### STATUTORY INSTRUMENTS

### 1989 No. 1147

# WATER, ENGLAND AND WALES

The Water Supply (Water Quality) Regulations 1989

Made - - - - 6th July 1989

Laid before Parliament 7th July 1989

Coming into force

Except for regulations 13, 17, 18 and 19 Ist September 1989

Regulations 13, 17, 18 and 19 Ist January 1990

The Secretary of State for the Environment and the Secretary of State for Wales, in exercise of the powers conferred upon them by sections 52, 53, 56, 65 and 185(2) of the Water Act 1989(1), and of all other powers enabling them in that behalf (those powers being exercised by the Secretaries of State either jointly or separately in the manner set out in Schedule 1 to these Regulations), hereby make the following Regulations:—

### PART I

### **GENERAL**

### Citation and commencement

- 1.—(1) These Regulations may be cited as the Water Supply (Water Quality) Regulations 1989.
- (2) Regulations 13, 17, 18 and 19 shall come into force on 1st January 1990 and all other regulations shall come into force on 1st September 1989.

### Interpretation

2. In these Regulations-

"the Act" means the Water Act 1989;

"Chapter II" means Chapter II of Part II of the Act;

"consumer" means a person to whom water is supplied for a purpose mentioned in Part II of these Regulations by a water undertaker in the discharge of its duties under Chapter II;

"ground water" shall be construed in accordance with section 103(1)(d) of the Act;

"parameter" means a property, element, organism or substance listed in the second column of the Tables in Schedule 2 to these Regulations or in the first column of Tables 1 to 4, 6 and 7 in Schedule 3;

"pesticides and related products" means any fungicide, herbicide or insecticide and polychlorinated biphenyls and terphenyls;

"prescribed concentration or value", in relation to any parameter, means the maximum or minimum concentration or value specified in relation to that parameter in the Tables in Schedule 2 as measured by reference to the unit of measurement so specified;

"sampling point" means the point, being a consumer's tap, that is determined for the purposes of Part IV of these Regulations;

"service reservoir" means a reservoir (including a water tower) which contains water that has been treated with a view to complying with regulation 23 below, but does not include a reservoir at a treatment works:

"supply point" means any point, not being a sampling point, which the Secretary of State may, in accordance with regulation 12, authorise for the purposes of regulation 10;

"water supply zone" means an area that is designated by a water undertaker (whether by reference to a source of supply, the number of persons supplied from any source, or otherwise) for the purposes of the provisions of these Regulations, being an area in which, in the undertaker's estimation, not more than 50,000 people reside;

"vear" means calendar vear:

and any reference to a Table followed by a letter or a number is a reference to the Table that bears that letter or number in Schedule 2 or 3 to these Regulations.

### PART II

### WHOLESOMENESS

### Wholesomeness

- **3.**—(1) This regulation has effect subject to Part III of these Regulations.
- (2) Subject to paragraph (7), water supplied to any premises for such domestic purposes as consist in or include drinking, washing or cooking shall be regarded as wholesome for the purposes of Chapter II, as it applies to the supply of water for those domestic purposes, if the requirements of paragraph (3) below are satisfied; and, where the water has been softened or desalinated and is to be supplied for drinking or cooking, the requirements of paragraph (4) are also satisfied.
  - (3) The requirements of this paragraph are—
    - (a) that the water does not contain any element, organism or substance (other than a parameter) at a concentration or value which would be detrimental to public health;
    - (b) that the water does not contain any element, organism or substance (whether or not a parameter) at a concentration or value which in conjunction with any other element, organism or substance it contains (whether or not a parameter) would be detrimental to public health;

- (c) subject to paragraphs (5) and (6) below, that the water does not contain concentrations or values of the parameters listed in Tables A to C in excess of the prescribed concentrations or values;
- (d) that samples taken in respect of the parameters listed in Table D from water supplied to the water supply zone in question have established that the average concentrations or values of those parameters over the preceding 12 months did not exceed those specified in that Table; and
- (e) that samples taken from water supplied to the water supply zone in question have established that the average concentrations over the three preceding months of trihalomethanes (being the aggregate of the concentrations of trichloromethane, dichlorobromomethane, dibromochloromethane and tribromomethane) did not exceed 100 μg/1, or where (by virtue of regulation 13(3)) less than four samples are taken in any year, no sample contained a concentration of trihalomethanes in excess of 100 μg/1.
- (4) The requirements of this paragraph are that the water's hardness or its alkalinity is not below the relevant minimum specified in Table E.
- (5) Water shall not be regarded as unwholesome by virtue of paragraph (2)(c) above solely by reason of a sodium concentration exceeding that specified in relation to item 9 in Table A (sodium) if 80% of the results of analysis of all the samples taken in accordance with these Regulations within the preceding 36 months from sampling points within the water supply zone in question demonstrate a concentration of sodium within the relevant maximum specified in that Table.
- (6) Water shall not be regarded as unwholesome by virtue of paragraph (2)(c) above solely by reason of the presence in it of total coliforms (item 1 of Table C) if 95% of the results of analysis of—
  - (a) every sample taken in the preceding year in respect of that parameter in accordance with these Regulations; or
  - (b) if less than 50 samples have been so taken, the last 50 samples taken in respect of that parameter in accordance with these Regulations,

establish the absence of such coliforms.

(7) Water supplied to any premises for such domestic purposes as are mentioned in paragraph (2) shall be regarded as unwholesome for the purposes of Chapter II if on transfer from a treatment works or service reservoir for supply for such domestic purposes it contained a concentration of any of the parameters listed in Table C in excess of the prescribed concentration.

### PART III

### RELAXATION OF REQUIREMENTS OF PART II

### Authorisations—public supplies

- **4.**—(1) The Secretary of State may, upon the written application of a water undertaker, authorise a relaxation of the provisions of Part II of these Regulations as respects the supply of water by that undertaker if he is satisfied—
  - (a) that the authorisation is necessary, as an emergency measure, to maintain a supply of water for human consumption;
  - (b) that the authorisation is called for by reason of exceptional meteorological conditions; or
  - (c) that the authorisation is called for by reason of the nature and structure of the ground in the area from which the supply emanates.

- (2) The Secretary of State may, in the circumstances mentioned in paragraph (1)(c), authorise a relaxation of the provisions of Part II of these Regulations as respects the supply of water by a water undertaker notwithstanding that no application for such authorisation has been made to him.
- (3) An undertaker shall at the same time as it makes an application for an authorisation under paragraph (1) serve a copy on every appropriate local authority.
- (4) In paragraph (3) "appropriate local authority" means any of the following authorities if any premises in relation to which the authorisation is sought fall within the area of that authority, namely
  - (a) the Common Council of the City of London;
  - (b) a London borough council;
  - (c) a district council.

### **Authorisations—restrictions**

- 5.—(1) An authorisation—
  - (a) granted under regulation 4(1)(a) shall not so relax the provisions of Part II of these Regulations as to give rise to a risk to public health which the Secretary of State considers unacceptable;
  - (b) granted under regulation 4(1)(b) or (c) shall not relax the provisions of the said Part II so far as they relate to parameters mentioned in Table B or C or item 7 of Table D, or so as to give rise to a public health hazard.
- (2) An authorisation granted under regulation 4(1) shall specify (where relevant) the extent to which the prescribed concentration or value of any parameter is authorised to be contravened.
- (3) An authorisation granted under regulation 4(1)(a) or (b) shall specify the date on which it ceases to have effect and an authorisation granted under regulation 4(1)(c) may specify such a date.

### Authorisations—conditions

- **6.**—(1) An authorisation given under this Part may be limited to water supplied—
  - (a) from particular sources or classes of source; or
  - (b) to particular water supply zones or parts of such zones or to zones of particular descriptions.
- (2) Without prejudice to the generality of paragraph (1), conditions included by virtue of that paragraph may relate to—
  - (a) the quality of water to which the authorisation applies;
  - (b) the steps to be taken to improve the quality of such water;
  - (c) the monitoring of the quality of such water; and
  - (d) the giving of notice to the Secretary of State or any person named in the authorisation of such matters concerning such water as are mentioned in the authorisation.

### Revocation and modification of authorisations

- 7.—(1) Subject to paragraphs (2) and (4), the Secretary of State may at any time modify or revoke an authorisation (whether or not the authorisation is expressed to be given for a specified period); and regulation 6 shall apply as respects the modification of an authorisation as it applies as respects the giving of an authorisation.
- (2) The Secretary of State shall not revoke or modify an authorisation without giving at least six months' notice of his intention to do so to—

- (a) the water undertaker to which the authorisation relates; and
- (b) the appropriate local authority;

but he may revoke or modify an authorisation without notice if it appears to him that the immediate revocation or modification of the authorisation is required in the interests of public health.

- (3) In paragraph (2) "appropriate local authority" means any of the following authorities if any premises in relation to which the authorisation applies fall within the area of that authority, namely—
  - (a) the Common Council of the City of London;
  - (b) a London borough council;
  - (c) a district council.
- (4) A water undertaker on whose application an authorisation has been given under this Part shall notify the Secretary of State as soon as the circumstances which gave rise to the application for the authorisation cease to exist; and, notwithstanding paragraph (2), the Secretary of State shall thereupon revoke the authorisation.

### Authorisations—private supplies

- **8.**—(1) Regulations 4 to 7 shall apply in relation to any private supply as if—
  - (a) in regulation 4(1) there were substituted for the words "the supply of water by that undertaker" the words "a private supply";
  - (b) for other references to a water undertaker there were substituted references to-
    - (i) the owner or occupier of the premises where the source of the private supply is situated;
    - (ii) any other person who exercises powers of management or control in relation to that source; or
    - (iii) the owner of any premises served by that supply;
  - (c) regulation 6 referred only to the imposition of the condition mentioned in paragraph 2; and
  - (d) where application is made by the owner of premises served by a private supply, there were added at the end of regulation 4(3) the words "and on one of the persons mentioned in regulation 8(1)(b)(i) and (ii)."
- (2) Subject to paragraphs (3) and (4) below, an authority mentioned in paragraph (4) of regulation 4 may exercise in relation to a private supply any power conferred on the Secretary of State by regulations 4 to 7; and accordingly those regulations shall also apply in relation to private supplies as if references to the Secretary of State included references to the authority:

Provided that nothing in this paragraph shall be taken to affect the power conferred on the Secretary of State by regulation 7(1) as applied by paragraph (1) above or permit an authority to modify or revoke an authorisation granted by the Secretary of State.

- (3) An authority shall exercise the powers conferred by paragraph (2) in relation to a supply only if some or all of the premises served by the supply are within their area; and, where only some of those premises are within their area, only if the powers are exercised jointly with, or with the consent of, the other authority in whose area the rest of those premises are situated.
- (4) An authority shall consult the Secretary of State before exercising any power conferred by paragraph (2) in relation to a private supply which at any one time serves or is to serve more than 500 persons; and shall comply with such directions as may be given by the Secretary of State as to—
  - (a) the transmission to him for determination of any application made to the authority;
  - (b) the imposition of conditions on the grant of an authorisation;
  - (c) the refusal of an application; or

(d) the revocation or modification of an authorisation.

### **PART IV**

### MONITORING OF WATER SUPPLIES

### **Application and interpretation**

- **9.**—(1) This Part applies to water supplied for any of the purposes described in regulation 3(2) by a water undertaker in the performance of its duties under Chapter II.
  - (2) In this Part-

"corresponding number" means any relevant reduced or increased number shown in a Table as an alternative to the standard number; and

"the standard number" means such number specified in the column headed "Standard" in Tables 1 to 6 as is applicable to the parameter in question by reference to the number of persons estimated to have been supplied from the relevant water supply zone during the year preceding the year in question or, as the water undertaker may determine, by reference to the volume of water supplied for domestic purposes from that zone during that period: but a determination may not be varied after the beginning of the year for which it applies.

### Monitoring—general provisions

10. For the purpose of determining whether water to which this Part applies satisfies the provisions of Part II or, as the case may be, those provisions as relaxed by an authorisation given under Part III, a water undertaker shall take and analyse or cause to be analysed such number of samples of the water within each of its water supply zones as is so specified.

### **Determination of sampling points**

- 11.—(1) Subject to paragraph (2), a water undertaker shall determine, in respect of each of its water supply zones, such number and location of sampling points as will in its opinion secure that analysis of samples obtained from those points in respect of the parameters listed in Tables A to E will, so far as is reasonably practicable, produce data which are representative of the quality of the water supplied by it to that zone.
- (2) The sampling points selected in respect of copper, lead and zinc and at least 50% of the sampling points selected in respect of parameters 1, 2 and 5 listed in Table C and in respect of residual disinfectant shall be selected at random.

### Authorisation of supply points

- 12.—(1) The Secretary of State may, in relation to any of the parameters listed as items 7 to 12, 18 to 20 and 26 to 28 in Table A, items 1 to 6 and 8 to 10 in Table B, items 1 to 6 and 8 to 10 in Table D, and items 1 and 2 in Table E, or trihalomethanes, upon the written application of a water undertaker authorise the use for the purposes of regulation 10 of samples taken otherwise than from a sampling point.
- (2) The Secretary of State shall grant an authorisation under paragraph (1) only if he is satisfied that analysis of samples taken from a point other than a sampling point will produce data in respect of the parameter in question which are unlikely to differ in any significant respect from the data that would be produced in respect of that parameter from analysis of samples obtained from sampling points.

### Frequency of sampling

- 13.—(1) Subject to paragraphs (2) to (9), in each year a water undertaker shall take from its sampling points or, as the case may be, its supply points, for analysis for testing for compliance with each parameter not less than such standard number of samples as is specified in Tables 1 to 6 in relation to the parameter in question.
- (2) For the purposes of the application of paragraph (1) to the parameters listed in Table 1 or 2 or referred to in Table 5, a supply which consists of both ground water and surface water shall be deemed to be a supply which consists only of surface water.
- (3) Where in each of three successive years the requirement mentioned in paragraph (4) below is satisfied in relation to a parameter listed in Table 1, 2 or 3 or referred to in Table 5 and the water undertaker is of the opinion that the concentration or value in respect of that parameter is unlikely to increase or, in the case of hydrogen ion, total hardness or alkalinity, decrease to any significant extent in the next following year, the number of samples to be taken in that year in respect of that parameter may be the reduced corresponding number:

Provided that this paragraph shall not apply where the following year is 1990 and shall apply where the following year is 1991 or 1992 with the modifications specified in paragraph (5) below.

- (4) The requirement referred to in paragraph (3) above is that analysis of each sample taken in relation to the parameter in question in accordance with paragraph (1) has established—
  - (a) in the case of hydrogen ion, a pH value that is no less than 6.5 and no more than 8.5;
  - (b) in the case of total hardness or alkalinity (where water has been softened or desalinated), a concentration that is no less than 90 mg Ca/1 or 45 mg HCO<sub>3</sub>/1, respectively; or
  - (c) in any other case, a concentration or value which is less than 50% of the prescribed concentration or value.
  - (5) Paragraph (3) shall apply-
    - (a) where the following year is 1991 as if it referred to 1990 instead of three successive years;
    - (b) where the following year is 1992 as if it referred to two years instead of three years;
    - (c) with the substitution of "and the Secretary of State has notified the undertaker that he" for "and the water undertaker".
- (6) The number of samples to be taken in 1990 in respect of any parameter may, if on the application of the water undertaker the Secretary of State so authorises, be such reduced corresponding number, if any, as is specified in relation to that parameter in the relevant Table.
  - (7) Where-
    - (a) the result of the analysis of any sample taken in accordance with paragraph (1) has established in relation to any parameter listed in Tables 1 to 5 that the prescribed concentration or value has been contravened; or
    - (b) as a consequence of any change in a water undertaker's practices as regards the treatment of water (whether at a service reservoir, treatment works or otherwise), the undertaker is of the opinion that the prescribed concentration or value in respect of any parameter has been or may be contravened,

the number of samples to be taken in respect of that parameter—

- (i) in the remainder of that year and the following year; or
- (ii) in such longer or shorter period as the Secretary of State may specify by notice in writing given to the water undertaker,

in respect of that parameter shall, where an increased corresponding number is shown in relation to that parameter, be the number determined in accordance with paragraph (8).

(8) The number determined for the purposes of paragraph (7) is-

- (a) for any whole year in the period the increased corresponding number; or
- (b) for any other period the increased corresponding number multiplied by the number of whole months in the period and divided by 12; and, where the result is not a whole number, rounded upwards to the nearest whole number.
- (9) Where an analysis of samples taken in accordance with paragraph (7) demonstrates that there has been no contravention of the prescribed concentration or value in the relevant period, the undertaker may revert to sampling in accordance with paragraph (1).

### Sampling—further provisions

- **14.**—(1) Where no standard number is specified in relation to a parameter listed in Schedule 2, a water undertaker shall take samples from water within a water supply zone in respect of that parameter as soon as it believes or has reasonable grounds for believing that—
  - (a) the prescribed concentration or value in respect of that parameter has been exceeded or may be exceeded within the next three months within that zone; or
  - (b) the prescribed concentration or value in respect of any other parameter has been exceeded or may be exceeded within the next three months within that zone; and the taking and analysis of samples in relation to the parameter first mentioned would assist in deciding whether and, if so, what remedial action should be taken.
- (2) A water undertaker shall take samples from water within a water supply zone in respect of any element, organism or substance, other than a parameter, as soon as it believes or has reasonable grounds for believing that that element, organism or substance, whether alone or in combination with a parameter or any other element, organism or substance may cause the supply within that zone to be a supply which does not satisfy the provisions of Part II of these Regulations or, where those provisions have been relaxed by an authorisation given under Part III, those provisions as so relaxed.

# PART V MONITORING— ADDITIONAL PROVISIONS

### Interpretation

15. In this Part-

"the standard number" means such number specified in the column headed "Standard" in Table 7 as is applicable to the parameter in question by reference to the volume of water supplied for domestic purposes from the relevant water supply zone during the preceding year; and

"reduced number" means the relevant reduced number (if any) shown in Table 7.

### Sampling for particular parameters

16. For the purpose of establishing the quality of water to be supplied to any of its water supply zones, a water undertaker shall take and analyse or cause to be analysed, such number of samples as is so specified.

### Sampling at treatment works

17.—(1) Subject to paragraphs (2) to (4), in each year a water undertaker shall take from the point at which water leaves each treatment works which serves its water supply zones for analysis for testing for compliance with the parameters mentioned in Table 7 not less than the standard number of samples.

(2) Where in each of three successive years the result of the analysis of the samples taken in accordance with paragraph (1) has established an absence of faecal and total coliforms and no significant increase in colony counts, the number of samples to be taken in the next following year from the point at which water leaves that works in respect of those parameters or that parameter, as the case may be, may, subject to paragraph (5), be the reduced number:

Provided that this paragraph shall not apply where the following year is 1990 and shall apply where the following year is 1991 or 1992 with the modifications specified in paragraph (3) below.

- (3) Paragraph (2) shall apply-
  - (a) where the following year is 1991 as if it referred to 1990 instead of three successive years;
  - (b) where the following year is 1992 as if it referred to two years instead of three years.
- (4) The number of samples to be taken in 1990 in respect of any parameter mentioned in Table 7 may, if on the application of the water undertaker the Secretary of State so authorises, be the reduced number.
- (5) A reduced number of samples may be taken in accordance with paragraph (2) in respect of works supplying for domestic purposes an average volume of more than 2,000 m<sup>3</sup>/d of water only if the water undertaker is of the opinion that there is no foreseeable risk that faecal or total coliforms will be present in the supply or the works are so designed that a failure of the disinfection process will bring about automatically a cessation of the supply.

### Sampling at service reservoirs

**18.** A water undertaker shall take from each of its service reservoirs at least one sample for analysis for testing for compliance with each of the parameters listed in Table 7 in each week in which the reservoir is in use.

### Sampling—additional samples

- 19.—(1) If, as a consequence of any change in a water undertaker's practices in treating water at a treatment works or service reservoir, the undertaker is of the opinion that the prescribed concentration or value in respect of any parameter mentioned in Tables 1 to 5 has been or may be contravened, it shall until the end of the next following year (or for such other period as the Secretary of State may notify to the undertaker in writing) take for analysis for testing for compliance with that parameter the number of samples specified in paragraph (2).
  - (2) The number of samples to be taken is-
    - (a) for any whole year in the period, the increased corresponding number specified in the relevant Table for that parameter or (where none is specified) the standard number;
    - (b) for any other period, the appropriate increased corresponding number multiplied by the number of whole months in the period and divided by 12; and, where the result is not a whole number, rounded upwards to the nearest whole number.
- (3) Where an analysis of samples taken in accordance with paragraph (1) demonstrates that there has been no contravention of the prescribed concentration or value in the relevant period, the undertaker may revert to sampling in accordance with regulation 13(1).

### Sampling—new sources

- **20.**—(1) This regulation applies as respects–
  - (a) any source which has not been used for the supply of water by a statutory water company, a water authority or a water undertaker at any time since 15th July 1985; and

- (b) any source which has been so used but not so used for a period of six months preceding the date on which the water undertaker proposes to supply water from it.
- (2) A water undertaker shall-
  - (a) before it supplies water from a source mentioned in paragraph (1)(a); and
  - (b) as soon as is reasonably practicable after it has begun to supply water from a source mentioned in paragraph (1)(b),

take in accordance with paragraph (3) such samples of that water as will enable it to establish-

- (i) whether water can be supplied from that source without contravening section 52(1) of the Act; and
- (ii) the treatment necessary to ensure that section 52(1) is complied with in relation to the supply of that water.
- (3) Samples shall be taken-
  - (a) in the case of a source mentioned in paragraph (1)(a), in respect of-
    - (i) each of the parameters listed in Schedule 2; and
    - (ii) any other element, organism or substance which, in the opinion of the undertaker, may cause the supply to contravene section 52(1); or
  - (b) in the case of a source mentioned in paragraph (1)(b), in respect of-
    - (i) the parameters listed in Table C;
    - (ii) any parameter by reference to which an assessment may be made of the balance of ions within the water; and
    - (iii) any other parameter whose concentration or value may, in the opinion of the water undertaker, have altered since the last occasion on which water from that source was analysed.

### Collection and analysis of samples

- **21.**—(1) A water undertaker shall secure, so far as is reasonably practicable, that in taking, handling, transporting, storing and analysing or causing to be analysed any sample taken for the purposes of Parts IV and V of these Regulations, the appropriate requirements are satisfied.
- (2) In paragraph (1) "the appropriate requirements" means such of the following requirements as are applicable—
  - (a) the sample is representative of the quality of the water at the time of sampling;
  - (b) the sample is not contaminated when being taken;
  - (c) the sample is kept at such temperature and in such conditions as will secure that there is no material alteration of the concentration or value for the measurement or observation of which the sample is intended;
  - (d) the sample is analysed as soon as may be after it has been taken-
    - (i) by or under the supervision of a person who is competent to perform that task;
    - (ii) with the use of such equipment as is suitable for the purpose;
    - (iii) by applying such analytical systems and methods as are capable of establishing, within acceptable limits of deviation and detection, whether the sample contains concentrations or values which contravene the prescribed concentrations or values; and
  - (e) any laboratory at which samples are analysed has a system of analytical quality control that is subjected from time to time to checking by a person who is—

- (i) not under the control of either the laboratory or the undertaker; and
- (ii) approved by the Secretary of State for that purpose.

### PART VI

### WATER TREATMENT

### Interpretation

### 22. In this Part-

"disinfected" means subjected to a process which removes or renders inactive pathogenic micro-organisms so as to satisfy the requirements of Part II of these Regulations in respect of the parameters listed in Table C;

"surface water" does not include water from a spring; and

"pipe" does not include any water fittings.

### Treatment of raw water

**23.**—(1) In carrying out such of its functions under Chapter II as comprise the supply of water for drinking, washing and cooking, a water undertaker shall not supply water from any source which consists in or includes raw water unless the water has been disinfected and, in the case of surface water, subjected to at least such further treatment as is specified in paragraph (2):

Provided that this paragraph shall not require an undertaker to disinfect such ground water as is specified in an authorisation given by the Secretary of State for the purposes of this paragraph.

- (2) The further treatment mentioned in paragraph (1) is such treatment as is required to secure compliance with Council Directive 75/440/EEC (quality required of surface water intended for the abstraction of drinking water)(2); and for the purposes of this regulation, surface water shall be treated as falling within category A1 or A2 or A3 set out in Annex I to that Directive if it is abstracted from waters for which the classification to be currently satisfied in accordance with section 105(1) of the Act is, as appropriate, DW1 or DW2 or DW3, as set out in the Surface Waters (Classification) Regulations 1989(3).
- (3) Until such time as a notice under section 105(1) is served in relation to any waters, those waters shall for the purposes of this regulation be treated as falling within the category A1 or A2 or A3 if the waters were classified as being of that category by a water authority or statutory water company before the making of these Regulations and that classification is notified to the Secretary of State before these Regulations come into force.
- (4) Except with the consent of the Secretary of State, water shall not be abstracted for supply for domestic purposes which include drinking except from waters to be treated as falling within category A1 or A2 or A3 in the Annex.

### **Contamination from pipes**

**24.**—(1) Where there is a risk ("the prescribed risk") that water supplied by a water undertaker would, for the reason mentioned in paragraph (2) below, cease to comply with the requirements of Part II of these Regulations after leaving the undertaker's pipes, a water undertaker shall, subject to paragraphs (4) and (5)—

<sup>(2)</sup> OJ No. L194, 25.7.1975, p.26.

<sup>(3)</sup> S.I. 1989/1148.

- (a) treat the water in such a way as will, in its opinion, eliminate the prescribed risk or reduce it to a minimum; and
- (b) where the risk relates to lead, remove its part of any pipe to which this sub-paragraph applies when such part of the remainder of that pipe as connects directly to a tap used for the supply of drinking water is removed.
- (2) The reason referred to in paragraph (1) is the presence in the water of a concentration of copper, lead or zinc which exceeds the prescribed concentration and which is attributable to the fact that—
  - (a) copper or lead is the major component; or
  - (b) zinc is a component,

of such a pipe as is mentioned in section 52(3)(a) of the Act.

- (3) Paragraph (1)(b) applies to a lead pipe of the kind mentioned in section 52(3)(a) of the Act which belongs, as to part, to a water undertaker and, as to the remainder, to the owner of any premises to which the undertaker supplies water for domestic purposes.
  - (4) Paragraph (1) shall not require an undertaker to treat water—
    - (a) if the treatment is unlikely to achieve a significant reduction in the concentration of copper, lead or zinc; or
    - (b) in any water supply zone where the prescribed risk relates only to water supplied in an insignificant part of the zone; or
    - (c) if treatment is not reasonably practicable.
- (5) Paragraph (1) shall not require an undertaker to remove a pipe unless it has received a request in writing to do so from the owner of the premises in question.

### Application and introduction of substances and products

- **25.**—(1) A water undertaker shall not, otherwise than for the purposes of testing or research, apply any substance or product to, or introduce any substance or product into, water which is to be supplied for drinking, washing and cooking unless—
  - (a) the Secretary of State has for the time being approved the application or introduction of that substance or product and it is applied or introduced in accordance with any conditions attaching to that approval; or
  - (b) the undertaker is satisfied that the substance or product either alone or in combination with any other substance or product in the water is unlikely to affect the quality of the water supplied; or
  - (c) the undertaker can demonstrate that the substance or product has during the period of twelve months preceding the making of these Regulations been applied or introduced (otherwise than for the purposes of testing or research) by a water authority or a statutory water company into water supplied by it for domestic purposes; or
  - (d) the substance or product-
    - (i) was at any time before the commencement of these Regulations listed in the 15th Statement of the Committee on Chemicals and Materials of Construction for Use in Public Water Supply and Swimming Pools(4) or in any supplement to that Statement issued before the making of these Regulations; and

<sup>(4)</sup> The 15th Statement was issued in March 1989. Copies of it and of any supplement may be obtained from the Department of the Environment, Romney House, 43 Marsham Street, London SW1P 3PY.

(ii) is applied or introduced in accordance with any conditions referred to in that Statement or any supplement so issued or any such conditions as varied under paragraph (5) of this regulation and any conditions imposed under that paragraph.

Sub-paragraphs (b) to (d) have effect subject to paragraph (4) below.

- (2) An application for such an approval as is mentioned in paragraph (1)(a) may be made by any person.
- (3) The Secretary of State may, if he decides to issue an approval for the purpose of paragraph (1) (a), include in the approval such conditions as he considers appropriate and, subject to paragraph (6), may at any time revoke or vary any approval he has previously given.
- (4) The Secretary of State may by notice given in writing to any water undertaker prohibit it for such period as is specified in the notice from applying to, or introducing into, water intended to be supplied for drinking, washing and cooking any substance or product which the undertaker would otherwise be authorised to apply or introduce by paragraph (1)(b), (c) or (d).
- (5) The Secretary of State may by notice in writing to water undertakers vary any condition contained in the 15th Statement or any supplement referred to in paragraph (1)(d)(i) or impose conditions as to the application or introduction of any substance or product listed in that Statement or any supplement.
  - (6) The Secretary of State may-
    - (a) revoke by an instrument in writing any approval given by him for the purposes of paragraph (1)(a);
    - (b) modify any such approval by an instrument in writing by including conditions, or varying existing conditions;
    - (c) issue any such notice as is mentioned in paragraph (4):

but, unless he is satisfied that it is necessary to do so in the interests of public health without notice, shall not do any of those things without giving all such persons as are, in his opinion, likely to be affected by the revocation or modification of the approval or by the issue of the notice at least six months' notice in writing of his intention.

- (7) Notice shall be given forthwith by the Secretary of State to all persons likely to be affected by the making of such an instrument as is mentioned in paragraph (6)(a) or (b).
- (8) At least once in each year beginning with the year 1990, the Secretary of State shall issue a list of all the substances and products in relation to which—
  - (a) an approval for the purposes of paragraph (1)(a) has been granted or refused;
  - (b) such an approval has been revoked or modified;
  - (c) a notice has been issued under paragraph (4),

with particulars of the action taken.

### Use of processes

- **26.**—(1) The Secretary of State may at any time by notice in writing given to a water undertaker require it to make an application to him for approval of the use of any process; and may prohibit it for such period as may be specified in the notice from using any such process in connection with the supply by it of water for drinking, washing and cooking.
- (2) The Secretary of State may refuse the application or impose on any approval given for the purposes of this regulation such conditions as he thinks fit and, subject to paragraph (3), may at any time by notice in writing to the water undertaker revoke an approval so given or modify or revoke any condition imposed by virtue of this paragraph.
  - (3) The Secretary of State shall not-

- (a) revoke any approval given for the purposes of this regulation;
- (b) modify any condition imposed by virtue of paragraph (2); or
- (c) prohibit a water undertaker from using any process,

unless he has given to the water undertaker at least six months' notice in writing of his intention:

Provided that this paragraph shall not apply in any case in which the Secretary of State is of the opinion that the immediate revocation, modification or prohibition is necessary in the interests of public health.

- (4) Paragraph (8) of regulation 25 shall apply for the purposes of this regulation as if-
  - (a) for the reference to a substance or product there were substituted a reference to a process; and
  - (b) for the reference to paragraph (1)(a) and paragraph (4) there were substituted a reference to this regulation and paragraph (1) of this regulation respectively.

### Charges for applications

27. The Secretary of State may, by notice in writing, require the person who makes an application for an approval under regulation 25(1) to pay to him a charge which reflects the administrative expenses (excluding the costs of conducting any tests) incurred or likely to be incurred by him in connection with that application; and in determining the amount of any charge the Secretary of State may adopt such methods and principles for its calculation as appear to him to be appropriate.

### **Offences**

- **28.**—(1) A water undertaker which applies or introduces any substance or product in contravention of regulation 25(1) or a notice given under regulation 25(4), or uses any process in contravention of a prohibition imposed under regulation 26(1) or without complying with a condition imposed by virtue of regulation 26(2) shall be guilty of an offence and liable—
  - (a) on summary conviction, to a fine not exceeding the statutory maximum;
  - (b) on conviction on indictment, to a fine.
- (2) In any proceedings against a water undertaker for an offence under paragraph (1) it shall be a defence for that undertaker to show that it took all reasonable steps and exercised all due diligence to avoid the commission of the offence.
- (3) If any person, in furnishing any information or making any application under regulation 25 or 26, makes any statement which he knows to be false in a material particular, or recklessly makes any statement which is false in a material particular, he shall be guilty of an offence and liable—
  - (a) on summary conviction, to a fine not exceeding the statutory maximum;
  - (b) on conviction on indictment, to a fine.
- (4) Proceedings for an offence under paragraph (3) shall not be instituted except by or with the consent of the Secretary of State or the Director of Public Prosecutions.

### **PART VII**

### RECORDS AND INFORMATION

### Maintenance of records

**29.**—(1) A water undertaker shall prepare and maintain, in respect of each of its water supply zones, a record containing—

- (a) the name of the zone;
- (b) if not comprised in the name of the zone, the name of any water treatment works from which water is supplied to premises within the zone;
- (c) an estimate of the population of the zone;
- (d) particulars of any relaxation granted under Part III of these Regulations which applies to water supplied in the zone;
- (e) particulars of any action taken or required to be taken by the undertaker to comply with undertakings given pursuant to section 20(5)(b) in respect of its duties under section 52 of the Act so far as they relate to the zone;
- (f) particulars of the result of any analysis of samples taken in accordance with Part IV of these Regulations or regulations 16 to 19;
- (g) information in the form in Schedule 4 hereto;
- (h) such other particulars as the undertaker may determine.
- (2) An undertaker shall make-
  - (a) initial entries in the register in respect of the matters mentioned in paragraph (1)(a) to (e) before 1 January 1990;
  - (b) entries relating to the results of the analysis of samples within 28 days of the day in which the result is first known to the undertaker; and
  - (c) an entry of the information mentioned in paragraph (1)(g) when regulation 30(4) is complied with.
- (3) Without prejudice to paragraph (2), the undertaker shall at least once in each year review and bring up to date the record required to be kept by paragraph (1).
- (4) Nothing in this regulation shall require an undertaker to retain a record of any information mentioned in paragraph (1)(f) or (g) at any time more than five years after the date on which the information was first entered in the record.

### **Provision of information**

- **30.**—(1) A water undertaker shall make available for inspection by the public at all reasonable hours and free of charge at such of its offices as are normally open to the public any record maintained by it in accordance with regulation 29.
- (2) A water undertaker shall afford to any person facilities to take or obtain a copy of any part of a record maintained in accordance with regulation 29–
  - (a) in the case of a person who receives a supply of water in the zone and whose request is confined to information relating to that zone, free of charge;
  - (b) in any other case, on payment of such reasonable charge as the undertaker may determine.
- (3) A water undertaker shall include in or append to at least one of the accounts sent to each customer in any year the address and telephone number of at least one of the offices at which information about any matter included in the record mentioned in paragraph (1) may be obtained.
- (4) A water undertaker shall, not later than 31st December 1990 and not later than 30th June in each year thereafter, supply to a local authority information in the form set out in Schedule 4 to these Regulations relating to the preceding year concerning the general quality of water supplied to premises in the authority's area, and so far as the information is relevant to the authority's area.
  - (a) the samples taken in respect of each parameter;
  - (b) the extent to which the undertaker has complied with the requirements of Parts II and IV of these Regulations; and

(c) the action taken by the undertaker to comply with undertakings given pursuant to section 20(5)(b) in respect of its duties under section 52 of the Act:

Provided that the information required to be supplied before 1st January 1991 shall cover the six month period ending 30th June 1990.

- (5) A water undertaker shall notify a local authority and a district health authority as soon as may be after the occurrence of any event which, by reason of its effect or likely effect on the water supplied by it, gives rise or is likely to give rise to a significant risk to the health of persons residing in the authority's area.
- (6) An authority who have received a notification under paragraph (5) may require the water undertaker to provide them with such information relating to the event and its consequences as they may reasonably require.
  - (7) In this regulation—
- "local authority" means-
  - (a) the Common Council of the City of London;
  - (b) a London borough council;
  - (c) a district council; and

"district health authority" shall be construed in accordance with the definition of "District Health Authority" in section 1 of the Health Services Act 1980(5).

### **Publication of information**

- **31.**—(1) A water undertaker shall prepare a report for each year containing, as regards the area to which its appointment under section 11 of the Act extends—
  - (a) a summary of the quality of water supplied by it for domestic purposes;
  - (b) a statement as to the extent to which water supplied by it complied with Part II of these Regulations;
  - (c) particulars of any relaxation granted under Part III which applies to water supplied by it;
  - (d) a statement of the action that it has taken or is required to take and has not yet taken to comply with undertakings given pursuant to section 20(5)(b) in respect of its duties under section 52 of the Act;
  - (e) a statement that a person may inspect any record maintained in accordance with regulation 29 and particulars of the times and places at which such inspection may be made; and
  - (f) such other information as the undertaker may determine.
- (2) The statement required by paragraph (1)(b) shall, in relation to years after 1989, specify, in the form set out in Form A and Form B in Schedule 5 to these Regulations, the number of the results of the analysis of samples which established a concentration or value in respect of any parameter which contravened the prescribed concentration or value.
- (3) On or before 30th June a water undertaker shall publish the report prepared for the preceding year in accordance with paragraph (1) and shall at the same time send a copy to every local authority within whose area it supplies water.
  - (4) In this regulation, "local authority" has the same meaning as in regulation 30(7).

### **PART VIII**

### FUNCTIONS OF LOCAL AUTHORITIES IN RELATION TO WATER QUALITY

### **Application and interpretation**

- **32.**—(1) This Part applies to the performance by a local authority of their duty under section 56(1) of the Act insofar as that duty relates to water supplies which are not private supplies.
- (2) In this Part "relevant water undertaker", in relation to a local authority, means a water undertaker any of whose supply zones include an area which falls within the area of that authority.

### **Duties of local authorities—supplementary provision**

- 33.—(1) In performing their duty under section 56(1) of the Act, a local authority—
  - (a) shall make such arrangements with the relevant water undertaker as will secure that the authority is notified as mentioned in regulation 30(6); and
  - (b) may take and analyse, or cause to be analysed, by a person designated by them in writing, such samples of the water supplied to premises in their area as they may reasonably require.
- (2) Regulation 21 shall apply to samples taken by virtue of paragraph (1) as it applies to samples taken for the purposes of Parts IV and V of these Regulations; but with the following modifications—
  - (a) in paragraph (1), for the words "A water undertaker" there shall be substituted the words "A local authority"; and
  - (b) in paragraph (2)(e), after the words "the undertaker" there shall be inserted the words "or the authority".

### PART IX

### **ENFORCEMENT**

### Contraventions by water undertakers

**34.** Any duty or requirement imposed by Parts IV to VI of these Regulations on a water undertaker shall be enforceable under section 20 of the Act by the Secretary of State, whether or not it constitutes an offence.

Signed by authority of the Secretary of State

Minister for Water and Planning, Department of the Environment

6th July 1989

Peter Walker Secretary of State for Wales

6th July 1989

### SCHEDULE 1

### **EXERCISE OF POWERS**

- 1. The powers conferred by sections 52 and 53 are exercised by the Secretary of State for Wales, in relation to companies appointed by him to be water undertakers, and by the Secretary of State for the Environment, in relation to other water undertakers; and in this paragraph and paragraph 3 the reference to a company appointed by the Secretary of State to be a water undertaker includes a reference to a company appointed with the consent of, or in accordance with a general authorisation given by, the Secretary of State.
- **2.** The powers conferred by section 56 are exercised by the Secretary of State for Wales, as respects local authorities exercising functions in Wales, and by the Secretary of State for the Environment, as respects local authorities exercising functions in England.
  - **3.** The powers conferred by section 65 are exercised—
    - (a) insofar as they relate to the matters specified in subsection (2)(a) to (d), by the Secretary of State for the Environment and the Secretary of State for Wales jointly;
    - (b) insofar as they relate to the matters specified in subsection (2)(e), by the Secretary of State for Wales, as respects water supplied in Wales by a private supplier and water supplied (whether or not in Wales) by a company appointed by him to be a water undertaker, and by the Secretary of State for the Environment, as respects water supplied in England by a private supplier and water supplied (whether or not in England) by a company appointed by him to be a water undertaker; and
    - (c) insofar as they relate to the matter specified in subsection (2)(f), by the Secretary of State for Wales, as respects local authorities exercising functions in Wales, and by the Secretary of State for the Environment, as respects local authorities exercising functions in England.

### SCHEDULE 2

Regulation 3

### PRESCRIBED CONCENTRATIONS OR VALUES

### **TABLE A**

Item	Parameters	Units of Measurement	Concentration or Value (maximum unless otherwise stated)
1.	Colour	mg/1 Pt/Co scale	20
2.	Turbidity (including suspended solids)	Formazin turbidity units	4
3.	Odour (including hydrogen sulphide)	Dilution number	3 at 25°C
4.	Taste	Dilution number	3 at 25°C
5.	Temperature	$^{\circ}\mathrm{C}$	25

Note

(i) See regulation 3(5).

(ii) If silver is used in a water treatment process, 80 may be substituted for 10.

Item	Parameters	Units of Measurement	Concentration or Value (maximum unless otherwise stated)
6.	Hydrogen ion	pH value	9.55.5 (minimum)
7.	Sulphate	$mg\;SO_4/l$	250
8.	Magnesium	mg Mg/l	50
9.	Sodium	mg Na/l	150(i)
10.	Potassium	mg K/l	12
11.	Dry residues	mg/l	1500 (after drying at 180°C)
12.	Nitrate	$mg\;NO_{3}/l$	50
13.	Nitrite	mg NO <sub>2</sub> /l	0.1
14.	Ammonium (ammonia and ammonium ions)	mg NH <sub>4</sub> /l	0.5
15.	Kjeldahl nitrogen	mg N/l	1
16.	Oxidizability (permanganate value)	mg O <sub>2</sub> /l	5
17.	Total organic carbon	mg C/l	No significant increase over that normally observed
18.	Dissolved or emulsified hydrocarbons (after extraction with petroleum ether); mineral oils	μG/L	10
19.	Phenols	μg C <sub>6</sub> H <sub>5</sub> OH/l	0.5
20.	Surfactants	μg/l (as lauryl sulphate)	200
21.	Aluminium	μg Al/l	200
22.	Iron	μg Fe/l	200
23.	Manganese	μg Mn/l	50
24.	Copper	μg Cu/l	3000
25.	Zinc	$\mu g \; Zn/l$	5000
26.	Phosphorus	$\mu g \ P/l$	2200
27.	Fluoride	$\mu g \; F/l$	1500
28.	Silver	μg Ag/l	10(ii)

Note

See regulation 3(5). If silver is used in a water treatment process, 80 may be substituted for 10. (i) (ii)

**TABLE B** 

Item	Parameters	Units of Measurement	Maximum Concentration
1.	Arsenic	μg As/l	50
2.	Cadmium	μg Cd/l	5
3.	Cyanide	μg CN/l	50
4.	Chromium	μg Cr/l	50
5.	Mercury	μg Hg/l	1
6.	Nickel	μg Ni/l	50
7.	Lead	μg Pb/l	50
8.	Antimony	μg Sb/l	10
9.	Selenium	μg Se/l	10
10.	Pesticides and related products:		
	(a) (an)dividual substances	μg/l	0.1
	(b) (b) total substances(i)	μg/l	0.5
11.	Polycyclic aromatic hydrocarbons(ii)	μg/l	0.2

Notes

The sum of the detected concentrations of individual substances. The sum of the detected concentrations of fluoranthene, benzo 3.4 fluoranthene, benzo 1.12 fluoranthene, benzo 3.4 pyrene, benzo 1.12 perylene and indeno (1,2,3-cd) pyrene. (i) (ii)

**TABLE C** 

Item	Parameters	Units of Measurement	Maximum Concentration
1.	Total coliforms	number/100 ml	0(i)
2.	Faecal coliforms	number/100 ml	0
3.	Faecal streptococci	number/100 ml	0
4.	Sulphite-reducing clostridia	number/20 ml	≤1(ii)
5.	Colony counts	number/1 ml at 22°C or 37°C	No significant increase over that normally observed

Notes

See regulation 3(6). Analysis by multiple tube method.

## TABLE D(i)

Item	Parameters	Units of	Maximum
		Measurement	Concentration or
			Value
1.	Conductivity	μS/cm	1500 at 20°C
2.	Chloride	mg Cl/l	400
3.	Calcium	mg Ca/l	250
4.	Substances extractable in chloroform	mg/l dry residue	1
5.	Boron	$\mu g \; B/l$	2000
5.	Barium	μg Ba/l	1000
7.	Benzo 3,4 pyrene	ng/l	10
3.	Tetrachloromethane	$\mu g/l$	3
9.	Trichloroethene	μg/l	30
10.	Tetrachloroethene	μg/l	10

(i) See regulation 3(3)(d).

### TABLE E

Item	Parameters	Units of	Minimum
		Measurement	Concentration(i)
1.	Total hardness	mg Ca/l	60
2.	Alkalinity	mg HCO <sub>3</sub> /l	30

### SCHEDULE 3

Regulations 13 and 17

### SAMPLING FREQUENCIES

**TABLE 1:** Sampling frequencies at consumers' taps

Parameters	Water Suppl	y Zone	Sampling F	Sampling Frequency (number per annum)		
	Volume distributed (m³/d) for domestic purposes	Population Supplied	Reduced		Standard	Increased
			Ground water	Surface water		
Conductivity	≤100	≤500			4	12
hydrogen ion	101–1000	501-5000	4	4	6	12
Odour	1001-2000	5001-10000	4	6	12	24
(qualitative)	2001-4000	10001- 20000	6	2	24	
Taste	4001-7000	20001- 35000	11	21	42	
(qualitative)	7001–10000	35001- 50000	15	30	60	

**TABLE 2:** Sampling frequencies at consumers' taps

Parameters	Water Suppl	y Zone	Sampling Fr	equency (num	ber per annun	n)
	Volume distributed (m³/d) for domestic purposes	Population Supplied	Reduced		Standard	Increased
			Ground water	Surface water		
Odour (quantitative)	)					
Taste (quantitative)	)					
Turbidity	≤100	≤500			4	12
Temparture	101-1000	501-5000			4	12

Parameters	Water Suppl	y Zone	Sampling Frequency (number per annum)			
	Volume distributed (m³/d) for domestic purposes	Population Supplied	Reduced	• • •	Standard	Increased
			Ground water	Surface water		
Hydrogen ion	1001-2000	5001-10000			4	24
Nitrate	2001–4000	10001- 20000	4	4	6	24
Nitrate	4001-7000	20001- 35000	4	5	10	36
Ammonium	7001–10000	35001- 50000	4	5	10	48
Iron						
Aluminium						
Manganese						
Colour						

**TABLE 3:** Sampling frequencies at consumers' taps

Parameters	Water Supply	Zone	Sampling Fre	equency (number	r per annum)
	Volume distributed	Population Supplied	Reduced	Standard	Increased
	(m <sup>3</sup> /d) for domestic purposes				
Trihalomethan	es≤7000	≤35000	1	4	12
Tetrachlorome	thane				
Trichloroethen	e				
Tetrachloroeth	ene				
Copper					
Lead	7001-10000	35001-50000	1	4	24
Zinc					
Pesticides(i)					

Notes

<sup>(</sup>i)

ie any fungicide, herbicide or insecticide; increased or reduced sampling, where required or permitted, may be confined to the substance in question.

The sum of the detected concentrations of fluoranthene, benzo 3.4 fluoranthene, benzo 11.12 fluoranthene, benzo 3.4 pyrene, benzo 1.12 perylene and indeno (1,2,3-cd) pyrene. (ii)

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

Parameters	Water Supply	Water Supply Zone		Sampling Frequency (number per annum)		
	Volume distributed (m³/d) for domestic purposes	Population Supplied	Reduced	Standard	Increased	
Polycyclic aromatic hydrocarbons(	(ii)					
Notes						

- (i)
- ie any fungicide, herbicide or insecticide; increased or reduced sampling, where required or permitted, may be confined to the substance in question.

  The sum of the detected concentrations of fluoranthene, benzo 3.4 fluoranthene, benzo 11.12 fluoranthene, benzo 3.4 pyrene, benzo 1.12 perylene and indeno (1,2,3-cd) pyrene. (ii)

### TABLE 4:

### Sampling frequencies at consumers' taps

Parameters	Sampling Frequency(number per annum)				
	Standard	Increased			
Chloride					
Sulphate					
Calcium					
Magnesium					
Sodium					
Potassium					
Dry residues					
Oxidizability (permanganate value)					
Total organic carbon					
Boron					
Surfactants					
Phosphorus	1	12			
Fluoride					
Barium					
Silver					
Arsenic					
Cadmium					
Cyanide					
Chromium					
Mercury					

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

Parameters	Sampling Frequency(number per annum)					
	Standard	Increased				
Nickel						
Antimony						
Selenium						
Total hardness						
Alkalinity						

**TABLE 5:** 

### Sampling frequencies at supply points

Water S	ampling	Frequency	(number p	er annum)				
Supply			` •	Í				
Zone or								
Combination	n							
of								
Zones								
Volun <b>Ro</b> pula		arameters	Table 2 P	arameters	Table 3 Pa	arameters	Table 4 Pa	arameters
distril <b>Sutppl</b> li	ed							
$(m^3/$								
d)								
for								
domestic								
purposes								
R	educed	Standbrdr	e <b>Red</b> uced	Standbrdr	e <b>Red</b> uced	Standbrdr	e <b>Red</b> uced	Standbrdr

-	Reduce	ed	Star	ıd <b>ard</b> ı	reasec	luced	Sta	nd <b>ard</b> ı	easec	luced	Sta	nd <b>lard</b>	rea <b>ßed</b> i	uced	Sta	nd <b>Ind</b> reased
	GW S	W			GW	SW SW			GW	/ SW			GW	SW		
≤100≤500			4	12			4	12	1	2	4	12			1	12
101-501-4 1000 5000	4		6	12			4	12	1	2	4	12			1	12
1001-5001-4 2000 10000	_		12	24			4	24	1	2	4	12			1	12
2001-1000 fg 4000 20000		2	24		4	4	6	24	1	2	4	12			1	12
4001-200011 1000 <b>5</b> 0000		)	60		4	5	10	60	1	2	4	12			1	12
1000 5000 B 20000 0000		)	120		5	10	20	60	2	3	6	24	1	1	2	24
2000 11-00004 30000 5000		)	180		8	15	30	60	2	3	6	24	1	2	3	24
300011-5000 6000030000		30	360		15	30	60	120	2	3	6	24	2	3	6	24

GW = Ground water SW = Surface water

Water Sampling Frequency (number	per annum)					
Supply						
Zone or						
Combination						
of						
Zones						
Volun <b>Ropulatione</b> 1 Parameters Table 2	Parameters 7	Table 3 Paramo	eters Ta	ble 4 I	aram	eters
distril <b>Sutep</b> lied						
$(m^3/$						
d)						
for						
domestic						
purposes						
Reduced Standardreaseduced	l Standl <b>ırd</b> rea	<b>Sed</b> uced Star	nd <b>brd</b> rea <b>ß</b>	duced	Sta	ndl <b>ırd</b> reased
GW SW GW SW	V	GW SW	G	W SW	7	
6000B000 <b>91</b> 0- 180 360 30 60	120 3	5 10	24 3	5	10	24
100005000000						
1000 <b>©</b> 1000 <b>©</b> 100 180 360 30 60	120 5	10 20	36 5	10	20	36
2000@00000	120 3	10 20	30 3	10	20	30
GW = Ground water SW = Surface water						

**TABLE 6:**Sampling frequencies at consumers' taps

Parameters	Water Supply Zone		Sampling Frequency (number per annum)	
	Volume distributed (m³/d) for domestic purposes	Population Supplied	Standard	
Total coliforms }	≤100	≤500	12	
Faecal coliforms }	101-1000	501-5000	12	
Residual disinfectant }	1001-2000	5001-10000	24	
Colony counts }	2001–4000	10001-20000	48	
		20001–50000	at the rate of 12 per 5000 population except in the case of colony counts where the standard number is 5.	

**TABLE 7:**Sampling frequencies for treatment works

Parameters	Volume of water supplied (m <sup>3</sup> /d) for domestic purposes	Sampling frequency (	number per annum)
		Reduced	Standard
1. Total and faecal coliforms,	≤2000	12	52
residual disinfectant and colony counts	2001–6000	52	104
2. Total and faecal coliforms	6001–12000	104	208
and residual disinfectant	>12000	104	365
<b>3.</b> Colony counts	>6000	52	104

### SCHEDULE 4

Regulation 30(4)

### INFORMATION FOR LOCAL AUTHORITIES

# WATER SUPPLY ZONE (NAME OF ZONE) (Period of report) Parameter No. of samples taken in period No. of samples contravening PCV (all samples) Min. Mean Max. Commentary on Water Quality Action taken to comply with section 20(5)(b) undertakings

### SCHEDULE 5

Regulation 31(2)

# $\hbox{INFORMATION TO BE INCLUDED IN ANNUAL REPORT FORM A:(a) WATER LEAVING TREATMENT WORKS }$

		% of samples exceeding prescribed concentration or value			
Volume of water distributed from works (m³/d)	No. of Samples	Total Coliforms	Faecal Coliforms		
less than 3,000 3,000-12,000 more than 12,000					
TOTAL					

### (b) WATER IN SERVICE RESERVOIRS (INCLUDING WATER TOWERS)

Capacity of reservoir (m3)		% of samples exceeding prescribed concentration or value			
	No. of Samples	Total Coliforms	Faecal Coliforms		
less than 2,000 2,000-10,000 more than 10,000					
TOTAL					

### (c) WATER AT CONSUMERS' TAPS

SIZE O	OF ZONE (POPULATION)	less than 5,000	5,000-20,000	20,001-50,000	TOTAL
Type of	sample				
Randor	m No. of samples				
	% exceeding PCV for TC % exceeding PCV for FC				
Fixed	No. of samples % exceeding PCV for TC % exceeding PCV for FC				
Totals	No. of samples % exceeding PCV for TC % exceeding PCV for FC				

Notes PCV = prescribed concentration or value.

TC = total coliforms.
FC = faecal coliforms.

FORM B:

(1)	(2)	(3)	(4)	(5)	(6)	(7)(iii)	(8)
Parameter(i)	Size of zone (Population)	No. of zones in size group	No. of samples	% exceeding PCV(ii)	No. of samples in column (5) which satisfy the terms of a relaxation given under Part III	No. of zones in which PCV contra- vened	No. of zones in column (7) in which action taken has remedied the contravention
eg Colour	less than 5,000 5,000-20,000 20,001-50,000	-					
	TOTAL						
eg Iron	less than 5,000 5,000-20,000 20,001-50,000						
	TOTAL						
Total(iv)	less than 5,000 5,000-20,000 20,001-50,000						
	TOTAL						

Notes (i) For pesticides include each sample/zone where one or more pesticides fail to comply with 0.1 µg 1.

- (ii) PCV = prescribed concentration or value.
- (iii) Where a relaxation has been granted under Part III of the Regulations, this column should record only those zones in which samples contravene both the PCV and the terms of the relaxation.
- (iv) A zone in respect of which a PCV has been contravened in relation to more than one parameter should be recorded only once in columns (7) and (8).

### **EXPLANATORY NOTE**

(This note is not part of the Regulations)

These Regulations supplement Chapter II (Water Supply) of Part II of the Water Act 1989 ("the 1989 Act"). They are primarily concerned with the quality of water supplied in England and Wales for drinking, washing and cooking and with arrangements for the publication of information about water quality. The Regulations come into force on 1st September 1989 except for regulations 13, 17, 18 and 19, which deal with sampling frequency, and come into force on 1st January 1990.

Effect is given in Part II of the Regulations to Article 7 of Council Directive 80/778/EEC (OJNo. L 229, 30.8.80, p.11) which relates to the quality of water intended for human consumption. Part IV of the Regulations gives effect to paragraphs 1 to 4 of Article 12 (monitoring of the quality of water intended for human consumption) of that Directive. In Part VI of the Regulations, regulation 23

gives effect, in part, to Article 2 of Council Directive 75/440/EEC (quality required of surface water intended for the abstraction of drinking water) and to paragraph 3 of Article 4 of that Directive.

Part I of the Regulations defines terms that are used in the Regulations.

Part II prescribes standards of wholesomeness in respect of water that is supplied by water undertakers (the water companies) and private suppliers for drinking, washing or cooking. In particular, it provides that water is to be regarded as wholesome if it contains concentrations or values in respect of various properties, elements, organisms and substances which do not contravene prescribed maximum and, in some cases, minimum concentrations or values. Some of the prescribed maximum and minimum concentrations and values are specified in regulation 3 but most are listed in Tables A to E which appear in Schedule 2 to the Regulations. They include the maximum admissible and minimum required concentrations and values specified in Annex I to Council Directive 80/778/EEC.

Part III enables the Secretary of State or, in the case of private water supplies, the Secretary of State or the appropriate local authority, to relax the requirements of Part II. The circumstances in which such relaxation is permissible are consistent with those specified in paragraphs 1 and 3 of Article 9 and paragraph 1 of Article 10 of Council Directive 80/778/EEC.

Part IV provides for the monitoring of water supplies by reference to analysis of samples taken from consumers' taps. Regulation 11 requires water undertakers to identify, in relation to areas which they are required to determine as "water supply zones", such number and location of consumers' taps as will ensure that the samples taken are representative of the quality of the water within the zone. In the circumstances specified in regulation 12 the Secretary of State may authorise the taking of samples from points other than consumers' taps. Regulation 13 requires water undertakers to take a minimum number of samples ("the standard number") each year in respect of a variety of properties, elements, organisms and substances. The standard numbers are specified in Tables 1 to 6 in Schedule 3 to the Regulations and are not less than those specified in Annex II to Council Directive 80/778/EEC. Regulation 13 also requires samples to be taken where changes in the undertakers' practices may have had an effect on the quality of the water within the water supply zones.

Part V contains additional provisions relating to sampling. Regulations 17 and 18 require samples to be taken in respect of particular organisms and substances at treatment works and at reservoirs which store treated water. Regulation 19 requires additional samples to be taken in certain circumstances. Regulation 20 requires samples to be taken before water is supplied from new sources and from sources which have not recently been used. Regulation 21 prescribes requirements relating to the taking, handling, storage, transport and analysis of samples.

Part VI deals with the treatment of water and regulates the substances, processes and products that may be used by water undertakers in connection with the supply of water. Regulation 23 imposes requirements relating to the disinfection of water and imposes additional requirements for the treatment of surface water. It prohibits the abstraction for the supply of drinking water of waters below category A3, as required by Council Directive 75/440/EEC. Regulation 24 makes provision for securing the elimination or reduction to a minimum of the risk that water will be contaminated after supply by excessive concentrations of copper, lead or zinc. Regulation 25 specifies the circumstances in which water undertakers may apply or introduce substances or products into water supplied for drinking, washing or cooking. Regulation 26 enables the Secretary of State to require that his approval be obtained to the use of processes. Regulation 27 empowers the Secretary of State to make charges in respect of applications under regulation 25. Contravention of some of the requirements of regulations 25 and 26 is made a criminal offence by regulation 28, as is the making of false statements.

Part VII deals with the provision of information by water undertakers. Regulation 29 requires the undertakers to prepare and maintain records containing information about the quality of water supplied in their water supply zones. Regulation 30 requires each water undertaker to make available for public inspection and to supply local authorities with information about the quality of water

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within its water supply zones, the extent to which Part II of the Regulations has been complied with, details of any relaxations granted under Part III of the Regulations and of the action which has been taken to comply with undertakings given pursuant to section 20 of the 1989 Act. It also requires each water undertaker to provide local authorities and district health authorities with information relating to matters that could affect the health of persons residing in the authorities' areas. Regulation 31 requires water undertakers to publish an annual report containing information about the quality of water in the area for which it is responsible.

Part VIII imposes requirements on local authorities in the performance of their duties in relation to the quality of water supplied by water undertakers. Regulation 33 provides for the making of arrangements between the authorities and the undertakers about the provision of information. It also enables local authorities to take such samples of water as they may reasonably require.

Part IX provides that contraventions by water undertakers of duties or requirements imposed by Parts IV to VI of the Regulations are to be enforceable under section 20 of the 1989 Act by the Secretary of State. This provision is additional to the criminal sanctions provided by regulation 28 in relation to contraventions of regulations 25 and 26.