### SCHEDULE 3

Regulations 7, 8 and 13

# 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 7(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 1

# REQUIREMENTS FOR DISCHARGES FROM URBAN WASTE WATER TREATMENT PLANTS SUBJECT TO REGULATION 7(1) AND (2)

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

Parameters	Concentration	Minimum percentage of reduction (001)	Reference method of measurement
	en 25 mg/l O <sub>2</sub> at out	70-90	Homogenized, unfiltered, undecanted sample. Determination of dissolved oxygen before and after fiveday incubation at 20°C ± 1°C, incomplete darkness. Addition of a nitrification inhibitor.
Chemical oxyg demand (COD)	en 125 mg/l $O_2$	75	Homogenized, unfiltered, undecanted

(001) Reduction in relation to the load of the influent.

(002) 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<sub>5</sub>, 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.

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Parameters	Concentration	Minimum percentage of reduction <sup>(001)</sup>	Reference measureme	U
			sample dichromate	Potassium
(001) Reduction in relation to the load of the influent.				

(002) 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<sub>5</sub>, 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.

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Parameters	Concentration	Minimum percentage of reduction <sup>(003)</sup>	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 <sup>(004)</sup>	15 mg/1 N (10,000-100,000 p.e.) (005) 10 mg/1 N (more than 100,000 p.e.) <sup>(005)</sup>		Molecular absorption spectrophotometry

- (003) Reduction in relation to the load of the influent.
- (004) Total nitrogen means: the sum of total Kjeldahlnitrogen (organic N + NH<sub>3</sub>), nitrate (NO<sub>3</sub>)nitrogen and nitrite (NO<sub>2</sub>)-nitrogen.
- (005) These values concentration are annual means as referred to in Schedule 3, Part II, paragraph 4(c). However, the requirements nitrogen may be checked using daily averages when it is proved, in accordance with Schedule 3, Part II, paragraph 1, that the same level of protection is obtained. In this case, the daily average must not exceed 20 mg/l of total nitrogen for all the samples when the temperature from the effluent in the biological reactor is superior or equal to 12 °C. The conditions concerning temperature could be replaced by a limitation on the time of operation to take account of regional climatic conditions.

# 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 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:

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—2,000 to 9,999 12 samples during the first year;
p.e.:

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 12 samples;
49,999 p.e.:
—50,000 p.e. or 24 samples.
over:
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- 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 7(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** 

to conform
1
2
3
4
5
6

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Series of samples taken in any year	Maximum permitted number of samples which fail to conform
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