1.

# SCHEDULE 1

Regulations 2(1), 7, 8, 17-26 and 28

number/100ml

# PRESCRIBED CONCENTRATIONS AND VALUES

# Table A

# Microbiological parameters

# Part I: Directive requirements

(1) Item	(2) Parameters	(3) Concentration or Value (maximum)	(4) Units of Measurement
1.	Enterococci	0	number/100ml
2.	Escherichia coli (E. coli)	0	number/100ml
	Part II: Natio	onal requirements	
(1) Item	(2) Parameters	(3) Concentration	(4) Units of

# Table B

0

Coliform bacteria

# Chemical parameters

# **Part I: Directive requirements**

(1) Item	(2) Parameters	(3) Concentration or Value (maximum)	(4) Units of Measurement
1.	Acrylamide(i)	0.10	$\mu g/1$
2.	Antimony	5.0	μgSb/l
3.	Arsenic	10	μgAs/l
4.	Benzene	1.0	μg/l
5.	Benzo(a)pyrene	0.010	μg/l
6.	Boron	1.0	mgB/l
7.	Bromate	10	$\mu g Br O_3/l$
8.	Cadmium	5.0	μgCd/l
9.	Chromium	50	μgCr/l
10.	Copper	2.0	mg Cu/l
11.	Cyanide	50	μgCN/l
12.	1,2 dichloroethane	3.0	$\mu g/l$

13.	Epichlorohydrin(i)	0.10	μg/l
14.	Fluoride	1.5	mg F/l
15.	Lead	(a) 25, from 3/7/06 until 24/12/13	μgPb/l
		(b) 10, from 25/12/13	μgPb/l
16.	Mercury	1.0	μgHg/l
17.	Nickel	20	μgNi/l
18.	Nitrate	50	$mgNO_3/l$
19.	Nitrite	0.50	$mgNO_2/l$
20.	Pesticides(ii)-		
	Aldrin	0.030	μg/l
	Dieldrin	0.030	$\mu g/l$
	Heptachlor	0.030	$\mu g/l$
	Heptachlor epoxide	0.030	$\mu g/l$
	other pesticides	0.10	$\mu g/l$
21.	Pesticides: Total(iii)	0.50	$\mu g/l$
22.	PAH(iv)	0.10	$\mu g/l$
23.	Selenium	10	$\mu g Se/l$
24.	Tetrachloroethene & Trichloroethene(v)	10	μg/l
25.	THM: Total(vi)	100	$\mu g/l$
26.	Vinyl chloride(i)	0.50	μg/l

### Notes:

- (i) 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.
- (ii) See the definition of "pesticides and related products" in regulation 2(1). The parametric value applies to each individual pesticide.
- (iii) "Pesticides: Total" means the sum of the concentrations of the individual pesticides detected and quantified in the monitoring procedure.
- (iv) "PAH" means Polycyclic Aromatic Hydrocarbons, the specified compounds being:
  - 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.

- (v) The parametric value applies to the sum of the concentrations of the individual compounds detected and quantified in the monitoring process.
- (vi) "THM: Total" means total Trihalomethanes, the specified compounds being:
  - 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 II: National requirements

(1) Item	(2) Parameters	(3) Concentration or Value (maximum unless otherwise stated))	(4) Units of Measurement
1.	Aluminium	200	$\mu gA1/1$
2.	Colour	20	mg/l Pt/Co
3.	F1	F1	F1
4.	Iron	200	μgFe/l
5.	Manganese	50	μgMn/l
6.	F2	F2	F2
7.	Silver(i)	10	μg Ag/l
8.	Sodium	200	mgNa/l
9.	F3	F3	F3
10.	Tetrachloromethane	3	$\mu g/l$
11.	Turbidity(ii)	4	NTU
12.	Zinc	5000	μg Zn/l

#### **Textual Amendments**

F1 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(i)

- F2 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(ii)
- F3 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(iii)

#### **Textual Amendments**

- F1 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(i)
- F2 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(ii)
- F3 Sch. 1 Table B Pt. 2 entry omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(a)(iii)

#### Notes:

- (i) If Silver is used in a water treatment process, 80 may be substituted for 10.
- (ii) Every effort should be made to achieve 1 NTU whenever possible.

# **Table C**

# Indicator parameters

### **Directive requirements**

(1) Item	(2) Parameters	(3) Concentration or Value (maximum [ <sup>F4</sup> unless otherwise stated]) or State	(4) Units of Measurement
1.	Ammonium	0.50	mgNH <sub>4</sub> /l
2.	Chloride(i)	250	mgC1/1
3.	Clostridium perfringens (including spores)	0	Number/100 ml
4.	Coliform bacteria	0	Number/100 ml
5.	Colony count	No abnormal change	Number/1 ml at 22°C
[ <sup>F5</sup> 5A	Colour	Acceptable to consumers and no abnormal change]	
6.	Conductivity(i)	2500	μS/cm at 20°C
[ <sup>F6</sup> 6A	Hydrogen ion	9.5 6.5 (minimum)	pH value]
[ <sup>F6</sup> 6B	Odour	Acceptable to consumers and no abnormal change]	

[ <sup>F6</sup> 6C.	Radon (for radioactivity)(ii)	100	Bq/l]
7.	Sulphate(i)	250	$mgSO_4/l$
[ <sup>F7</sup> 7A	Taste	Acceptable to consumers and no abnormal change]	
8.	Total indicative dose (for radioactivity) F8	0.10	mSv F8
9.	Total organic carbon (TOC)	No abnormal change	mgC/l
10.	Tritium (for radioactivity) [F9(iii)]	100	Bq/l
[ <sup>F10</sup> 10A	Turbidity	Acceptable to consumers and no abnormal change]	

#### **Textual Amendments**

- **F4** Words in Sch. 1 Table C inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), **8(b)(i)**
- F5 Sch. 1 Table C entry inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), **8(b)(ii)**
- F6 Sch. 1 Table C entry inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(b)(iii)
- F7 Sch. 1 Table C entry inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(b)(iv)
- F8 Words in Sch. 1 Table C omitted (28.11.2015) by virtue of The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(b)(vi)
- **F9** Word in Sch. 1 Table C inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), **8(b)(vii)**
- F10 Sch. 1 Table C entry inserted (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(b)(v)

#### Notes:

- (i) The water should not be aggressive.
- [FII(ii)] Remedial action is to be deemed justified on radiological protection grounds, without further consideration, where radon concentrations exceed 1,000 Bq/l.
  - (iii) If the concentration of tritium exceeds this value, an analysis of the presence of other artificial radionuclides must be also carried out by Scottish Water.]

#### **Textual Amendments**

F11 Sch. 1 Table C Note (ii)(iii) substituted for Sch. 1 Table C Note (ii) (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(c)

#### **Textual Amendments**

F11 Sch. 1 Table C Note (ii)(iii) substituted for Sch. 1 Table C Note (ii) (28.11.2015) by The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (S.S.I. 2015/346), regs. 1(1), 8(c)

**Table D**Microbiological and Chemical Parameters: Type B Supplies

# **National Requirements**

(1) Item	(2) Parameters	(3) Concentration or Value (maximum)	(4) Units of Measurement
1.	Coliform Bacteria	0	number/100ml
2.	Conductivity (i)	2500	μS/cm at 20°C
3.	Enterococci	0	number/100ml
4.	Escherichia coli (E.coli)	0	number/100ml
5.	Hydrogen ion	9.5 6.5 (minimum)	pH value
6.	Lead	(a) 25, from 3/7/06 until 24/12/13	μgPb/l
		(b) 10, from 25/12/13	
7.	Nitrate	50	mgNO3/l
8.	Odour-qualitative		
9.	Taste-qualitative		
10.	Turbidity	4	NTU

### Notes:

(i) The water should not be aggressive.

#### SCHEDULE 2

Regulations 21-23, 29 and 30

### PARAMETERS, MONITORING AND SAMPLING FREQUENCIES

# Table A

#### **Textual Amendments**

F12 Sch. 2 Table A omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xi) (with reg. 2)

# Table B

F13

### **Textual Amendments**

F13 Sch. 2 Table B omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xi) (with reg. 2)

# Table C

Routine Monitoring: Type B Supplies

#### **Parameters**

- 1. Coliform bacteria
- 2. Conductivity
- 3. Enterococci
- 4. Escherichia coli (E. coli)
- 5. Hydrogen ion
- 6. Lead
- 7. Nitrate(i)
- **8.** Odour qualitative(ii)
- 9. Taste qualitative(ii)
- 10. Turbidity

# Notes:

- (i) Samples need not be analysed for nitrate if there are reasonable grounds for believing that nitrate levels in the locality concerned are below 25 mg NO3/l.
- (ii) Samples should not be assessed qualitatively if there are reasonable grounds for suspecting that the water may give rise to a health hazard.

# F14SCHEDULE 2A

Regulation 21(2A)

#### **Textual Amendments**

F14 Sch. 2A omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xii) (with reg. 2)

# F15SCHEDULE 3

Regulation 26

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#### **Textual Amendments**

F15 Sch. 3 omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xiii) (with reg. 2)

#### **SCHEDULE 4**

Regulations 16 and 26 and 27

# REQUIREMENTS FOR RISK ASSESSMENT

- .—(1) When undertaking or reviewing and updating a risk assessment for the purposes of regulations <sup>F16</sup>... 27, a monitoring local authority shall do so in accordance with the provisions of this Schedule.
  - (2) A risk assessment shall comprise the following-
    - (a) documentation on and a description of the private water supply, including the catchment from which the supply draws water;
    - (b) a hazard assessment and risk characterisation;
    - (c) an identification of the measures by which risks may be controlled; and
    - (d) establishment of verification procedures,
- and for the purposes of this paragraph, "hazard" means a biological, chemical, physical or radiological agent that has the potential to cause harm or danger to human health; and "risk" means the likelihood of identified hazards causing harm in exposed populations in a specified time, including the magnitude of that harm and/or the consequences of such harm.
- (3) In respect of a private water supply which comprises, either alone or in any combination thereof, catchments, surface water or ground water, the risk assessment shall include provision in relation to the relevant matters specified in Table A of this Schedule.
- (4) In respect of a private water supply which receives treatment, including treatment at source and at any point thereafter, the risk assessment shall make provision in relation to the relevant matters specified in Table B of this Schedule.
- (5) In respect of a private water supply which comprises intermediate tanks and distribution, the risk assessment shall include provision in relation to the relevant matters specified in Table C of this Schedule.

Table A
Hazard Information and Risk Characterisation

(1) Source of private water supply	(2) Information to be considered in the risk assessment
(1) Catchments	(i) geology and hydrology
	(ii) meteorology and weather patterns
	(iii) general catchment and river health
	(iv) wildlife
	(v) competing water uses
	(vi) nature and intensity of development and land use
	(vii) other activities in the catchment that potentially release contaminants into source water
	(viii) planned future activities
(2) Surface water	(i) description of water body type (e.g. river, reservoir, dam)
	(ii) flow and reliability of source water
	(iii) retention times
	(iv) water constituents (physical, chemical, microbial)
	(v) protection (e.g. enclosures, access)
	(vi) recreational and other human activity
	(vii) bulk water transport
(3) Groundwater	(i) confined or unconfined aquifer
	(ii) aquifer hydrogeology
	(iii) flow rate and direction
	(iv) dilution characteristics
	(v) recharge area
	(vi) wellhead protection
	(vii) depth of casing
	(viii) bulk water transport

Table B

Treatment: Hazard Identification and Risk Characterisation

<sup>(</sup>i) treatment processes

- (ii) equipment design
- (iii) monitoring equipment and automation
- (iv) water treatment chemicals used
- (v) treatment efficiencies
- (vi) disinfection removals of pathogens
- (vii) disinfection residuals/contact time

#### Table C

# Intermediate Tanks and Distribution: Hazard Identification and Risk Characterisation

- (i) reservoir/tank design
- (ii) retention times
- (iii) seasonal variations
- (iv) protection (e.g. covers, enclosures, access)
- (v) distribution system design
- (vi) hydraulic conditions (e.g. water age, pressures, flows)
- (vii) backflow protection
- (viii) disinfectant residuals

### **Textual Amendments**

F16 Words in Sch. 4(1) omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xiv) (with reg. 2)

#### SCHEDULE 5

Regulations 22, 29 and 31

## ANALYTICAL METHODOLOGY

# Table A

# Parameters for which, subject to regulation 31(4), methods of analysis are prescribed

# (1) Parameter

# (2) Method

Clostridium perfringens (including spores)

Membrane filtration followed by anaerobic incubation of the membrane on m–CP agar(i) at  $44 \pm 1$ °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	ISO 9308-1
Colony count 22°C – enumeration of culturable micro-organisms	prEN ISO 6222
Enterococci	ISO 7899–2
Escherichia coli (E.coli)	ISO 9308-1

# (i) The composition of m-CP agar is:

### Basal medium

Tryptose	30g
Yeast extract	20g
Sucrose	5g
L-cysteine	1g
MgSO4 . 7H2O	0.1g
Bromocresol purple	40mg
Agar	15g
Water	1,000ml

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 and add:

D-cycloserine	400mg
Polymyxine-B-sulphate	25mg
Indoxyl–β-D-glucoside to be dissolved in 8ml sterile water before addition	60mg
Filter – sterilised 0.5% phenolphthalein disphosphate solution	20ml
Filter – sterilised 4.5% FeC13 . 6H2O	2ml

Table B

Parameters in relation to which methods of analysis must satisfy prescribed characteristics

(1) Item No.	(2) Parameters	(3) Trueness % of prescribed concentration or value or specification	(4) Precision % of prescribed concentration or value or specification	(5) Limit of detection % of prescribed concentration or value or specification
1.	Aluminium	10	10	10
2.	Ammonium	10	10	10
3.	Antimony	25	25	25

4.	Arsenic	10	10	10
5.	Benzene	25	25	25
6.	Benzo(a)pyrene	25	25	25
7.	Boron	10	10	10
8.	Bromate	25	25	25
9.	Cadmium	10	10	10
10.	Chloride	10	10	10
11.	Chromium	10	10	10
12.	Colour	10	10	10
13.	Conductivity	10	10	10
14.	Copper	10	10	10
15.	Cyanide(i)	10	10	10
16.	1,2- dichloroethane	25	25	25
17.	Fluoride	10	10	10
18.	Iron	10	10	10
19.	Lead	10	10	10
20.	Manganese	10	10	10
21.	Mercury	20	10	20
22.	Nickel	10	10	10
23.	Nitrate	10	10	10
24.	Nitrite	10	10	10
25.	Pesticides and related products(ii)	25	25	25
26.	Polycyclic aromatic hydrocarbons(iii)	25	25	25
27.	Selenium	10	10	10
28.	Sodium	10	10	10
29.	Sulphate	10	10	10
30.	Tetrachloroethene(i2)5		25	10
31.	Tetrachloromethane20		20	20
32.	Trichloroethene(iv) 25 25 10		10	
33.	Trihalomethanes:T	Tolad(iii)	25	10
34.	Turbidity(v)	10	10	10

#### Notes:

- (ii) The method of analysis should determine total cyanide in all forms.
- (iii) The performance characteristics apply to each individual pesticide and will depend on the pesticide concerned.
- (iv) The performance characteristics apply to the individual substances specified at 25% of the parametric value in Table B in Schedule 1.
- (v) The performance characteristics apply to the individual substances specified at 50% of the parametric value in Table B in Schedule 1.
- (vi) The performance characteristics apply to the prescribed value of 4NTU.

F17SCHEDULE	5 1
SCHEDULE	JΑ

Regulation 21(2A)

#### **Textual Amendments**

F17 Sch. 5A omitted (27.10.2017) by virtue of The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 (S.S.I. 2017/282), reg. 1(1), Sch. 10 para. 2(d)(xv) (with reg. 2)

**Changes to legislation:**There are currently no known outstanding effects for the The Private Water Supplies (Scotland) Regulations 2006.