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STATUTORY INSTRUMENTS

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**2009 No. 3101**

**WATER, ENGLAND**

**The Private Water Supplies Regulations 2009**

*Made* - - - - 24th November 2009  
*Laid before Parliament* 30th November 2009  
*Coming into force* - - 1st January 2010

The Secretary of State, having carried out the consultation required by Article 9 of Regulation (EC) No. 178/2002 of the European Parliament and of the Council laying down the general principles of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety<sup>M1</sup>, makes these Regulations under sections 67, 77(3) and (4) and 213(2) of the Water Industry Act 1991<sup>M2</sup> (and, for Part 4, section 2(2) of the European Communities Act 1972<sup>M3</sup>, having been designated<sup>M4</sup> for the purposes of that Act).

**Marginal Citations**

- M1** OJ No L 31, 1.2.2002, p 1.  
**M2** 1991 c. 56.  
**M3** 1972 c. 68.  
**M4** S. I. 1972/1811.

**PART 1** **U.K.**

Water standards

**Citation, application and commencement** **U.K.**

1. These Regulations may be cited as the Private Water Supplies Regulations 2009; they apply in England and come into force on 1st January 2010.

**Scope** **U.K.**

2. These Regulations apply in relation to private supplies of water intended for human consumption; and for these purposes “water intended for human consumption” means—

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*Changes to legislation: There are currently no known outstanding effects for the The Private Water Supplies Regulations 2009 (revoked). (See end of Document for details)*

- (a) all water either in its original state or after treatment, intended for drinking, cooking, food preparation or other domestic purposes, regardless of its origin and whether it is supplied from a distribution network, from a tanker, or in bottles or containers;
- (b) all water used in any food-production undertaking for the manufacture, processing, preservation or marketing of products or substances intended for human consumption.

### Exemptions **U.K.**

3. These Regulations do not apply in relation to—
- (a) water controlled by the Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007 <sup>M5</sup>;
  - (b) water that is an authorised medicinal product; or
  - (c) water used solely for washing a crop after it has been harvested and that does not affect the fitness for human consumption of the crop or of any food or drink derived from the crop.

#### Marginal Citations

**M5** [S. I. 2007/2785](#).

### Wholesomeness **U.K.**

4. Water is wholesome if all the following conditions are met—
- (a) it does not contain any micro-organism, parasite or substance, alone or in conjunction with any other substance, at a concentration or value that would constitute a potential danger to human health;
  - (b) it complies with the concentrations or values specified in Part 1 of Schedule 1; and
  - (c) in the water:

### Use of products or substances in private supplies **U.K.**

5. Any product or substance used in a private supply after the coming into force of these Regulations must be a product or substance that would be permitted to be used in a water supply under regulation 31 of the Water Supply (Water Quality) Regulations 2000 <sup>M6</sup>.

#### Marginal Citations

**M6** [S. I. 2000/3184](#) as last amended by [S. I. 2007/2734](#).

### Requirement to carry out a risk assessment **U.K.**

6.—(1) A local authority must carry out a risk assessment within five years of the coming into force of these Regulations, and subsequently every five years (or earlier if it considers that the existing risk assessment is inadequate) of each private supply that supplies water to any premises (other than a supply to a single dwelling not used for any commercial activity).

(2) The risk assessment is to establish whether there is a significant risk of supplying water that would constitute a potential danger to human health.

(3) It must also carry out a risk assessment of a private supply to a single dwelling not used for any commercial activity if requested to do so by the owner or occupier of that dwelling.

## PART 2 U.K.

### Monitoring

#### Monitoring U.K.

7. The local authority must monitor all private supplies in accordance with this Part when carrying out its duties under section 77(1) of the Water Industry Act 1991.

#### Further distribution of supplies from water undertakers or licensed water suppliers U.K.

8. Where water is supplied by a water undertaker or licensed water supplier and is then further distributed by a person other than a water undertaker or licensed water supplier the monitoring must be carried out on the basis of the risk assessment.

#### Large supplies and supplies to commercial or public premises U.K.

9. In the case of a private supply (other than that specified in regulation 8) that—

- (a) supplies an average daily volume of water of 10m<sup>3</sup> or more, or
- (b) supplies water to premises where the water is used for a commercial activity or to public premises,

the local authority must monitor in accordance with Schedule 2 and carry out any additional monitoring that the risk assessment shows to be necessary.

#### Other private supplies U.K.

10.—(1) In any other case other than a private supply to a single dwelling not used for a commercial activity, the local authority must monitor for—

- (a) conductivity;
- (b) enterococci;
- (c) *Escherichia coli* (*E. coli*);
- (d) hydrogen ion concentration;
- (e) turbidity;
- (f) any parameter in Schedule 1 identified in the risk assessment as being at risk of not complying with the concentrations or values in that Schedule; and
- (g) anything else identified in the risk assessment as a potential danger to human health.

(2) It must monitor at least every five years and more frequently if the risk assessment shows that this is necessary.

(3) In the case of a private supply to a single dwelling not used for a commercial activity a local authority may monitor the supply in accordance with this regulation, and must do so if requested to do so by the owner or occupier.

#### Sampling and analysis U.K.

11.—(1) When a local authority monitors a private supply it must take a sample—

- (a) if the water is supplied for domestic purposes, from a tap normally used to supply water for human consumption, and which, if there is more than one tap, is representative of the water supplied to the premises;

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- (b) if the water is used in a food-production undertaking, at the point at which it is used in the undertaking;
  - (c) if the water is supplied from a tanker, at the point at which it emerges from the tanker;
  - (d) in any other case at a suitable point.
- (2) It must then ensure that the sample is analysed.
- (3) Schedule 3 makes further provision for sampling and analysis.

#### **Maintenance of records** U.K.

12. A local authority must make and keep records in respect of every private supply in its area in accordance with Schedule 4.

#### **Notification of information** U.K.

13. By 30th June 2010, and by 31st January each following year, every local authority must send the Secretary of State a copy of the records in Schedule 4.

## **PART 3** U.K.

### Action in the event of failure

#### **Provision of information** U.K.

14. If the local authority considers that a private supply in its area is a potential danger to human health it must take appropriate steps to ensure that people likely to consume water from it—

- (a) are informed that the supply constitutes a potential danger to human health;
- (b) where possible, are informed of the degree of the potential danger; and
- (c) are given advice to allow them to minimise any such potential danger.

#### **Investigation** U.K.

15. A local authority must carry out an investigation to establish the cause if it suspects that the supply is unwholesome or that an indicator parameter does not comply with the concentrations or values in Part 2 of Schedule 1.

#### **Procedure following investigation** U.K.

16.—(1) Once a local authority has carried out an investigation and established the cause of the water being unwholesome, it must act in accordance with this regulation.

(2) If the cause of the unwholesome water is in the pipework within a single dwelling, it must promptly inform the people concerned and offer them advice on measures necessary for the protection of human health.

(3) Otherwise, if it cannot solve the problem informally the local authority—

- (a) may on application grant an authorisation in accordance with regulation 17(2) if the conditions in that regulation are fulfilled; and
- (b) if it does not grant such an authorisation, must (or, in the case of a supply to a single dwelling, may) serve a notice, either in accordance with section 80 of the Water Industry Act 1991 or under regulation 18 if the conditions in that regulation are fulfilled.

## Authorisations of different standards **U.K.**

17.—(1) Any person may apply to a local authority for the grant of an authorisation under this regulation.

(2) A local authority may grant an authorisation of different standards under this regulation if—

- (a) the only cause of the unwholesome water is that a parameter in Table B of Part 1 of Schedule 1 (chemical parameters) is not complied with;
- (b) the local authority has consulted all water users who will be affected by the authorisation and the Health Protection Agency for the area and has taken their views into account;
- (c) granting the authorisation does not cause a potential danger to human health;
- (d) the supply of water cannot be maintained by any other reasonable means.

(3) An authorisation must require the applicant to take action over a period of time to ensure that the necessary parameters are complied with, and must specify—

- (a) the person to whom the authorisation is granted;
- (b) the supply concerned;
- (c) the grounds for granting the authorisation;
- (d) the parameters concerned, previous relevant monitoring results, and the maximum permissible values under the authorisation;
- (e) the geographical area, the estimated quantity of water supplied each day, the number of persons concerned and whether or not any food-production undertaking is affected;
- (f) an appropriate monitoring scheme, with an increased monitoring frequency where necessary;
- (g) a summary of the plan for the necessary remedial action, including a timetable for the work and an estimate of the cost and provisions for reviewing progress;
- (h) the duration of the authorisation.

(4) If a local authority grants an authorisation, and the person to whom it is granted takes action in accordance with the timetable specified in the authorisation, the local authority may not serve a notice under section 80 of the Water Industry Act 1991 concerning the matters specified in the authorisation without first amending or revoking the authorisation.

(5) The duration of the authorisation must be as short as possible and in any event may not exceed three years.

(6) The local authority must ensure that people concerned are promptly informed of the authorisation and its conditions and, where necessary, ensure that advice is given to particular groups for which the authorisation could present a special risk.

(7) If the supply exceeds 1,000 m<sup>3</sup> a day as an average or serves more than 5,000 persons the local authority must send a copy of the authorisation to the Secretary of State within one month.

(8) The local authority must keep the progress of the remedial action under review.

(9) If necessary, it may grant a second authorisation for up to a further three years with the prior consent of the Secretary of State, but if it does so it must, as soon as is reasonably practicable, send a copy of the authorisation together with the grounds for its decision to the Secretary of State.

(10) It may revoke or amend the authorisation at any time, and in particular may revoke or amend it if the timetable for remedial action has not been adhered to.

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## PART 4 U.K.

### Notice procedure

#### Notices U.K.

**18.**—(1) If any private supply of water intended for human consumption constitutes a potential danger to human health, a local authority acting under these Regulations must serve a notice under this regulation on the relevant person (as defined in section 80 of Water Industry Act <sup>M7</sup>) instead of a notice under that section.

(2) The notice must —

- (a) identify the private supply to which it relates;
- (b) state the grounds for serving the notice;
- (c) prohibit or restrict the use of that supply;
- (d) specify what other action is necessary to protect human health.

(3) The local authority must promptly inform consumers of the supply of the notice and provide any necessary advice.

(4) The notice may be subject to conditions and may be amended by further notice at any time.

(5) The local authority must revoke the notice as soon as there is no longer a potential danger to human health.

(6) It is an offence to breach a notice served under this regulation or fail to comply with it.

#### Marginal Citations

M7 1991 c. 56.

#### Appeals U.K.

**19.**—(1) Any person who is aggrieved by a notice served under regulation 18 may appeal to a magistrates' court within 28 days of service of the notice.

(2) The procedure on an appeal to a magistrates' court under paragraph (1) is by way of complaint, and the Magistrates' Courts Act 1980 <sup>M8</sup> applies to the proceedings.

(3) A notice remains in force unless suspended by the court.

(4) On an appeal, the court may either cancel the notice or confirm it, with or without modification.

#### Marginal Citations

M8 1980 c.43; sections 51 and 52 have been substituted by the Courts Act 2003 (c.39), section 47.

#### Penalties U.K.

**20.**—(1) A person failing to comply with a notice served under regulation 18 is liable—

- (a) on summary conviction, to a fine not exceeding the statutory maximum or to a term of imprisonment not exceeding three months or both, or
- (b) on conviction on indictment, to a fine or to imprisonment for a term not exceeding two years or both.

(2) Where a body corporate is guilty of an offence under these Regulations, and that offence is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of—

- (a) any director, manager, secretary or other similar person of the body corporate; or
- (b) any person who was purporting to act in any such capacity,

that person is guilty of the offence as well as the body corporate.

(3) For the purposes of paragraph (2) above, “director”, in relation to a body corporate whose affairs are managed by its members, means a member of the body corporate.

## PART 5 **U.K.**

### Miscellaneous

#### Fees **U.K.**

21. Schedule 5 makes provision for fees.

#### Revocation **U.K.**

22. The Private Water Supply Regulations 1991 <sup>M9</sup> are revoked in England.

#### Marginal Citations

M9 [S. I. 1991/2790](#).

Department for Environment, Food and Rural  
Affairs  
24th November 2009

*Huw Irranca-Davies*  
Parliamentary Under Secretary of State

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## SCHEDULE 1 U.K.

Regulations 4, 10, 15 and 17

Concentrations or Values

## PART 1 U.K.

Wholesomeness

TABLE A: MICROBIOLOGICAL PARAMETERS

**Prescribed concentrations or values**

<i>Parameters</i>	<i>Maximum concentration or value</i>	<i>Units of Measurement</i>
<i>Escherichia coli (E. coli)</i>	0	Number/100ml
Enterococci	0	Number/100ml
<b>In the case of water in bottles or containers:</b>		
<i>Escherichia coli (E. coli)</i>	0	Number/250ml
Enterococci	0	Number/250ml
<i>Pseudomonas aeruginosa</i>	0	Number/250ml
Colony count 22°C	100	Number/ml
Colony count 37°C	20	Number/ml

TABLE B: CHEMICAL PARAMETERS

**Prescribed concentrations or values**

<i>Parameters</i>	<i>Maximum concentration or value</i>	<i>Units of Measurement</i>
<b>Parameters</b>	<b>Maximum concentration or value</b>	<b>Units of Measurement</b>
Acrylamide <sup>1</sup>	0.10	µg/l
Antimony	5.0	µg/l
Arsenic	10	µg/l
Benzene	1.0	µg/l
Benzo(a)pyrene	0.010	µg/l
Boron	1.0	mg/l
Bromate	10	µg/l
Cadmium	5.0	µg/l
Chromium	50	µg/l
Copper	2.0	mg/l
Cyanide	50	µg/l
1, 2 dichloroethane	3.0	µg/l



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Epichlorohydrin <sup>1</sup>	0.10	µg/l
Fluoride	1.5	mg/l
Lead	25 (until 25th December 2013)	µg/l
	10 (from 25th December 2013)	µg/l
Mercury	1.0	µg/l
Nickel	20	µg/l
Nitrate <sup>2</sup>	50	mg/l
Nitrite <sup>2</sup>	0.5 (or 0.1 in the case of treatment works)	mg/l
Pesticides <sup>3</sup> —		
Aldrin	0.030	µg/l
Dieldrin	0.030	µg/l
Heptachlor	0.030	µg/l
Heptachlor epoxide	0.030	µg/l
other pesticides	0.10	µg/l
Pesticides total <sup>4</sup>	0.50	µg/l
Polycyclic aromatic hydrocarbons <sup>5</sup>	0.10	µg/l
Selenium	10	µg/l
Tetrachloroethene and Trichloroethene <sup>6</sup>	10	µg/l
Trihalomethanes: Total <sup>7</sup>	100	µg/l
Vinyl chloride <sup>1</sup>	0.50	µg/l
<b>National requirements – Prescribed concentrations or values</b>		
Aluminium	200	µg/l
Colour	20	mg/l Pt/Co
Iron	200	µg/l
Manganese	50	µg/l
Odour	Acceptable to consumers and no abnormal change	
Sodium	200	mg/l
Taste	Acceptable to consumers and no abnormal change	
Tetrachloromethane	3	µg/l
Turbidity	4	NTU

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<sup>1</sup> The parametric value refers to the residual monomer concentration in the water as calculated according to specifications of the maximum release from the corresponding polymer in contact with the water. This is controlled by product specification.

<sup>2</sup> See also the nitrate-nitrite formula in regulation 4(c).

<sup>3</sup> For these purposes “Pesticides” means—

organic insecticides

organic herbicides

organic fungicides

organic nematocides

organic acaricides

organic algicides

organic rodenticides

organic slimicides

related products (inter alia, growth regulators)

and their relevant metabolites, degradation and reaction products.

Only those pesticides likely to be present in a given supply need be monitored.

<sup>4</sup> “Pesticides total” means the sum of the concentrations of the individual pesticides detected and quantified in the monitoring process.

<sup>5</sup> The specified compounds are:

benzo(b)fluoranthene

benzo(k)fluoranthene

benzo(ghi)perylene

indeno(1,2,3-cd)pyrene.

The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

<sup>6</sup> The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

<sup>7</sup> The specified compounds are:

chloroform

bromoform

dibromochloromethane

bromodichloromethane.

The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.

## PART 2 U.K.

### Indicator Parameters

#### TABLE CPrescribed concentrations, values or states

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<b>Parameters</b>	<b>Maximum concentration or value or state (unless otherwise stated)</b>	<b>Units of measurement</b>
Ammonium	0.50	mg/l
Chloride <sup>1</sup>	250	mg/l
<i>Clostridium perfringens</i> (including spores)	0	Number/100ml
Coliform bacteria	0	Number/100ml (Number/250 ml in the case of water put into bottles or containers)
Colony counts	No abnormal change No abnormal change	Number/ml at 22°C Number/ml at 37°C
Conductivity <sup>1</sup>	2500	µS/cm at 20°C
Hydrogen ion	9.5 (maximum)  6.5 (minimum) (in the case of still water put into bottles or containers the minimum is 4.5)	pH value  pH value
Sulphate <sup>1</sup>	250	mg/l
Total indicative dose (for radioactivity) <sup>2</sup>	0.10	mSv/year
Total organic carbon (TOC)	No abnormal change	mgC/l
Tritium (for radioactivity)	100	Bq/l
Turbidity <sup>3</sup>	1	NTU

<sup>1</sup> The water should not be aggressive.<sup>2</sup> Excluding tritium, potassium-40, radon and radon decay products.<sup>3</sup> Only in the case of surface water or groundwater that has been influenced by surface water.SCHEDULE 2 **U.K.**

Regulation 9

## Monitoring

**PART 1 U.K.**

## Check monitoring

**Sampling U.K.**

1.—(1) A local authority must undertake check monitoring in accordance with this Part.

(2) Check monitoring means sampling for each parameter listed in Table 1 in the circumstances listed in that table in order—

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- (a) to determine whether or not water complies with the concentrations or values in Schedule 1;
- (b) to provide information on the organoleptic and microbiological quality of the water; and
- (c) to establish the effectiveness of the treatment of the water, including disinfection.

**Table 1** Check monitoring

<b>Parameter</b>	<b>Circumstances</b>
Aluminium	When used as flocculant or where the water originates from, or is influenced by, surface waters
Ammonium	In all supplies
<i>Clostridium perfringens</i> (including spores)	Where the water originates from, or is influenced by, surface waters
Coliform bacteria	In all supplies
Colony counts	In all supplies
Colour	In all supplies
Conductivity	In all supplies
<i>Escherichia coli</i> ( <i>E. coli</i> )	In all supplies
Hydrogen ion concentration	In all supplies
Iron	When used as flocculant or where the water originates from, or is influenced by, surface waters
Manganese	Where the water originates from, or is influenced by, surface waters
Nitrate	When chloramination is practised
Nitrite	When chloramination is practised
Odour	In all supplies
<i>Pseudomonas aeruginosa</i>	Only in the case of water in bottles or containers
Taste	In all supplies
Turbidity	In all supplies

### Frequency of sampling **U.K.**

- 2.—(1) Sampling must be carried out at frequencies specified in Table 2.

**Table 2**

### Sampling frequency for check monitoring

<i>Volume m<sup>3</sup>/day</i>	<i>Sampling frequency per year</i>
≤ 10	1
> 10 ≤ 100	2
> 100 ≤ 1,000	4

> 1,000 ≤ 2,000	10
> 2,000 ≤ 3,000	13
> 3,000 ≤ 4,000	16
> 4,000 ≤ 5,000	19
> 5,000 ≤ 6,000	22
> 6,000 ≤ 7,000	25
> 7,000 ≤ 8,000	28
> 8,000 ≤ 9,000	31
> 9,000 ≤ 10,000	34
> 10,000	4 + 3 for each 1,000 m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 1,000 m <sup>3</sup> /day)

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(2) The local authority may reduce the frequency of sampling for a parameter to a frequency not less than half if—

- (a) the local authority is of the opinion that the quality of water in the supply is unlikely to deteriorate;
- (b) in the case of hydrogen ion the parameter has had a pH value that is not less than 6.5 and not more than 9.5; and
- (c) in all other cases, in each of two successive years the results of samples taken for the purposes of monitoring the parameter in question are constant and significantly lower than the concentrations or values laid down in Schedule 1.

(3) The local authority may set a higher frequency for any parameter if it considers it appropriate taking into account the findings of any risk assessment, and in addition may monitor anything else identified in the risk assessment.

## PART 2 U.K.

### Audit monitoring

#### Sampling U.K.

3.—(1) A local authority must undertake audit monitoring in accordance with this Part.

(2) Audit monitoring means sampling for each parameter listed in Schedule 1 (other than parameters already being sampled under check monitoring) in order to provide information necessary to determine whether or not the private supply satisfies each concentration, value or state specified in that Schedule and, if disinfection is used, to check that disinfection by-products are kept as low as possible without compromising the disinfection.

(3) The local authority may, for such time as it may decide, exclude a parameter from the audit monitoring of a private supply—

- (a) if it considers that the parameter in question is unlikely to be present in the supply or system at a concentration or value that poses a risk of the private supply failing to meet the concentration, value or state specified in Schedule 1 in respect of that parameter;
- (b) taking into account the findings of any risk assessment; and

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- (c) taking into account any guidance issued by the Secretary of State.
- (4) It may monitor anything else identified in the risk assessment.

**Frequency of sampling U.K.**

4.—(1) Sampling must be carried out at the frequencies specified in Table 3.

**Table 3** Sampling frequency for audit monitoring

<i>Volume m<sup>3</sup>/day</i>	<i>Sampling frequency per year</i>
≤ 10	1
> 10 ≤ 3,300	2
> 3,300 ≤ 6,600	3
> 6,600 ≤ 10,000	4
> 10,000 ≤ 100,000	3 + 1 for each 10,000 m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 10,000 m <sup>3</sup> /day)
> 100,000	10 + 1 for each 25,000 m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 25,000 m <sup>3</sup> /day)

(2) The local authority may set a higher frequency for any parameter if it considers it appropriate taking into account the findings of any risk assessment.

**PART 3 U.K.**

Minimum frequency for both check monitoring and audit monitoring for water put into bottles or containers

<i>Volume<sup>1</sup> of water produced in bottles or containers each day (m<sup>3</sup>)</i>	<i>Check monitoring number of samples per year</i>	<i>Audit monitoring number of samples per year</i>
≤10	1	1
>10 ≤ 60	12	1
>60	1 for each 5 m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 5 m <sup>3</sup> /day)	1 for each 100 m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 100 m <sup>3</sup> /day)

<sup>1</sup> The volumes are calculated as averages taken over a calendar year.

## SCHEDULE 3 U.K.

Regulation 11

### Sampling and analysis

## PART 1 U.K.

### General

#### Samples: general U.K.

- 1.—(1) The local authority must ensure that each sample is—
  - (a) taken by a competent person using suitable equipment;
  - (b) representative of the water at the sampling point at the time of sampling;
  - (c) not contaminated in the course of being taken;
  - (d) kept at such temperature and in such conditions as will secure that there is no material change in what is to be measured; and
  - (e) analysed without delay by a competent person using suitable equipment.
- (2) It must ensure that the sample is analysed using a system of analytical quality control.
- (3) The system must be subjected to checking by a person who is—
  - (a) not under the control of either the analyst or the local authority; and
  - (b) approved by the Secretary of State for that purpose.

#### Analysing samples U.K.

- 2.—(1) The local authority must ensure that each sample is analysed in accordance with this paragraph.
  - (2) For each parameter specified in the first column of Table 1 in Part 2 of this Schedule the method of analysis is specified in the second column of that table.
  - (3) For each parameter specified in the first column of Table 2 in Part 2 of this Schedule the method is one that is capable of—
    - (a) measuring concentrations and values with the trueness and precision specified in the second and third columns of that table, and
    - (b) detecting the parameter at the limit of detection specified in the fourth column of that table.
  - (4) For hydrogen ion, the method of analysis must be capable of measuring a value with a trueness of 0.2 pH unit and a precision of 0.2 pH unit.
  - (5) The method of analysis used for odour and taste parameters must be capable of measuring values equal to the parametric value with a precision of 1 dilution number at 25°C.
  - (6) For these purposes—

“limit of detection” is —

    - (a) three times the relative within-batch standard deviation of a natural sample containing a low concentration of the parameter; or
    - (b) five times the relative within-batch standard deviation of a blank sample;

“precision” (the random error) is twice the standard deviation (within a batch and between batches) of the spread of results about the mean;

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“trueness” (the systematic error) is the difference between the mean value of the large number of repeated measurements and the true value.

### Authorisation of alternative methods of analysis **U.K.**

3.—(1) The Secretary of State may authorise a method different from that set out in paragraph 2(2) if satisfied that it is at least as reliable.

(2) An authorisation may be time-limited and may be revoked at any time.

### Sampling and analysis by persons other than local authorities **U.K.**

4.—(1) A local authority may enter into an arrangement for any person to take and analyse samples on its behalf.

(2) A local authority must not enter into an arrangement under 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 that ensure that any breach of these Regulations is communicated to it immediately, and any other result is communicated to it within 28 days.

## PART 2 **U.K.**

### Analytical methods

Table 1

#### Prescribed methods of analysis

<i>Parameter</i>	<i>Method</i>
<i>Clostridium perfringens</i> (including spores)	Membrane filtration followed by anaerobic incubation of the membrane on m-CP agar* at $44 \pm 1^\circ\text{C}$ for $21 \pm 3$ hours. Count opaque yellow colonies that turn pink or red after exposure to ammonium hydroxide vapours for 20 to 30 seconds.
Coliform bacteria	BS-EN ISO 9308-1
Colony count $22^\circ\text{C}$ -enumeration of culturable microorganisms	BS-EN ISO 6222
Colony count $37^\circ\text{C}$ -enumeration of culturable microorganisms	BS-EN ISO 6222
Enterococci	BS-EN ISO 7899-2
<i>Escherichia coli</i> ( <i>E. coli</i> )	BS-EN ISO 9308-1
<i>Pseudomonas aeruginosa</i>	BS-EN ISO 12780

\*Use the following method to make m-CP agar:

### **U.K.**

Make a basal medium consisting of—



Tryptose	30.0g
Yeast extract	20.0g
Sucrose	5.0g
L-cysteine hydrochloride	1.0g
MgSO <sub>4</sub> .7H <sub>2</sub> O	0.1g
Bromocresol purple	40.0mg
Agar	15.0g
Water	1,000.0ml

**U.K.**

Dissolve the ingredients of the basal medium, adjust pH to 7.6 and autoclave at 121°C for 15 minutes. Allow the medium to cool.

**U.K.**

Dissolve—

D-cycloserine	400.0mg
Polymyxine-B sulphate	25.0mg
Indoxyl-β-D-glucoside	60.0mg

**U.K.**

into 8ml sterile water and add it to the medium.

**U.K.**

Add to the medium—

Filter-sterilised 0.5% phenolphthalein diphosphate solution	20.0ml
Filter-sterilised 4.5% FeCl <sub>3</sub> .6H <sub>2</sub> O	2.0ml

**Table 2**

Prescribed performance characteristics for methods of analysis

**Status:** Point in time view as at 01/01/2010.

**Changes to legislation:** There are currently no known outstanding effects for the The Private Water Supplies Regulations 2009 (revoked). (See end of Document for details)

<b>Parameters</b>	<b>Trueness % of prescribed concentration or value or specification</b>	<b>Precision % of prescribed concentration or value or specification</b>	<b>Limit of detection % of prescribed concentration or value or specification</b>
Aluminium	10	10	10
Ammonium	10	10	10
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
Chloride	10	10	10
Chromium	10	10	10
Colour	10	10	10
Conductivity	10	10	10
Copper	10	10	10
Cyanide <sup>1</sup>	10	10	10
1,2-dichloroethane	25	25	10
Fluoride	10	10	10
Iron	10	10	10
Lead	10	10	10
Manganese	10	10	10
Mercury	20	10	20
Nickel	10	10	10
Nitrate	10	10	10
Nitrite	10	10	10

Notes:

<sup>1</sup> The method of analysis should determine total cyanide in all forms.

<sup>2</sup> The performance characteristics apply to each individual pesticide and will depend on the pesticide concerned.

<sup>3</sup> The performance characteristics apply to the individual substances specified at 25% of the parametric value in Part 1 of Table B in Schedule 1.

<sup>4</sup> The performance characteristics apply to the individual substances specified at 50% of the parametric value in Part 1 of Table B in Schedule 1.

<sup>5</sup> The performance characteristics apply to the prescribed value of 4 NTU.

<sup>6</sup> The performance characteristics apply to the specification of 1 NTU for surface waters or ground waters influenced by surface water.

Pesticides and related products <sup>2</sup>	25	25	25
Polycyclic aromatic hydrocarbons <sup>3</sup>	25	25	25
Selenium	10	10	10
Sodium	10	10	10
Sulphate	10	10	10
Tetrachloroethene <sup>4</sup>	25	25	10
Tetrachloromethane	20	20	20
Trichloroethene <sup>4</sup>	25	25	10
Trihalomethanes: Total <sup>3</sup>	25	25	10
Turbidity <sup>5</sup>	10	10	10
Turbidity <sup>6</sup>	25	25	25

Notes:

<sup>1</sup> The method of analysis should determine total cyanide in all forms.

<sup>2</sup> The performance characteristics apply to each individual pesticide and will depend on the pesticide concerned.

<sup>3</sup> The performance characteristics apply to the individual substances specified at 25% of the parametric value in Part 1 of Table B in Schedule 1.

<sup>4</sup> The performance characteristics apply to the individual substances specified at 50% of the parametric value in Part 1 of Table B in Schedule 1.

<sup>5</sup> The performance characteristics apply to the prescribed value of 4 NTU.

<sup>6</sup> The performance characteristics apply to the specification of 1 NTU for surface waters or ground waters influenced by surface water.

## SCHEDULE 4 U.K.

Regulation 12 and 13

### Records

#### Initial records U.K.

1.—(1) A local authority must, before 30th June 2010, record the number of private supplies in its area, and for each supply must record—

- the name of the supply, together with a unique identifier;
- the type of source;
- the geographical location using a grid reference;
- an estimate of the number of people supplied;
- an estimate of the average daily volume of water supplied in cubic metres;
- the type of premises supplied;
- detail of any treatment process, together with its location;

**Status:** Point in time view as at 01/01/2010.

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- (h) the name of the Health Protection Agency in whose area the supply is located.
- (2) It must review and update the record at least once a year.
- (3) It must keep the record for at least 30 years.

#### Additional records **U.K.**

- 2.—(1) For each supply it must record each of the following within 28 days of the event—
- (a) a plan and description of the supply;
  - (b) the monitoring programme for the supply;
  - (c) the risk assessment;
  - (d) the date, results and location of any sampling and analysis relating to that supply, and the reason for taking the sample;
  - (e) the results of any investigation undertaken in accordance with these Regulations;
  - (f) any authorisation;
  - (g) any notices served under section 80 of the Water Industry Act 1991 or regulation 18;
  - (h) any action agreed to be taken by any person under these Regulations;
  - (i) any request for the local authority to carry out sampling and analysis, undertake a risk assessment or give advice;
  - (j) a summary of any advice given in relation to the supply.
- (2) It must keep the risk assessment and records of sampling and analysis for at least thirty years, and all other records under this paragraph for at least five years.

#### SCHEDULE 5 **U.K.**

Regulation 21

#### Fees

#### Fee **U.K.**

1. The local authority may charge a fee, payable on invoice, for the activities in the following table, and the fee is the reasonable cost of providing the service subject to the following maximum amounts.

<i>Service</i>	<i>Maximum fee (£)</i>
Risk assessment (each assessment):	500
Sampling (each visit) <sup>1</sup> :	100
Investigation (each investigation):	100
Granting an authorisation (each authorisation):	100
Analysing a sample—	
taken under regulation 10:	25
taken during check monitoring:	100

<sup>1</sup> No fee is payable where a sample is taken and analysed solely to confirm or clarify the results of the analysis of a previous sample.

taken during audit monitoring: 500

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<sup>1</sup> No fee is payable where a sample is taken and analysed solely to confirm or clarify the results of the analysis of a previous sample.

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## Persons liable to pay **U.K.**

2.—(1) Any person requesting anything under these Regulations is liable for the cost.

(2) Otherwise fees are payable, as specified in the invoice, by the relevant person as defined in section 80(7) of the Water Industry Act 1991.

(3) Where more than one person is liable, in determining who is required to make payment the local authority—

- (a) may apportion the charge between them; and
  - (b) must have regard to any agreement or other document produced to the local authority relating to the terms on which water is supplied.
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## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations, which apply in England, implement Council Directive [98/83/EC](#) (on the quality of water intended for human consumption, OJ No L 330, 5.12.1998, p 32) in relation to private water supplies. They revoke and replace the Private Water Supply Regulations 1991 in England.

The principal changes are that the Regulations impose on local authorities a duty to carry out a risk assessment of the private water supplies and they make it an offence to breach a notice served by the local authority under regulation 18. The Regulations establish an appeal process for any person aggrieved by such notice.

They apply to private water supplies other than those provided by a water undertaker or a licensed water supplier. They define “wholesomeness” in regulation 4 and Schedule 1, and impose a duty on the local authority to carry out a risk assessment of the private water supply (regulation 6) and to monitor the supply (regulations 7 to 10 and Schedule 2).

Once monitored, the local authority must ensure that the sample is analysed in the ways set out in the Schedule 3.

The local authority must make and maintain records (regulation 12 and Schedule 4), and must send a copy of the records to the Secretary of State in accordance with regulation 13.

Part 3 of the Regulations sets out procedures if the private water supply is not wholesome.

Schedule 5 sets out the fees payable under the Regulations.

A full impact assessment has been prepared for these Regulations, and laid in the library of each House of Parliament. It is available on the Defra website at [www.defra.gov.uk](http://www.defra.gov.uk).

**Status:**

Point in time view as at 01/01/2010.

**Changes to legislation:**

There are currently no known outstanding effects for the The Private Water Supplies Regulations 2009 (revoked).