

SCHEDULE 2

Regulation 12

New Schedules 12 and 13

“SCHEDULE 12

Regulation 16A

Monitoring of water bottled and labelled as “spring water” and bottled drinking water

PART 1

Interpretation

General

1. In this Schedule—

“average” means mean average;

“the BSI” means the British Standards Institution;

“delegate” means a person to whom a task has been delegated by a food authority under paragraph 14, as read with paragraph 56, or a person to whom a food authority intends to delegate such a task (as the case may be);

“indicative dose” means the committed effective dose for one year of ingestion resulting from all the radionuclides (whether of natural or artificial origin) whose presence has been detected in a supply of water intended for human consumption but excluding potassium-40, radon, tritium and short-lived radon decay products;

“limit of quantification” has the meaning given in Article 2(2) of Commission [Directive 2009/90/EC](#) laying down, pursuant to [Directive 2000/60/EC](#) of the European Parliament and of the Council, technical specifications for chemical analysis and monitoring of water status⁽¹⁾;

“paragraph 45 determination” means a determination under paragraph 45 relating to indicative dose”;

“parametric concentration”, in relation to a parameter specified in the first column of the table in Part 3 of Schedule 2 or a parameter specified in the first column of the table in Section 1 of Part 9 for which a maximum concentration (as opposed to a value) is set, means the maximum concentration given for the parameter in the second column of the relevant table, as measured by reference to the unit of measurement specified in the third column of the relevant table;

“radioactive substance” has the meaning given in Article 2(2) of Council Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption⁽²⁾;

“Regulation 882/2004” means Regulation [\(EC\) No 882/2004](#) of the European Parliament and of the Council on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules⁽³⁾;

“sample” means a sample taken under this Schedule;

“trueness” (the systematic error) means the difference between the mean value of the large number of repeated measurements and the true value, as further described in ISO 5725-1:1994(en) entitled “Accuracy (trueness and precision) of measurement methods and results – Part 1: General principles and definitions” published by the International Organization

⁽¹⁾ OJ No. L 201, 1.8.2009, p. 36.

⁽²⁾ OJ No. L 296, 7.11.2013, p. 12.

⁽³⁾ OJ No. L 165, 30.4.2004, p. 1, as last amended by Commission Regulation (EU) 2017/2460 (OJ No. L 348, 29.12.2017, p. 34).

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for Standardization on 22nd December 1994, as amended by ISO 5725-1:1994/Cor 1:1998 entitled “Accuracy (trueness and precision) of measurement methods and results – Part 1: General principles and definitions TECHNICAL CORRIGENDUM 1” published by the International Organization for Standardization on 2nd May 1998;

“uncertainty of measurement” means a non-negative parameter characterising the dispersion of the quantity values being attributed to a measure based on the information used;

“year” means, unless a contrary intention appears, a calendar year or such other 12 month period as a food authority may, from time to time, decide to use for the purpose of its monitoring programme.

Delegated tasks

2. Where a food authority has entered into an arrangement with a person under paragraph 14, as read with Part 10, for a delegate to carry out a task specified in the first column of the table in Section 2 of Part 10 on its behalf, any reference to a food authority in that provision, and in any related provision in this Schedule, is to be read as a reference to the delegate for the purpose of carrying out that task during the duration of the delegation arrangement.

PART 2

General

Application

3. This Schedule applies to the monitoring of—
- (a) water that is bottled and labelled as “spring water” by a food business in the course of its business as a bottler of water, whether the bottling of water is its main business or part of its business, and
 - (b) drinking water that is bottled by a food business in the course of its business as a bottler of water, whether the bottling of water is its main business or part of its business.

Sampling: general

4.—(1) For the purpose of carrying out its obligations under the provisions specified in sub-paragraph (2), each food authority must take and analyse samples of any water bottled in its area to which this Schedule applies.

- (2) The provisions are—
- (a) paragraph 7(1) (microbiological parameters);
 - (b) paragraph 8(1) (chemical parameters);
 - (c) paragraph 9, as read with paragraphs 23 and 25(1) (radon);
 - (d) paragraph 10, as read with paragraphs 29 and 31(1) (tritium);
 - (e) paragraph 11 (indicative dose), as read with—
 - (i) paragraph 38(2), where a decision is taken by the food authority under paragraph 38(1) to screen water by determining its gross alpha activity to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water;
 - (ii) paragraph 39(2), where a decision is taken by the food authority under paragraph 39(1) to screen water by determining its gross beta activity to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water;

- (iii) paragraph 40(2), where a decision is taken by the food authority under paragraph 40(1) to screen water by analysing one radionuclide to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water;
 - (iv) paragraph 41(2), where a decision is taken by the food authority under paragraph 41(1) to screen water by analysing more than one radionuclide to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water;
 - (v) paragraph 43(1) (determination relating to the presence and concentration of radionuclides);
 - (f) paragraph 12, as read with paragraph 50(1) (indicator parameters);
 - (g) paragraph 13 (other parameters not mentioned in this sub-paragraph).
- (3) For the purpose of its sampling obligations under this Schedule, a food authority must take samples of water at the point at which the water is put into a bottle.

Sampling: non-radioactive substances

5.—(1) In the case of samples of water that a food authority must take and analyse to enable it to discharge its obligations under the provisions specified in paragraph 4(2)(a) (b), (f) and (g), each food authority must take and analyse such samples regularly, having regard to the provisions contained in—

- (a) Article 17(2) of Regulation (EC) No 178/2002 of the European Parliament and of the Council laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (monitoring responsibilities), and
- (b) Article 3(1) of Regulation 882/2004 (obligation to carry out official controls regularly, on a risk basis and with appropriate frequency so as to achieve the objectives of Regulation 882/2004).

(2) Where, under sub-paragraph (1), a food authority only takes one sample in a year of any water in its area to which this Schedule applies, the authority must take the samples from year to year at intervals that are spread out in such a way—

- (a) to avoid the results, when considered together, giving a potentially distorted picture of the state of the water because the samples have been taken too closely together in time, and
- (b) so that the results, when considered together, provide information about the water that is representative of the quality of the water during the relevant years.

(3) Where, under sub-paragraph (1), a food authority takes more than one sample in a year of any water in its area to which this Schedule applies, the authority must take the samples at intervals that are spread out throughout the year in such a way—

- (a) to avoid the results, when considered together, giving a potentially distorted picture of the state of the water because the samples have been taken too closely together in time, and
- (b) so that the results, when considered together, provide information about the water that is representative of the quality of the water during the course of that year.

Monitoring: radioactive substances

6. In the case of samples that a food authority must take and analyse to discharge its obligations under the provisions specified in paragraph 4(2)(c) to (e), the samples must—

- (a) be taken and analysed by the food authority no less frequently than provided for in the table in Part 3, unless—

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- (i) a decision is taken by the authority under paragraph 27, 33, 42 or 47 to reduce the minimum frequency at which it must take and analyse samples, in which case the authority must take and analyse samples at the reduced minimum frequency decided by it under the relevant paragraph until such time as it takes a different decision relating to the minimum frequency at which relevant samples must be taken and analysed;
 - (ii) a decision is taken by the authority under paragraph 42 or 47 to stop taking and analysing samples, in which case the authority, in accordance with that decision, is not obliged to take and analyse samples until such time as it takes a different decision relating to the minimum frequency at which relevant samples must be taken and analysed;
- (b) be taken, in so far as possible, so that the number of samples are distributed equally in time and (where appropriate) location.

Microbiological parameters

7.—(1) A food authority must monitor the value for each of the parameters specified in the first column of the table in Part 2 of Schedule 2 (microbiological parameters) in any water in its area to which this Schedule applies by analysing a sample of the water to determine whether the value for the parameter in the sample exceeds the value specified for the parameter in the second column of the table, as measured by reference to the unit of measurement specified in the third column of the table.

(2) For the purpose of the determination required by sub-paragraph (1), the food authority must analyse the sample using the method of analysis for the relevant parameter specified in Part 4.

Chemical parameters

8.—(1) A food authority must monitor the concentration of each of the parameters specified in the first column of the table in Part 3 of Schedule 2 (chemical parameters) in any water in its area to which this Schedule applies by analysing a sample of the water to determine whether the concentration of the parameter in the sample exceeds the concentration specified for the relevant parameter in the second column of the table—

- (a) as measured by reference to the unit of measurement specified in the third column of the table, and
- (b) as read, in the case of a parameter for which there is an entry in the fourth column of the table, with the further provision relating to the parameter or parametric concentration specified in that entry.

(2) For the purpose of the determination required by sub-paragraph (1), the food authority must analyse the sample using a method of analysis that complies with Part 5.

(3) But sub-paragraph (2) does not apply, and it is not necessary for a food authority to analyse a sample of water under sub-paragraph (1) to determine whether the concentration of acrylamide, epichlorohydrin or vinyl chloride exceeds the concentration specified for that parameter in the second column of the table in Part 3 of Schedule 2, where—

- (a) the food authority is satisfied that the water, before it is bottled, does not come into contact with a pipe or other construction product that has been constructed using that parameter as a component in its construction, or
- (b) in other cases, the food authority is satisfied, on the basis of a certificate of conformity, declaration of conformity or declaration of performance relating to a pipe or other construction product that the water comes into contact with, or may come into contact with, before being bottled, and any other related information that it considers to be relevant, that any residual monomer concentration of that parameter in the water does not exceed

the concentration for that parameter specified in the second column of the table in Part 3 of Schedule 2.

(4) A food authority must not use the uncertainty of measurement percentage specified in the second column of the table in Section 2 of Part 5 (which is concerned with whether a method of analysis complies with minimum performance characteristics) as an additional tolerance when determining whether a parameter specified in the first column of the table in Part 3 of Schedule 2 exceeds the concentration for that parameter specified in the second column of the table in Part 3 of Schedule 2.

(5) In sub-paragraph (3)(b)—

“certificate of conformity” means a certificate of conformity issued on or before 30th June 2013—

- (a) under the Construction Products Regulations 1991⁽⁴⁾; or
- (b) under Council [Directive 89/106/EEC](#) on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products⁽⁵⁾, as implemented under the law of a member State other than the United Kingdom;

“construction product” has the meaning given in point (1) of Article 2 of Regulation (EU) No 305/2011 of the European Parliament and of the Council laying down harmonised conditions for the marketing of construction products and repealing Council [Directive 89/106/EEC](#)⁽⁶⁾;

“declaration of conformity” means a declaration of conformity issued on or before 30th June 2013—

- (a) under the Construction Products Regulations 1991; or
- (b) under Council [Directive 89/106/EEC](#), as implemented under the law of a member State other than the United Kingdom;

“declaration of performance” means a declaration of performance drawn up in accordance with Article 4 of Regulation (EU) No 305/2011 of the European Parliament and of the Council.

Radon

9. A food authority must monitor the level of radon in any water in its area to which this Schedule applies in accordance with Part 6.

Tritium

10. A food authority must monitor the level of tritium in any water in its area to which this Schedule applies in accordance with Part 7.

Indicative dose

11. A food authority must monitor the level of the indicative dose for any water in its area to which this Schedule applies in accordance with Part 8.

(4) [S.I. 1991/1620](#), revoked by [S.I. 2013/1387](#).

(5) OJ No. L 40, 11.2.1989, p. 12, repealed by Regulation (EU) No 305/2011 of the European Parliament and of the Council (OJ No. L 88, 4.4.2011, p. 5).

(6) OJ No. L 88, 4.4.2011, p. 5, as last amended by Commission Delegated Regulation (EU) No 574/2014 (OJ No. L 159, 28.5.2014, p. 41).

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Indicator parameters

12. A food authority must monitor the concentration or value (as the case may be) of each of the parameters specified in the first column of the table in Section 1 of Part 9 (indicator parameters) in any water in its area to which this Schedule applies in accordance with Part 9.

Other parameters

13. Where a food authority believes, or has reason to suspect, that a property, element, substance or organism that is not specified in any of the tables in Schedule 2 or the table in Section 1 of Part 9, may be present in any water in its area to which this Schedule applies at any concentration, or in any number, that may constitute a potential danger to human health, it must take and analyse samples of the water, on a case by case basis, to determine whether that property, element, substance or organism is present in the water and whether it is present in the water at any concentration, or in any number, that may constitute a potential danger to human health.

Delegation of tasks

14. To enable a food authority to discharge its functions under this Schedule, a food authority may from time to time enter into an arrangement with another person under which the food authority delegates specified tasks to the delegate to carry out on behalf of the food authority on condition that—

- (a) such arrangement is in accordance with—
 - (i) Part 10, and
 - (ii) Article 5(2) of Regulation 882/2004 (delegation of specific tasks related to official controls), and
- (b) the food authority notifies the Secretary of State in advance of the proposed delegation and provides the Secretary of State with the information specified in Article 5(4) of Regulation 882/2004.

Quality management practices

15.—(1) A food authority must not analyse a sample taken for the purpose of carrying out its monitoring obligations under regulation 16A, as read with this Schedule, unless quality management practices that comply with BS EN ISO/IEC 17025:2017 entitled “General requirements for the competence of testing and calibration laboratories” (ISBN 978 0 580 88466 5) published by the BSI on 31st December 2017, or another equivalent standard accepted at international level, are being complied with at the laboratory in which the sample is analysed.

(2) But, in the case of the analysis of a sample for the purposes of the monitoring obligations under the provisions specified in sub-paragraph (3), it is sufficient if the laboratory at which the sample is analysed has a system of analytical quality control in place that is checked by the United Kingdom Accreditation Service from time to time.

- (3) The provisions are those in—
 - (a) paragraph 9, as read with Part 6 (radon),
 - (b) paragraph 10, as read with Part 7 (tritium), and
 - (c) paragraph 11, as read with Part 8 (indicative dose).

Validation and documentation

16.—(1) A food authority must ensure that any analysis that it carries out for the purpose its monitoring obligations under regulation 16A, as read with this Schedule, is validated and

documented in accordance with BS EN ISO/IEC 17025:2017 entitled “General requirements for the competence of testing and calibration laboratories” (ISBN 978 0 580 88466 5) published by the BSI on 31st December 2017 or another equivalent standard accepted at international level.

(2) But, in the case of the analysis of a sample for the purpose of the monitoring obligations under the provisions specified in sub-paragraph (3), it is sufficient if the laboratory at which the sample is analysed has a system of analytical quality control in place that is checked by the United Kingdom Accreditation Service from time to time.

(3) The provisions are those in—

- (a) paragraph 9, as read with Part 6 (radon),
- (b) paragraph 10, as read with Part 7 (tritium), and
- (c) paragraph 11, as read with Part 8 (indicative dose).

PART 3

Minimum sampling and analyses frequencies for monitoring radioactive substances

<i>Average volume of water bottled each day⁽¹⁾ within a supply zone m³⁽²⁾</i>	<i>Number of samples per year</i>
1,000 or less	1
More than 1,000 but less than or equal to 10,000	1 Plus 1 for each 3,300m ³ of the average volume produced each day Plus 1 for any remaining part of the average volume produced each day that is less than 3,300m ³
More than 10,000 but less than or equal to 100,000	3 Plus 1 for each 10,000 m ³ of the average volume produced each day Plus 1 for any remaining part of the average volume produced each day that is less than 10,000 m ³
More than 100,000	10 Plus 1 for each 25,000 m ³ of the average volume produced each day Plus 1 for any remaining part of the average volume produced each day that is less than 25,000 m ³

(1) The volume of water bottled each day must be calculated as an average taken over a year.

(2) “a supply zone” means a geographically defined area within which water intended for human consumption comes from one or more sources and within which water quality may be considered as being approximately uniform.

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PART 4

Methods of analyses relating to specified microbiological parameters

<i>Parameter</i>	<i>Method of analysis</i>
<i>Escherichia coli</i> (<i>E. coli</i>)	BS EN ISO 9308-1:2014+A1:2017 entitled “Water quality — Enumeration of <i>Escherichia coli</i> and coliform bacteria. Part 1: Membrane filtration method for waters with low bacterial background flora (ISO 9308-1:2014)” (ISBN 978 0 580 92379 1) published by the BSI on 31st October 2014, as amended on 28th February 2017, or BS EN ISO 9308-2:2014 entitled “Water quality — Enumeration of <i>Escherichia coli</i> and coliform bacteria. Part 2: Most probable number method” (ISBN 978 0 580 84023 4) published by the BSI on 30th June 2012, as amended by a corrigendum issued on 30th June 2014
Enterococci	BS EN ISO 7899-2:2000, BS 6068-4.4:2000 entitled “Water quality — Detection and enumeration of intestinal enterococci — Part 2: Membrane filtration method” (ISBN 0 580 34953 5) published by the BSI on 15th August 2000
<i>Pseudomonas aeruginosa</i>	BS EN ISO 16266:2008 entitled “Water quality — Detection and enumeration of <i>Pseudomonas aeruginosa</i> — Method by membrane filtration” (ISBN 978 0 580 59736 7) published by the BSI on 31st March 2008
Colony count 22°C – enumeration of culturable microorganisms	BS EN ISO 6222: 1999, BS 6068-4.5:1999 entitled “Water quality — Enumeration of cultural microorganisms — Colony count by inoculation in a nutrient agar culture medium” (ISBN 0 580 32495 8) published by the BSI on 15th August 1999
Colony count 36°C – enumeration of culturable microorganisms	BS EN ISO 6222: 1999, BS 6068-4.5:1999 entitled “Water quality — Enumeration of cultural microorganisms — Colony count by inoculation in a nutrient agar culture medium” (ISBN 0 580 32495 8) published by the BSI on 15th August 1999

PART 5

Methods of analysis relating to chemical parameters

SECTION 1

Methods of analysis

Method of analysis

17. In relation to a parameter specified in the first column of the table in Part 3 of Schedule 2 (chemical parameters)—

- (a) where there is a method of analysis that meets minimum performance characteristics that can be used by a food authority to analyse a sample for the purpose of making a determination in relation to that parameter under paragraph 8, the food authority must analyse the sample using that method of analysis (or using any one of them in a case where more than one method of analysis meets minimum performance characteristics);
- (b) where there is no such method of analysis, the food authority must analyse a sample under paragraph 8 using the best available technique not entailing excessive cost.

Minimum performance characteristics

18.—(1) For the purpose of paragraph 17(a), a method of analysis for a parameter specified in the first column of the table in Section 2 (minimum performance characteristics for a method of analysis) is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—

- (a) is capable of measuring concentrations equal to the parametric concentration of that parameter with a limit of quantification of 30% or less of the relevant parametric concentration,
- (b) has an uncertainty of measurement that does not exceed the percentage of the parametric concentration for the parameter specified in the second column of the table,
- (c) in the case of benzo(a)pyrene, complies, where relevant, with the requirement specified in the third column of the table, and
- (d) in the case of cyanide, complies with the requirement specified in the fourth column of the table.

(2) In the case of a parameter specified in the first column of the table in Section 2, where a method of analysis that complies with the requirements of sub-paragraph (1) is used to determine whether the concentration of that parameter exceeds the concentration specified for that parameter in the table in Part 3 of Schedule 2, the result of the analysis carried out using that method of analysis must be expressed using at least the same number of significant figures as the number of significant figures used to specify that parametric concentration in the table in Part 3 of Schedule 2.

Minimum performance characteristics: individual pesticides

19.—(1) For the purpose of paragraph 17(a), a method of analysis for an individual pesticide is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—

- (a) is capable of measuring concentrations equal to the parametric concentration for that pesticide with a limit of quantification of 30% or less of the relevant parametric concentration;

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- (b) has an uncertainty of measurement that does not exceed 30% of the parametric concentration for that pesticide or, where there is no method of analysis for the pesticide that does not exceed 30% of that concentration, an uncertainty of measurement that does not exceed—
 - (i) where there is a method of analysis for the pesticide that has an uncertainty of measurement of more than 30% but less than 80%—
 - (aa) the uncertainty of measurement percentage that applies in relation to that method of analysis, or
 - (bb) where there is more than one such method of analysis for the pesticide, the lowest of those percentages, or
 - (ii) 80%, where there is not a method of analysis for the pesticide that has an uncertainty of measurement of less than 80%.

(2) Where a method of analysis that complies with the requirements of sub-paragraph (1) is used to determine whether the concentration of an individual pesticide exceeds the parametric concentration specified in the table in Part 3 of Schedule 2 that applies to that pesticide, the result of the analysis carried out using that method of analysis must be expressed using at least the same number of significant figures as the number of significant figures used to specify the parametric concentration that applies to that pesticide in the table.

Alternative minimum performance characteristics

20.—(1) For the purpose of paragraph 17(a), until the end of 31st December 2019, a method of analysis for a parameter specified in the first column of the table in Section 3 (alternative minimum performance characteristics for a method of analysis that may be used until the end of 31st December 2019) is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—

- (a) is capable of measuring parametric concentrations with a trueness not less than the percentage of the parametric concentration specified in the second column of the table,
- (b) is capable of measuring parametric concentrations with a precision not less than the percentage of the parametric concentration specified in the third column of the table,
- (c) has a limit of detection that does not exceed the percentage of the parametric concentration specified in fourth column of the table, and
- (d) in the case of cyanide, complies with the requirement specified in the fifth column of the table.

(2) For the purpose of sub-paragraph (1)(b) and the table in Section 3, “precision” (the random error) is twice the relative standard deviation (within a batch and between batches) of the spread of results from the mean as further described in ISO 5725-1:1994(en) entitled “Accuracy (trueness and precision) of measurement methods and results – Part 1: General principles and definitions” published by the International Organization for Standardization on 22nd December 1994, as amended by ISO 5725-1:1994/Cor 1:1998 entitled “Accuracy (trueness and precision) of measurement methods and results – Part 1: General principles and definitions TECHNICAL CORRIGENDUM 1” published by the International Organization for Standardization on 2nd May 1998.

- (3) For the purpose of subparagraph (1)(c) and the table in Section 3, the limit of detection is—
 - (a) three times the standard deviation within a batch of a natural sample containing a low concentration of the parameter, or
 - (b) five times the standard deviation of a blank sample within a batch.

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Uncertainty of measurement

21.—(1) For the purpose of paragraph 18(1)(b) and 19(1)(b), the performance criterion for uncertainty of measurement ($k = 2$) for a parameter specified in the first column of the table in Section 2 is not less than the percentage specified in the second column of the table of the concentration for the parameter specified in the second column of the table in Part 3 of Schedule 2.

(2) Food authorities must estimate uncertainty of measurement for a parameter specified in the first column of the table in Section 2 at the level of the concentration for the parameter specified in the second column of the table in Part 3 of Schedule 2.

SECTION 2

Minimum performance characteristics for a method of analysis

<i>Parameters</i>	<i>Uncertainty of measurement - percentage of the parametric concentration</i>	<i>Other requirements relating to the uncertainty of measurement</i>	<i>Other requirements</i>
Antimony	40		
Arsenic	30		
Benzene	40		
Benzo(a)pyrene	50	Where there is no method of analysis for benzo(a)pyrene that has an uncertainty of measurement that does not exceed 50%, the best available method of analysis with an uncertainty of measurement not exceeding 60% must be used.	
Boron	25		
Bromate	40		
Cadmium	25		
Chromium	30		
Copper	25		
Cyanide	30		The method of analysis must determine total cyanide in all forms.
1,2-dichloroethane	40		
Fluoride	20		
Lead	25		
Mercury	30		

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<i>Parameters</i>	<i>Uncertainty of measurement - percentage of the parametric concentration</i>	<i>Other requirements relating to the uncertainty of measurement</i>	<i>Other requirements</i>
Nickel	25		
Nitrate	15		
Nitrite	20		
Polycyclic aromatic hydrocarbons—			
(a) individual substance	25		
(b) total substances	50		
Selenium	40		
Tetrachloroethenes—			
(a) individual substance	50		
(b) total substances	30		
Trichloroethenes—			
(a) individual substance	50		
(b) total substances	40		
Trihalomethanes—			
(a) individual substance	25		
(b) total substances	40		

SECTION 3

Alternative minimum performance characteristics for a method of analysis that may be used until the end of 31st December 2019

<i>Parameters</i>	<i>Trueness - percentage of the parametric concentration</i>	<i>Precision - percentage of the parametric concentration</i>	<i>Limit of detection - percentage of the parametric concentration</i>	<i>Other requirements</i>
Antimony	25	25	25	
Arsenic	10	10	10	
Benzene	25	25	25	
Benzo(a)pyrene	25	25	25	
Boron	10	10	10	
Bromate	25	25	25	
Cadmium	10	10	10	
Chromium	10	10	10	

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<i>Parameters</i>	<i>Trueness - percentage of the parametric concentration</i>	<i>Precision - percentage of the parametric concentration</i>	<i>Limit of detection - percentage of the parametric concentration</i>	<i>Other requirements</i>
Copper	10	10	10	
Cyanide	10	10	10	The method of analysis must determine total cyanide in all forms.
1,2-dichloroethane	25	25	10	
Fluoride	10	10	10	
Lead	10	10	10	
Mercury	20	10	20	
Nickel	10	10	10	
Nitrate	10	10	10	
Nitrite	10	10	10	
Pesticide – individual substance	25	25	25	
Polycyclic aromatic hydrocarbons—				
(a) individual substance	25	25	25	
(b) total substances	25	25	25	
Selenium	10	10	10	
Tetrachloroethenes—				
(a) individual substance	50	50	50	
(b) total substances	25	25	10	
Trichloroethenes—				
(a) individual substance	50	50	50	
(b) total substances	25	25	10	
Trihalomethanes—				
(a) individual substance	25	25	25	
(b) total substances	25	25	10	

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PART 6

Monitoring obligations relating to radon

Representative surveys

22.—(1) Each food authority must undertake representative surveys to determine the scale and nature of likely exposure to radon originating from different types of groundwater sources and wells in different geological areas within its area.

(2) The representative surveys must be designed in such a way that underlying parameters determining the likely exposure to radon, including the geology and hydrology of the area, the radioactivity of the rock types and soil types within the area and the type of wells within the area, can be identified and used to determine whether any source or well within the food authority's area is in an area of likely high exposure to radon.

Monitoring obligation

23. Each food authority must monitor the concentration of radon in any water in its area to which this Schedule applies unless an exemption from monitoring under paragraph 24 is in force.

Exemption

24.—(1) A food authority is not required to monitor the concentration of radon in any water in its area if—

- (a) on the basis of an assessment of representative surveys, monitoring data and such other information that it considers to be reliable, it is satisfied that the activity concentration of radon in the water does not exceed 100 Bq/l and has decided that it is unlikely to do so for at least five years beginning with the day after the day on which it comes to that decision (“assessment decision”),
- (b) it notifies the Secretary of State of its assessment decision and provides the Secretary of State with a copy of the representative surveys, monitoring data and any other information that the authority took into account in coming to that decision,
- (c) it notifies the Secretary of State that, on the basis of its assessment decision, the authority has decided not to monitor the activity concentration of radon in the water for a period of five years beginning with the day after the day on which the notification is submitted to the Secretary of State, and
- (d) in a case where sub-paragraph (2) applies, the food authority is satisfied that the activity concentration of radon in the water is unlikely to exceed 100 Bq/l for a period of five years beginning with the day after the day on which the food authority submits the notification under paragraph (c).

(2) This sub-paragraph applies where a notification under sub-paragraph (1)(c) is submitted more than three months after the day after the day on which a food authority makes an assessment decision under sub-paragraph (1)(a).

(3) A notification submitted by a food authority under sub-paragraph (1) may relate to all or some of the water in its area to which this Schedule applies.

(4) The exemption from monitoring provided for in sub-paragraph (1) lapses after a period of five years beginning with the day after the day on which the food authority submits the notification referred to in sub-paragraph (1)(c).

(5) But the exemption lapses immediately if the food authority becomes aware (by whatever means) at any time during the five year exemption period that the activity concentration of radon

in the water exceeds 100 Bq/l or it has reason to suspect that the activity concentration of radon in the water may exceed 100 Bq/l.

Analysis of sample

25.—(1) Where it is necessary under paragraph 23 for a food authority to monitor any water in its area to which this Schedule applies, the food authority must analyse a sample of the water to determine whether the activity concentration of radon in the water in that sample exceeds 100 Bq/l.

(2) The food authority must analyse the sample using a method of analysis that is capable of measuring the activity concentration of radon in the water with a level of detection not exceeding 10 Bq/l.

(3) The limit of detection for a method of analysis relating to the activity concentration of radon must be calculated in accordance with ISO Standard ISO 11929:2010(en) entitled “Determination of the characteristic limits (decision threshold, detection limit and limits of the confidence interval) for measurements of ionizing radiation - Fundamentals and application” published by the International Organization for Standardization on 24th February 2010, with probabilities of errors of the first and second kind of 0.05 each.

(4) In relation to the limit of detection, the uncertainty of measurement must be calculated and reported as complete standard uncertainties, or as expanded standard uncertainties with an expansion factor of 1.96, in accordance with ISO/IEC Guide 98-3:2008 (JCGM/WG1/100) entitled “Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)” published by the International Organization for Standardization on 30th September 2008, as amended by—

- (a) ISO/IEC Guide 98-3:2008/Suppl 1:2008 (JCGM/WG1/101) entitled “Propagation of distributions using a Monte Carlo method” published by the International Organization for Standardization on 20th November 2010, and
- (b) ISO/IEC Guide 98-3:2008/Suppl 2:2011 (JCGM/WG1/102) entitled “Extension to any number of output quantities” published by the International Organization for Standardization on 9th November 2011.

Action following the result of analysis

26.—(1) This paragraph applies if the result of an analysis of a sample of water carried out by a food authority under paragraph 25, or under any other provision of this Schedule, detects an activity concentration of radon exceeding 100 Bq/l.

(2) If an activity concentration of radon exceeding 1,000 Bq/l is detected in a sample of water, the food authority must take action under paragraph 57 (remedial action).

(3) If an activity concentration of radon exceeding 100 Bq/l but not exceeding 1,000 Bq/l is detected in a sample of water (“Sample X”), the food authority must—

- (a) take and analyse an extra sample of the water as soon as reasonably practicable after the result of Sample X is detected to determine the activity concentration of radon in the extra sample;
- (b) if the food authority considers it appropriate to do so, continue taking and analysing extra samples of the water to determine the activity concentration of radon in those samples at such intervals and for such period as the food authority, taking into account the provisions of sub-paragraphs (4) to (6), considers appropriate.

(4) The food authority must, disregarding the result of Sample X, determine the average of the activity concentration of radon in the water for such 12 month period as the authority considers appropriate (whether the 12 month period used by the food authority for the purpose of its monitoring programme or some other 12 month period) on the basis of—

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- (a) the results of the analyses of samples of the water carried out before the determination of the result of Sample X,
- (b) the result of the analysis of the extra sample under sub-paragraph (3)(a), and
- (c) where extra samples are taken under sub-paragraph (3)(b), the results of the analyses of those extra samples.

(5) No further action by the food authority is required if the outcome of the determination under sub-paragraph (4) is that the average of the activity concentration of radon in the water for the relevant 12 month period does not exceed 100 Bq/l.

(6) The food authority must take action under paragraph 57(1) (remedial action) if the outcome of the determination under sub-paragraph (4) is that the average of the activity concentration of radon in the water for the relevant 12 month period exceeds 100 Bq/l.

(7) Sub-paragraphs (3) to (6) do not apply if the food authority is of the opinion that—

- (a) even if it took extra samples under sub-paragraph (3) to enable it to determine the activity concentration of radon in those extra samples, it would have insufficient results from previous determinations relating to the activity concentration of radon in the water to enable it to make the determination required by sub-paragraph (4) within such period as the food authority considers to be reasonable, or
- (b) for some other reason, the result of such a determination under sub-paragraph (4), based on the results of those extra samples and previous determinations, may give a distorted result.

(8) Where an activity concentration of radon exceeding 100 Bq/l but not exceeding 1,000 Bq/l is detected in a sample of water and, by virtue of sub-paragraph (7), sub-paragraphs (3) to (6) do not apply, a food authority must take action under paragraph 57(1).

Taking of samples: reduced frequency

27.—(1) A food authority may, from time to time, decide to reduce the frequency at which it takes and analyses samples of any water in its area under paragraph 25 to determine the activity concentration of radon in the water where—

- (a) the result of the analysis of the last sample of the water carried out by the food authority shows that the activity concentration of radon in the water does not exceed 100 Bq/l,
- (b) that result, taken together with the results of such other analyses of the water previously carried out by the food authority as it considers relevant to its decision, show that the activity concentration of radon in the water is stable, and
- (c) the authority is satisfied that the change in the monitoring arrangements will not increase any risk to human health.

(2) A food authority that has made a decision under sub-paragraph (1) to reduce the frequency at which it takes samples of any water, may decide at any time to start taking samples of the water again at the frequency provided for in the table in Part 3 or, in accordance with sub-paragraph (1), at some other reduced frequency.

Treated bottled drinking water

28. The provisions of this Part, except for paragraph 27, apply to bottled drinking water that has been treated to reduce the level of radionuclides in the water in the same way as it applies to water that has not been treated in that way.

PART 7

Monitoring obligations relating to tritium

Monitoring obligation

29. Each food authority must monitor the activity concentration of tritium in any water in its area to which this Schedule applies if an anthropogenic source of tritium or other artificial radionuclide is present within the catchment area, unless an exemption from monitoring under paragraph 30 is in force.

Exemption

30.—(1) A food authority is not required to monitor the activity concentration of tritium in any water in its area if—

- (a) on the basis of an assessment of representative surveys, monitoring data and such other information as it considers to be reliable, it is satisfied that the activity concentration of tritium in the water does not exceed 100 Bq/l and has decided that it is unlikely to do so for at least five years beginning with the day after the day on which it comes to that decision (“assessment decision”),
- (b) it notifies the Secretary of State of its assessment decision and provides the Secretary of State with a copy of the representative surveys, monitoring data and any other information that the authority took into account in coming to that decision,
- (c) it notifies the Secretary of State that, on the basis of its assessment decision, the authority has decided not to monitor the activity concentration of tritium in the water for a period of five years beginning with the day after the day on which the notification is submitted to the Secretary of State, and
- (d) in a case where sub-paragraph (2) applies, the food authority is satisfied that the activity concentration of tritium in the water is unlikely to exceed 100 Bq/l for a period of five years beginning with the day after the day on which the food authority submits the notification under paragraph (c) to the Secretary of State.

(2) This sub-paragraph applies where a notification under sub-paragraph (1)(c) is submitted more than three months after the day after the day on which a food authority makes an assessment decision under sub-paragraph (1)(a).

(3) A notification submitted by a food authority under sub-paragraph (1) may relate to all or some of the water in its area to which this Schedule applies.

(4) The exemption from monitoring provided for in sub-paragraph (1) lapses after a period of five years beginning with the day after the day on which the food authority submits the notification referred to in sub-paragraph (1)(c).

(5) But the exemption lapses immediately if the food authority becomes aware (by whatever means) at any time during the five year exemption period that the activity concentration of tritium in the water exceeds 100 Bq/l or it has reason to suspect that the activity concentration of tritium in the water may exceed 100 Bq/l.

Analysis of sample

31.—(1) Where it is necessary under paragraph 29 for a food authority to monitor any water in its area to which this Schedule applies, the food authority must analyse a sample of the water to determine whether the activity concentration of tritium exceeds 100 Bq/l.

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(2) The food authority must analyse the sample using a method of analysis that is capable of measuring the activity concentration of tritium in the water with a level of detection not exceeding 10 Bq/l.

(3) The provisions in paragraph 25(3) and (4) (relating to the calculation and reporting of the limit of detection) apply in the same way to the calculation of the limit of detection for a method of analysis used to measure the activity concentration of tritium as they apply to the calculation and reporting of the limit of detection for a method of analysis used to measure the activity concentration of radon.

Action following the results of analysis

32.—(1) This paragraph applies if the result of an analysis of a sample of any water carried out by a food authority under paragraph 31, or under any other provision of this Schedule, detects an activity concentration of tritium exceeding 100 Bq/l in that sample (“Sample X”).

(2) The food authority must—

- (a) take and analyse an extra sample of the water as soon as reasonably practicable after the result of Sample X is detected by it to determine the activity concentration of tritium in the extra sample,
- (b) if the food authority considers it appropriate to do so, continue taking and analysing extra samples of the water to determine the activity concentration of tritium in those samples at such intervals and for such period as the food authority, taking into account sub-paragraphs (3) to (5), considers appropriate,
- (c) determine, by analysis, the gross alpha activity and gross beta activity of the water using water from the same sample, and
- (d) taking into account such information about likely sources of radioactivity affecting the water as the food authority considers relevant, analyse a sample of the water (whether water from the same sample or from a different sample of the water) to determine whether such other artificial radionuclides as the food authority may consider relevant are present in the water.

(3) The food authority must, disregarding the result of Sample X, determine the average of the activity concentration of tritium in the water for such 12 month period as the authority considers appropriate (whether the 12 month period used by the food authority for the purpose of its monitoring programme or some other 12 month period) on the basis of—

- (a) the results of the analyses of samples of the water carried out before the determination of the result of Sample X,
- (b) the result of the analysis of the extra sample under sub-paragraph (2)(a), and
- (c) where extra samples are under sub-paragraph (2)(b), the results of the analyses of those extra samples.

(4) No further action by the food authority is required if the outcome of the determination under sub-paragraph (3) is that the average of the activity concentration of tritium in the water for the relevant 12 month period does not exceed 100 Bq/l.

(5) The food authority must take action under paragraph 57(1) (remedial action) if the outcome of the determination under sub-paragraph (3) is that the average of the activity concentration of tritium in the water for the relevant 12 month period exceeds 100 Bq/l.

(6) Sub-paragraphs (2)(a) and (b) and (3) to (5) do not apply if the food authority is of the opinion that—

- (a) even if it took extra samples under sub-paragraph (2)(a) and (b) to enable it to determine the activity concentration of tritium in those extra samples, it would have insufficient results

from previous determinations relating to the activity concentration of tritium in the water to enable it to make the determination required by sub-paragraph (3) within such period as the food authority considers to be reasonable, or

- (b) for some other reason, the result of such a determination under sub-paragraph (3) based on the results of those extra samples and previous determinations may give a distorted result.

(7) Where an activity concentration of tritium exceeding 100 Bq/l is detected in a sample of water and, by virtue of sub-paragraph (6), sub-paragraphs (2)(a) and (b) and (3) to (5) do not apply, the food authority must take action under paragraph 57(1).

(8) Where a determination of the gross alpha activity and gross beta activity must be made by a food authority under sub-paragraph (2)(c), the food authority must apply the provisions of paragraph 38(2) to (8), in the case of gross alpha activity, and paragraph 39(2) to (8), in the case of gross beta activity, in carrying out that determination and deciding what further action, if any, to take.

Taking of samples: reduced frequency

33.—(1) A food authority may, from time to time, decide to reduce the frequency at which it takes and analyses samples of any water in its area under paragraph 31 to determine the activity concentration of tritium in the water where—

- (a) the result of the analysis of the last sample of the water carried out by the food authority shows that the activity concentration of tritium in the water does not exceed 100 Bq/l,
- (b) that result, taken together with the results of such other analyses of the water previously carried out by the food authority as it considers relevant to its decision, show that the activity concentration of tritium in the water is stable, and
- (c) the authority is satisfied that the change in the monitoring arrangements will not increase any risk to human health.

(2) A food authority which has made a decision under sub-paragraph (1) to reduce the frequency at which it takes samples of water, may decide at any time to start taking samples of the water again at the frequency provided for in the table in Part 3 or, in accordance with sub-paragraph (1), at some other reduced frequency.

Treated bottled drinking water

34. The provisions of this Part, except for paragraph 33, apply to bottled drinking water that has been treated to reduce the level of radionuclides in the water in the same way as it applies to water that has not been treated in that way.

PART 8

Monitoring obligations relating to indicative dose

SECTION 1

General

Monitoring obligation

35. If a source of artificial or elevated natural radioactivity is present in a food authority's area, it must monitor the indicative dose for any water in its area to which this Schedule applies unless an exemption from monitoring under paragraph 36 is in force.

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Exemption

36.—(1) A food authority is not required to monitor the indicative dose for any water in its area to which this Schedule applies if—

- (a) on the basis of representative surveys, monitoring data and such other information that it considers to be reliable, it is satisfied that the indicative dose for the water does not exceed 0.10 mSv and has decided that it is unlikely to do so for at least five years beginning with the day after the day on which it comes to that decision (“assessment decision”),
- (b) it notifies the Secretary of State of its assessment decision and provides the Secretary of State with a copy of the representative surveys, monitoring data and any other information that the authority took into account in coming to that decision,
- (c) it notifies the Secretary of State that, on the basis of its assessment decision, the authority has decided not to monitor the indicative dose for the water for a period of five years beginning with the day after the day on which the notification is submitted to the Secretary of State, and
- (d) in a case where sub-paragraph (2) applies, the food authority is satisfied that the indicative dose for the water is unlikely to exceed 0.10 mSv for a period of five years beginning with the day after the day on which the food authority submits the notification under paragraph (c) to the Secretary of State.

(2) This sub-paragraph applies where a notification under sub-paragraph (1)(c) is submitted more than three months after the day after the day on which a food authority makes an assessment decision under sub-paragraph (1)(a).

(3) A notification submitted by a food authority under sub-paragraph (1) may relate to all or some of the water in its area to which this Schedule applies.

(4) The exemption from monitoring provided for in sub-paragraph (1) lapses after a period of five years beginning with the day after the day on which the food authority submits the notification referred to in sub-paragraph (1)(c).

(5) But the exemption lapses immediately if the food authority becomes aware (by whatever means) at any time during the five year exemption period that the indicative dose for the water exceeds 0.10 mSv or it has reason to suspect that the indicative dose for the water may exceed 0.10 mSv.

Screening

37.—(1) For the purpose of monitoring the indicative dose for any water in its area to which this Schedule applies, the food authority may use such screening strategy as it considers to be reliable to determine whether it is necessary for it to carry out a paragraph 45 determination for the water, including—

- (a) screening by determining the gross alpha activity in a sample,
- (b) screening by determining the gross beta activity in a sample,
- (c) screening by determining the activity concentration of a single radionuclide in a sample, or
- (d) screening by determining the activity concentration of two or more radionuclides in a sample.

(2) A food authority, in deciding which radionuclide to analyse for the purpose of screening under sub-paragraph (1)(c), and which radionuclides to analyse for the purpose of screening under sub-paragraph (1)(d), must take into account all information available to the authority that it considers relevant relating to likely sources of radioactivity that may affect the water.

Screening by determining gross alpha activity

38.—(1) This paragraph applies where a food authority decides to screen any water under paragraph 37(1)(a) (screening of gross alpha activity) to determine whether it is necessary for the authority carry out a paragraph 45 determination for the water.

(2) The food authority must analyse a sample of water to determine whether the gross alpha activity in a sample is less than 0.1 Bq/l.

(3) Where the gross alpha activity detected in a sample does not exceed 0.1 Bq/l, the food authority may assume that the indicative dose for the water does not exceed 0.10 mSv.

(4) Where sub-paragraph (3) applies, the food authority does not need to carry out any further analysis for the purpose of carrying out a paragraph 45 determination for the water, unless it knows from other sources of information that specific radionuclides are present in the water that mean that the indicative dose for the water is likely to exceed 0.10 mSv.

(5) Where the gross alpha activity detected in a sample exceeds 0.1 Bq/l, the food authority must determine, by analysis, the activity concentration of such other radionuclides in the water (using water from the same sample or another sample of the water) as the food authority believes or suspects may be present in the water, taking into account such information about likely sources of radioactivity affecting the water as the food authority considers relevant.

(6) For the purpose of this paragraph, the food authority may set an alternative screening level for gross alpha activity in relation to any water that it is monitoring—

(a) if it is satisfied that, if set at the alternative level that it proposes, the indicative dose for the water will not exceed 0.10 mSv, and

(b) if called upon to do so by the Secretary of State, it can demonstrate to the Secretary of State that, at that alternative screening level, the indicative dose for the water will not exceed 0.10 mSv.

(7) When determining the gross alpha activity in a sample of water for the purpose of this paragraph, the food authority must analyse the sample using a method of analysis that is capable of detecting gross alpha activity in the sample at a level of detection not exceeding 0.04 Bq/l.

(8) The provisions in paragraph 25(3) and (4) (relating to the calculation and reporting of the limit of detection) apply in the same way to the calculation of the limit of detection for a method of analysis used to measure gross alpha activity as they apply to the calculation and reporting of the limit of detection for a method of analysis used to measure the activity concentration of radon.

Screening by determining gross beta activity

39.—(1) This paragraph applies where a food authority decides to screen any water under paragraph 37(1)(b) (screening of gross beta activity) to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water.

(2) The food authority must analyse a sample of the water to determine whether the gross beta activity in the sample is less than 1.0 Bq/l.

(3) Where the gross beta activity detected in a sample does not exceed 1.0 Bq/l, the food authority may assume that the indicative dose for the water does not exceed 0.10 mSv.

(4) Where sub-paragraph (3) applies, the food authority does not need to carry out any further analysis for the purpose of carrying out a paragraph 45 determination for the water, unless it knows from other sources of information that specific radionuclides are present in the water that mean that the indicative dose for the water is likely to exceed 0.10 mSv.

(5) Where the gross beta activity of a sample exceeds 1.0 Bq/l, the food authority must determine, by analysis, the activity concentration of such other radionuclides in the water (using water from the same sample or from another sample of the water) as the food authority believes or suspects may

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be present in the water, taking into account such information about likely sources of radioactivity affecting the water as the food authority considers relevant.

(6) For the purpose of this paragraph, the food authority may set an alternative screening level for gross beta activity in relation to any water that it is monitoring—

- (a) if it is satisfied that, if set at the alternative level that it proposes, the indicative dose for the water will not exceed 0.10 mSv, and
- (b) if called upon to do so by the Secretary of State, it can demonstrate to the Secretary of State that, at that alternative screening level, the indicative dose for the water will not exceed 0.10 mSv.

(7) When determining the gross beta activity in a sample of water for the purpose of this paragraph, the food authority must analyse the sample using a method of analysis that is capable of detecting gross beta activity in the sample at a level of detection not exceeding 0.4 Bq/l.

(8) The provisions in paragraph 25(3) and (4) (relating to the calculation and reporting of the limit of detection) apply in the same way to the calculation of the limit of detection for a method of analysis used to measure gross beta activity as they apply to the calculation and reporting of the limit of detection for a method of analysis used to measure the activity concentration of radon.

Screening based on analysis relating to one radionuclide

40.—(1) This paragraph applies where a food authority decides to screen any water under paragraph 37(1)(c) by determining the activity concentration of one radionuclide in the water to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water.

(2) The food authority must analyse a sample of the water to determine whether the activity concentration of the relevant radionuclide in the sample exceeds 20% of its derived concentration.

(3) Where the activity concentration of the radionuclide in the sample does not exceed 20% of its derived concentration, the food authority may assume that the indicative dose for the water does not exceed 0.10 mSv.

(4) Where sub-paragraph (3) applies, the food authority does not need to carry out any further analysis for the purpose of carrying out a paragraph 45 determination for the water.

(5) Where the activity concentration of the relevant radionuclide in the sample exceeds 20% of its derived concentration, the food authority must determine, by analyses, the activity concentration of such other radionuclides in the water (using water from the same sample or from another sample of the water) as the food authority believes or suspects may be present in the water, taking into account such information about likely sources of radioactivity affecting the water as the food authority considers relevant and the result of any analysis carried out by it under paragraph 32(2)(d).

Screening based on analysis relating to more than one radionuclide

41.—(1) This paragraph applies where a food authority decides to screen any water under paragraph 37(1)(d) by determining the activity concentration of more than one radionuclide in the water (“the relevant radionuclides”) to determine whether it is necessary for the authority to carry out a paragraph 45 determination for the water.

(2) The food authority must analyse a sample of the water to determine whether, in relation to each of the relevant radionuclides, the activity concentration of any of the relevant radionuclides in the sample exceeds 20% of its derived concentration.

(3) Where the activity concentration of each of the relevant radionuclides in a sample is analysed and none of them are found to be present in the sample at an activity concentration that exceeds 20%

of the derived concentration that applies to them, the food authority may assume that the indicative dose for the water does not exceed 0.10 mSv.

(4) Where sub-paragraph (3) applies, the food authority does not need to carry out any further analysis for the purpose of carrying out a paragraph 45 determination for the water.

(5) Where the food authority screens a sample of water for more than one radionuclide and the activity concentration of any one or more of those radionuclides in the sample exceeds 20% of the derived concentration that applies to it or them, the food authority must determine, by analyses, the activity concentration of such other radionuclides in the water (using water from the same sample or from another sample of the water) as the food authority believes or suspects may be present in the water, taking into account such information about likely sources of radioactivity affecting the water as the food authority considers relevant and the result of any analysis carried out by it under paragraph 32(2)(d).

Stopping or reducing the frequency of sampling: screening for indicative dose

42.—(1) In relation to screening for indicative dose, a food authority may, from time to time, decide to stop taking samples for screening purposes, or to take such samples at a reduced frequency, where—

- (a) it is satisfied that only naturally occurring radionuclides are present in the water,
- (b) the result of the analysis of the last sample of the water carried out by the food authority for screening purposes shows that—
 - (i) where screening has been carried out under paragraph 38, the gross alpha activity in the water did not exceed 0.1 Bq/l,
 - (ii) where screening has been carried out under paragraph 39, the gross beta activity in the water did not exceed 1.0 Bq/l, or
 - (iii) where screening has been carried out under paragraph 40 or 41, the activity concentration of any radionuclide in the water analysed for the purpose of that screening did not exceed 20% of its derived concentration,
- (c) in a case where the results of the analyses of previous samples taken by the food authority for screening purposes are available and the food authority considers them to be relevant to its decision, the results of the analyses of those samples, taken together with the result of the analysis of the last sample, show that—
 - (i) where screening has been carried out under paragraph 38, the gross alpha activity in the water is stable,
 - (ii) where screening has been carried out under paragraph 39, the gross beta activity in the water is stable, or
 - (iii) where screening has been carried out under paragraph 40 or 41, the activity concentration of any radionuclide analysed for the purpose of that screening is stable, and
- (d) the authority is satisfied that the change in the monitoring arrangements will not increase any risk to human health.

(2) Where a food authority has made a decision under sub-paragraph (1) to stop taking samples of water for the purpose of screening under paragraph 38, 39, 40 or 41 but a change occurs in relation to the supply of the water that the food authority believes is likely to influence the activity concentration of radionuclides in the water, the food authority must—

- (a) take and analyse a sample of the water using one of the screening methods specified in paragraph 37(1), or

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(b) take and analyse a sample of the water and use the results of that analysis to make a paragraph 45 determination for the water.

(3) A food authority which has made a decision under sub-paragraph (1) to stop taking samples of any water, or to reduce the frequency at which it takes samples of the water, may at any time decide to start taking samples of the water again at the frequency provided for in the table in Part 3 or, in accordance with sub-paragraph (1), at some other reduced frequency.

Analysis of sample

43.—(1) Where sub-paragraph (2) applies, a food authority must, taking into account such information about likely sources of radioactivity affecting the water as the authority considers relevant, analyse a sample of the water to determine—

- (a) which radionuclides are present in the water, and
- (b) in relation to each radionuclide found to be present in the water (including radionuclides found to be present in the water as the result of an analysis carried out by it under paragraph 32(2)(d)), the activity concentration at which the radionuclide is present in the water.

(2) This sub-paragraph applies where a food authority is obliged under paragraph 35 to monitor any water in its area to which this Schedule applies and—

- (a) the food authority has not carried out any screening during the relevant period under paragraph 38, 39, 40 or 41, and
- (b) the water is not water to which a decision to stop taking samples for screening purposes is in force under paragraph 42.

(3) When analysing a sample of water for the purpose of this Part to determine the presence and activity concentration of a radionuclide specified in the first column of the table in Section 2 (minimum levels of detection), the food authority must analyse the sample using a method of analysis that is capable of detecting the activity concentration of the relevant radionuclide at a level of detection not exceeding that specified in the second column of the table, as read, in the case of Ra-228, with the additional provisions specified in the third column of the table.

(4) The provisions in paragraph 25(3) and (4) (relating to the calculation and reporting of the limit of detection) apply in the same way to the calculation of the limit of detection for a method of analysis used to measure the activity concentration of a radionuclide specified in the first column of the table in Section 2 as they apply to the calculation and reporting of the limit of detection for a method of analysis used to measure the activity concentration of radon.

Obligation to make an indicative dose determination

44.—(1) A food authority must make a paragraph 45 determination for any water in its area to which this Schedule applies if—

- (a) it has not carried out any screening of the water under paragraph 38, 39, 40 or 41 and the obligation does not arise during a period in which a decision made under paragraph 42 to stop taking samples for screening purposes applies,
- (b) it has carried out such screening and a determination made under paragraph 38(5), 39(5), 40(5) or 41(5) detected the presence of a radionuclide in the water at an activity concentration that exceeds 20% of its derived concentration, or
- (c) a food authority decides to comply with paragraph 42(2) by taking and analysing a sample of the water and using the results of that analysis to make a paragraph 45 determination for the water.

(2) Sub-paragraph (1) does not apply if the obligation arises during a period in which a decision made under paragraph 47 to stop taking samples for the purpose of carrying out a paragraph 45 determination applies.

Determination relating to indicative dose

45.—(1) This paragraph applies where it is necessary under paragraph 44 for a food authority to make a determination relating to whether the indicative dose for any water in its area to which this Schedule applies exceeds 0.10 mSv.

(2) The food authority must use the formula in sub-paragraph (3) to make a determination relating to the indicative dose for the water by—

- (a) carrying out the calculation in sub-paragraph (4) for each radionuclide that the food authority has found, by analysis, to be present in the water, and
- (b) adding together the results of all the calculations done under paragraph (a).

(3) For the purposes of sub-paragraph (2), the formula is—

$$\sum_{i=1}^n \frac{Ci(obs)}{Ci(der)}$$

(4) For the purpose of sub-paragraph (2)(a), the calculation is $Ci(obs) \div Ci(der)$.

(5) For the purpose of the formula in sub-paragraph (3) and the calculation in sub-paragraph (4)—

- (a) $Ci(obs)$ is the activity concentration (observed concentration) at which a radionuclide has been found, by analysis, to be present in the water expressed in becquerels per litre, and
- (b) $Ci(der)$ is the derived concentration for that radionuclide expressed in becquerels per litre.

(6) For the purpose of the formula in sub-paragraph (3), n is the number of radionuclides the food authority has found, by analysis, to be present in the water.

(7) Any non-integer numbers resulting from the calculation carried out under sub-paragraph (2), as read with sub-paragraphs (3) and (4), must be taken into account in calculating and making a determination under this paragraph.

Action following the result of a paragraph 45 determination

46.—(1) If a paragraph 45 determination for any water produces a result that does not exceed 1, the indicative dose for the water is to be considered as not exceeding 0.10 mSv and no further investigation by the food authority is required.

(2) If a paragraph 45 determination for any water produces a result that exceeds 1 (“Indicative Dose Determination X”), sub-paragraphs (3) to (7) apply to such water.

(3) The food authority must—

- (a) take and analyse an extra sample of the water as soon as reasonably practicable after the result of Indicative Dose Determination X is known and use the result of the analysis of that sample to carry out another paragraph 45 determination for the water;
- (b) if the food authority considers it appropriate to do so taking into account the determination made under paragraph (a), continue taking and analysing extra samples of the water, and use the results of those analyses to carry out further paragraph 45 determinations for the water, at such intervals and for such period as the food authority (taking into account the provisions of sub-paragraphs (4) to (6)) considers appropriate.

(4) The food authority must, disregarding the determination of Indicative Dose Determination X, determine the average of the indicative dose determinations for the water for such 12 month period

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as the authority considers appropriate (whether the 12 month period used by the food authority for the purpose of its monitoring programme or some other 12 month period) on the basis of—

- (a) the results of paragraph 45 determinations relating to the water carried out before the determination of Indicative Dose Determination X,
- (b) the result of the extra paragraph 45 determination for the water carried out under sub-paragraph (3)(a), and
- (c) where any extra paragraph 45 determinations for the water are carried out under sub-paragraph (3)(b), the results of those extra determinations.

(5) No further action by the food authority is required if the outcome of the determination under sub-paragraph (4) is that the average of the indicative dose determinations for the water for the relevant 12 month period does not exceed 1.

(6) The food authority must take action under paragraph 57(1) (remedial action) if the outcome of the determination under sub-paragraph (4) is that the average of the indicative dose determinations for the water for the relevant 12 month period exceeds 1.

(7) Sub-paragraphs (2) to (6) do not apply if the food authority is of the opinion that—

- (a) even if it took extra samples under sub-paragraph (3) to enable it to make extra paragraph 45 determinations under that sub-paragraph, it would have insufficient results from previous paragraph 45 determinations for the water to enable it to make the determination required by sub-paragraph (4) within such period as the food authority considers to be reasonable, or
- (b) for some other reason, the result of such a determination under sub-paragraph (4), based on the results of those extra samples and the previous paragraph 45 determinations, may give a distorted result.

(8) Where the paragraph 45 determination for a sample of water exceeds 1 and, by virtue of sub-paragraph (7), sub-paragraphs (2) to (6) do not apply, the food authority must take action under paragraph 57(1).

(9) For the purposes of the determination required under sub-paragraph (4), any non-integer numbers resulting from the calculation carried out by a food authority under paragraph 45(2), as read with sub-paragraphs (3) and (4) of that paragraph, must be taken into account in determining whether the result of the determination of the average of the indicative dose for the water for the relevant 12 month period exceeds 1.

Stopping or reducing the frequency of sampling: indicative dose

47.—(1) A food authority may, from time to time, decide to stop taking samples for the purpose of carrying out a paragraph 45 determination for any water, or to take such samples at a reduced frequency, where—

- (a) it is satisfied that only naturally occurring radionuclides are present in the water,
- (b) the result of the last paragraph 45 determination for the water carried out by the food authority produces a result that does not exceed 1,
- (c) in a case where the results of previous paragraph 45 determinations for the water are available and the food authority considers them to be relevant to its decision, the average of the results of those determinations produce a result that does not exceed 1, and
- (d) the authority is satisfied that the change in the monitoring arrangements will not increase any risk to human health.

(2) Where a food authority has made a decision under sub-paragraph (1) to stop taking samples of water for the purpose of carrying out a paragraph 45 determination for the water but a change

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occurs in relation to the supply of the water that the food authority believes is likely to influence the concentration of radionuclides in the water, a food authority must—

- (a) take and analyse a sample of the water using one of the screening methods specified in paragraph 37, or
- (b) take and analyse a sample of the water and use the results of that analysis to make a paragraph 45 determination for the water.

(3) A food authority which has made a decision under sub-paragraph (1) to stop taking samples of any water, or to reduce the frequency at which it takes samples of the water, for the purpose of making paragraph 45 determinations for any water in its area may at any time decide to start taking samples of the water again at the frequency provided for in the table in Part 3 or, in accordance with sub-paragraph (1), at some other reduced frequency.

Treated bottled drinking water

48. The provisions of this Part, except for paragraph 47, apply to bottled drinking water that has been treated to reduce the level of radionuclides in the water in the same way as it applies to water that has not been treated in that way.

SECTION 2

Minimum levels of detection

<i>Radionuclides</i>	<i>Limit of detection – Additional provision</i>	
	<i>Bq/l</i>	
U-238	0.02	
U-234	0.02	
Ra-226	0.04	
Ra-228	0.02	The limit of detection in the second column only applies to the initial screening relating to the indicative dose for a new water source.
		If initial analysis indicates that it is not plausible that Ra-228 will exceed 20% of its derived concentration, the food authority may increase the minimum limit of detection to 0.08 Bq/l for routine Ra-228 nuclide specific measurements, until a recheck is required following a change in the supply of the water that the food authority believes may influence the activity concentration of Ra-228 in the water. The food authority may increase the minimum level of detection back to 0.08 Bq/l again following the result of any recheck if the result of the analysis carried out in relation to that determines that the concentration of Ra-228 in the water does not exceed 20% of its derived concentration.
Pb-210	0.02	
Po-210	0.01	

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<i>Radionuclides</i>	<i>Limit of detection – Bq/l</i>	<i>Additional provision</i>
C-14	20	
Sr-90	0.4	
Pu-239/Pu-240	0.04	
Am-241	0.06	
Co-60	0.5	
Cs-134	0.5	
Cs-137	0.5	
I-131	0.5	

SECTION 3
Interpretation

Derived concentration

49.—(1) In this Part, “derived concentration” in relation to a radionuclide specified in the first column of the following table, means the derived concentration of the radionuclide specified in the second column of that table.

<i>Radionuclide</i>	<i>Derived concentration - Bq/l</i>
U-238	3.0
U-234	2.8
Ra-226	0.5
Ra-228	0.2
Pb-210	0.2
Po-210	0.1
C-14	240
Sr-90	4.9
Pu-239/Pu-240	0.6
Am-241	0.7
Co-60	40
Cs-134	7.2
Cs-137	11
I-131	6.2

(2) In this Part, “derived concentration” in relation to a radionuclide that is not specified in the first column of the table in sub-paragraph (1) means the derived concentration of the radionuclide expressed in becquerels per litre and calculated using the following formula—

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$$\text{Derived concentration} = \frac{0.1}{\text{ICRP dose coefficient mSv} \times 730}$$

(3) For the purpose of the formula in sub-paragraph (2) “ICRP dose coefficient mSv” means the number of millisieverts per becquerel represented by the dose coefficient for an adult for the relevant radionuclide specified in the last column of the table in Annex F (effective dose coefficients for ingestion of radionuclides for members of the public) to ICRP Publication 119 entitled “Compendium of Dose Coefficients based on ICRP Publication 60” published in Volume 41 of Supplement 1 2012 of the Annals of the ICRP on behalf of the International Commission on Radiological Protection by Elsevier and approved by the Commission in October 2011 (ISBN 978-1-4557-5430-4)(7).

PART 9

Monitoring obligations relating to indicator parameters

SECTION 1

Parametric concentrations and values for indicator parameters

<i>Parameter</i>	<i>Parametric concentration or value</i>	<i>Units of measurement</i>	<i>Further provision</i>	<i>Additional requirements</i>
Aluminium	200	µg/l		
Ammonium	0.50	mg/l		
Chloride	250	mg/l		The water must not be aggressive.
<i>Clostridium perfringens</i> spores and of <i>Clostridium perfringens</i>	0	number/100ml	This parameter only needs to be checked if the water originates from, or is influenced by, surface water.	
Colour	Acceptable to consumers and no abnormal change			
Conductivity	2,500	µS cm ⁻¹ at 20°C		The water must not be aggressive.
Hydrogen ion concentration	9.5	pH units		The pH of the water must not be lower than 4.5.

(7) ICRP, 2012. Compendium of Dose Coefficients based on ICRP Publication 60. ICRP Publication 119. Ann. ICRP 41 (Suppl.).

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<i>Parameter</i>	<i>Parametric concentration or value</i>	<i>Units of measurement</i>	<i>Further provision</i>	<i>Additional requirements</i>
				The water must not be aggressive.
Iron	200	µg/l		
Manganese	50	µg/l		
Odour	Acceptable to consumers and no abnormal change			
Oxidisability	5.0	mg/l O ₂	This parameter does not need to be checked if total organic carbon is analysed.	
Sulphate	250	mg/l		The water must not be aggressive.
Sodium	200	mg/l		
Taste	Acceptable to consumers and no abnormal change			
Colony Count 22° C	No abnormal change			
Coliform bacteria	0	number/250ml		
Total organic carbon	No abnormal change		This parameter does not need to be checked for supplies of less than 10,000m ³ a day.	
Turbidity	Acceptable to consumers and no abnormal change			

SECTION 2

Monitoring obligations

Analysis of sample

50.—(1) Each food authority must monitor the concentration or value (as the case may be) of each of the parameters specified in the first column of the table in Section 1 in water in its area to which this Schedule applies by analysing a sample of the water to determine whether—

- (a) the concentration of, or value for, the parameter in the sample exceeds the concentration of, or value for, that parameter specified in the second column of the table—
 - (i) as measured, where relevant, by reference to the unit of measurement specified in the third column of the table, and
 - (ii) as read, in relation to a parameter specified in the first column of the table for which there is an additional requirement specified in the fourth column of the table, with the provision relating to the need to check the parameter specified in the fourth column of the table, and
 - (b) in relation to a parameter specified in the first column of the table for which there is an additional requirement specified in the fifth column of the table, the water complies with that additional requirement.
- (2) For the purpose of the determination required by sub-paragraph (1), the food authority must analyse the sample—
- (a) in the case of *Clostridium perfringens*, and spores of *Clostridium perfringens*, using the method of analysis in BS EN ISO 14189:2016 entitled “Water quality — Enumeration of *Clostridium perfringens* — Method using membrane filtration (ISO 14189:2013)” (ISBN 978 0 580 92184 1), as amended by a corrigendum issued on 31st August 2016;
 - (b) in the case of coliform bacteria, using the method of analysis in—
 - (i) BS EN ISO 9308-1:2014+A1:2017 entitled “Water quality — Enumeration of *Escherichia coli* and coliform bacteria. Part 1: Membrane filtration method for waters with low bacterial background flora (ISO 9308-1:2014)” (ISBN 978 0 580 92379 1) published by the BSI on 31st October 2014, as amended on 28th February 2017, or
 - (ii) BS EN ISO 9308-2:2014 entitled “Water quality — Enumeration of *Escherichia coli* and coliform bacteria. Part 2: Most probable number method” (ISBN 978 0 580 84023 4) published by the BSI on 30th November 2013, as amended by a corrigendum issued on 30th June 2014;
 - (c) in the case of each of the other indicator parameters, using a method of analysis that complies with Section 3.

Clostridium perfringens

51. In a case where a food authority determines that a sample of water contains any *Clostridium perfringens*, or spores of *Clostridium perfringens*, the food authority must investigate the water supply to determine whether there is any potential danger to human health arising from the presence in the water of pathogenic microorganisms.

Uncertainty of measurement

52. A food authority must not use the uncertainty of measurement percentage specified in the second column of the table in Section 4 (which is concerned with whether a method of analysis complies with minimum performance characteristics) as an additional tolerance when determining whether the concentration of a parameter specified in the first column of the table in Section 1 in a sample of water exceeds the concentration for that parameter specified in the second column of the table in Section 1.

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SECTION 3

Method of analysis

Method of analysis

- 53.** In relation to a parameter specified in the first column of the table in Section 1—
- (a) where there is a method of analysis that meets minimum performance characteristics that can be used by a food authority to analyse a sample for the purpose of making a determination in relation to that parameter under paragraph 50, the food authority must analyse the sample using that method of analysis (or using any one of them in a case where more than one method of analysis meets minimum performance characteristics);
 - (b) where there is no such method of analysis, the food authority must analyse a sample under paragraph 50 using the best available technique not entailing excessive cost.

Minimum performance characteristics

54.—(1) For the purpose of paragraph 53(a), a method of analysis for a parameter specified in the first column of the table in Section 4 (minimum performance characteristics for a method of analysis) is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—

- (a) is capable of measuring values equal to the parametric concentration of that parameter with a limit of quantification of 30% or less of the relevant parametric concentration,
 - (b) has an uncertainty of measurement that does not exceed the percentage of the parametric concentration for the parameter specified in the second column of the table in Section 4, as read with any further provision relating to the calculation of the uncertainty of measurement specified in the third column of the table, and
 - (c) in the case of total organic carbon, complies with the requirement specified in the fourth column of the table.
- (2) For the purpose of sub-paragraph (1)(b), the performance criterion for uncertainty of measurement ($k = 2$) for a parameter specified in the first column of the table in Section 4 is not less than the percentage specified in the second column of the table of the concentration or value for the parameter specified in the second column of the table in Section 1.
- (3) A method of analysis for hydrogen ion concentration pH is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—
- (a) is capable of measuring hydrogen ion concentration pH equal to 4.5 pH with a limit of quantification of 30% or less, and
 - (b) has an uncertainty of measurement that does not exceed 0.2 of a pH unit.
- (4) For the purpose of sub-paragraph (3)(b), the performance criterion for uncertainty of measurement ($k = 2$) for hydrogen ion concentration pH is not less than 0.2 of a pH unit.
- (5) Unless otherwise specified in the third column of the table in Section 4, food authorities must estimate uncertainty of measurement for a parameter specified in the first column of the table at the level of the concentration for the parameter specified in the second column of the table in Section 1.
- (6) Where a method of analysis that complies with the requirements of sub-paragraph (1) is used to determine whether the concentration of a parameter specified in the first column of the table in Section 4 exceeds the concentration specified for that parameter in the second column of the table in Section 1, the result of the analysis carried out using that method of analysis must be expressed using at least the same number of significant figures as the number of significant figures used to specify that parametric concentration in the second column of the table in Section 1.

Alternative minimum performance characteristics

55.—(1) For the purpose of paragraph 53(a), until the end of 31st December 2019, a method of analysis for a parameter specified in the first column of the table in Section 5 (alternative minimum performance characteristics for a method of analysis that may be used until the end of 31st December 2019) is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that—

- (a) is capable of measuring concentrations with a trueness not less than the percentage of the parametric concentration specified in the second column of the table,
- (b) is capable of measuring concentrations with a precision not less than the percentage of the parametric concentration specified in the third column of the table, and
- (c) has a limit of detection that does not exceed the percentage of the parametric concentration specified in the fourth column of the table.

(2) For the purpose of paragraph 53(a), until the end of 31st December 2019, a method of analysis for hydrogen ion concentration pH is a method of analysis that complies with minimum performance characteristics if it is a method of analysis that is capable of measuring hydrogen ion concentration pH with—

- (a) a trueness not less than 0.2 of a pH unit, and
- (b) a precision not less than 0.2 of a pH unit.

(3) “Precision” is the same for the purposes of this paragraph, and the table in Section 5, as it is in paragraph 20(2).

(4) “Limit of detection” is the same for the purposes of this paragraph, and the table in Section 5, as it is in paragraph 20(3).

SECTION 4

Minimum performance characteristics for a method of analysis

<i>Parameters</i>	<i>Uncertainty of measurement - percentage of the parametric concentration</i>	<i>Other requirements relating to the uncertainty of measurement</i>	<i>Other requirements</i>
Aluminium	25		
Ammonium	40		
Chloride	15		
Conductivity	20		
Iron	30		
Manganese	30		
Oxidisability	50		
Sodium	15		
Sulphate	15		
Total organic carbon	30	The uncertainty of measurement must be estimated at the level of 3	of BS EN 1484: 1997 Guidelines for the determination of total

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<i>Parameters</i>	<i>Uncertainty of measurement - percentage of the parametric concentration</i>	<i>Other requirements relating to the uncertainty of measurement</i>	<i>Other requirements to the of</i>
		mg/l of the total organic carbon.	organic carbon (TOC) and dissolved organic carbon (DOC)” (ISBN 0 580 28372 0) published by the BSI on 15th October 1997 must be used.
Turbidity	30	The uncertainty of measurement must be estimated at the level of 1.0 nephelometric turbidity unit in accordance with BS EN ISO 7027-1:2016 entitled “Water quality — Determination of turbidity. Part 1: Quantitative methods (ISO 7027-1:2016)” (ISBN 978 0 580 81961 2) published by the BSI on 31st July 2016.	

SECTION 5

Alternative minimum performance characteristics for a method of analysis that may be used until the end of 31st December 2019

<i>Parameters</i>	<i>Trueness - percentage of the parametric concentration</i>	<i>Precision - percentage of the parametric concentration</i>	<i>Limit of detection - percentage of the parametric concentration</i>
Aluminium	10	10	10
Ammonium	10	10	10
Chloride	10	10	10
Conductivity	10	10	10
Iron	10	10	10
Manganese	10	10	10
Oxidisability	25	25	10
Sodium	10	10	10
Sulphate	10	10	10
Turbidity	25	25	25

PART 10

Delegation of tasks by a food authority

SECTION 1

Delegation of tasks

Delegation

56.—(1) A food authority may delegate a task specified in the first column of the table in Section 2 (tasks that may be delegated) on an one-off or occasional basis or for such duration as may, from time to time, be agreed between the food authority and the person to whom the task is to be delegated.

(2) Any arrangement entered into under sub-paragraph (1) must provide that the delegate must comply with any provision in this Schedule relating to the exercise of that task, including any provision relating to—

- (a) the taking of samples,
- (b) the frequency (if relevant, taking into account the duration of the arrangement) at which the samples are to be taken,
- (c) the method of analysis that must be used to analyse samples, including any minimum performance characteristics that apply to the selection of a method of analysis,
- (d) the calculation of the limit of detection,
- (e) the use of uncertainty of measurement percentages,
- (f) the validation and documenting of the methods of analysis used, and
- (g) the use of quality management practices.

(3) In relation to a task specified in the first column of the table in Section 2 for which there is an entry in the second column of the table, any arrangement entered into under sub-paragraph (1) must provide that—

- (a) the food authority must, where specified in the second column of the table, provide the delegate with the instructions needed to carry out the task, and
- (b) the delegate must carry out the delegated task on the basis specified in the second column of that table.

(4) A food authority must not enter into an arrangement under sub-paragraph (1) unless—

- (a) it is satisfied that the task will be carried out promptly by a person competent to perform it, and
- (b) it has made arrangements with the delegate to ensure that—
 - (i) where the result of an analysis indicates that the concentration or value of any parameter has been exceeded, the delegate will communicate the result of the analysis to the food authority immediately after determining the result, and
 - (ii) in every other case, the delegate will communicate the result of the analysis to the food authority within 28 days beginning with the day after the day on which it has determined the result.

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SECTION 2

Tasks that may be delegated

<i>Task that may be delegated</i>	<i>Basis of delegation (where relevant)</i>
The task of taking samples under paragraph 4 of all waters in a food authority’s area to which this Schedule applies or of such of those waters as are specified in the arrangement	
The task of taking samples under paragraph 5 of all waters in a food authority’s area to which this Schedule applies or of such of those waters as are specified in the arrangement	
The task of analysing samples of water under paragraph 7(1) (microbiological parameters)	
The task of analysing samples of water under paragraph 8(1) (chemical parameters)	
The task of analysing samples of water under paragraph 13 (other parameters)	The food authority must provide the delegate with instructions relating to the identity of the property, element, substance or organism that is to be checked and the delegate must analyse the samples in accordance with those instructions.
The task of analysing samples of water under paragraph 25 (radon)	
The task of taking an extra sample, or extra samples, of water under paragraph 26(3) (radon)	In a case where the food authority has provided general instructions to the delegate in relation to the application of paragraph 26(3) concerning the number of samples to be taken and, in a case where more than one extra sample may need to be taken, the period during which extra samples are to be taken (“the specified matters”), the delegate must take an extra sample, or extra samples, in accordance with those instructions. In a case where the food authority has not provided general instructions to the delegate in relation to the specified matters, the food authority must provide the delegate with specific instructions concerning those matters at the time an extra sample falls to be taken under paragraph 26(3) and the delegate must take the samples in accordance with those instructions.
The task of analysing an extra sample, or extra samples, of water under paragraph 26(3) (radon)	
The task of analysing samples of water under paragraph 31 (tritium)	

<i>Task that may be delegated</i>	<i>Basis of delegation (where relevant)</i>
The task of taking an extra sample, or extra samples, of water under paragraph 32(2) (tritium)	<p>In a case where the food authority has provided general instructions to the delegate in relation to the application of paragraph 32(2) concerning the number of samples to be taken and, in a case where more than one extra sample may need to be taken, the period during which extra samples are to be taken (“the specified matters”), the delegate must take an extra sample, or extra samples, in accordance with those instructions.</p> <p>In a case where the food authority has not provided general instructions to the delegate in relation to the specified matters, the food authority must provide the delegate with specific instructions concerning those matters at the time an extra sample falls to be taken under paragraph 32(2) and the delegate must take the samples in accordance with those instructions.</p>
The task of analysing an extra sample, or extra samples, of water under paragraph 32(2)(a) and (b) (tritium)	
The task of measuring gross alpha activity and gross beta activity in a sample under paragraph 32(2)(c)	
The task of analysing samples of water under paragraph 32(2)(d) (relating to the determination of the presence of artificial radionuclides in the water), and the taking of such extra sample, or extra samples, of the water as may be needed for that purpose	
The task of analysing samples of water under paragraph 38(2) (screening by determining gross alpha activity)	
The task of analysing samples of water under paragraph 38(5) (relating to the determination of the presence and concentration of certain radionuclides in the water), and the taking of such extra sample, or extra samples, of the water as may be needed for that purpose	The food authority must provide the delegate with instructions specifying the radionuclides in the sample for which for analysis must be carried out by the delegate and the delegate must analyse the samples in accordance with those instructions.
The task of analysing samples of water under paragraph 39(2) (screening by determining gross beta activity)	
The task of analysing samples of water under paragraph 39(5) (relating to the determination of the presence and concentration of certain radionuclides in the water) and the taking of such	The food authority must provide the delegate with instructions specifying the radionuclides in the sample for which for analysis must be carried out by the delegate and the delegate must

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<i>Task that may be delegated</i>	<i>Basis of delegation (where relevant)</i>
extra sample, or extra samples, of the water as may be needed for that purpose	analyse the samples in accordance with those instructions.
The task of analysing samples of water under paragraph 40(2) (screening based on analysis relating to one radionuclide)	
The task of analysing samples of water under paragraph 40(5) (relating to the determination of the presence and concentration of certain radionuclides in the water) and taking such extra sample, or extra samples, of the water as may be needed for that purpose	The food authority must provide the delegate with instructions specifying the radionuclides in the sample for which for analysis must be carried out by the delegate and the delegate must analyse the samples in accordance with those instructions.
The task of analysing samples of water under paragraph 41(2) (screening based on analyses relating to more than one radionuclide)	
The task of analysing samples of water under paragraph 41(5) (relating to the determination of the presence and concentration of certain radionuclides in water) and taking such extra sample, or extra samples, of the water as may be needed for that purpose	The food authority must provide the delegate with instructions specifying the radionuclides in the sample for which for analysis must be carried out by the delegate and the delegate must analyse the samples in accordance with those instructions.
The task of analysing samples of water under paragraph 43(1) (relating to the determination of the presence, and concentration of, certain radionuclides in water)	The food authority must provide the delegate with instructions specifying the radionuclides in the sample for which for analysis must be carried out by the delegate and the delegate must analyse the samples in accordance with those instructions.
The task of carrying out a paragraph 45 determination (relating to indicative dose)	
The task of taking an extra sample, or extra samples of water under paragraph 46(3) (further sampling required following an indicative dose determination)	In a case where the food authority has provided general instructions to the delegate in relation to the application of paragraph 46(3) concerning the number of samples to be taken and, in a case where more than one extra sample may need to be taken, the period during which extra samples are to be taken (“the specified matters”), the delegate must take an extra sample, or extra samples, in accordance with those instructions.
	In a case where the food authority has not provided general instructions to the delegate in relation to the specified matters, the food authority must provide the delegate with specific instructions concerning those matters at the time an extra sample falls to be taken under paragraph 46(3) and the delegate must take the samples in accordance with those instructions.

<i>Task that may be delegated</i>	<i>Basis of delegation (where relevant)</i>
The task of analysing an extra sample, or extra samples, of water under paragraph 46(3)	
The task of analysing samples of water under paragraph 50(1) (indicator parameters)	

PART 11

Remedial action

Remedial action

57.—(1) If, taking into account the provisions of this Schedule, a food authority determines that water in its area to which this Schedule applies contains a parameter specified in the first column of the table in Part 4 of Schedule 2 that exceeds (or is to be considered as exceeding) the activity concentration or value specified in the second column of the table (as measured by reference to the unit of measurement specified in the third column of the table), the food authority must—

- (a) immediately investigate the non-compliance in order to identify the cause,
 - (b) assess whether the non-compliance poses a risk to human health that requires action,
 - (c) require the proprietor of the food business bottling the water to take remedial action as soon as possible to restore the quality of the water if the authority considers that it is necessary for such action to be taken to protect human health,
 - (d) notify the general public of the risks and remedial action taken, and
 - (e) advise the general public on any additional precautionary measures that may be needed for the protection of human health in respect of radioactive substances.
- (2) Sub-paragraph (1)(a) and (b) do not apply where paragraph 26(2) applies.

SCHEDULE 13

Regulation 22

Application and modification of provisions of the Act

<i>Provision of the Act</i>	<i>Modifications</i>
Section 2(8) (extended meaning of “sale” etc.)	In subsection (1), for “this Act” substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”. In subsection (2), for “This Act” substitute “The Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 3 (presumptions that food intended for human consumption)	In subsection (1), for “this Act” substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 10(1) and (2) (improvement notices)	For subsection (1), substitute—

(8) Section 2(1) was amended by the Food Standards Act 1999 (c. 28), Schedule 5, paragraph 8.

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

<i>Provision of the Act</i>	<i>Modifications</i>
	<p>“(1) If an authorised officer of an enforcement authority has reasonable grounds for believing that a person is failing to comply with any provision specified in subsection (1A) or is carrying out either a fluoride removal treatment or an ozone-enriched air treatment that has a disinfectant action, the authorised officer may, by a notice served on that person (in this Act referred to as an “improvement notice”)—</p> <ul style="list-style-type: none"> (a) state the officer’s grounds for believing that the person is failing to comply with the relevant provision; (b) specify the matters which constitute the person’s failure so to comply; (c) specify the measures which, in the officer’s opinion, the person must take in order to secure compliance; and (d) require the person to take those measures, or measures that are at least equivalent to them, within such period (not being less than 14 days) as may be specified in the notice. <p>(1A) The provisions referred to in subsection (1) are—</p> <ul style="list-style-type: none"> (a) any of regulations 4 to 15 of the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007; and (b) any of the following provisions of Commission Regulation (EU) No 115/2010 laying down the conditions for use of activated alumina for the removal of fluoride from natural mineral waters and spring waters⁽⁹⁾— <ul style="list-style-type: none"> (i) Article 1(2) (requirement that fluoride removal treatment must be performed in accordance with the technical requirements set out in the Annex to Commission Regulation (EU) No 115/2010); (ii) the first sentence of Article 2 (requirement that the release of residues into natural mineral water or spring water as a result of fluoride removal treatment be as low as technically feasible according to best practices and not pose a risk to public health); (iii) the second sentence of Article 2 (requirement for operators to implement and monitor the critical processing steps set out in the Annex to Commission Regulation (EU) No 115/2010); (iv) Article 3(1) (requirement that the application of any fluoride removal treatment be notified to the competent authorities at least three months prior to use); and (v) Article 4 (requirement that the label on natural mineral water or spring water subjected to fluoride

⁽⁹⁾ OJ No. L 37, 10.2.2010, p. 13.

<i>Provision of the Act</i>	<i>Modifications</i>
	removal treatment include specified information in proximity to the statement of the analytical composition).”.
Section 20 (offences due to fault of another person)	For “any of the preceding provisions of this Part” substitute “section 10(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 21(1) and (5) (defence of due diligence)	In subsection (1), for “any of the preceding provisions of this Part (in this section referred to as “the relevant provision”)” substitute “section 10(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 29 (procurement of samples)	After “under section 32 below”, insert “as applied and modified by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
	In paragraph (d), for the words from “this Act” to “under it” substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 30(6) and (8) (which relates to evidence of certificates given by a food analyst or examiner)	In subsection (8), for “this Act” substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 32(1) to (7) (powers of entry)(10)	In subsection (1), for paragraphs (a) to (c) substitute— “(a) subject to paragraph (c), to enter any premises within the authority’s area for the purpose of ascertaining whether there is, or has been, on the premises a contravention of any of the following provisions of Commission Regulation (EU) No 115/2010 laying down the conditions for use of activated alumina for the removal of fluoride from natural mineral waters and spring waters— (i) Article 1(2) (requirement that fluoride removal treatment must be performed in accordance with the technical requirements set out in the Annex to Commission Regulation (EU) No 115/2010); (ii) the first sentence of Article 2 (requirement that the release of residues into natural mineral water or spring water as a result of fluoride removal treatment be as low as technically feasible according to best practices and not pose a risk to public health); (iii) the second sentence of Article 2 (requirement for operators to implement and monitor the

(10) Section 32(5) and (6)(b) were amended by the Criminal Justice and Police Act 2001 (c. 16), Schedule 2, paragraph 18.

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

<i>Provision of the Act</i>	<i>Modifications</i>
	critical processing steps set out in the Annex to Commission Regulation (EU) No 115/2010);
	(iv) Article 3(1) (requirement that the application of any fluoride removal treatment be notified to the competent authorities at least three months prior to use); and
	(v) Article 4 (requirement that the label on natural mineral water or spring water subjected to fluoride removal treatment include specified information in proximity to the statement of the analytical composition); and
	(b) to enter any business premises, whether within or outside the authority’s area, for the purpose of ascertaining whether there is on the premises any evidence of any contravention within that area of any of the provisions set out in paragraph (a);
	(c) but any premises which are a private dwelling-house (whether in whole or part) may only be entered for the purposes of paragraph (a) on production of a warrant which authorises such entry and, unless the warrant provides otherwise, admission to any premises used wholly as a private dwelling-house shall not be demanded;”.
	For subsection (2) substitute—
	“(2) If a justice of the peace, on sworn information in writing, is satisfied that there is reasonable ground for entry into any private dwelling-house for any purpose mentioned in subsection (1)(a) the justice may, by signed warrant, authorise the authorised officer to enter the private dwelling-house, if necessary by reasonable force.”.
	In subsection (6)(a), for the words from “this Act” to “under it” substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 33 (obstruction etc. of officers)	In subsection (1), for “this Act” in each place those words occur substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.
Section 35(1)(11) and (2)(12) (punishment of offences)	In subsection (1), after “section 33(1) above” insert “, as applied and modified by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007,”.
	After subsection (1), insert—

(11) Section 35(1) is amended by the Criminal Justice Act 2003 (c. 44), Schedule 26, paragraph 42, from a date to be appointed and was amended by the Legal Aid, Sentencing and Punishment of Offenders Act 2012 (c. 10), section 85(1).
 (12) Section 35(2) was amended by the Legal Aid, Sentencing and Punishment of Offenders Act 2012, section 85(1), and S.I. 2015/664.

<i>Provision of the Act</i>	<i>Modifications</i>
	<p>“(1A) A person guilty of an offence under section 10(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007, is liable, on summary conviction, to a fine.”.</p> <p>In subsection (2), for “any other offence under this Act” substitute “an offence under section 33(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007,”.</p>
Section 36 (offences by bodies corporate)	In subsection (1), for “this Act” substitute “section 10(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007,”.
Section 36A(13)(offences by Scottish partnerships)	For “this Act” substitute “section 10(2), as applied by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007,”.
Section 37(1) and (6) (appeals)	<p>For subsection (1) substitute—</p> <p>“(1) Any person who is aggrieved by a decision of an authorised officer of an enforcement authority to serve an improvement notice under section 10(1), as applied and modified by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007, may appeal to the First-tier Tribunal.”.</p> <p>In subsection (6)—</p> <p>(a) for “(3) or (4)” substitute “(1)”; and</p> <p>(b) in paragraph (a), for a “magistrates’ court or to the sheriff” substitute “the First-tier Tribunal”.</p>
Section 39 (appeals against improvement notices)	<p>For subsection (1) substitute—</p> <p>“(1) On an appeal against an improvement notice served under section 10(1), as applied and modified by regulation 22 of, and Schedule 13 to, the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007, the First-tier Tribunal may either cancel or affirm the notice and, if it affirms it, may do so either in its original form or with such modifications as the First-tier Tribunal may in the circumstances think fit.”.</p> <p>In subsection (3), omit “for want of prosecution”.</p>
Section 44 (protection of officers acting in good faith)	For “this Act” in each place those words occur substitute “the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007”.

(13) Section 36A was inserted by the Food Standards Act 1999, Schedule 5, paragraph 16.