

II

(Preparatory Acts)

COMMISSION

Proposal for a Council Directive concerning the quality of water intended for human consumption

(95/C 131/03)

COM(94) 612 final — 95/0010(SYN)

(Submitted by the Commission)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community and, in particular Article 130s (1) thereof,

Having regard to the proposal from the Commission,

In cooperation with the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas it is necessary to adapt Council Directive 80/778/EEC of 15 July 1980 relating to the quality of water intended for human consumption⁽¹⁾, as last amended by Directive 91/692/EEC⁽²⁾, to scientific and technological progress; whereas experience from the implementation of the said Directive shows that it is necessary to create an appropriately flexible and transparent legal framework for Member States to address failures to meet the standards, whereas furthermore the Directive should be re-examined in the light of the Treaty of the European Union and in particular the principle of subsidiarity;

Whereas in keeping with the provisions of Article 3 (b) of the Treaty, whereby any action by the Community should not go beyond what is necessary to achieve the objectives of the Treaty, it is necessary to revise the provisions of Directive 80/778/EEC so as to focus on compliance with essential quality and health parameters, leaving Member States free to add secondary parameters if they see fit;

Whereas, in accordance with the principle of subsidiarity, the differences in natural and socio-economic features of the regions in the Union require that most

decisions on monitoring, analysis, and on the measures to be taken to redress failures be taken at a local, regional or national level;

Whereas Community standards for essential health-related quality parameters in water intended for human consumption are necessary in order to define the minimum environmental quality goals to be achieved in connection with other Community measures, in order to safeguard the sustainable use of water intended for human consumption;

Whereas, in view of the importance for human health of water intended for human consumption, it is necessary to lay down at Community level the essential quality standards with which all water intended for this purpose must comply;

Whereas it is necessary to include water used in the food industry unless it can be established that the use of such water does not affect the wholesomeness of the finished product;

Whereas it is necessary to exclude from the scope of this Directive natural mineral waters and waters which are medicinal products, since special rules for these types of water have been established;

Whereas measures are required to meet specified values for all directly health-relevant parameters and for other parameters if a deterioration in quality has occurred; whereas furthermore such measures should not prejudice the implementation of Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market⁽³⁾, as last amended by Commission Directive 94/79/EC⁽⁴⁾.

⁽¹⁾ OJ No L 229, 30. 8. 1980, p. 11.

⁽²⁾ OJ No L 377, 31. 12. 1991, p. 48.

⁽³⁾ OJ No L 230, 19. 8. 1991, p. 1.

⁽⁴⁾ OJ No L 354, 31. 12. 1994, p. 16.

Whereas it is important to prevent a potential danger to human health arising from contaminated water; and whereas the supply of such water should be prohibited or its use restricted;

Whereas it is necessary to set individual parametric values for substances which are important throughout the Community at a level strict enough to ensure that the Directive's purpose can be achieved;

Whereas the parametric values are based on the scientific knowledge available and the precautionary principle; whereas those values have been selected to ensure that water intended for human consumption can be consumed safely on a life long basis, and thus represent a high level of health protection;

Whereas it is necessary for Member States to set values for other parameters where this is necessary to protect human health in their territory;

Whereas the parametric values are to be complied with at the point where water intended for human consumption is available to the consumer;

Whereas the quality of water intended for human consumption can be influenced by the condition and materials used in household installations; whereas, furthermore, it is recognized that responsibility for the condition and the materials used in household installations may not be borne by the Member States;

Whereas monitoring programmes should be established by the Member States to check that water intended for human consumption meets the requirements of the Directive; whereas such monitoring programmes should be appropriate to local needs and should meet the minimum monitoring requirements set out in the Directive;

Whereas the methods used to analyse the quality of water intended for human consumption should be such to ensure that the results obtained are reliable and comparable;

Whereas Member States should, in the event of non-compliance with the Directive's standards, investigate the cause and take appropriate remedial action to ensure that the quality of the water is restored;

Whereas in the case of non-compliance with a parameter having an indicator function, remedial action will only be required in order to ensure that human health is protected;

Whereas, should such remedial action be necessary to restore the quality of water intended for human consumption, in accordance with Article 130r (2) of the Treaty priority should be given to action which rectifies the problem at source;

Whereas, without prejudice to the protection of human health and in order that the supply of drinking water may be maintained, Member States should be authorized

to make provision, under certain conditions, for derogations from this Directive; whereas, furthermore, it is necessary to establish a proper framework for such derogations in order to ensure that the water meets the standards of the Directive;

Whereas, since the preparation of water intended for human consumption may involve the use of certain substances, rules are required to govern the use thereof in order to avoid possible harmful effects on human health due to excessive quantities of such substances or impurities contained in such substances;

Whereas it is necessary in order to ensure the functioning of the internal market that water intended for human consumption can freely circulate in the Union unless its marketing could constitute a potential danger to human health;

Whereas technical progress may necessitate rapid adaptation of the technical requirements laid down in Annexes II and III; whereas, furthermore, in order to facilitate application of the measures required for this purpose, provision should be made for a procedure under which the Commission can adopt such adaptations with the assistance of a Committee composed of representatives of the Member States;

Whereas consumers should be adequately and appropriately informed of the quality of water intended for human consumption, and of any derogations made by the Member States and any remedial action taken by the competent authorities; whereas, furthermore, consideration should be given both to the technical and statistical needs of the Commission, and to the rights of the individual to obtain adequate information about the quality of water intended for human consumption;

Whereas, in exceptional and specific circumstances, it may be necessary to allow Member States a longer period of time in order to meet certain provisions of the Directive;

Whereas this Directive should not affect the obligations of the Member States as to the time limit for transposition into national law, nor as to application, as shown in Annex IV,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. This Directive concerns the quality of water intended for human consumption.
2. The objective of the Directive is to protect human health from the adverse effects resulting from the contamination of water intended for human consumption by ensuring that it is wholesome.

Article 2

1. For the purposes of this Directive, 'water intended for human consumption' shall mean:

(a) all water either in its original state or after treatment, used for the purpose of drinking and other domestic purposes, regardless of its origin and regardless whether available from the tap, in bottles or containers;

(b) all water used in a food production undertaking for the manufacture, processing, preservation or marketing of products or substances intended for human consumption unless the competent national authorities have established that the use of water cannot affect the wholesomeness of the foodstuff in its finished form.

2. For the purpose of this Directive, 'domestic distribution system' shall mean all pipework and fittings which connect a consumer's tap to the supply and which, according to the relevant national law, are not the responsibility of the water supplier.

Article 3

This Directive shall not apply to:

(a) natural mineral waters recognized as such by the competent national authorities, in accordance with Directive 80/777/EEC⁽¹⁾;

(b) waters which are medicinal products within the meaning of Directive 65/65/EEC⁽²⁾;

(c) water intended exclusively for those domestic purposes which have no influence, either directly or indirectly, on the health of the consumers concerned;

(d) without prejudice to Article 5 (1), water intended for human consumption from an individual source serving 15 or less households, unless the water is offered for sale.

Article 4

1. Without prejudice to their obligations under other Community provisions, Member States shall take the measures necessary to ensure that water intended for human consumption;

(a) meets the minimum requirements specified in Annex I Parts A and B; and

(b) is free of pathogenic micro-organisms and parasites in numbers which constitute a potential danger to human health.

2. Member States shall take all other measures necessary to ensure that water intended for human consumption meets the objective set out in Article 1.

Article 5

1. Member States shall ensure that any supply of water intended for human consumption which constitutes a potential danger to human health is prohibited or its use restricted. In such cases consumers shall be informed immediately thereof and given the necessary advice.

2. The competent authorities shall decide on a case-by-case basis what action under paragraph 1 should be taken, taking into account also the risks to human health which would follow from an interruption to the supply or a restriction in the use, of water intended for human consumption.

3. Member States may establish guidelines to assist the competent authorities to fulfil their obligations under paragraph 2.

Article 6

1. Member States shall set values applicable for water intended for human consumption for the parameters set out in Annex I.

2. The values set pursuant to paragraph 1 shall not be less stringent than those set out in Annex I. As regards the parameters set out in Annex I Part C, the values need to be fixed for monitoring purposes and for the fulfilment of the obligations contained in Article 9 only.

3. Member States shall set values for additional parameters not included in Annex I where the protection of human health in their national territory or part of it so requires.

4. When a Member State deems it necessary to adopt standards more stringent than those set out in Annex I, Part B, or standards for additional parameters not included in Annex I but necessary to protect human health, it shall communicate this to the Commission in accordance with the procedures under Council Directive 83/189/EEC⁽³⁾.

5. Without prejudice to the procedures under Directive 83/189/EEC, and in particular Article 9 thereof, Member States may take such envisaged measures only after three months following such communication and provided that the Commission's opinion is not negative.

⁽¹⁾ OJ No L 229, 30. 8. 1980, p. 1.

⁽²⁾ OJ No 22, 9. 2. 1965, p. 369/65.

⁽³⁾ OJ No L 109, 26. 4. 1983, p. 8.

6. In the latter event, before the expiry of the period referred to in paragraph 5, the Commission shall initiate the procedure provided for in Article 15 in order to determine whether the envisaged measures may be implemented subject, if necessary, to appropriate amendments.

Article 7

1. The parametric values set in accordance with paragraphs 1, 2 and 3 of Article 6 shall be complied with at the point where water intended for human consumption is available to the consumer, or for use in a food production undertaking or, in the case of water put into bottles or containers intended for sale, at the point at which the water is put into bottles or containers.

2. For water intended for human consumption supplied from a distribution network, the parametric values shall be complied with as it emerges from at least one tap in the consumer's premises.

3. Member States are deemed to have fulfilled their obligations under this Article and under Articles 4 and 9 (2) where it can be established that non-compliance with the parametric values set in accordance with Article 6 (1), (2) and (3) is due to the domestic distribution system.

Article 8

1. Member States shall take all measures necessary to ensure regular, representative monitoring of the quality of water intended for human consumption, in order to check whether the water available to consumers meets the requirements of this Directive. In addition, Member States shall take all measures necessary to ensure that, where disinfection forms part of the preparation of water intended for human consumption, the efficiency of the disinfection treatment applied is verified.

2. To meet the obligations contained in paragraph 1 appropriate monitoring programmes shall be established by the competent authorities for all water intended for human consumption. Those monitoring programmes shall meet the minimum requirements set out in Annex II.

3. The sampling points shall be determined by the competent authorities.

4. Community guidelines for the monitoring referred to in this Article may be drawn up in accordance with the procedure laid down in Article 15.

5. (a) The Member States shall use the reference methods of analysis set out in Annex III.

(b) Alternative methods may be used provided it can be demonstrated that equivalent results can be obtained. Member States which have recourse to an alternative method shall provide the

Commission with all relevant information concerning this method and its equivalence.

(c) Where no reference method of analysis is specified, any method of analysis may be used provided that it meets the requirements set out in Annex III.

6. The Commission shall review at regular intervals the reference methods of analysis specified in Annex III.

Article 9

1. Member States shall ensure that any failure to meet the requirements of Annex I is immediately investigated in order to identify the cause.

2. If, despite the measures taken to meet the obligations under Article 4 (1), water intended for human consumption does not meet the requirements of Annex I, Member States shall ensure that the necessary remedial action is taken as soon as possible to restore its quality.

3. In the case of non-compliance with the parametric values or with the specifications contained in Part C of Annex I, remedial action to restore the quality of the water needs only to be taken where this is necessary in order to protect human health.

Article 10

1. Member States may make provision for derogations from the parametric values set out in Annex I Part B for a limited period of time and up to a maximum value to be determined by them, provided that the derogation during such period does not constitute a potential danger to human health and provided that the supply of water intended for human consumption in the area concerned cannot otherwise be maintained by any other reasonable means.

2. A derogation made in accordance with paragraph 1 shall specify the following:

(a) the reason for derogation;

(b) the parameter concerned and the maximum permissible value under the derogation;

(c) the geographical area and the population affected and the quantity of water supplied per day;

(d) an appropriate monitoring scheme, with an increased monitoring frequency where necessary;

(e) the required duration of the derogation,

(f) a plan for the necessary remedial action, including a timetable for the work and an estimate of the cost;

(g) whether any relevant food industry would be affected.

3. If the competent authorities consider the non-compliance with the parametric value to be trivial, and if remedial action taken in accordance with Article 9 (2) is able to redress the problem within a maximum of 10 days, the special requirements set out in paragraph 2 need not be applied.

In this case, only the maximum permissible value for the parameter concerned and the time allowed to redress the problem shall be set by the competent authorities.

4. Recourse to paragraph 3 is no longer possible if failure to comply with any one parametric value for a given water supply has occurred on more than 30 days on aggregate during the previous 12 months.

5. Member States which have recourse to the derogations referred to in this Article shall ensure that the population concerned by such derogation is immediately informed of the derogation and its conditions in an appropriate manner. In addition Member States shall ensure that where necessary, advice is issued to particular population groups for which it could present a special risk.

These obligations shall not apply to the situation referred to in paragraph 3, unless the competent authorities decide otherwise.

6. With the exception of derogations made in accordance with paragraph 3, Member States shall inform the Commission within 15 days of those derogations which cover a supply of more than 1 000 m³ per day, including the information specified in paragraph 2.

7. The provisions of this Article shall not apply to water intended for human consumption offered for sale in bottles or containers.

Article 11

Member States shall take all necessary measures to ensure that any substances used in the preparation of water intended for human consumption and impurities associated with such substances do not remain in the water in concentrations higher than is necessary for the purpose of their use and do not, either directly or indirectly, reduce the protection of human health provided for in the framework of this Directive.

Article 12

Member States shall ensure that the measures taken to implement the provisions of this Directive shall in no circumstances have the effect of allowing, directly or

indirectly, either any deterioration of the present quality of water intended for human consumption so far as this is relevant to the protection of human health or any increase in the pollution of waters used for the production of drinking water.

Article 13

1. Member States shall not prohibit or restrict the free circulation of water intended for human consumption on grounds relating to its quality, where the quality of such water is in conformity with the minimum requirements specified in Parts A and B of Annex I.

2. Member States shall not prohibit or restrict the marketing of foodstuffs on grounds relating to the quality of the water covered by Article 2 (1) (b) where the quality of such water is in conformity with the minimum requirements specified in Parts A and B of Annex I.

Article 14

1. At least every 10 years, the Commission shall review Annex I in the light of scientific and technical progress and shall make proposals for amendments, where necessary, under the procedure in Article 189c of the Treaty.

2. Such changes as are necessary for adapting Annexes II and III to scientific and technical progress shall be adopted in accordance with the procedure laid down in Article 15.

Article 15

The Commission shall be assisted by a Committee composed of the representatives of the Member States and chaired by the representative of the Commission.

The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148 (2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the Committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

The Commission shall adopt measures which shall apply immediately. However, if these measures are not in accordance with the opinion of the Committee, they shall be communicated by the Commission to the Council forthwith. In that event:

- the Commission may defer application of the measures which it has decided for a period of not more than one month from the date of such communication,
- the Council, acting by a qualified majority, may take a different decision within the time limit referred to in the previous subparagraph.

Article 16

1. Member States shall take the measures necessary to ensure that adequate and up to date information on the quality of water intended for human consumption is available to consumers.
2. Without prejudice to the implementation of the provisions of Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment⁽¹⁾, Member States shall publish an annual report on the quality of water intended for human consumption. This report shall cover a calendar year and shall be published before the end of the following calendar year.
3. Member States shall send their reports to the Commission within three months of publication.
4. The formats and the minimum information for the reports referred to in paragraph 3 shall be determined having especial regard to the measures referred to in Articles 3 (d), 5, 6 (3) and 9, and shall if necessary, be amended in accordance with the procedure laid down in Article 15.
5. The Commission shall examine the reports of the Member States and, every three years, shall publish a synthesis on the quality of water intended for human consumption in the Community. These reports shall be published within two years of the end of each three-year reporting period.

Article 17

Member States shall take the necessary measures to ensure that the quality of water intended for human consumption complies with this Directive within five years of its entry into force, without prejudice to Part B of Note 3 of Annex I.

Article 18

1. Member States may in exceptional circumstances and for geographically defined population groups submit a special request to the Commission for a longer period

than provided for in this Directive for complying with individual parametric values set in Part B of Annex I. This provision does not apply to water intended for human consumption offered for sale in bottles or containers.

2. The request, for which grounds must be duly put forward, shall set out the difficulties experienced. It must also propose an action plan with an appropriate timetable for the necessary improvement of the quality of water intended for human consumption, including a monitoring programme and information on the cost of implementing the plan. The request shall also specify whether any relevant food industry would be affected.

3. The Commission shall examine this request and, if necessary, take appropriate measures in accordance with the procedure laid down in Article 15.

Article 19

Directive 80/778/EEC is hereby repealed with effect from five years from the entry into force of this Directive, without prejudice to the obligations of Member States as to deadlines for transposition into national law and for application as shown in Annex IV.

Reference to the repealed Directive shall be construed as a reference to this Directive and shall be read in accordance with the correlation table set out in Annex V.

Article 20

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within two years following its entry into force. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

Article 21

This Directive shall enter into force on the 20th day following that of its publication in the *Official Journal of the European Communities*.

Article 22

This Directive is addressed to the Member States.

⁽¹⁾ OJ No L 158, 23. 6. 1990, p. 56.

ANNEX I

PARAMETERS AND PARAMETRIC VALUES

PART A

Microbiological parameters

Parameter	Parametric value	Unit
E. coli	0	number/100 ml
Faecal streptococci	0	number/100 ml
Sulphite-reducing clostridia	0	number/20 ml

For water offered for sale in bottles or containers the following applies:

Parameter	Parametric value	Unit
E. coli	0	number/250 ml
Faecal streptococci	0	number/250 ml
Sulphite-reducing clostridia	0	number/50 ml
Pseudomonas aeruginosa	0	number/250 ml

PART B

Chemical parameters

Parameter	Parametric value	Unit
Acrylamide	0,25	µg/l
Antimony	3	µg/l
Arsenic	10	µg/l
Benzene	1	µg/l
Boron	300	µg/l (Note 1)
Bromate	10	µg/l
Bromodichloromethane	15	µg/l (Note 2)
Cadmium	5	µg/l
Chloroform	40	µg/l (Note 2)
Chromium	50	µg/l
Copper	2	mg/l (Note 1)
Cyanide	50	µg/l
1,2-dichloroethane	3	µg/l
Epichlorhydrin	0,5	µg/l
Fluoride	1,5	µg/l
Lead	10	µg/l (Note 3)
Mercury	1	µg/l
Nickel	20	µg/l
Nitrate	50	mg/l (Note 4)
Nitrite	0,1	mg/l (Note 4)
Pesticides	0,1	µg/l (Note 5)
Polycyclic aromatic hydrocarbons	0,2	µg/l; sum of concentrations of specified compounds, (Note 6); the concentration of benzo(a)pyrene must not exceed 0,01 µg/l
Selenium	10	µg/l
Tetrachlorethene	40	µg/l
Trichlorethene	70	µg/l
Vinyl chloride	0,5	µg/l

- Note 1:* The values and classification of these parameters may be amended in the light of new scientific evidence which is expected to become available shortly.
- Note 2:* The samples for these parameters are to be taken after any chlorine contact time and at the outlet of the water treatment plant. Where necessary, the parametric value for bromodichloromethane can be increased to 25 µg/l provided that the parametric value for chloroform is reduced to 30 µg/l.
- Note 3:* The value applies to a representative sample of water drawn from the tap and has to be met at the latest 15 calendar years from the date of entry into force of this Directive. When implementing the measures to achieve this value Member States shall give priority to those areas where lead concentrations in water intended for human consumption are high.
Member States shall ensure that all appropriate measures are taken to reduce the concentration of lead in water intended for human consumption as much as possible during the period needed to achieve compliance with the parametric value.

The parametric value for lead from five years after the entry into force of this Directive until 15 years after it has entered into force is 25 µg/l.
- Note 4:* Where chloramination is practised these parametric values may be replaced by 0,5 for nitrite and the condition that $[\text{nitrate}]/50 + [\text{nitrite}]/3 \leq 1$, the square brackets signifying concentrations in mg/l.
- Note 5:*
- (a) Pesticides means:
 - organic insecticides,
 - organic herbicides,
 - organic fungicides,
 - organic nematocides,
 - organic acaricides,
 - organic algicides, and related products (growth regulators).
 - (b) The parametric value applies to each individual pesticide.
 - (c) Only those pesticides which are likely to be present in a given supply need to be monitored.
 - (d) The Commission shall examine whether an individual value can be set for a given substance, after an evaluation of the available scientific information.
- Note 6:* The specified compounds are:
- benzo(a)pyrene,
 - fluoranthene,
 - benzo(b)fluoranthene,
 - benzo(k)fluoranthene,
 - benzo(ghi)perylene,
 - indeno(1,2,3-cd)pyrene.
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PART C

Indicator parameters

Parameter	Parametric value	Unit
Aluminium	200	µg/l
Ammonium	0,5	mg/l
Colour	Acceptable to consumers and no abnormal change	
Conductivity	2 500	µS cm ⁻¹ at 20 °C
Dissolved oxygen	≥ 50	% saturation
Hydrogen ion concentration	≥ 6,5 and ≤ 9,5	pH units
Iron	200	µg/l
Manganese	50	µg/l
Odour	Acceptable to consumers and no abnormal change	
Oxidizability (Note 1)	5	mg/l O ₂
Sulphate	250	mg/l
Taste	Acceptable to consumers and no abnormal change	
Total bacteria count	No abnormal change	
Total coliforms	0	number/100 ml (Note 2)
Total organic carbon (TOC) (Note 3)	4 and no abnormal change	mg/l C
Turbidity	Acceptable to consumers and no abnormal change	

Note 1: This parameter need not be measured if the parameter TOC is analysed.

Note 2: For water offered for sale in bottles or containers the unit is number/250 ml.

Note 3: This parameter need not be measured for supplies of less than 10 000 m³ per day.

*ANNEX II***MONITORING****TABLE A****Parameters to be analysed****1. *Check monitoring***

Aluminium ⁽¹⁾
Ammonium
Colour ⁽²⁾
Conductivity
E. coli
Hydrogen ion concentration
Iron ⁽¹⁾
Nitrate ⁽²⁾
Nitrite ⁽²⁾
Odour ⁽²⁾
Pseudomonas aeruginosa ⁽⁴⁾
Taste ⁽²⁾
Turbidity

2. *Audit monitoring*

All the other parameters in Annex I should be measured, unless it can be established by the competent authorities, for a time to be determined by them, that a parameter is not likely to be present in a given supply in concentrations which could lead to a risk of breaching the relevant parametric value.

⁽¹⁾ When used as flocculant.

⁽²⁾ Qualitative examination.

⁽³⁾ When chloramination is used a disinfectant. In other cases the parameters are in the list for audit monitoring.

⁽⁴⁾ Only for water offered for sale in bottles or containers.

TABLE B

1. Minimum frequency of sampling and analyses (Note 1)

(Except for water offered for sale in bottles or containers)

Volume of water distributed or produced each day within a supply zone (Note 2) m ³	Check monitoring number of samples per year	Audit monitoring numbers of samples per year
≤ 100	(Note 3)	(Note 3)
> 100 ≤ 1 000	1	(Note 3)
> 1 000 ≤ 2 000	3	1
> 2 000 ≤ 10 000	12	1
> 10 000 ≤ 20 000	60	1
> 20 000 ≤ 30 000	120	2
> 30 000 ≤ 60 000	180	3
> 60 000 ≤ 100 000	365	6
> 100 000 ≤ 200 000	730	10
> 200 000 ≤ 300 000 (Note 4)	1 460	20

2. Minimum frequency of sampling and analysis for water offered for sale in bottles or containers (provisional).

Volume of water produced for offering for sale in bottles or containers each day (*) (Note 1) m ³	Check monitoring number of samples per year	Audit monitoring number of samples per year
≤ 1	(Note 6)	(Note 6)
> 1 ≤ 10	1	1
> 10 ≤ 20	3	1
> 20 ≤ 100	12	1
> 100 ≤ 200	60	1
> 200 ≤ 300	120	2
> 300 ≤ 600	180	3
> 600 ≤ 1 000	365	6
> 1 000 ≤ 2 000	730	10
> 2 000 ≤ 3 000 (Note 5)	1 460	20

(*) The volumes are calculated as averages taken over a calendar year.

- Note 1:* The relative proportions of samples taken at consumers' taps and within the supply zone will depend upon the size of the zone. For water supplies of 20 000 m³ per day about 50 % of the samples could be taken within treatment and distribution system.
- Note 2:* A supply zone is a geographically defined area within which water intended for human consumption comes from one or several sources and within which water quality may be considered as being approximately uniform.
- Note 3:* The frequency should be decided by the Member State concerned, but water intended to be used by food manufacturing industries must be monitored at least once a year.
- Note 4:* In those cases where the volume of water distributed exceeds 300 000 m³ per day the minimum sampling frequencies are calculated by proportion from those applicable where the volume distributed exceeds 100 000 m³ per day.
- Note 5:* In those cases where the volume produced for offering for sale in bottles or containers exceeds 3 000 m³ per day the minimum sampling frequencies are calculated by proportion from those applicable where the volume produced exceeds 1 000 m³ per day.
- Note 6:* The frequency should be decided by the Member State concerned.
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ANNEX III

REFERENCE METHODS OF ANALYSIS

1. Parameters for which no reference method of analysis is specified

Colour
 Odour
 Taste
 Turbidity.

2. Parameters for which performance characteristics are specified

2.1. For the following parameters, the specified performance characteristics are that the method of analysis used shall be capable of measuring concentrations equal to the parametric value with an accuracy, precision and limit of detection specified.

Parameters	Accuracy % of parametric value (Note 1)	Precision % of parametric value (Note 2)	Limit of detection % of parametric value (Note 3)	Conditions
Acrylamide				To be controlled by product specification
Aluminium	10	10	10	
Ammonium	10	10	10	
Antimony	10	10	10	
Arsenic	10	10	10	
Benzene	25	25	10	
Boron	10	10	10	
Bromate	25	25	25	
Bromodichloro-methane	25	25	10	
Cadmium	10	10	10	
Chloroform	25	25	10	
Chromium	10	10	10	
Conductivity	10	10	10	
Copper	10	10	10	
Cyanide (Note 4)	10	10	10	
1,2-dichloro-ethane	25	25	10	
Dissolved oxygen	10	10	10	

Parameters	Accuracy % of parametric value (Note 1)	Precision % of parametric value (Note 2)	Limit of detection % of parametric value (Note 3)	Conditions
Epichlorhydrin				to be controlled by product specification
Fluoride	10	10	10	
Iron	10	10	10	
Lead	10	10	10	
Manganese	10	10	10	
Mercury	10	10	10	
Nickel	10	10	10	
Nitrate	10	10	10	
Nitrite	10	10	10	
Oxidizability (Note 5)	25	25	10	
Pesticides (Note 6)	25	25	25	
Polycyclic aromatic hydrocarbons (Note 7)	25	25	25	
Selenium	10	10	10	
Sulphate	10	10	10	
Tetrachlor-ethene	25	25	10	
Total organic carbon	10	10	10	
Trichlorethene	25	25	10	
Vinyl chloride				by product specification

- 2.2. For Hydrogen ion concentration the specified performance characteristics are that the method of analysis used shall be capable of measuring concentrations equal to the parametric value with an accuracy of 0,2 pH unit and a precision of 0,2 pH unit.

Note 1: This term has the meaning given in ISO standard * * *.

Note 2: This term has the meaning given in ISO standard * * *.

Note 3: This term has the meaning given in ISO standard * * *.

Note 4: The method should determine total cyanide in all forms.

Note 5: Oxidation should be carried out for 10 minutes at 100 °C under acid conditions using permanganate.

Note 6: The performance characteristics apply to individual pesticides.

Note 7: The individual substances are specified in Annex I.

3. **Methods of analysis are specified for the following parameters:**

Total coliforms

Membrane filtration followed by incubation on Membrane lauryl sulphate broth (Note 1) for four hours at 30° C followed by 14 hours at 37° C. Count all yellow colonies, regardless of size.

E. coli.

Membrane filtration followed by incubation on Membrane lauryl sulphate broth (Note 1) for four hours at 30° C followed by 14 hours at 44° C. Count all yellow colonies, regardless of size.

Faecal streptococci

Membrane filtration followed by incubation on Membrane enterococcus agar (Note 2) for 48 hours at 37° C. Count all pink, red or maroon colonies which are smooth and convex.

Sulphite-reducing Clostridia

Maintain the sample at 75° C for 10 minutes prior to membrane filtration. Incubate on Tryptose-Sulphite-Cycloserine Agar at 37° C (Note 3) under anaerobic conditions. Count all black colonies after 24 and 48 hours incubation.

Pseudomonas aeruginosa

Membrane filtration followed by incubation in a closed container at 37° C on modified Kings A broth (Note 4) for 48 hours. Count all colonies which contain green, blue or reddish-brown pigment and those which fluoresce.

Total bacteria counts

Incubation in a yeast extract agar (Note 5) for 72 hours at 22° C and for 24 hours at 37° C. Count all colonies.

Note 1: The composition of Membrane lauryl sulphate broth is:

Peptone	40 g
Yeast extract	6 g
Lactose	30 g
Phenol red solution (*)	50 ml
Sodium lauryl sulphate	1 g
Distilled water	to 1 litre

(*) Aqueous solution containing 4 g/l.

Note 2: The composition of Membrane enterococcus agar is:

Tryptose	20 g
Yeast extract	5 g
Glucose	2 g
Dipotassium hydrogen phosphate	4 g
Sodium azide	400 mg
Agar	12 g
2,3,5-triphenyltetrazolium chloride solution (*)	10 ml
Distilled water	to 1 litre

(*) The solution contains 10 g/l 2,3,5-triphenyl-tetrazolium chloride.

Note 3: The composition of Tryptose-Sulphite-Cycloserine Agar is:

Tryptose	15 g
Soya peptone	5 g
Yeast extract	5 g

Sodium metabisulphite	1 g
Iron (III) ammonium citrate	1 g
Agar	12 g
Distilled water	to 1 litre

Immediately before use, the agar must be mixed with a solution containing 10 g/l D-cycloserine at the rate of 4 ml solution to 100 ml agar.

Note 4: The composition of modified Kings A broth is:

Peptone	20 g
Ethanol	25 ml
Potassium sulphate, anhydrous	10 g
Magnesium chloride, anhydrous	1,4 g
Cetyltrimethyl ammonium bromide	0,5 g
Distilled water	to 1 litre

Note 5: The composition of yeast extract agar is:

Yeast extract	3 g
Peptone	5 g
Agar	12 g
Distilled water	to 1 litre

ANNEX IV

NOTIFICATION

Deadlines for transposition into national law and for application

Directive 80/778/EEC Transposition 17 July 1982 Application 17 July 1985 All Member States except Spain, Portugal and new <i>Länder</i> of Germany	Directive 81/858/EEC (Adaptation due to accession of Greece)	Act of Accession of Spain and Portugal Spain transposition 1 January 1986 application 1 January 1986 Portugal transposition 1 January 1986 application 1 January 1989	Directive 90/656/EEC for new <i>Länder</i> of Germany	Directive 91/629/EEC
Articles 1 to 14			application 31 December 1995	
Article 15	amended with effect from 1 January 1981	amended with effect from 1 January 1986		
Article 16				
Article 17				Article 17 (a) inserted
Article 18				
Article 19		amended	amended	
Article 20				
Article 21				

ANNEX V

CORRELATION TABLE

This Directive	Directive 80/778/EEC
Article 1 (1)	Article 1 (1)
Article 1 (2)	—
Article 2 (1) (a) and (b)	Article 2
Article 2 (2)	—
Article 3 (a) and (b)	Article 4 (1)
Article 3 (c) and (d)	—
Article 4 (1)	Article 7 (6)
Article 4 (2)	—
Article 5	—
Article 6 (1)	Article 7 (1)
Article 6 (2), first sentence	Article 7 (3)
Article 6 (2), second sentence	—
Article 6 (3)	Article 16
Article 6 (4)	—
Article 6 (5)	—
Article 6 (6)	—
Article 7 (1)	Article 12 (2)
Article 7 (2)	—
Article 7 (3)	—
Article 8 (1)	Article 12 (1)
Article 8 (2)	—
Article 8 (3)	Article 12 (3)
Article 8 (4)	—
Article 8 (5)	Article 12 (5)
Article 8 (6)	—
Article 9	—
Article 10 (1)	Articles 9 (1) and 10 (1)
Article 10 (2) to (5)	—

This Directive	Directive 80/778/EEC
Article 10 (6)	Articles 9 (2) and 10 (3)
Article 10 (7)	—
Article 11 (1)	Article 8
Article 12	Article 11
Article 13 (1)	—
Article 13 (2)	Article 4 (2)
Article 14	Article 13
Article 15, first paragraph	Article 14
Article 15, second paragraph	Article 15
Article 15, third paragraph	Article 15 (3) (a) (b) and (c)
Article 16 (1)	—
Article 16 (2) to (5)	Article 17 (a) (inserted by Directive 91/692/EEC)
Article 17	Article 19
Article 18	Article 20
Article 19	—
Article 20	Article 18
Article 21	—
Article 22	Article 21