bought in pre-prepared standards and reagents, or the appropriate grade of pure chemical for preparing standards and reagents for all analyses.
12. The Inspectorate is grateful to the laboratory concerned for advising it of the problem, keeping it informed of progress with the investigation and agreeing to share its experience with the industry.

### **Enquiries about this letter**

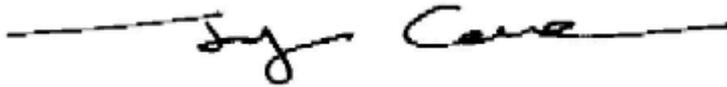
13. If a water company or a laboratory has a query on the Report, the detailed assessment of a method or the implementation of a recommendation, the Inspector to whom the company has been allocated for the purposes of technical audit should be consulted initially. Specific technical queries may

alternatively be directed to Ms S Evans, Inspector (020 7082 8034, Email [sharon.a.evans@defra.gsi.gov.uk](mailto:sharon.a.evans@defra.gsi.gov.uk) or Mr M Morgan, Principal Inspector, (020 7082 8041 E-mail [malcolm.morgan@defra.gsi.gov.uk](mailto:malcolm.morgan@defra.gsi.gov.uk) ).

14. Copies of this letter are being sent to Pamela Taylor, Chief Executive, Water UK; Richard Wood, Water Supply and Regulation Division, Department for Environment, Food and Rural Affairs; June Milligan, Environment Division, The National Assembly for Wales; Tim Hooton, Drinking Water Quality Regulator for Scotland; Randal Scott, Drinking Water Inspectorate for Northern Ireland; David Lowe, United Kingdom Accreditation Service; and Rowena Tye, Office of Water Services.

15. This letter and the Report are being sent electronically to Board Level contacts. Please acknowledge receipt by e-mail to [dwi.informationletters@defra.gsi.gov.uk](mailto:dwi.informationletters@defra.gsi.gov.uk). Hard copies are not being sent but the letter and the Report may be copied freely.

Yours faithfully

A handwritten signature in black ink, appearing to read 'J Colbourne', written over a horizontal line.

**Professor J Colbourne**  
Chief Inspector