



Department
for Environment
Food & Rural Affairs

Drinking Water Regulations 2017

Consultation on the draft Water Supply (Water Quality) (Amendment) Regulations 2017

September 2017



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This publication is available at: <https://consult.defra.gov.uk/water-quality/drinking-water-regulations-2017>

Any enquiries regarding this publication should be sent to us at:

Drinking Water Quality
Area 3D
Nobel House
17 Smith Square
SW1P 3JR

Email: drinkingwaterquality@defra.gsi.gov.uk

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Summary of consultation

This consultation seeks views on draft regulations which will amend the Water Supply (Water Quality) Regulations 2016. We intend to lay the draft regulations in late 2017.

EU exit

On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.

Geographical extent

The draft regulations apply to water undertakers and licensed water suppliers whose areas are wholly or mainly in England. Separate regulations will be made in Scotland, Wales and Northern Ireland covering supplies of water in those countries.

Purpose

This consultation seeks views on proposals to update existing legislation governing the public water supply. The following proposals are outlined:

- Application of new risk based sampling and analysis of drinking water laid down in Commission Directive (EU) 2015/1787.
- New table for analytical performance characteristics and clarification on the standards to be met.
- Changes to the methods of analysis to be used for certain parameters.
- Clarification on the methodology required where samples are taken for lead, copper or nickel analysis.
- Updates to the definitions of 'service reservoir' and 'wholesomeness'.
- Changes in respect of the timing of samples from tankers distributing a short term supply; and the records that retail licensees need to prepare and maintain.

Audience

We would like to hear from anyone with an interest in drinking water quality including but not limited to water companies, inset companies and associated industry bodies.

Water companies will have been aware of the publication of Commission Directive (EU) 2015/1787 on 7 October 2015 and therefore aware of the potential forthcoming changes. Additionally, the scope of the likely changes was relayed at an industry meeting, held by Water UK, on 4 April 2017, in preparation for the consultation.

Format

This consultation document is divided into sections covering the proposals above. Questions are included throughout the document and are then summarised again at the end of the document.

The responses to these questions will assist in the final drafting of the regulations in respect of England, and will assist in determining the accuracy of assumptions that have been made during the preparation of an impact assessment document.

Responding to this consultation

This consultation will run for 6 weeks from 12 September to 24 October 2017.

Please complete the online survey at: <https://consult.defra.gov.uk/water-quality/drinking-water-regulations-2017>

Alternatively you can send your comments and any enquiries, by email to: drinkingwaterquality@defra.gsi.gov.uk

Confidentiality & Data Protection

Information provided in response to this consultation document, including personal information, may be subject to publication or release to other parties or to disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004). If you want information, including personal data that you provide to be treated as confidential, please be aware that, under FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

Introduction

The Water Supply (Water Quality) Regulations were first introduced in 1989 to provide a legislative framework for the quality of water intended for human consumption supplied by water companies or licensed water suppliers. The 1989 regulations have been revoked and a number of subsequent regulations have been made. The most recent regulations in this area are the Water Supply (Water Quality) Regulations 2016 ('the 2016 Regulations').

This consultation concerns proposed amendments to the 2016 Regulations, primarily to transpose the requirements of Commission Directive (EU) 2015/1787 (referred to in this document as 'Directive 2015/1787') which amended Council Directive 98/83/EC (the 'Drinking Water Directive') to align its principles for risk based sampling and analysis of drinking water with those of the World Health Organisation (WHO). The WHO has developed the water safety plan approach which is based on risk assessment and risk management principles, as laid down in its Guidelines for Drinking Water Quality. Those Guidelines, together with standard EN 15975-2 concerning security of drinking water supply, are internationally recognised principles on which the production, distribution, monitoring and analysis of parameters in drinking water are based.

We are also taking the opportunity to add clarity to and improve certain aspects of the 2016 Regulations including: updating the definitions of 'service reservoir' and 'wholesomeness'; changing the timing of samples from tankers distributing a short term supply; and adding to the records that retail licensees need to prepare and maintain.

The draft regulations and impact assessment are included as annexes to be read alongside this document.

Part I: Transposition of Directive 2015/1787

The draft regulations make updates to the monitoring programmes which set a minimum sampling frequency on particular parameters for water intended for human consumption. At the same time they introduce a new risk assessment approach which if met, allows a reduction in sampling and analysis frequencies. The proposed amendments also provide the specifications for the method of analysis of certain parameters and performance characteristics of all parameters in light of scientific and technical progress.

The relevant requirements are set out below. The draft regulations make amendments to the 2016 Regulations. Therefore, for ease, each section details which regulation, paragraph or part of the 2016 Regulations will be amended.

Monitoring programmes

Amendments to Regulation 5 and Part 1 of Schedule 3

The terminology of 'check monitoring' and 'audit monitoring' will be replaced by 'monitoring of Group A parameters' and 'monitoring of Group B parameters' respectively.

The circumstances under which parameters in Group A4 and B1 are tested remain largely unchanged. The enhanced monitoring of additional parameters currently undertaken, which have their own sampling frequencies, also remain and for consistency are being renamed 'monitoring of Group A1 parameters', 'monitoring of Group A2 parameters', 'monitoring of Group A3 parameters' and 'monitoring of Group B2 parameters'.

Any other parameters identified during a risk assessment and considered relevant by the Secretary of State can be monitored as part of 'monitoring of Group B parameters'.

Amendments to Regulation 6(5)

To monitor compliance with copper, lead and nickel, a random one litre volume unflushed sample must be taken from a consumer's tap. This requirement was previously required in a notice issued by the Secretary of State.

Amendments to Regulation 9(2)(b) & (c)

With the exception of sampling at the consumer's tap, all sampling for chemical parameters in the distribution network must now be in accordance with ISO 5667-5. For microbiological parameters, sampling must now be taken and handled according to EN ISO 19458 sampling purpose A in the distribution network and EN ISO 19458 sampling purpose B at the consumer's tap.

Amendments to Regulations 11 & 13 and Parts 2 & 3 of Schedule 3 and Transitional Provisions

The annual sampling frequencies for water zones, water treatment works and supply points have been updated to reflect the new monitoring groups with the figures relating to 'reduced number of samples' being removed, only the standard number of samples remain.

Any current variation from the standard number will need to cease when the draft regulations come into force. A variation will only be permissible at the point that a notice under regulation 9(3) of the amended 2016 Regulations is issued by the Secretary of State.

Monitoring programmes must continue to be reviewed annually.

Q1. Are you content with the changes to monitoring programmes? If No, what problems do you foresee?

The minimum sampling frequencies for Group A and B parameters (previously check and audit monitoring) have been updated by Table 1 in Part B of Annex I of Directive 2015/1787. However, we propose to retain the frequencies in the 2016 Regulations for the new parameter groups as they will deliver on the updated sampling frequencies. The frequencies are used if sampling and analysis is not based on risk and if a notice specifying a variation has not been issued under the proposed amended regulations. Ultimately, as we believe all water companies will monitor drinking water supplies based on the new risk approach (see Q4) the frequencies will form a baseline on which variations will be based.

Q2. Do you agree with the retention of current sampling frequencies for the new parameter groups? If No, please explain why you think the frequencies should be updated.

Risk assessment

Amendments to Regulation 9

Regulation 9 has been substituted with an entirely new provision and sets out the risk assessment requirements of Part C of Annex I of Directive 2015/1787. It allows a variation in sampling and analysis frequencies if certain standards are met and an application for variation has been submitted and/or a notice from the Secretary of State has been issued. Water companies may or may not choose to utilise the new risk assessment system but it should be noted that the Secretary of State has the power to impose the new system by issuing a notice unilaterally, requiring companies to carry out appropriate risk assessments to enable the Secretary of State to make the necessary judgements.

For water companies to utilise the variation in sampling and analysis frequencies and comply with all other new requirements they will need to (amongst other things):

- Achieve EN 15975-2 certification of their risk assessment. United Kingdom Accreditation Service (UKAS) will award this certification after inspection which will need to be checked from time to time. The risk assessment used for Regulation 27 purposes (to establish the risk of supplying water from treatment works and the supply system that could constitute a potential danger to human health) could be reviewed and improvements made against the criteria set by UKAS as part of the certification process.
- Apply to the Drinking Water Inspectorate (DWI) for sampling and analysis variations. Guidance will be provided laying out the application process but water companies should have at least conducted a risk assessment, considered the results and met certain parametric values for varying the sampling and analysis frequency of a parameter. The application can include all parameters within each monitoring group (A, B1, B2, A1, A2 or A3) except *E.coli*.

- Be provided with a notice from the Secretary of State. The notice issued will allow a variation and will specify the number of samples that need to be taken and/or the parameters that need to be tested which can increase as well as decrease.

Q3. Will the new risk assessment approach continue to protect drinking water supply whilst focussing sampling and analysis on the highest risks? If No, what problems do you foresee?

In the short term water companies may not wish to implement the new risk assessment approach. They may be motivated to protect their water quality performance measure with the Water Services Regulation Authority (Ofwat) and achieving risk assessment certification may take longer for some companies than others. However, it is envisaged that all water companies will eventually utilise the new risk assessment system. This is due to the savings that can be made through the reduction of standard monitoring samples being taken and submitted to DWI.

Q4. Have we correctly assumed that the new risk assessment approach will be adopted by all water companies? If No, why is the approach not favoured?

Cost and saving implications

When water companies decide to implement the new risk assessment system there will be costs involved. We have estimated the costs to all water companies and a summary is provided below. Further information can be found in the impact assessment which is included as an annex to this document.

Item	Cost (£)
Achieve EN 15975-2 certification of risk assessment	£600 per company to achieve certification then once per year thereafter ($£600 \times 26$ companies = £15,600 set up cost to all companies).
Improvement work against UKAS criteria	Range from zero to £40,000 per company. Large companies are likely to need the least work ($10 \times £0$) with smaller companies requiring the most ($16 \times £40,000 = £640,000$). This is a one off cost.
Increase in E.coli samples as can no longer be reduced (DWI fees)	$14,500$ samples \times $£5 = £72,500$ a year (all companies).
Application to apply variation in sampling/monitoring	<p>Range from zero to £400,000 for all companies for an application during first three years. Application required every 5 years thereafter.</p> <p>For applications to cover the maximum of all 40 parameters across all 1,584 zones of the industry: £6.25 (average cost</p>

	per parameter per zone) x 40 x 1,584 = £400,000.
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If the proposed risk assessment approach had been in place for all water companies in 2015, it is estimated that the total number of analyses for 2015 would have reduced from over 900,000 to about 100,000. Using this data we have calculated the following estimated savings which, again, can be found in the annexed impact assessment.

Item	Saving (£)
Reduction in DWI charges	£445,000 per year for the whole industry once risk assessment approach adopted (which we envisage will be by year 3).
Reduction in laboratory charges	£900,000 per year for the whole industry once risk assessment approach adopted (which we envisage will be by year 3).

Q5. Are the estimates used to calculate the costs and savings involved in risk assessments accurate? If No, what should they be and why?

Analysis of parameters

As well as introducing a risk based approach to monitoring drinking water, in light of scientific and technical progress, the WHO updated the method of analysis of different parameters and the performance characteristics expected for each parameter. The EU's Drinking Water Directive has therefore been amended to align accordingly.

Amendments to Regulation 16 and insertion of Regulation 16A

For the most part, regulation 16A, relating to the collection and analysis of samples, replicates and replaces what was in regulation 16, with two main differences:

- 1) For the purpose of establishing whether samples contain acceptable concentrations or values, new references to the methods of analysis and uncertainty of measurement table have been added.
- 2) To be able to demonstrate compliance with the Drinking Water Directive when taking, handling, transporting, storing or analysing a sample, the methods used must be validated and documented in accordance with EN ISO/IEC 17025 (or another equivalent standard accepted at international level). Quality management system practices must also be applied in accordance with EN ISO/IEC 17025 (or another equivalent standard accepted at international level). Compliance with the standard must be checked from time to time by a suitably accredited body (which is one accredited by UKAS).

Amendments to Table A1 in Schedule 5

The method of analysis to be used when testing for the *Clostridium perfringens* (including spores) parameter has been updated to EN ISO 14189. The composition of m-CP agar is therefore no longer required and has been removed. EN ISO 9308-2 can also now be utilised when testing for Coliform bacteria and *E.coli* and the method of analysis for *Pseudomonas aeruginosa* (EN ISO 16266) has been added.

Insertion of Table A3 in Schedule 5 and Transitional Provisions

Table A3 has been inserted and changes the prescribed performance characteristics of analytical methods (expected for each parameter) to an “uncertainty of measurement” methodology. A method for implementing / calculating the “uncertainty of measurement” will be developed and should be used by all laboratories to ensure consistency. A “blue book method” (part of the Standard Committee of Analysts (SCA) blue books) is currently being drafted and is expected to be published later this year.

To provide laboratories with sufficient time to adapt to the changes, the “uncertainty of measurement” approach does not need to be used until 1 January 2020. The current performance characteristics (at Table A2) can continue to be used until 31 December 2019.

Q6. Do you agree with the change to an “uncertainty of measurement” approach? If No, what problems do you foresee and can they be alleviated by providing guidance within the SCA blue books?

Cost implications

To establish the appropriate processes within in-house laboratories and make appropriate changes to arrangements with contract laboratories (in line with the blue book method), there will be an initial set up cost to water companies. For each company we have estimated a set up cost of £20,000 (which will be spread over 2 years) plus an additional £1,500 every year for maintenance.

Q7. Are the estimations used to calculate the costs involved in the analysis of parameters accurate? If No, what should they be and why?

Part II: Additional amendments

Whilst the 2016 Regulations are being updated to bring them in line with the changes to the Drinking Water Directive, we are also taking the opportunity to make other minor amendments. They are as follows:

Amendments to Regulation 2

The definition of service reservoirs will now include service reservoirs on a water treatment works site.

Amendments to Regulation 4

The definition of wholesome water will be clarified to mean water intended for human consumption.

Amendments to Regulation 6(16)(a)

Where the distribution of water in any part of a water supply zone is by tanker and is (or is likely to be) an intermittent short term supply, a sample of water must now be taken at commencement of the distribution rather than 48 hours after its commencement.

Insertion of Regulation 34(2)(ca)

A retail licensee must now prepare and maintain a record containing particulars of all consumer contacts made in relation to the discharge of duties. The obligation already applies to water undertakers and combined licensees and the two should align in this instance.

Q8. Do you agree that the additional amendments will assist in protecting public health? If No, what concerns do you have?

Q9. Are there any general comments you wish to make on the proposals for the draft Water Supply (Water Quality) (Amendment) Regulations 2017? If yes, please provide details.

Summary of consultation questions

Q1. Are you content with the changes to monitoring programmes? If No, what problems do you foresee?

Q2. Do you agree with the retention of current sampling frequencies for the new parameter groups? If No, please explain why you think the frequencies should be updated.

Q3. Will the new risk assessment approach continue to protect drinking water supply whilst focussing sampling and analysis on the highest risks? If No, what problems do you foresee?

Q4. Have we correctly assumed that the new risk assessment approach will be adopted by all water companies? If No, why is the approach not favoured?

Q5. Are the estimates used to calculate the costs and savings involved in risk assessments accurate? If No, what should they be and why?

Q6. Do you agree with the change to an “uncertainty of measurement” approach? If No, what problems do you foresee and can they be alleviated by providing guidance within the SCA blue books?

Q7. Are the estimations used to calculate the costs involved in the analysis of parameters accurate? If No, what should they be and why?

Q8. Do you agree that the additional amendments will assist in protecting public health? If No, what concerns do you have?

Q9. Are there any general comments you wish to make on the proposals for the draft Water Supply (Water Quality) (Amendment) Regulations 2017? If Yes, please provide details.

Next steps

The consultation will run for 6 weeks. Views and evidence provided during this consultation will help inform the final draft of the regulations before they are laid before Parliament in late 2017.

The government will provide an official response to the views provided, after the consultation ends.