

Chief Inspector's Statement

By the time this report is published Jeni Colbourne will be Chief Drinking Water Inspector, but as I was responsible for the work of the Inspectorate during 2002, it is appropriate that I give the account of the activities during that year. I am delighted that Jeni has been appointed as Chief Inspector, as she, with her extensive drinking water quality knowledge and experience, is ideally equipped to take on the further development of the regulation of drinking water quality.

This is the Inspectorate's 13th annual report which covers drinking water quality in England and Wales. The report is designed for the general reader who has some scientific knowledge. It is also available on our web site, together with hyperlinks to source documents for those seeking more detailed information. There is a companion report covering Wales alone in both English and Welsh languages. There is also a leaflet which summarises the results for England and Wales as a whole, and leaflets on the results for each water company, with Welsh language versions for the Welsh water companies. We aim to provide information to meet the requirements of both water consumers and those with a professional interest. We value any feedback and suggestions for improving our reporting.

Meeting the Standards

The number of breaches of the standards as set down in the Water Supply (Water Quality) regulations 1989 has reduced from 4,054 in 2001 to 3,741 in 2002, with the percentage level of compliance increasing slightly from 99.86% in 2001 to 99.87% in 2002. This shows further improvement in drinking water quality in 2002. However, because of the very low number of failures now occurring, the improvement year on year now seems very small.

The improvements in 2002 were mainly due to a significant reduction in breaches of the total coliform and faecal coliform standards at treatment works and in service reservoirs. There were also improvements in compliance with the iron, turbidity, nitrate and lead standards in water supply zones.

The decrease in the number of zones failing the iron standard reflects the continuation of the

programmes of work to renovate the distribution system. These programmes of work were put in place in 1990 largely to deal with quality problems associated with iron corrosion. By the end of 2002, more than 12,000 km of mains have been either replaced or relined.

The improvement in compliance with the lead standard is attributed to programmes of work put in place to install additional water treatment to reduce the take up of lead from pipework. These programmes of work have been progressing satisfactorily.

As in 2001, most of the breaches in 2002 were due to nitrite. The presence of nitrite above the standard is almost always due to chloramination where it is used as the residual disinfectant in distribution. The new Water Supply (Water Quality) Regulations 2000, which are discussed in more detail below, introduce a new standard for nitrite which applies to the water leaving the treatment works rather than to water supplied at consumers' taps. The new Regulations also introduce a separate standard for nitrite at consumers' taps, to take into account changes that occur within the distribution system. Only one sample taken during 2002 failed this revised standard.

Preparing for the New Regulations

Most of the 'new' Regulations, the Water Supply (Water Quality) Regulations 2000 (England) and 2001 (Wales), come into force on 25 December 2003. Effectively this means that water companies will be required to monitor compliance with the new requirements from 1 January 2004. The new Regulations introduce a combination of mandatory and indicator parameters, which provide for an enhanced approach to drinking water quality, but add complications for monitoring. Most of the standards remain the same, but with some new requirements. There are also some differences in water supply zones and sampling frequencies. The details of the revised information requirements have been developed by the Inspectorate in consultation with the water companies. These will be incorporated in a new Information Direction, the instrument which gives legal force to the provision of compliance data and other

information. The Information Direction will be put in place during 2003 and is fundamental to the success of self-monitoring by the water companies. This, coupled with close data scrutiny during audit, should give confidence to consumers that their drinking water meets the Regulations, and, if not, that appropriate action will be taken to require necessary improvements.

Improvement programmes to meet the requirements of the new Regulations were put in place as part of the AMP3 provisions. These programmes are generally on schedule, with the expectation that the required standards will be met when the new Regulations come into force at the end of 2003. The first compliance results under the new Regulations will be reported in Drinking Water 2004, which will be published in 2005. However, data from tests carried out against the new and revised standards are available for 2002. This information is summarised below and a more detailed account is given in Chapter J of Part 3 of this report. It is important to note that the sampling was not necessarily undertaken at the frequency specified in the Directive and so cannot be interpreted at this stage in terms of percentage compliance. The purpose of gathering this data was to provide information on whether the improvement programmes referred to in the above paragraph are adequate to meet the new and revised standards by the due date.

The monitoring that has been carried out indicates that compliance with the interim lead standard of 25 µg/l will be the most significant issue for many water companies. In 2002, 0.42% of samples failed the old standard of 50 µg/l whereas 1.32% failed the interim standard of 25 µg/l and 4.95% failed the final standard of 10 µg/l which becomes effective in 2013. This indicates the effectiveness of the plumbosolvency measures that have already been introduced at many treatment works as part of existing programmes to meet the interim standard. It also provides a forward view of the extent to which lead pipe replacement may be needed in the future.

The results of the 2002 monitoring also show that a significant improvement in compliance with the PAH standard should occur, following the removal of fluoranthene from five indicator compounds that make up the PAH parameter. In 2002, 337 (2.99%) tests failed the existing PAH standard whereas, applying the new standard, only 4 (0.04%) of the tests failed.

Regarding the new standards, an issue that may be of concern is that of bromate with 128 (1.27%) tests carried out in 2002 exceeding the standard. However, programmes of work have been put in place to address these bromate failures.

The Periodic Review

During the 1999 Periodic Review, the various parties were rightly criticised for carrying out separate consumer research which collected consumers' views and preferences on rather narrow aspects of options and their costs. For the current Periodic Review, the main parties involved have worked together to carry out an integrated consumer research exercise. This has provided good objectivity on consumers' priorities and indications of the extent of their willingness to pay for improvements. On drinking water quality it has highlighted the ongoing absolute importance of the safety of drinking water but also the value to consumers of an aesthetically acceptable quality.

For the investment period 2005-2010 the key drinking water quality-driven areas will be: completion of distribution renovation; lead pipe replacement; further investment in treatment mainly where the source water conditions have changed and enhancement of drinking water quality with a view to minimising consumer complaints.

Asset maintenance is necessary to maintain the quality improvements which have been achieved over the past 12 years. During the period 1990-2005 about one fifth of the old cast iron distribution system will have been replaced or relined. This deals with the backlog of 'maintenance' which had developed over previous decades. This backlog impacted severely on drinking water quality particularly through rusty or discoloured water. It is vital for both water safety and aesthetic quality that such deterioration is not allowed to occur again. This means adequate ongoing year-on-year investment in maintenance. The Inspectorate has worked with Ofwat and the water companies to establish an approach which is based on need and which will focus maintenance activity in priority areas. As part of this the Inspectorate has introduced the concept of Distribution Operation and Maintenance Strategies. The details of these strategies are a matter for the water companies but this structured approach to

management of water supplies should help secure water quality in the longer term.

Cryptosporidium

The 1999 Regulations for *Cryptosporidium* have been incorporated into the new Regulations. The Regulations have focused greater attention on the need for consistently high quality of operation of water treatment works, and the positive approach of the water companies is reflected in the results. These are given in the overview chapter in Part I and in each company section.

The Regulations have now been in operation for nearly three years and it is appropriate to consider whether they could be improved. The current regime has given effective protection against waterborne cryptosporidiosis, with no reported public water supply outbreaks of illness associated with public water supplies in England and Wales in 2002.

The Inspectorate's Own Performance

The Inspectorate's own performance is monitored by our Code for Enforcement. This document sets out the levels of service that water companies and member of the public should expect from the Inspectorate. The results against these targets is given in Chapter A in Part 3 of the report and many areas of our operations have improved since 2001. I highlight some of the main points below.

- All letters notifying companies that enforcement action was being considered as a result of inspections, compliance assessment and following water quality incidents were sent on target.
- There has been good performance in carrying out of the assessments of compliance data and dealing with applications for approval of chemicals and materials.
- There has been an improvement in the number of drinking water quality incidents and the number of drinking water quality complaints assessed within the target times.

During 2002 an independent consultant, Bob Price, carried out an exercise to obtain feedback from the water companies on how they viewed the Inspectorate's performance. Although drinking water quality regulation is an essential part of the good governance of water supply, it is important that the water companies have the opportunity of commenting on how the Inspectorate operates and to be able to do so anonymously. This feedback exercise was a repeat of one carried out two years earlier; one aspect was to find out whether the actions taken following the earlier survey had achieved the sought-after improvements in performance. The Inspectorate's responses to the recommendations made have been published on the web site.

One aspect for improvement identified was in the use and management of consultants. The Inspectorate asked Bob Price to follow up with a more-detailed study, the results of which are being used to improve the management of consultancy contracts.

The final part of Bob Price's study examines what the Inspectorate can learn from other organisations on the audit processes. This part of the study had not been completed at the time of preparing this statement.

This is now an appropriate time for me to sign off and hand over to Jeni Colbourne. In doing so I would like to again pay tribute to the commitment, dedication, and professionalism of everyone in the Inspectorate and to thank them for their support over the last nine-and-a half years.