1995 No. 12

EUROPEAN COMMUNITIES

WATER AND SEWERAGE

The Urban Waste Water Treatment Regulations (Northern Ireland) 1995

Made . . . . . *16th January 1995*

Coming into operation . . *1st March 1995*

The Department of the Environment, being a department designated(**a**) for the purposes of section 2(2) of the European Communities Act 1972(**b**) in relation to measures relating to the collection, treatment and discharge of urban waste water, and the treatment and discharge of waste water from certain industrial sectors, in exercise of the powers conferred on it by that section and of every other power enabling it in that behalf, hereby makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Urban Waste Water Treatment Regulations (Northern Ireland) 1995 and shall come into operation on 1st March 1995.

Interpretation

2.—(1) In these Regulations—

"the 1972 Act" means the Water Act (Northern Ireland) 1972(**c**);

"the 1973 Order" means the Water and Sewerage Services (Northern Ireland) Order 1973(**d**);

"agglomeration" means an area where the population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point;

"coastal waters" means the waters outside the low-water line or the outer limit of an estuary;

"collecting system" means a system of conduits which collects and conducts urban waste water;

"the Department" means the Department of the Environment;

(**a**) S.I. 1992/1711
(**b**) 1972 c. 68
(**c**) 1972 c. 5 (N.I.)
(**d**) S.I. 1973/70 (N.I. 2)

"the Directive" means Council Directive 91/271/EEC concerning urban waste water treatment(**a**), and references to other Community Directives are references to Directives other than Council Directive 91/271/EEC;

"domestic waste water" means waste water from residential settlements and services which originates predominantly from the human metabolism and from household activities;

"estuary" means the transitional area at the mouth of a river between fresh water and coastal waters, the outer (seaward) limits of which are shown on the maps kept in accordance with regulation 12;

"eutrophication" means the enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned;

"high natural dispersion area" has the meaning given by regulation 3;

"industrial waste water" means any waste water which is discharged from premises used for carrying on any trade or industry, other than domestic waste water and run-off rain water;

"population equivalent" is a measurement of organic biodegradable load, and a population equivalent of 1 (1 p.e.) is the organic biodegradable load having a five-day biochemical oxygen demand (BOD_5) of 60 g of oxygen per day (the load shall be calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain);

"secondary treatment" means treatment of urban waste water by a process generally involving biological treatment with a secondary settlement or other process in which the requirements established in Table 1 in Schedule 3 are respected;

"sensitive area" has the meaning given by regulation 3;

"sludge" means residual sludge, whether treated or untreated, from urban waste water treatment plants; and

"urban waste water" means domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water.

(2) Other expressions used in these Regulations have the same meaning as in the Directive.

(3) The Interpretation Act (Northern Ireland) 1954(**b**) shall apply to these Regulations as it applies to a Measure of the Northern Ireland Assembly.

(**a**) O.J. No. L135, 30.5.91, p. 40
(**b**) 1954 c. 33 (N.I.)

Sensitive areas and high natural dispersion areas

3.—(1) In these Regulations—

(*a*) "sensitive area" means an area of water which the Department has identified in accordance with the criteria set out in Part I of Schedule 1, and which is shown as such on maps held by the Department for the purposes of this regulation;

(*b*) "high natural dispersion area" means an area of water which the Department has identified in accordance with the criteria set out in Part II of Schedule 1, and which is shown as such on maps held by the Department for the purposes of this regulation.

(2) The Department shall review the identification of sensitive areas and high natural dispersion areas, in accordance with the relevant criteria in Schedule 1, no later than 31st December 1997 and thereafter at intervals of no more than 4 years.

(3) Where, following a review under paragraph (2) an area of water becomes or ceases to be identified as a sensitive area or a high natural dispersion area the Department shall substitute such further maps as may be necessary to reflect the changes in identification.

Duty to provide and maintain sewers

4.—(1) This regulation supplements the duty imposed on the Department(**a**) by Article 3(1)(*b*) and (*c*) of the 1973 Order to provide sewerage services.

(2) Subject to paragraph (3), the duty imposed by sub-paragraph (1)(*b*) of Article 3 of the 1973 Order shall include a duty to ensure that collecting systems which satisfy the requirements of Schedule 2 are provided—

(*a*) where the urban waste water discharges into receiving waters which are a sensitive area, by 31st December 1998 for every agglomeration with a population equivalent of more than 10,000; and

(*b*) without prejudice to sub-paragraph (*a*)—

(i) by 31st December 2000 for every agglomeration with a population equivalent of more than 15,000; and

(ii) by 31st December 2005 for every agglomeration with a population equivalent of between 2,000 and 15,000.

(3) Paragraph (2) shall not apply where the Department is satisfied that the establishment of a collecting system is not justified because—

(*a*) it would produce no environmental benefit, or

(*b*) it would involve excessive cost,

and individual systems or other appropriate systems are provided that achieve the same level of environmental protection.

(a) *See* S.R. & O. (N.I.) 1973 No. 504 Art. 4 for transfer of the functions from the Ministry of Development to the Department of the Environment

(4) The duty imposed by sub-paragraph (1)(*c*) of Article 3 of the 1973 Order shall include a duty to ensure that urban waste water entering collecting systems is, before discharge, subject to treatment provided in accordance with regulation 5, and to ensure that—

(*a*) plants built in order to comply with that regulation are designed (account being taken of seasonal variations of the load), constructed, operated and maintained to ensure sufficient performance under all normal local climatic conditions;

(*b*) treated waste water and sludge arising from waste water treatment are reused whenever appropriate; and

(*c*) disposal routes for treated waste water and sludge minimise the adverse effects on the environment.

Requirements as to provision of treatment

5.—(1) Subject to paragraph (5), treatment plants which provide secondary treatment or an equivalent treatment shall be provided—

(*a*) by 31st December 2000 or, in an exceptional case, such later date (not being later than 31st December 2005) as the Commission may agree pursuant to a request under Article 8(1) of the Directive, in respect of all discharges from agglomerations with a population equivalent of more than 15,000;

(*b*) by 31st December 2005 in respect of all discharges from agglomerations with a population equivalent of between 10,000 and 15,000; and

(*c*) by 31st December 2005 in respect of all discharges to fresh waters and estuaries from agglomerations with a population equivalent of between 2,000 and 10,000.

(2) Subject to paragraph (3), treatment plants which provide more stringent treatment than that described in paragraph (1) shall be provided by 31st December 1998 in respect of all discharges from agglomerations with a population equivalent of more than 10,000 into sensitive areas, or into the relevant catchment areas of sensitive areas where the discharges contribute to the pollution of these areas.

(3) Paragraph (2) shall not apply in relation to a sensitive area where the Department is satisfied, as a result of monitoring, that the minimum percentage of reduction of the overall load entering all urban waste water treatment plants in that area, and all urban waste water treatment plants in the catchment of that area the discharges from which contribute to the pollution of that area, is at least 75% for total phosphorus and at least 75% for total nitrogen.

(4) Where, following a review of the identification of waters as sensitive areas or high natural dispersion areas under regulation 3, an area ceases to be identified as a high natural dispersion area or becomes identified as a sensitive area, then, as respects that area, paragraph (1) or, as the case may be, paragraph (2) shall have effect as if the relevant date specified in that paragraph were the seventh anniversary of the change of identification or, if later, the date so specified.

(5) Discharges of urban waste water from agglomerations with a population equivalent of between 10,000 and 150,000 (or, in an exceptional case and with the agreement of the Commission pursuant to Article 8(5) of the Directive, of more than 150,000), to coastal waters which are in high natural dispersion areas, and discharges from agglomerations with a population equivalent of between 2,000 and 10,000 into estuaries which are in high natural dispersion areas, may be subjected to less stringent treatment than that described in paragraph (1) so long as—

(*a*) the discharges receive at least primary treatment in conformity with the control procedures set out in Part II of Schedule 3; and

(*b*) the Department is satisfied that comprehensive studies have indicated that such discharges will not adversely affect the environment.

(6) Appropriate treatment of urban waste water entering collecting systems shall be provided by 31st December 2005 in respect of—

(*a*) discharges to fresh waters and estuaries from agglomerations with a population equivalent of less than 2,000; and

(*b*) discharges to coastal waters from agglomerations with a population equivalent of less than 10,000.

(7) In this regulation—

(*a*) ''appropriate treatment'' means treatment of urban waste water by any process and/or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions of the Directive and other Community Directives; and

(*b*) ''primary treatment'' means treatment of urban waste water by a physical and/or chemical process involving settlement of suspended solids, or other processes in which the BOD_5 of the incoming waste water is reduced by at least 20% before discharge and the total suspended solids of the incoming waste water are reduced by at least 50%.

Discharges of treated urban waste water

6.—(1) Discharges from urban waste water treatment plants described in paragraphs (1) or (2) of regulation 5 or from any such plant which provides treatment in accordance with paragraph (5) of that regulation, (including any such plants which are provided other than by the Department) shall satisfy the relevant requirements of Part I of Schedule 3.

(2) In relation to urban waste water treatment plants which are provided other than by the Department it shall be the duty of the Department(**a**), in exercise of its functions under Part II of the 1972 Act (prevention of pollution of water) to secure—

(*a*) with respect to any such discharge as is described in paragraph (1), that the requirements of that paragraph are satisfied;

(**a**) *See* S.R. & O. (N.I.) 1973 No. 504 Art. 4 for transfer of the functions from the Ministry of Development to the Department of the Environment

(*b*) with respect to any discharge described in paragraph (5) or (6) of regulation 5, that the requirements of the said paragraph (5) or, as the case may be, the said paragraph (6) are satisfied;

(*c*) with respect to any discharge from a collecting system described in regulation 4 or an urban waste water treatment plant described in regulation 5, the limitation of pollution of receiving waters due to storm water overflows; and

(*d*) with respect to the discharge of sludge—

(i) that the discharge of sludge to surface waters is phased out by 31st December 1998; and

(ii) that the total amount of toxic, persistent or bioaccumulable materials in the sludge which may be discharged to surface waters pursuant to consents under the said Part II is controlled by such consents and progressively reduced during the period ending on that date.

(3) In relation to urban waste water treatment plants provided by the Department it shall be the duty of the Department to secure that each of the requirements set out in paragraph (2) at sub-paragraphs (*a*) to (*d*) are satisfied or complied with.

(4) The Department shall at regular intervals review and if necessary for the purposes of complying with this regulation, modify or revoke consents granted under Part II of the 1972 Act.

(5) Nothing in section 10(1) of the 1972 Act shall restrict the power of the Department to modify or revoke a consent in pursuance of the duty imposed by this regulation.

Discharges of industrial waste water to collecting systems or treatment plants

7.—(1) It shall be the duty of the Department in exercising its functions under Part V of the 1973 Order (trade effluents) with respect to any discharge of industrial waste water, to secure that the requirements of Schedule 4 are met in respect of that discharge.

(2) Nothing in Article 24(1) of the 1973 Order (conditions of consent) shall be construed as restricting the power of the Department to impose in any consent under that Part such conditions as are necessary to comply with paragraph (1).

(3) Nothing in any agreement entered into between the Department and the occupier of premises used for carrying on any trade or industry shall be treated as a consent, direction or condition for the purposes of Part V of the 1973 Order unless the terms of that agreement are such as will secure that the requirements of Schedule 4 are met in respect of any discharge to which the agreement relates.

(4) The Department shall review, and if necessary modify, the consents, directions or conditions granted under Part V of the 1973 Order at regular intervals.

(5) For the purposes of complying with paragraph (1) the Department may vary any agreement under Article 32 of the 1973 Order (agreements as

respects trade premises) which provides for the discharge of industrial waste water to an urban waste water treatment plant without first entering a public sewer, and any such agreement shall not be enforceable if and to the extent that it permits any discharge of industrial waste water in respect of which the requirements of Schedule 4 are not met.

(6) Nothing in Part V of the 1973 Order shall—

(*a*) restrict the power of the Department to vary a consent, direction or condition in pursuance of the duty imposed by this regulation; or

(*b*) render the Department liable to pay compensation as a consequence of any such variation made in pursuance of that duty.

Discharges of certain industrial waste water into receiving waters

8.—(1) This regulation applies to discharges of biodegradable industrial waste water from plants representing 4,000 p.e. or more belonging to the industrial sectors listed in Schedule 5 which does not enter urban waste water treatment plants before discharge to receiving waters.

(2) It shall be the duty of the Department to impose, in every consent granted under Part II of the 1972 Act (prevention of pollution of water) with respect to any discharge on or after 31st December 2000 to which this regulation applies (whether on the grant of consent or a review of a consent under section 10 of the 1972 Act), conditions which are appropriate to the nature of the industry concerned for the discharge of such waste water.

Dumping of sludge from ships

9.—(1) It shall be the duty of the Department being the licensing authority (within the meaning of sections 24 and 25(3) of the Food and Environment Protection Act 1985(**a**)), in the exercise of its functions under Part II of that Act (deposits in the sea), to secure that—

(*a*) the dumping of sludge from ships to surface waters is phased out by 31st December 1998; and

(*b*) the total amount of toxic, persistent or bioaccumulable materials in sludge so disposed of is licensed for disposal and progressively reduced in the period ending on that date.

(2) In relation to the dumping of sludge by the Department, it shall be the duty of the Department to secure that each of the requirements set out in paragraph (1) at sub-paragraphs (*a*) and (*b*) are satisfied or complied with.

Samples and records

10.—(1) In this regulation—

(*a*) a ''relevant condition'' means a condition imposed for the purposes of regulation 6(2) in a consent under Part II of the 1972 Act; and

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(**a**) 1985 c. 48

(*b*) "the operator" means, in relation to a relevant condition, the person who operates the urban waste water treatment plant, discharges from which are authorised by the consent in which that condition is imposed.

(2) Where the operator is required by a relevant condition to provide any apparatus for the purpose of measuring or recording the volume, rate of flow, nature, composition or temperature of any waste water, or for the purpose of collecting samples of waste water, any such apparatus so provided shall be presumed to register accurately unless the contrary is shown.

(3) Any record—

(*a*) produced by any such apparatus as is mentioned in paragraph (2); or

(*b*) made by or on behalf of the operator in order to comply with a relevant condition,

shall be evidence of the matters appearing from the record and shall in any proceedings under Part II of the 1972 Act be admissible in evidence against the operator.

(4) Where—

(*a*) an entry is required by a relevant condition to be made in any record as to the observance of that or any other relevant condition; and

(*b*) the entry has not been made,

that fact shall be admissible as evidence that that condition, or as the case may be, that other condition has not been observed.

(5) Where, in compliance with a relevant condition, a sample of waste water is collected by apparatus installed for the purpose of collecting such samples automatically, the sample shall be treated, for the purpose of section 25(5) of the 1972 Act (right to take samples) as being taken only at the time when it is removed from that apparatus.

(6) For the purposes of the said section 25(5), a sample of waste water which is taken and analysed by the operator in compliance with a relevant condition shall not be treated as being taken on behalf of the Department.

Monitoring

11. It shall be the duty of the Department—

(*a*) to monitor or procure the monitoring by a competent authority or appropriate body of discharges from urban waste water treatment plants to verify compliance with the relevant requirements of Part I of Schedule 3 in accordance with the control procedures set out in Part II of that Schedule;

(*b*) to monitor or procure the monitoring by a competent authority or appropriate body of amounts and composition of sludges disposed of to surface waters (other than by means of dumping from ships);

(*c*) to monitor or procure the monitoring by a competent authority or appropriate body of waters subject to discharges from urban waste water treatment plants provided in accordance with regulation 5 in cases where it can be expected that the receiving environment will be significantly affected;

(*d*) to carry out or procure the carrying out by a competent authority or appropriate body of monitoring and any other relevant studies to verify that discharges to which regulation 5(5) applies and the disposal of sludge to surface waters (other than by means of dumping from ships) do not adversely affect the environment;

(*e*) to monitor or procure the monitoring by a competent authority or appropriate body of amounts and composition of sludges disposed of to surface waters by means of dumping from ships; and

(*f*) to carry out or procure the carrying out by a competent authority or appropriate body of monitoring and any other relevant studies to verify that the disposal of sludge to surface waters by means of dumping from ships does not adversely affect the environment.

Deposit of maps

12. The Department shall keep available at its office in Calvert House, 23 Castle Place, Belfast BT1 1FY, at all reasonable times, for inspection by the public free of charge—

(*a*) the maps referred to in the definition of "estuary" in regulation 2(1); and

(*b*) the maps showing sensitive areas and high natural dispersion areas maintained for the purposes of regulation 3.

Information regarding the implementation of the Directive

13. It shall be the duty of the Department to—

(*a*) publish every 2 years a situation report on the disposal of urban waste water and sludge; and

(*b*) establish, update and provide the Commission with information on a programme for the implementation of the Directive.

Sealed with the Official Seal of the Department of the Environment on 16th January 1995.

(L.S.) *R. W. Rogers*
Assistant Secretary

SCHEDULE 1 regulation 3

PART I

CRITERIA FOR IDENTIFICATION OF SENSITIVE AREAS

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

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

The following elements might 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 agglomerations are made, the removal of nitrogen may also be considered;

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

(*b*) surface fresh waters intended for the abstraction of drinking water which could contain more than the concentration of nitrate laid down under the relevant provisions of Council Directive 75/440/EEC of 16th June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States(**a**) if action is not taken;

(*c*) areas where further treatment than secondary or equivalent treatment is necessary to fulfil Council Directives.

PART II

CRITERIA FOR IDENTIFICATION OF HIGH NATURAL DISPERSION AREAS

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

When identifying high natural dispersion areas, the Department shall take into account the risk that the discharged load may be transferred to adjacent areas where it can cause detrimental environmental effects. The Department shall recognise the presence of sensitive areas outside Northern Ireland (including areas outside the United Kingdom).

The following elements shall be taken into consideration when identifying high natural dispersion areas—

open bays, estuaries and other coastal waters 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 urban waste water.

(a) O.J. No. L194, 25.7.75, p. 26, as amended by Directive 79/869/EEC (O.J. No. L271, 29.10.79, p. 44)

SCHEDULE 2 regulation 4

REQUIREMENTS FOR COLLECTING SYSTEMS

1. Collecting systems shall take into account waste water treatment requirements.

2. The design, construction and maintenance of collecting systems shall be undertaken in accordance with the best technical knowledge not entailing excessive costs, notably regarding—

(*a*) volume and characteristics of urban waste water;

(*b*) prevention of leaks; and

(*c*) limitation of pollution of receiving waters due to storm water overflows.

SCHEDULE 3 regulations 5, 6 and 11

PART I

REQUIREMENTS FOR DISCHARGES FROM TREATMENT PLANTS

1. 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.

2. Discharges from urban waste water treatment plants subject to treatment in accordance with regulation 5(1) and (2) shall, subject to paragraphs 4 and 5 of Part II, meet the requirements shown in Table 1.

3. Discharges from urban waste water treatment plants to those sensitive areas which are subject to eutrophication as identified in sub-paragraph (*a*) of Part I of Schedule 1 shall, subject to paragraphs 4 and 5 of Part II, also meet the requirements in Table 2.

4. More stringent requirements than those shown in Table 1 and/or Table 2 shall be applied where required to ensure that the receiving waters satisfy any other relevant Community Directives.

5. The points of discharge of urban waste water shall be chosen, as far as possible, so as to minimize the effects on receiving waters.

TABLE I

REQUIREMENTS FOR DISCHARGES FROM URBAN WASTE WATER TREATMENT PLANTS SUBJECT TO REGULATION 5(1) AND (2)

The values for concentration or for the percentage of reduction shall apply.

Parameters	*Concentration*	*Minimum percentage of reduction*[1]	*Reference method of measurement*
Biochemical oxygen demand (BOD_5 at 20°C) without nitrification[2]	25 mg/l O_2	70–90	Homogenized, unfiltered, undecanted sample. 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)	125 mg/l O_2	75	Homogenized, unfiltered, undecanted sample Potassium dichromate.

[1] Reduction in relation to the load of the influent.

[2] The 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.

Analyses concerning discharges from lagooning shall be carried out on filtered samples; however, the concentration of total suspended solids in unfiltered water samples shall not exceed 150 mg/l.

TABLE 2

REQUIREMENTS FOR DISCHARGES FROM URBAN WASTE WATER TREATMENT PLANTS TO SENSITIVE AREAS WHICH ARE SUBJECT TO EUTROPHICATION AS IDENTIFIED IN SUB-PARAGRAPH (*a*) OF PART I OF SCHEDULE 1

One or both parameters may be applied depending on the local situation. The values for concentration or for the percentage of reduction shall apply.

Parameters	*Concentration*	*Minimum percentage of reduction*[1]	*Reference method of measurement*
Total phosphorus	2 mg/l P (10,000-100,000 p.e.) 1 mg/l P (more than 100,000 p.e.)	80	Molecular absorption spectrophotometry
Total nitrogen[2]	15 mg/l N (10,000-100,000 p.e.) 10 mg/l N (more than 100,000 p.e.)	70–80	Molecular absorption spectrophotometry

[1] Reduction in relation to the load of the influent.

[2] Total nitrogen means: the sum of total Kjeldahl-nitrogen (organic N + NH_3), nitrate (NO_3)-nitrogen and nitrite (NO_2)-nitrogen.

PART II

REFERENCE METHODS FOR MONITORING AND EVALUATION OF RESULTS

1. (*a*) The Department shall apply a monitoring method which corresponds at least with the level of requirements described below.

   (*b*) Alternative methods to those mentioned in paragraphs 2, 3 and 4 may be used provided that it can be demonstrated that equivalent results are obtained.

2. (*a*) Flow-proportioned or time-based 24-hour samples shall be collected at the same well-defined point in the outlet and if necessary in the inlet of the treatment plant in order to monitor compliance with the requirements for discharged waste water laid down in these Regulations.

   (*b*) Good international laboratory practices aiming at minimising the degradation of samples between collection and analysis shall be applied.

3. The minimum annual number of samples shall be determined according to the size of the treatment plant and be collected at regular intervals during the year:

—2,000 to 9,999 p.e.:	12 samples during the first year; 4 samples in subsequent years, if it can be shown that the water during the first year complies with the provisions of these Regulations; if 1 sample of the 4 fails, 12 samples must be taken in the year that follows;
—10,000 to 49,999 p.e.:	12 samples;
—50,000 p.e. or over:	24 samples.

4. The treated waste water shall be assumed to conform to the relevant parameters if, for each relevant parameter considered individually, samples of the water show that it complies with the relevant parametric value in the following way—

(*a*) for the parameters specified in Table 1 and sub-paragraph (*b*) of regulation 5(7), a maximum number of samples which are allowed to fail the requirements, expressed in concentrations and/or percentage reductions in that Table and that sub-paragraph, is specified in Table 3;

(*b*) for the parameters of Table 1 expressed in concentrations, the failing samples taken under normal operating conditions must not deviate from the parametric values by more than 100%;

(*c*) for those parameters specified in Table 2 the annual mean of the samples for each parameter shall conform to the relevant parametric values.

5. Extreme values for the water quality in question shall not be taken into consideration when they are the result of unusual situations such as those due to heavy rain.

TABLE 3

Series of samples taken in any year	*Maximum permitted number of samples which fail to conform*
4–7	1
8–16	2
17–28	3
29–40	4
41–53	5
54–67	6
68–81	7
82–95	8
96–110	9
111–125	10
126–140	11
141–155	12
156–171	13
172–187	14
188–203	15
204–219	16
220–235	17
236–251	18
252–268	19
269–284	20
285–300	21
301–317	22
318–334	23
335–350	24
351–365	25

SCHEDULE 4 regulation 7

INDUSTRIAL WASTE WATER

Industrial waste water entering collecting systems and urban 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; and

— ensure that sludge can be disposed of safely in an environmentally acceptable manner.

SCHEDULE 5 regulation 8

INDUSTRIAL SECTORS REFERRED TO IN REGULATION 8

1. Milk processing.
2. Manufacture of fruit and vegetable products.
3. Manufacture and bottling of soft drinks.
4. Potato processing.
5. Meat industry.
6. Breweries.
7. Production of alcohol and alcoholic beverages.
8. Manufacturer of animal feed from plant products.
9. Manufacture of gelatine and of glue from hides, skin and bones.
10. Malt-houses.
11. Fish-processing industry.

EXPLANATORY NOTE

(This note is not part of the Regulations.)

These Regulations implement Council Directive 91/271/EEC concerning urban waste water treatment.

Regulation 4 supplements the general duty imposed on the Department of the Environment (''the Department'') by Article 3 of the Water and Sewerage Services (Northern Ireland) Order 1973, by requiring it to secure that ''collecting systems'' (this and other expressions are defined in regulation 2(1)) are provided by specified dates, and to secure that urban waste water entering collecting systems is subject to treatment provided in accordance with regulation 5. Regulation 5 requires such treatment to be provided by specified dates and, with regulation 6(1) and Part I of Schedule 3, prescribes the standard of treatment required. The specified date and the standard of treatment are determined according to the size of the ''agglomeration'' from which the waste water emanates and the nature of the waters into which the treated waste water is discharged. Generally, ''secondary treatment'' is required, but more stringent treatment is required for waters identified as ''sensitive areas'' and less stringent treatment is permissible for waters identified as ''high natural dispersion areas''. The areas identified as sensitive areas and high natural dispersion areas are shown on maps held by the Department; the Department is under a duty to review the identification of these areas at least every 4 years (regulation 3). Discharges from smaller agglomerations need to be subjected only to ''appropriate treatment''.

Regulation 6 also requires the Department to secure, by means of its powers to grant and modify discharge consents under Part II of the Water Act (Northern Ireland) 1972, that the relevant requirements of the Regulations in relation to discharges are satisfied. It also places a duty on the Department to ensure that the said relevant requirements are satisfied as regards the discharge from urban waste water treatment plants provided by the Department.

Regulation 7 imposes requirements in respect of discharges of industrial waste water to collecting systems or treatment plants. The Department is empowered to modify trade effluent consents and agreements for this purpose. Regulation 8 imposes a duty on the Department to secure that direct discharges on and after 31st December 2000 of biodegradable industrial waste water from the industrial sectors listed in Schedule 5 are subject to conditions appropriate to the nature of the industry concerned.

Regulation 9 requires the phasing out of the dumping of sludge from ships by 31st December 1998, and the progressive reduction before that date of the total amount of toxic, persistent and bioaccumulable materials in sludge so dumped.

Regulation 11 imposes a duty on the Department to ensure that monitoring of discharges and waters to which the Regulations apply, and such other studies as are required by the Regulations, are carried out. The requirements as to monitoring of discharges are set out in Part II of Schedule 3, and regulation 10 makes provision in connection with samples and records obtained in accordance with those requirements.

Regulation 12 requires the Department to keep maps showing estuaries and sensitive and high natural dispersion areas that are available for inspection by the public, and regulation 13 requires the Department to publish a biennial report on the disposal of urban waste water and sludge and to advise the Commission on the programme for implementing the Directive.

Copies of the Directive may be obtained from Her Majesty's Stationery Office, 16 Arthur Street, Belfast BT1 4GD.