



guardians of drinking water quality

## DRINKING WATER INSPECTORATE

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Information Letter 12/05

26 August 2005

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

Dear Sir or Madam

### **GUIDANCE ON SAMPLE AND SAMPLE EXTRACT STABILITY TRIALS AND THE PRESERVATION AND PREPARATION OF SAMPLES FOR METALS ANALYSIS**

#### **Background**

1. Water companies in England and Wales are required to ensure that samples are kept at such temperature and in such conditions as will secure that there is no material alteration of the concentration or value for the measurement or observation of which the sample is intended in accordance with the requirements set out in the Water Supply (Water Quality) Regulations 2000 in England and 2001 in Wales (the Regulations).
2. ISO 5667 Part 3:2003 gives general guidance on recommended sample storage conditions and times. It also states that storage time starts from when the sample is taken and not when it is received by the laboratory. Some analytical methods specify alternative preservation conditions, which should be followed when using that method.
3. In his summary report for the vertical audits for non microbiological parameters carried out in 2004 Dr Peter Whittle, a consultant appointed as a DWI Temporary Inspector, recommended to the Inspectorate that:
  - o Consideration should be given to issuing guidance on sample preparation for metals analysis. Furthermore a specialist in trace metals analysis should be asked to follow up the concerns regarding high lead blanks.

- The analysis of hydrogen ion is worthy of further attention in the future, with particular emphasis on testing in relation to sample stability and field-testing.
- Consideration should be given to issuing guidance on sample storage times and stability which have been a re-occurring theme in the audits of the past three years

## **Purpose**

4. The purpose of this letter is to share with the industry the Inspectorate's response to Dr Whittle's recommendations. The Inspectorate has consulted with the industry on current best practice and recognises their concerns about over prescriptive regulation. The resultant "Guidance on sample and sample extract stability trials" and "Guidance on sample preservation and preparation for metals analysis" take account of Dr Whittle's concerns and are intended to provide a pragmatic way forward for the industry. The Inspectorate has initiated steps to take forward the issue of high lead blanks jointly with the industry.
5. The guidance takes the form of two stand alone documents, copies of which are attached. The guidance will be reviewed and revised at regular intervals and in the light of experience. The Inspectorate expects companies to take account of the guidance in formulating their procedures for ensuring sample stability and the preservation and preparation of samples for metals analysis and to have suitable procedures in place by the end of December 2005. An Excel spreadsheet is attached, which gives a worked example of the calculation of sample stability. It may be used to assist the calculation of real stability trials.

## **Enquiries**

6. 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, Welsh Assembly Government; Colin McClaren, Drinking Water Quality Unit SEERAD; Randal Scott, Drinking Water Inspectorate for Northern Ireland; David Lowe, United Kingdom Accreditation Service; and Rowena Tye and Phillip Dixon, Office of Water Services.
7. This letter is being sent electronically to Board Level and day to day contacts. Please acknowledge receipt by email to [dwinformationletters@defra.gsi.gov.uk](mailto:dwinformationletters@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 Malcolm Morgan ([malcolm.morgan@defra.gsi.gov.uk](mailto:malcolm.morgan@defra.gsi.gov.uk)).

Yours sincerely

A handwritten signature in black ink that reads "John Gray". The signature is written in a cursive style with a large initial 'J' and a long, sweeping underline.

**Dr John Gray**  
**Deputy Chief Inspector (Operations)**

**ATTACHMENTS**

Guidance on sample and sample extract stability trials

Guidance on sample preservation and preparation for metals analysis of drinking water

Worked example of sample stability