II

(Preparatory Acts)

COMMISSION

Proposal for a Council Directive concerning municipal waste water treatment

COM(89) 518 final

(Submitted by the Commission on 9 November 1989)

(90/C 1/10)

This text completes the proposal for a Council Directive published in *Official Journal of the European Communities* No C 300 of 29 November 1989

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130 S thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

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

Whereas the Council resolution of 28 June 1988 [1] invited the Commission to submit proposals for measures required at any level for the treatment of municipal sewage;

Whereas pollution due to insufficient treatment of waste water in one Member State often influences other Member States' waters; whereas, in accordance with Article 130 R, action at Community level is necessary;

Whereas, to prevent the environment from being adversely affected by the disposal of insufficiently-treated municipal waste water, there is a general need for secondary treatment of municipal waste water;

Whereas it is necessary in sensitive areas to require more stringent treatment and whereas in some less sensitive marine areas a primary treatment could be considered appropriate;

Whereas industrial waste water entering collecting systems as well as the disposal of waste water and sludge from municipal waste water treatment plants should be subject to authorization;

Whereas similar requirements for treatment, as those for municipal waste water, should be applied for direct discharges of industrial waste water, when the industrial waste water is of a nature similar to municipal waste water;

Whereas the recycling of sludge should be encouraged; whereas when sludge is used for agricultural purposes, use is to take place in conformity with Council Directive 86/278/EEC [2]; whereas the disposal of sludge at sea should be phased out;

Whereas it is necessary to monitor treatment plants, receiving waters and land, to control treatment processes and to ensure that the discharge of waste water does not adversely affect the environment;

Whereas information of the general public by publication of reports and the public accessibility of all information and monitoring data related to municipal waste water treatment plants is of great importance;

Whereas the establishment and the presentation to the Commission of national programmes by Member States will help ensure the coordination of the necessary measures to be taken to achieve the aims of this Directive;

Whereas, in order to improve and accelerate practical implementation of this Directive, the technical content of the Annexes must, where appropriate, be speedily elaborated or amended and whereas, in order to

[1] OJ No C 209, 9. 8. 1988, p. 3.

[2] OJ No L 181, 4. 7. 1986, p. 6.

facilitate application of the measures required for this purpose, provision should be made for a uniform procedure establishing close cooperation between the Member States and the Commission;

Whereas, in order further to facilitate implementation of this Directive, provision should equally be made for a Committee to assist the Commission, in an advisory capacity, on any matter falling within the Commission's powers of implementation which the Commission may submit to this Committee;

Whereas it is useful that the Commission take measures to help Member States assist each other in the provision of training for staff and exchange of technical/scientific information to improve the efficiency of municipal waste water treatment;

Whereas Member States may take more stringent measures than those provided for under this Directive,

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive concerns the provision of municipal waste water treatment and related matters.

The objective of the Directive is to prevent the environment from being adversely affected by municipal waste water discharges.

Article 2

The definitions of the terms given in Annex I shall apply for the purposes of this Directive.

Article 3

1. Member States shall ensure that, by 31 December 1998, all municipalities are provided with collecting systems for municipal waste water.

2. Collecting systems described in paragraph 1 shall satisfy the requirements of Annex II A. These requirements may be elaborated or amended in accordance with the procedure laid down in Article 18.

Article 4

1. Member States shall ensure that, by 31 December 1998, municipal waste water entering collecting systems shall before discharge be subject to secondary treatment or an equivalent process, in the following circumstances:

— for discharges to fresh water and estuaries from municipalities representing 2 000 p.e. or more,

— for discharges to coastal waters from municipalities representing 10 000 p.e. or more.

2. Discharges from municipal waste water treatment plants described in paragraph 1 shall satisfy the relevant requirements of Annex II B. These requirements may be elaborated or amended in accordance with the procedure laid down in Article 18.

3. The load, expressed in p.e., shall be calculated on the basis of the maximum daily load entering the treatment plant during the year excluding unusual situations such as those due to heavy rain.

Article 5

1. Member States shall by 31 December 1991 identify, for the purposes of paragraph 2, sensitive areas according to criteria laid down in Annex III.

2. Member States shall ensure that, by 31 December 1998, municipal waste water entering collecting systems shall before discharge into sensitive areas be subject to more stringent treatment than that described in Article 4 in the following circumstances:

— for discharges to fresh water and estuaries, from municipalities representing 2 000 p.e. or more,

— for discharges to coastal waters, from municipalities representing 10 000 p.e. or more.

3. Member States shall ensure that the identifications of sensitive areas are reviewed at intervals of no more than four years.

4. Discharges from municipal waste water treatment plants described in paragraph 2 shall satisfy the relevant requirements of Annex II B. These requirements may be elaborated or amended in accordance with the procedure laid down in Article 18.

Article 6

1. Member States may identify by 31 December 1991, for the purposes of paragraph 2, less-sensitive areas according to criteria laid down in Annex III.

2. Municipal waste water discharges to coastal waters situated in areas described in paragraph 1, may be subjected to less stringent treatment than prescribed in Article 4 providing that:

— such discharges receive at least primary treatment,

— comprehensive studies indicate that such discharges will not adversely affect the environment.

3. Member States shall ensure that the identifications of less sensitive areas are reviewed at intervals of no more than four years.

Article 7

Member States shall ensure that, by 31 December 1998, municipal waste water entering collecting systems shall before discharge be subject to appropriate treatment, in the following circumstances:

— for discharges to freshwater and estuaries from municipalities representing less than 2 000 p.e.,

— for discharges to coastal waters from municipalities representing less than 10 000 p.e.

Article 8

Where waters within the area of jurisdiction of a Member State are adversely affected by discharges of municipal waste water from another Member State, the Member State whose waters are affected may notify the other Member State and the Commission of the relevant facts.

In such cases, the Member State from which the discharges originate shall take action to identify the relevant discharges in its country and shall take action as if the affected waters were within its area of jurisdiction.

Article 9

Member States shall ensure that the municipal waste water treatment plants described in Articles 4, 5, 6 and 7 are designed and constructed to maintain sufficient performance under all normal climatic conditions. When designing the plants, seasonal variations of the load shall be taken into account.

Article 10

1. Member States shall ensure that, before 31 December 1991, industrial waste water which enters collecting systems and municipal waste water treatment plants are subject to prior authorization by the competent authority.

2. Authorizations shall satisfy the requirements of Annex II C. These requirements may be elaborated or amended in accordance with the procedure laid down in Article 18.

3. Competent authorities shall also ensure that the authorizations referred to in paragraph 1 comply with any other relevant Community directive.

4. Competent authorities shall ensure that authorizations are reviewed at intervals of no more than four years in order to be able *inter alia* to implement other international commitments.

Article 11

1. Competent authorities shall ensure that, before 31 December 1998, the disposal of waste water and of sludge from municipal waste water treatment plants is subject to authorization.

2. Authorizations of discharges from municipal waste water treatment plants made pursuant to paragraph 1 shall contain conditions to satisfy the relevant requirements of Annex II B. These requirements may be elaborated or amended in accordance with the procedure laid down in Article 18.

3. Competent authorities shall insure that authorizations are reviewed at intervals of no more than four years.

Article 12

Member States shall ensure that, before 31 December 1998, industrial waste waters which

— are of a nature similar to municipal waste water,

— do not enter municipal waste water treatment plants before discharge to receiving waters,

shall be considered for the purpose of this Directive as municipal waste waters and be subject to the relevant provisions of this Directive.

Article 13

1. Sludge arising from waste water treatment shall be recycled whenever possible. When used for agricultural purposes, use shall take place in conformity with the provisions of Directive 86/278/EEC. Disposal routes shall minimize the effects on the environment.

2. Member States shall, before 31 December 1998, eliminate the disposal of sludge to sea by dumping from ships, by discharge from pipelines, or by other means.

3. Until the elimination of disposal mentioned in paragraph 2, Member States shall ensure that:

— the total amount of dry matter present in sludge disposed of at sea does not increase,

— the amounts of toxic, persistent or bioaccumulable materials contained therein are progressively reduced to comply *inter alia* with any relevant international commitments.

Article 14

1. Competent authorities shall monitor:

— discharges from municipal waste water treatment plants to verify compliance with the requirements of Annex II B,

— amounts and composition of sludges.

2. Competent authorities shall monitor waters subject to discharges from municipal waste water treatment plants and direct discharges according to Article 12 to verify that the environment is not adversely affected.

3. In the case of a discharge subject to the provisions of Article 6 and in case of a disposal of sludges subject to the provisions of Article 13, Member States shall monitor and carry out any other relevant studies to verify that the discharge or disposal do not adversely affect the environment.

4. Information collected by competent authorities in complying with paragraphs 1, 2 and 3 and other relevant information shall be retained by the Member State and made available to the Commission within three months of receipt of a request.

5. Guidelines on monitoring mentioned in paragraphs 1, 2 and 3 may be elaborated following the procedure laid down in Article 18.

Article 15

1. Member States shall ensure that, before 31 December 1991, the following information related to municipal waste water treatment plants is made available to the public promptly upon request, and in a form which is accessible and comprehensible:

— a catalogue, where necessary supplemented by maps, to enable a particular discharge or location to be traced, including the type of treatment given,

— authorizations for the discharges from municipal waste water treatment plants to receiving waters or to land, and for the disposal of sludge to sea,

— results of the monitoring of discharges from municipal waste water treatment plants, and of the amount and composition of sludge,

— results of the monitoring of waters subject to discharges from municipal waste water treatment plants, and of sea areas subject to the disposal of sludge.

2. The detailed arrangements for the provision of information described in paragraph 1 shall be determined by the competent authorities.

3. In the case of the third indent of paragraph 1, the local public shall also be informed in the most appropriate way, for example by publication in local newspapers, by bill-posting in public places, or at the offices of the relevant operating body.

4. Member States shall ensure that every year, the relevant authorities publish and disseminate a situation report on the disposal of municipal waste water and sludge in their area. These reports shall be transmitted to the Commission by the Member States as soon as they are published.

Article 16

1. Member States shall establish, before 31 December 1991, a programme for the implementation of this Directive.

2. Member States shall, before 31 December 1991, provide the Commission with information on the programme.

3. Member States shall provide the Commission by 30 June each year with an update of the information described in paragraph 2.

4. The information described in paragraphs 2 and 3 shall be prepared on the basis of Annex IV. This Annex as well as formats for the provision of this information may be elaborated or amended in accordance with the procedure laid down in Article 18.

5. Member States shall keep and make available any further relevant information requested by the Commission.

6. The Commission shall review and assess the information related to this Directive and publish a report at intervals.

Article 17

1. A Regulatory Committee, hereinafter called 'the Committee', is hereby set up to bring about the elaborations and amendments provided for in Articles 3, 4, 5, 10, 11 and 16. It shall be composed of the representatives of the Member States and chaired by the representative of the Commission.

2. The Committee shall equally assist the Commission on any other matter which the Commission may submit to the Committee. The Committee shall act in those circumstances in an advisory capacity and proceed without a vote.

3. The Committee shall adopt its own rules of procedure.

Article 18

1. Where the procedure laid down in this Article is to be followed, the matter shall be referred to the Committee by its chairman.

2. 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.

3. (a) The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the Committee.

(b) If the measures envisaged are not in accordance with the opinion of the Committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

(c) If, on the expiry of three months from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 19

Where appropriate, one or more Member States may individually or jointly take more stringent measures than those provided for under this Directive.

Article 20

1. Member States shall ensure that those responsible for the design, construction, operation and technical/scientific support of municipal waste water treatment plants and related equipment are properly qualified to undertake their duties.

2. To that end, the Commission may consult the Committee on measures to help Member States to assist each other in the provision of training of staff at all levels and any other initiative which will promote an improvement of the performance of municipal waste water treatment plants and related equipment.

Article 21

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive no later than 31 December 1991. They shall forthwith inform the Commission thereof.

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

3. The provisions adopted pursuant to paragraph 1 shall make express reference to this Directive.

Article 22

This Directive is addressed to the Member States.

ANNEX I

DEFINITIONS

For the purpose of this Directive:

1. *appropriate treatment* means: treatment of municipal waste water by a process which after discharge allows the receiving waters to meet the objectives of this or any other relevant Community directive.

2. *collecting system* means: a system of conduits which collects and conducts municipal waste water to a municipal waste water treatment plant.

3. *domestic waste water* means: waste water originating from households and being predominantly of human origin.

4. *eutrophic* means: the enrichment of water by nutrients, especially compounds of nitrogen and phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms and to the quality of the water concerned.

5. *industrial waste water* means: waste water other than domestic waste water and urban run-off water.

6. *municipality* means: an area of sufficiently concentrated habitat where it is practicable for municipal waste water to be collected and conducted to a municipal waste water treatment plant.

7. *municipal waste water* means: the mixture of domestic waste water, industrial waste water and urban run off water entering collecting systems.

8. *municipal waste water treatment plant* means: an installation which treats municipal waste water before discharge to receiving waters or land.

9. *p.e. (population equivalent)* means: the organic degradable load having a five-day Biochemical Oxygen Demand (BOD 5) of 60 g O_2.

10. *primary treatment* means: treatment of municipal waste water by a physical process involving settlement of suspended organic solids, or other processes in which the five-day BOD of the incoming waste water is reduced by 20 to 40 %.

11. *secondary treatment* means: treatment of municipal waste water by a process involving biological treatment with a secondary settlement.

12. *sludge* means residual sludge, whether treated or untreated, from municipal waste water treatment plants, or septic tanks.

ANNEX II

REQUIREMENTS FOR MUNICIPAL WASTE WATER

A. Collecting systems

Collecting systems shall take into account existing and future waste water treatment requirements.

The design of collecting systems shall be undertaken according to the best technical knowledge, notably regarding:

— volume and characteristics of municipal waste water,

— prevention of leaks,

— limitation of pollution of receiving waters due to storm water overflows or malfunction of waste water treatment plants.

B. Discharge from municipal waste water treatment plants to receiving waters

1. Discharges from municipal waste water teatment plants subjected to treatment according to Articles 4 and 5 shall meet the requirements for composition and percentage reduction of the parameters shown in Table 1.

2. Discharges from municipal waste water treatment plants to those sensitive areas which are subject to eutrophication, shall meet the requirements for composition and percentage reduction of the parameters shown in Table 2.

3. More stringent requirements or requirements for additional parameters than those shown in Tables 1 and/or 2 shall be applied where required to ensure that the receiving waters satisfy any other relevant directives.

4. Waste water treatment plants shall be designed or modified so that representative samples of the incoming waste water and of treated effluent can be obtained before discharge to receiving waters.

C. Industrial waste water

Industrial waste water entering collecting systems and municipal waste water treatment plants shall be subject to such pre-treatment as is required in order to:

— protect the health of staff working in collecting systems and treatment plants,

— ensure that collecting systems, waste water treatment plants and associated equipment are not damaged,

— ensure that the operation of the waste water treatment plant and the treatment of sludge are not impeded,

— ensure that discharges from the treatment plants do not adversely affect the environment, or prevent receiving water from complying with other Community directives,

— allow sludge to be disposed of safely to other media.

TABLE 1

Requirements for discharge from municipal waste water treatment plants subject to Articles 4 and 5. The value for average concentration or the percentage of reduction shall be applied

Parameters	Expression of results	Maximum daily average concentration	Percentage of reduction	Reference method of measurement
Biochemical oxygen demand (BOD_5 at 20 °C) without nitrification (1)	mg/l O_2	25	70-90	Determination of dissolved oxygen before and after five-day incubation at 20 °C ± 1 °C, in complete darkness. Addition of a nitrification inhibitor
Chemical oxygen demand (COD)	mg/l O_2	100	75 (2)	Potassium dichromate method
Total suspended solids	mg/l	30		— Filtering through a 0,45 µm filter membrane Drying at 105 °C and weighing — Centrifuging (for at least 5 minutes with mean acceleration of 2 800 to 3 200 g), drying at 105 °C weighing

(1) This parameter can be replaced by another parameter: Total Organic Carbon (TOC) or Total Oxygen Demand (TOD) if a relationship can be established between BOD_5 and the substitute parameter. The relationship shall be controlled every six months.

(2) Minimum percentage of reduction.

TABLE 2

Requirements for discharges from municipal waste water treatment plants to those sensitive areas which are subject to eutrophication. One or both parameters may be applied depending of the local situation

Parameters	Expression of results	Maximum average concentration	Minimum percentage of reduction	Reference method of measurement
Total phosphorus	mg/l P	1 (1)	80	Molecular adsorption Spectrophotometry
Total nitrogen	mg/l N	10 (2)	80	Molecular adsorption Spectrophotometry

(1) Daily average concentration.

(2) Annual average concentration; daily average should not exceed 20 mg/l.

ANNEX III

CRITERIA FOR IDENTIFICATION OF SENSITIVE AND LESS SENSITIVE AREAS

A. Sensitive areas

A water body shall be identified as a sensitive area if it falls into one of the following groups:

(a) natural freshwater lakes, other freshwater bodies, estuaries, coastal waters and seas which are found to be eutrophic or which in a short time may become eutrophic if protective action is not taken.

The following elements shall be taken into account when considering which nutrient should be reduced by further treatment:

(i) lakes and streams reaching lakes/reservoirs/closed bays which are found to have a poor water exchange, whereby accumulation may take place. In these areas, the removal of phosphorus should be included unless it can be demonstrated that the removal will have no effect on the level of eutrophication. Where discharges from large municipalities are made, the removal of nitrogen may also be considered;

(ii) estuaries, bays and other coastal waters and seas which are found to have a poor water exchange, or which receive large quantities of nutrients. Discharges from small municipalities are usually of minor importance in those areas, but for large municipalities, the removal of phosphorus and nitrogen should be included unles it can be demonstrated that the removal will have no effect on the level of eutrophication.

(b) Surface freshwaters intended for the abstraction of drinking water which could contain more than 50 mg/l nitrate if protective action is not taken.

(c) Areas where treatment according to Article 4 is inadequate to protect the environment or to allow the use of water for specific purposes, or where further treatment than that prescribed in Article 4 is necessary to fulfil Council directives, and other international commitments.

(d) Areas of high ecological quality due to the flora and fauna present and other areas which are important from a scientific or nature protection point of view.

B. Less sensitive areas

A marine water body or area can be identified as a less sensitive area if the discharge of waste water does not adversely affect the environment due to morphology, hydrology or specific hydraulic conditions which exist in that area.

When identifying less sensitive areas, Member States shall take into account the risk that the discharged load may be transferred to adjacent areas where it can cause detrimental environmental effects. Member States shall recognize the presence of sensitive areas outside their national jurisdiction.

The following elements shall be taken into consideration when identifying less sensitive areas:

(a) open bays and other coastal waters and seas with a good water exchange and not subject to eutrophication or oxygen depletion or which are considered unlikely to become eutrophic or to develop oxygen depletion due to the discharge of municipal waste water;

(b) coastal marine areas which do not require a high level of municipal waste water treatment due to the specific use of that area.

ANNEXE IV

REPORTING OF NATIONAL PROGRAMMES

The Commission shall elaborate the methods and formats to be adopted for reporting the national programmes.

The following points should be taken into consideration:

1. Member States shall summarize the existing arrangements for municipal waste water treatment and their future actions to implement this Directive.
2. The programme shall give brief details of the national strategy including major schemes and timetables for the actions as well as any other relevant information. The timetable shall deal with periods of five years.
3. Information shall be given on costs of the programme indicating capital investments and operating costs for the collection, treatment and disposal of municipal waste water and sludge.
4. Identification of sensitive areas as well as less sensitive areas including a short explanation. The location of the areas shall be shown on maps.
5. A short overview of the actual loads of municipal waste water discharged to fresh water, estuaries, coastal waters and land. Where insufficient data exist, estimates should be made using available information.
6. Any other matters which the Commission considers will assist the implementation of this Directive.
7. Whenever possible use should be made of tables, maps and other means of simplifying the presentation of data.