JUDGMENT OF THE COURT (Third Chamber)

6 October 2009 *

In Case C-335/07,

ACTION under Article 226 EC for failure to fulfil obligations, brought on 16 July 2007,

Commission of the European Communities, represented by I. Koskinen, L. Parpala, M. Patakia and S. Pardo Quintillán, acting as Agents, with an address for service in Luxembourg,

applicant,

v

Republic of Finland, represented by J. Heliskoski and A. Guimaraes-Purokoski, acting as Agents,

defendant,

* Language of the case: Finnish.

supported by:

Kingdom of Sweden, represented by A. Falk, acting as Agent,

intervener,

THE COURT (Third Chamber),

composed of A. Rosas, President of Chamber, A. Ó Caoimh, J. Klučka, U. Lõhmus and A. Arabadjiev (Rapporteur), Judges,

Advocate General: J. Kokott,
Registrar: C. Strömholm, Administrator,

having regard to the written procedure and further to the hearing on 19 February 2009,

after hearing the Opinion of the Advocate General at the sitting on 26 March 2009,

gives the following

Judgment

1 By its action, the Commission of the European Communities asks the Court to declare that, by not requiring more stringent treatment of all waste water collected in agglomerations of more than 10 000 population equivalent (p.e.), the Republic of Finland has failed to fulfil its obligations under Article 5(2), (3) and (5) of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment (OJ 1991 L 135, p. 40), as amended by Commission Directive 98/15/EC of 27 February 1998 (OJ 1998 L 67, p. 29) ('Directive 91/271').

Legal context

Convention on the Protection of the Marine Environment of the Baltic Sea Area

2 In addition to several Member States and the Russian Federation, the European Community is a Contracting Party to the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention as revised in 1992) (OJ 1994 L 73, p. 20; 'the Baltic Sea Convention'), adopted by Council Decision 94/157/EC of 21 February 1994 on the conclusion, on behalf of the Community, of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention as revised in 1992) (OJ 1994 L 73, p. 19).

Community legislation

3 According to Article 1 of Directive 91/271, the directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. Its objective is to protect the environment from the adverse effects of the abovementioned waste water discharges.

4 Article 2 of that directive provides:

'For the purpose of this Directive:

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

…

4. "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;

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

6. "1 p.e. (population equivalent)" means the organic biodegradable load having a five-day biochemical oxygen demand (BOD5) of 60 g of oxygen per day;

…

8. "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 of Annex I are respected;

9. "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 this and other Community Directives;

…

11. "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;

…

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

5 The general rules applicable to the waste water referred to in that directive are set out in Article 4. Article 4(1) provides:

'Member States shall ensure that urban waste water entering collecting systems shall before discharge be subject to secondary treatment or an equivalent treatment …'

6 Article 5 of Directive 91/271 provides:

'1. For the purposes of paragraph 2, Member States shall by 31 December 1993 identify sensitive areas according to the criteria laid down in Annex II.

2. Member States shall ensure that urban waste water entering collecting systems shall before discharge into sensitive areas be subject to more stringent treatment than that described in Article 4, by 31 December 1998 at the latest for all discharges from agglomerations of more than 10 000 p.e.

3. Discharges from urban waste water treatment plants described in paragraph 2 shall satisfy the relevant requirements of Annex I B....

4. Alternatively, requirements for individual plants set out in paragraphs 2 and 3 above need not apply in sensitive areas where it can be shown that the minimum percentage of reduction of the overall load entering all urban waste water treatment plants in that area is at least 75% for total phosphorus and at least 75% for total nitrogen.

5. Discharges from urban waste water treatment plants which are situated in the relevant catchment areas of sensitive areas and which contribute to the pollution of these areas shall be subject to paragraphs 2, 3 and 4.

…

8. A Member State does not have to identify sensitive areas for the purpose of this Directive if it implements the treatment established under paragraphs 2, 3 and 4 over all its territory.'

7 Annex I.B(2) and (3) to that directive is worded as follows:

'2. Discharges from urban waste water treatment plants subject to treatment in accordance with Articles 4 and 5 shall 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 Annex II.A (a) shall in addition meet the requirements shown in Table 2 of this Annex.'

8 Table 2 of that annex is worded as follows:

'Table 2: Requirements for discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication as identified in Annex II.A(a). One or both parameters may be applied depending on the local situation. The values for concentration or for the percentage of reduction shall apply.'

9 According to the second entry in that table, total nitrogen must either display a maximum concentration of 15 mg/l in the case of agglomerations of between 10 000 and 100 000 p.e. and of 10 mg/l in the case of larger agglomerations, or be subject to a minimum percentage of reduction of 70% to 80%.

10 The second paragraph of Annex II.A(a) of Directive 91/271 provides:

'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.'

National legislation

11 Under Article 4 of Government Decision No 365/1994 of 19 May 1994 on the treatment of waste water from general conduits and from certain industrial sectors which is discharged into water and on the treatment of industrial waste water entering general conduits, all Finnish aquatic environments are considered sensitive areas within the meaning of Directive 91/271.

12 It is apparent from the description of the national legislation provided in the pleadings of the Republic of Finland that any Finnish treatment plant treating urban waste water from agglomerations of more than 100 p.e. must hold an environment permit, which is issued after a case-by-case assessment. As part of that assessment, regard is always had to the state of the waters and to the impact thereon of urban waste water.

13 When making its assessment, the authority entrusted with issuing environmental permits has available to it, as regards treatment stations treating urban waste water

from agglomerations of more than 4 000 p.e., expert opinion on environmental law and on scientific and technical matters. It must take into account the information that it receives in the context of the authorisation process, including the opinion of the Ympäristökeskus (environmental centre) concerned.

14 The task of the Ympäristökeskus is inter alia to uphold the general interest in environmental matters. In the opinions that it submits to the authority entrusted with issuing environmental permits, it must propose a reduction of the nitrogen load where that is necessary from an environmental perspective, in view of the local situation and the latest scientific knowledge. In principle, a request for reduction of the nitrogen load must be sent to all treatment plants of waste water from agglomerations of more than 10 000 p.e. whose discharges flow directly into the areas to the south of the Kvarken (Merenkurkku), which is on the border line between the Bothnian Bay (Perämeri) and the Bothnian Sea (Selkämeri), which, together, form the Gulf of Bothnia (Pohjanlahti). The latter is an arm of the Baltic Sea.

Pre-litigation procedure

15 By letter of 1 July 2002, the Commission, taking the view that more stringent treatment within the meaning of Article 5(2), (3) and (5) of Directive 91/271 ('tertiary treatment'), both of nitrogen and phosphorus, was necessary in all Finnish agglomerations of more than 10 000 p.e. located in catchment areas draining into the Baltic Sea, gave the Republic of Finland formal notice requiring it to comply with Article 5 of Directive 91/271.

16 In its reply of 27 August 2002, the Republic of Finland maintained that it was complying with Directive 91/271. It stated that the nitrogen load is reduced where that is thought necessary, in view, each time, of the state of the receiving waters, as required by that directive.

17 On 1 April 2004, the Commission sent the Republic of Finland, pursuant to the first paragraph of Article 226 EC, a reasoned opinion concluding that, by not requiring more stringent treatment of all waste water collected in agglomerations of more than 10 000 p.e., the Republic of Finland had failed to fulfil its obligations under Article 5(2), (3) and (5) of Directive 91/271 and calling on that Member State to take the measures referred to in the reasoned opinion within two months of receipt.

18 Being dissatisfied with the Finnish authorities' reply to the reasoned opinion, the Commission brought the present action.

19 By order of the President of the Court of 7 August 2008, the Kingdom of Sweden was granted leave to intervene in support of the form of order sought by the Republic of Finland.

The action

Arguments of the parties

20 In the Commission's view, since all Finnish aquatic environments consist of sensitive areas within the meaning of Directive 91/271, the requirement to ensure that urban waste water entering collecting systems is before discharge to be subject to more stringent treatment than that described in Article 4 of that directive for all discharges from agglomerations of more than 10 000 p.e. applies to the whole of Finnish territory.

21 In those circumstances, it follows from Directive 91/271 that nitrogen must be subject to tertiary treatment in all treatment plants of urban waste water from Finnish agglomerations of more than 10 000 p.e. located in the coastal areas and catchment areas of the Baltic Sea.

22 The Commission submits that, in order to satisfy the objective pursued by Directive 91/271, all discharges from agglomerations of more than 10 000 p.e. which flow into the Baltic Sea must be treated for both phosphorus and nitrogen. Such treatment limits the movement of nitrogen towards the centre of the Baltic Sea, the Gulf of Finland (Suomenlahti), the Archipelago Sea (Saaristomeri) and certain parts of the Bothnian Sea and, therefore, the eutrophication of those areas. According to the Commission, the Finnish authorities have failed to establish that the decision not to carry out tertiary treatment of nitrogen in all the treatment plants concerned had no effect on the eutrophication of those areas.

23 The Republic of Finland observes that urban waste water from all Finnish agglomerations is treated in biochemical plants and that those treatment plants must obtain an environmental permit. An essential aspect of the procedure for issuing that permit is consultation of the regional environmental centres, and it is those centres' responsibility to recommend a reduction of the nitrogen load whenever that is necessary to protect the environment. In addition, at the regular reviews to which each environmental permit is subject, the need to reduce the nitrogen load is assessed in the light of the local situation, in accordance with the requirements of Directive 91/271.

24 The Republic of Finland asserts that, in most of its inland waters, which consist of lakes and rivers, nitrogen has no effect on eutrophication since the nutrient which regulates eutrophication is phosphorus. Nor is nitrogen a nutrient which regulates eutrophication in all Finnish marine areas.

25 In those circumstances, the Republic of Finland contests that Directive 91/271 requires reduction of the nitrogen load in all waste water from agglomerations of more than 10 000 p.e. In accordance with the requirements of Table 2 of Annex I to that directive, the need to reduce the nitrogen load is to be assessed 'depending on the local situation'. The Commission has failed to establish that, where Directive 91/271 requires reduction of the nitrogen load, the Finnish authorities have not also required it when carrying out their assessment in respect of every treatment plant of urban waste water from agglomerations of more than 100 p.e., for the purposes of granting or renewing the environmental permit required under the national legislation.

26 Furthermore, the Republic of Finland claims that the 'local situation' referred to in Table 2 of Annex I to Directive 91/271 is limited to the aquatic area in which discharges from treatment plants may give rise to the damage referred to by that directive. In addition, the requirement that the nitrogen load must in all cases be reduced in accordance with the values provided for in that table, irrespective of its impact on aquatic environments, is contrary to the principle of proportionality.

27 Moreover, the Republic of Finland puts forward three principal grounds to justify its practice of assessing the need to reduce the nitrogen load on a case-by-case basis for every treatment plant subject to the obligation to obtain an environmental permit under national law. In the first place, that Member State claims that, in certain cases, reduction of the nitrogen load in urban waste water has no effect on the eutrophication of the Baltic Sea on account of retention of nitrogen by lakes and rivers. In the second place, it cannot be ruled out that, in certain circumstances, reduction of the nitrogen load has an adverse effect on the state of the waters, in particular by giving rise to the blooming of certain harmful algae. In the third place, the low level of nitrogen movement from the Bothnian Bay, which does not display any signs of eutrophication and in which nitrogen is not the limiting nutrient, towards other marine areas cannot be regarded as giving rise to harm, for the purposes of Directive 91/271, in the areas concerned.

Findings of the Court

28 It is apparent from Article 5(2) of Directive 91/271 that all urban waste water from agglomerations of more than 10 000 p.e. which discharges into a sensitive area was to be subject, by 31 December 1998 at the latest, to more stringent treatment than that referred to in Article 4 of that directive.

29 In this respect, the Court has previously ruled that a discharge for the purposes of Article 5(2) of Directive 91/271 exists irrespective of whether the waste water discharges directly or indirectly into a sensitive area (see, to that effect, Case C 396/00 *Commission* v *Italy* [2002] ECR I-3949, paragraphs 29 to 32). As the Advocate General observed at point 72 of her Opinion, this is in keeping with the high level of protection provided for by Community policy on the environment under Article 174(2) EC.

30 Under Annex II.A of Directive 91/271, the identification of sensitive areas can be based on eutrophication, abstraction of drinking water or requirements of other directives.

31 In this instance, it is common ground that in 1994 the Republic of Finland identified all its waters as areas sensitive to eutrophication and that all the treatment plants of that Member State discharge directly or indirectly into those areas.

32 In addition, Article 5(3) of Directive 91/271 determines which rules the tertiary treatment of discharges is subject to in such sensitive areas. It follows from that provision, read in conjunction with the provisions to which it refers, that discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication must meet the requirements shown in Table 2 of Annex I to that directive.

33 The Court has already established that those requirements apply subject to the second paragraph of Annex II.A(a) to Directive 91/271 (Case C-280/02 *Commission* v *France* [2004] ECR I-8573, paragraphs 104 and 105). Letter (ii) of that provision thus provides that, as regards coastal waters which are found to have a poor water exchange, or which receive large quantities of nutrients, 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.

34 Table 2 of Annex I to that directive concerns the reduction of phosphorus and nitrogen in urban waste water. According to the heading of that table, it is provided that one or both parameters may be applied depending on the local situation. It depends on the local situation whether nitrogen or phosphorus or both nutrients have to be reduced. The Member State may then choose to apply the values for concentration or for the percentage of reduction.

35 It should be pointed out that the Commission and the Republic of Finland agree that eutrophication of the Baltic Sea constitutes a major environmental problem, and that that phenomenon is caused by an increased concentration of nitrogen and phosphorus, two substances which are however essential to marine life.

36 As the Commission itself stated, the mechanism for limiting eutrophication by nitrogen and/or phosphorus varies considerably from one marine area of the Baltic Sea to another, or even within the same area. There is therefore no uniform solution to the problem of eutrophication for the Baltic Sea as a whole.

37 The submissions made by the parties indicate that, in general, one of the nutrients, whether it be phosphorus or nitrogen, is present in smaller quantities than the other and that that lack limits the production of algae. That nutrient is thus called a 'limiting factor'. The waters of an area may be sensitive to one or the other of those nutrients, or

even to both. Reducing phosphorus and/or nitrogen depending on the sensitivity of those waters therefore makes it possible to limit algae production.

38 In such circumstances, it is necessary to adopt different measures to reduce eutrophication in one part of the Baltic Sea as compared with another part. Directive 91/271 provides in this respect that the Member States are to assess, on the basis of the local situation, the substances — phosphorus and/or nitrogen — which contribute to eutrophication and, in accordance with that assessment, adopt appropriate treatment measures.

39 As the Republic of Finland claimed, Directive 91/271 does not therefore automatically require a reduction of the nitrogen load even when discharges from urban waste water treatment plants flow into receiving waters in a sensitive area. It is the reason for the sensitivity of those receiving waters, in conjunction with an examination of the local situation, which determines whether nitrogen or phosphorus or both must be reduced.

40 Accordingly, the interpretation put forward by the Commission, whereby the mere fact that discharges from urban waste water treatment plants finish up in a sensitive area permits the inference that Directive 91/271 requires tertiary treatment of nitrogen, cannot be accepted. In accordance with Article 5(5) of that directive, the obligation to reduce the nitrogen load depends on the extent to which discharges from urban waste water treatment plants situated in the catchment areas of sensitive areas contribute to the pollution of those areas.

41 Since determination of the limiting factor is linked not only to the sensitivity of the receiving waters, but also to whether the discharges have a polluting effect on those waters, it cannot be claimed, as the Commission essentially does, that, given that the Baltic Sea proper has undergone significant eutrophication on account both of nitrogen and of phosphorus, and that the vast majority of Finnish inland waterways flow into that

sea, Finnish lakes, rivers and coastal waters must be considered to be sensitive to both substances.

42 It follows from those considerations that, contrary to what the Commission claims, Directive 91/271 does not provide for a general obligation to require tertiary treatment of nitrogen from the discharges of every treatment plant of urban waste water from agglomerations of more than 10 000 p.e.

43 Given that Directive 91/271 requires reduction of phosphorus and/or nitrogen depending on the local situation, namely the sensitivity of the receiving waters to one and/or the other of those nutrients and the presence of a polluting effect of the discharges on those waters, it is possible to carry out a joint examination of the treatment plants in question whose discharges flow into the same catchment area.

44 Furthermore, whether direct or indirect, discharges from urban waste water treatment plants situated in the same catchment area of a sensitive area are subject, by reason of Article 5(5) of Directive 91/271, to the requirements applicable to sensitive areas only to the extent that those discharges contribute to the pollution of that area. Thus, there must be a causal link between those discharges and the pollution of the sensitive areas.

45 It is in the light of those considerations that it should be examined whether the Commission has established the existence of such a link.

46 In that regard, it is to be remembered that, according to settled case law, in proceedings under Article 226 EC for failure to fulfil obligations it is for the Commission to prove the alleged failure. It is the Commission's responsibility to place before the Court all the information needed to enable the Court to establish that the obligation has not been fulfilled, and in so doing the Commission may not rely on any presumption (see, inter

alia, Case 96/81 *Commission* v *Netherlands* [1982] ECR 1791, paragraph 6, and Case C-135/05 *Commission* v *Italy* [2007] ECR I-3475, paragraph 26).

47 Moreover, where the Commission has adduced sufficient evidence to prove the relevant facts which occurred in the territory of the defendant Member State, it is for the latter to challenge in substance and in detail the information produced and the consequences flowing therefrom (see, to that effect, Case 272/86 *Commission* v *Greece* [1988] ECR 4875, paragraph 21, and Case C-365/97 *Commission* v *Italy* [1999] ECR I-7773, paragraphs 84 and 86).

48 It should be noted, as the file indicates, that the Finnish treatment plants are spread between catchment areas whose receiving waters are, first, the Gulf of Bothnia, which is itself subdivided into two marine areas, namely the Bothnian Bay and the Bothnian Sea, second, the Baltic Sea proper and, third, the Gulf of Finland.

49 Accordingly, it is necessary to examine whether the Commission has established that discharges of nitrogen from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. and situated in the relevant catchment areas of the abovementioned marine areas contribute to the eutrophication of those areas.

Treatment plants whose discharges flow into the Gulf of Bothnia

50 Of the urban waste water treatment plants whose discharges flow into the Gulf of Bothnia, some discharge directly or indirectly into the Bothnian Bay, while others discharge directly or indirectly into the Bothnian Sea. It is therefore possible to examine together the treatment plants in question whose discharges flow into the same catchment area.

— Treatment plants whose discharges flow either directly into the Bothnian Bay or into its catchment area

51 The parties agree that the Bothnian Bay is the only significant area of the Baltic Sea that is not, in general, affected by eutrophication. In addition, the Commission recognises that phosphorus is the limiting factor in the Bothnian Bay. Furthermore, the Republic of Finland claims that, where the authority entrusted with issuing environmental permits considers that the local situation so requires, removal of nitrogen is also required in urban waste water treatment plants on the edge of the Bothnian Bay.

52 In those circumstances, the Commission has failed to establish that because of the situation in the Bothnian Bay the Republic of Finland was obliged to require tertiary treatment of nitrogen in every treatment plant of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Bothnian Bay.

— Treatment plants whose discharges flow either directly into the Bothnian Sea or into its catchment area

53 The parties disagree so far as concerns (i) the presence of eutrophication and the determination of the limiting factor in the Bothnian Sea and (ii) the existence and any effects of a transfer of nitrogen from the Gulf of Bothnia to the Baltic Sea proper.

The presence of eutrophication and the determination of the limiting factor in the Bothnian Sea

54 According to the results of studies appended to the file by the Republic of Finland, the Gulf of Bothnia, including the Bothnian Sea, is the only sub-region of the Baltic Sea which does not show clear signs of eutrophication.

55 The Commission bases its assertion that nitrogen is a significant limiting factor of eutrophication of the Bothnian Sea on a report compiled at its request in 2004 by the Water Research Center on the transposition of Directive 91/271 in Finland ('the 2004 report').

56 However, it is apparent from that report that eutrophication is not generally considered a problem in the Bothnian Sea, and more specifically in the open waters of the Gulf of Bothnia. In addition, the report states that the Archipelago Sea is a transitional area in terms of eutrophication between the Gulf of Finland and the Gulf of Bothnia. Water quality in that area has for the most part been described as satisfactory.

57 It follows from the foregoing that the Commission has failed to show that nitrogen is a significant limiting factor of eutrophication in the open waters of the Bothnian Sea.

58 The 2004 report states that coastal waters are undergoing eutrophication as a result of poor water exchange and high nutrient loads in those waters. In addition, that report states that nitrogen tends to be a limiting factor in Finnish coastal waters.

59 Account should be taken in this respect of letter (ii) of the second paragraph of Annex II.A(a) to Directive 91/271, pursuant to which, in coastal areas, discharges from small agglomerations are usually of minor importance, 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.

60 The Republic of Finland claimed that, as regards waste water treatment plants on the edge of the Gulf of Bothnia, nitrogen contained in waste water cannot generally be considered to give rise to harm for the purposes of the directive, in particular on account of the phenomenon of retention of nitrogen.

61 Moreover, the Republic of Finland claimed — and the Commission adduces no evidence to the contrary — that only 0.3% of all nitrogen discharged each year into the Bothnian Sea comes from urban waste water flowing from the Bothnian Bay. In addition, according to that Member State, the effect of removal of nitrogen in the Gulf of Bothnia on the level of eutrophication of the Baltic Sea proper is so insignificant that it cannot be conveyed in statistics.

62 In those circumstances, it must be held that the Commission has failed to establish that because of the situation in the Bothnian Sea the Republic of Finland was obliged to require tertiary treatment of the nitrogen in the discharges from every treatment plant of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Bothnian Sea.

The existence and any effects of a transfer of nitrogen from the Gulf of Bothnia to the Baltic Sea proper

63 The Commission submits that, on any view, a significant quantity of nutrients is transferred between the various marine basins. Thus, 62% of the total quantity of

nitrogen discharged directly or indirectly into the Bothnian Bay then flows towards the Bothnian Sea, which is a marine area where nitrogen is a significant limiting factor.

64 First, it is true, as the Commission and the Republic of Finland state, that the obligation to treat nitrogen must be assessed from an overall perspective, taking into account both the sensitivity of inland waters and that of the receiving coastal waters. It must be observed, however, that the concept of catchment area does have limits. In that regard, it should be noted that, at the hearing, the Commission conceded that, contrary to what its reply indicates, it does not claim that the Bothnian Bay and the Bothnian Sea can be considered to be catchment areas of the Baltic Sea proper.

65 Second, it should be noted that the Republic of Finland does not dispute that nitrogen moves between different marine areas, but claims that it cannot be inferred from this that the local situation requires reduction of nitrogen so far as concerns all treatment plants of urban waste water from agglomerations of more than 10 000 p.e. situated on the edge of those marine areas.

66 It should be noted, as is apparent from the documents submitted to the Court, that the Baltic Sea is a shallow sea, which is not conducive to water exchange. Moreover, as was recognised in paragraph 77 of the judgment in Case C-438/07 *Commission* v *Sweden* [2009] ECR I-9517, delivered on the same date as this judgment, between the Bothnian Bay and the Bothnian Sea, water exchange is limited by natural obstacles north of the Kvarken Archipelago. The Bothnian Bay and the Bothnian Sea are linked by shallow waters with a maximum depth of 25 metres.

67 Accordingly, it must be held that the Commission has failed to establish that there is no physical barrier which limits the transfer of nitrogen between the relevant marine basins.

68 Moreover, as the Advocate General observed at point 93 of her Opinion, the Bothnian Sea is an effective sink for nitrogen.

69 Accordingly, although there is indeed a transfer of nitrogen between the Gulf of Bothnia and the Baltic Sea proper, the Commission has failed to establish that the flow of water from the Bothnian Bay and the Bothnian Sea towards the Baltic Sea proper results in the transfer of a significant quantity of nitrogen-based pollution from northern regions of Finland.

70 In this respect, it must be observed that the parties agree that approximately 11% of the total quantity of nitrogen present in the Bothnian Sea discharges into the Baltic Sea proper.

71 However, as the documents in the file and the observations made by the Republic of Finland at the hearing indicate, the relevant percentage in the present case is that which represents the quantity of nitrogen which is discharged by treatment plants of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Gulf of Bothnia and which is transported towards the Baltic Sea. By contrast, the total flow of nitrogen cannot, in this case, be regarded as a relevant factor for determining whether nitrogen from those plants must undergo tertiary treatment.

72 The documents in the case show that nutrients, including nitrogen, originate from a multitude of human activities and ultimately reach the sea through, first, atmospheric emissions and the resulting deposits, second, discharges from point sources situated along the coast or from catchment areas and transported by rivers, and, third, discharges from diffuse sources.

73 In that regard, it can be established from the documents in the file that the quantity of nitrogen present in the Gulf of Bothnia includes a large amount from discharges from diffuse sources. Within that category, agriculture is the human activity which accounts for the majority of nitrogen discharges.

74 It follows that the quantity of nitrogen discharged by treatment plants of urban waste water from agglomerations of more than 10 000 p.e. does not correspond to the proportion of nitrogen referred to by the Commission.

75 In those circumstances, it is difficult to see what the transfer rate of 62% put forward by the Commission corresponds to. That rate cannot, on any view, correspond to the quantity of nitrogen in discharges of treatment plants of urban waste water from agglomerations of more than 10 000 p.e.

76 According to the observations of the Republic of Finland at the hearing, the percentage of nitrogen transferred exclusively from discharges of that nutrient from the treatment plants in question amounts to approximately 1.2%.

77 In those circumstances, the Commission has failed to show that the transfer of nitrogen from Finnish treatment plants of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Gulf of Bothnia towards the Baltic Sea proper can be categorised as significant for the purposes of the case law according to which the flow of nitrogen caused by urban waste water discharged into eutrophied waters must be considered significant if it accounts for 10% or more of the total flow of nitrogen (see, to that effect, *Commission* v *France*, paragraph 77).

78 Moreover, at the Cracow ministerial meeting of 15 November 2007, HELCOM, the commission established by the Baltic Sea Convention, adopted an action plan for the Baltic Sea (HELCOM Baltic Sea Action Plan). That action plan, which was discussed at the hearing, provides for a ceiling on nitrogen and phosphorus discharges and a necessary reduction of nitrogen and phosphorus in the various parts of the Baltic Sea. It is apparent from the plan that it is not necessary to reduce the proportion of nitrogen in the Bothnian Bay and the Bothnian Sea.

79 Although it is true that, at the same time, the action plan advocates a reduction of nitrogen in the Baltic Sea proper of 94 000 tonnes per year, it should be noted, as the Republic of Finland claimed at the hearing, that that requirement is not aimed at that Member State. It is instead aimed at the States in the catchment area of the Baltic Sea proper.

80 In those circumstances, the Commission has failed to prove that nitrogen discharges from the inland and coastal waters of the Bothnian Bay contribute to eutrophication of the Bothnian Sea, and failed to prove that nitrogen is the principal limiting factor of eutrophication of the Bothnian Sea.

81 It follows from the foregoing that the Commission has failed to establish that the quantity of nitrogen which comes from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Gulf of Bothnia contributes to eutrophication in the Baltic Sea proper. Accordingly, the Commission has failed to prove that the Republic of Finland was obliged to require tertiary treatment of nitrogen in every treatment plant of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow into the Gulf of Bothnia.

82 Accordingly, it must be held that the Commission has failed to prove that the Republic of Finland has failed to fulfil its obligations under Directive 91/271 so far as concerns every treatment plant of urban waste water from agglomerations of more than 10 000 p. e. whose discharges flow into the Gulf of Bothnia.

Treatment plants whose discharges flow either directly into the Baltic Sea proper or into its catchment area

83 So far as concerns discharges from treatment plants located in inland southern Finland which treat waste water from agglomerations of more than 10 000 p.e. situated in the catchment area whose waters drain towards the nitrogen-sensitive waters of the Baltic Sea proper, the Republic of Finland maintains that tertiary treatment of nitrogen is not necessary since the phenomenon of natural retention permits sufficient removal of that nutrient.

84 In that regard, the documents before the Court indicate that retention is a natural process at work in lakes and rivers which capture most of the nitrogen discharged and transform it into a harmless gas; this also corresponds to the process used by treatment plants when removing nitrogen. Retention occurs in particular in basins, where the flow of water slows down and nitrogen usually remains for years. That phenomenon occurs in such a way that nitrogen is removed either with the organic substance in the bottom sediments of lake basins or by process of nitrification/denitrification of microbes as nitrogen gas in the atmosphere.

85 The Commission does not dispute that retention is a chemical process which occurs in water and reduces the nitrogen concentration, but asserts that that process cannot be used as a substitute for removal of nitrogen by treatment plants as prescribed in Directive 91/271, since that contradicts the precautionary principle. The Commission

submits, moreover, that the process of nitrogen retention does not ensure its lasting removal and is subject to seasonal variations.

86 It should be noted, first of all, that no provision of Directive 91/271 precludes regarding natural retention of nitrogen as a method for removing nitrogen from urban waste water.

87 As regards the Commission's argument that the process of nitrogen retention is too instable to be taken into account, it should be pointed out that the Republic of Finland observed, without being contradicted by the Commission, that, in the calculations of the composition by substances of the aquatic areas on which the analyses relating to retention are based, the processes of withdrawal and addition of nitrogen from and in the water are taken into account. Regard is therefore had to denitrification, to retention of nitrogen in sediments, to retention of atmospheric nitrogen by blue algae and to the release of nitrogen into water from sediments. The Republic of Finland went on to state that years which are exceptional in hydrological terms are removed from the calculations because the average results over several years are presented.

88 Lastly, it must be recalled that, as was pointed out at paragraph 44 of this judgment, there must be an adequate causal link between discharges and pollution of sensitive areas. Accordingly, although the water in the Baltic Sea proper is undergoing eutrophication on account inter alia of nitrogen, as long as the Commission has not established that discharges of nitrogen from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. which flow into the Baltic Sea proper contribute to eutrophication of that sea, it is not necessary to require tertiary treatment of nitrogen for each of those plants.

89 Moreover, as the Advocate General observed at point 82 of her Opinion, Table 2 of Annex I to Directive 91/271 requires, as far as tertiary treatment is concerned, not

complete treatment but, as regards nitrogen, a reduction enabling either a value of 15 mg/l for agglomerations of between 10 000 and 100 000 p.e., or a minimum percentage of reduction of 70 to 80% to be achieved. An indirect discharge of nitrogen in nitrogen-sensitive areas therefore gives rise to the obligation to reduce nitrogen only if, in the case of a treatment plant, more than 30% of the nitrogen contained in the urban waste water reaches those sensitive waters.

90 It must therefore be ascertained whether the Commission has demonstrated that discharges from every treatment plant of urban waste water from agglomerations of more than 10 000 p.e. which flow directly into the Baltic Sea proper or into its catchment area do not comply with those requirements.

91 In the first place, as the Republic of Finland observes, the territory of that Member State contains numerous lakes and rivers. The Republic of Finland also stated, without being contradicted by the Commission, that fresh water often takes the form of waterways within which short rivers connect several lakes in succession before the water drains into coastal waters. In those circumstances, it must be stated that the natural characteristics of the Finnish territory appear to be conducive to retention of nitrogen.

92 In the second place, the Republic of Finland submits that, in most lakes and rivers, nitrogen has no effect on eutrophication since the nutrient which regulates eutrophication is phosphorus. It must be stated that the Commission has been unable to refute that argument.

93 In the third place, the Republic of Finland stated, without being contradicted by the Commission, that a standard treatment plant equipped for mechanical, biological and chemical depollution always removes a certain amount of nitrogen, even if the plant is not specifically equipped for that purpose. Reduction of nitrogen in such treatment plants is on average equivalent to 30%.

94 In view of the foregoing and of the technical and scientific data provided by the parties, as regards discharges from treatment plants discharging directly or indirectly into the Baltic Sea proper, the Commission has failed to establish that the combined effects of reduction of nitrogen by treatment plants and natural retention do not enable the minimum rate of nitrogen reduction required by Directive 91/271 to be achieved.

95 In those circumstances, it must be held that the Commission has failed to prove that the Republic of Finland has failed to fulfil its obligations under Directive 91/271 so far as concerns discharges from every treatment plant of urban waste water from agglomerations of more than 10 000 p.e. which flow directly or indirectly into the Baltic Sea proper.

Discharges from treatment plants which flow either directly into the Gulf of Finland or into its catchment area

96 So far as concerns discharges from treatment plants located in inland southern Finland which treat waste water from agglomerations situated in the catchment area whose waters drain towards the nitrogen-sensitive waters of the Gulf of Finland, the Republic of Finland maintains that tertiary treatment of nitrogen is not necessary since the phenomenon of natural retention permits sufficient removal of that nutrient.

97 It should be noted in this regard that the findings made in paragraphs 84 to 94 of this judgment regarding the treatment plants whose discharges flow directly or indirectly into the Baltic Sea proper apply *mutatis mutandis* to treatment plants whose discharges flow directly or indirectly into the Gulf of Finland.

98 The Republic of Finland states that, on account of the phenomenon of retention, nitrogen present in water treated by treatment plants located on the edge of lakes and rivers is not discharged in significant quantities into the waters of the Gulf of Finland where it might cause damage. That Member State stated — and the Commission does not contradict it or adduce evidence to the contrary in this respect — that nitrogen is retained in Finnish lakes in proportions ranging from 19% to 82%.

99 It is true that the action plan for the Baltic Sea referred to in paragraph 78 of this judgment provided that the States party to the Baltic Sea Convention must remove 6 000 tonnes of nitrogen from the Gulf of Finland. However, for the Baltic Sea as a whole, the proportion of the nitrogen load to be reduced by the Republic of Finland amounts only to 1 200 tonnes per year.

100 The Republic of Finland also submits that, of the total nitrogen load of human origin in Finland, the proportion attributable to urban waste water is approximately 15%. The Court observes that that assertion is supported by the findings of the studies appended to the file, according to which agriculture is, to a large extent, responsible for pollution in the Gulf of Finland.

101 Accordingly, it must be held that the Commission has failed to prove that discharges of nitrogen from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. which are discharged either directly into the Gulf of Finland or into its catchment area contribute significantly to eutrophication in the Gulf of Finland. As was recalled at paragraph 46 of this judgment, it was in this case the Commission's responsibility to prove this.

102 It has not therefore been established that the Finnish national authorities must require tertiary treatment of nitrogen for treatment plants of urban waste water from agglomerations of more than 10 000 p.e. which discharge either directly into the Gulf of Finland or into its catchment area.

103 It follows from all of the foregoing that the Commission's action must be dismissed.

Costs

104 Under Article 69(2) of the Rules of Procedure, the unsuccessful party is to be ordered to pay the costs if they have been applied for in the successful party's pleadings. Since the Republic of Finland has applied for costs to be awarded against the Commission and the latter has been unsuccessful, the Commission must be ordered to pay the costs. Pursuant to the first subparagraph of Article 69(4) of the Rules of Procedure, the Kingdom of Sweden, which has intervened in the proceedings, is to bear its own costs.

On those grounds, the Court (Third Chamber) hereby:

1. Dismisses the action;

2. Orders the Commission of the European Communities to pay the costs;

3. Orders the Kingdom of Sweden to bear its own costs.

[Signatures]