JUDGMENT OF THE COURT (Third Chamber)

6 October 2009 *

In Case C-438/07,

ACTION under Article 226 EC for failure to fulfil obligations, brought on 18 September 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

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

defendant,

* Language of the case: Swedish.

supported by:

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

intervener,

THE COURT (Third Chamber),

composed of A. Rosas, President of the 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 ensuring, by 31 December 1998 at the latest, that all discharges from treatment plants of urban waste water from agglomerations of more than 10 000 population equivalent (p.e.) which enter directly into sensitive areas or their catchment areas fulfil the relevant requirements of Annex I to 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'), the Kingdom of Sweden has failed to fulfil its obligations under Article 5(2), (3) and (5) of 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 ....

…

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.

…'

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) to 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 It is apparent from the description of the national legislation provided in the pleadings of the Kingdom of Sweden that all activities and measures which are of significant importance for the environment fall within the scope of the Swedish Environmental Code (miljöbalken). Furthermore, any Swedish treatment plant treating urban waste water from agglomerations of more than 2 000 p.e. must obtain a permit on the basis of a case-by-case assessment. The examination of the application for a permit involves an overall assessment of the status of the receiving area which is based on accumulated discharges from all sources, together with an assessment of the effects of the discharges downstream.

Pre-litigation procedure

12 In 1994 the Kingdom of Sweden identified all its waters as sensitive areas. In 1998 and 2000, it confirmed that classification to the Commission. Furthermore, it stated that it had used eutrophication as a criterion and that it was the water bodies concerned which made it possible to determine the type of treatment required. According to the Kingdom of Sweden, under the criteria referred to in Annex II.A(a)(i) and (ii) to Directive 91/271, the entire territory of Sweden is sensitive to eutrophication or to the risk of eutrophication as a result of discharges of phosphorus.

13 On 23 October 2002, the Commission sent the Kingdom of Sweden a letter of formal notice on the ground that that Member State had failed to fulfil its obligations under Article 5 of Directive 91/271. The failure stemmed from the fact that not all discharges from urban waste water treatment plants to sensitive areas complied with the requirements laid down in Annex I.B to that directive. The Kingdom of Sweden was required to comply by 31 December 1998 at the latest with those requirements, which applied to all discharges from treatment plants of urban waste water from agglomerations of more than 10 000 p.e., and to all discharges from such treatment plants situated in the catchment areas of sensitive areas.

14 In its reply of 5 February 2003, the Kingdom of Sweden rejected the Commission's assertions and submitted that it was complying with Directive 91/271. The Swedish authorities took the view that it was not necessary to remove nitrogen contained in water discharged into the Baltic Sea by treatment plants of urban waste water from agglomerations of more than 10 000 p.e. in areas to the north of the Norrtälje municipality. They also took the view that nitrogen discharges from treatment plants of urban waste water from other agglomerations of more than 10 000 p.e. in central and southern Sweden did not contribute to eutrophication of coastal waters, since adequate natural retention of nitrogen occurs in transit through the catchment area between the source of the pollution and the sea.

15 On 1 April 2004, the Commission sent a reasoned opinion to the Kingdom of Sweden, in which it set out scientific studies showing that the removal of nitrogen contained in water discharged into the Bothnian Bay and the Bothnian Sea had an effect on the level of eutrophication in the Baltic Sea proper. It stated that all water discharged into the Baltic Sea, including the Bothnian Bay and Sea, by treatment plants of urban waste water from agglomerations of more than 10 000 p.e. had to undergo removal treatment both of phosphorus and of nitrogen.

16 The Commission moreover considered that nitrogen discharges from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. in the central and southern regions of Sweden contributed to polluting the Baltic Sea, which is a sensitive area. In this respect, it observed that natural retention in catchment areas was not an acceptable method of reducing the nitrogen load for coastal areas.

17 The Kingdom of Sweden replied to the Commission's reasoned opinion by letters of 14 and 22 June 2004, stating that, when a Member State is called upon to adopt a position on areas which are sensitive to eutrophication, within the meaning of Directive 91/271, it must also assess which nutrients contribute to eutrophication. When that Member State has adopted a position on that point, it must ensure that more stringent treatment of nitrogen and/or phosphorus is carried out, depending on the local situation. The Kingdom of Sweden stated moreover that Member States were free to choose the

method that they wish to use to remove nitrogen from urban waste water. Directive 91/271 must therefore be interpreted as meaning that natural retention may be taken into consideration as a method of removing nitrogen from urban waste water from inland regions which is discharged into rivers and streams and then flows towards sensitive coastal areas.

18 Being dissatisfied with the Kingdom of Sweden's reply to the reasoned opinion, the Commission brought the present action.

19 By order of the President of the Court of 28 January 2008, the Republic of Finland was granted leave to intervene in support of the form of order sought by the Kingdom of Sweden.

The action

Arguments of the parties

20 The Kingdom of Sweden divided into five groups, mentioned in Annexes 1 to 5 to its defence, the 141 treatment plants of urban waste water from agglomerations of more than 10 000 p.e. whose discharges enter directly into sensitive areas or their catchment areas.

21 In its rejoinder, the Kingdom of Sweden stated that it was necessary to correct the situation of 5 of those 141 treatment plants. Thus, the treatment plants of the agglomeration of Kristianstad, on the one hand, and those of Jönköping and Huskvarna, which now constitute a single agglomeration, on the other, should be deleted from

Annex 1 to the defence and inserted in Annex 3. The Lysekil treatment plant should be deleted from Annex 1 to the defence and inserted in Annex 2. Lastly, the Hammarö treatment plant should be deleted from Annex 2 to the defence and inserted in Annex 1.

22 In the first place, Annex 1 to the defence of the Kingdom of Sweden, as amended by its rejoinder ('the amended Annex 1'), lists the treatment plants that the Kingdom of Sweden considers to be compliant with the requirements of Directive 91/271. The allegation of failure to fulfil obligations is unfounded in respect of those plants since they all have specific equipment for removing nitrogen which satisfies the requirements of that directive. The Commission merely states that the Eslöv, Kristianstad and Jönköping treatment plants do not remove nitrogen from the urban waste water that they treat, in breach of that directive.

23 In the second place, as regards the treatment plants listed in Annex 2 to the defence of the Kingdom of Sweden, as amended by its rejoinder ('the amended Annex 2'), and the treatment plants listed in Annex 3 to that defence, as amended by the rejoinder ('the amended Annex 3'), the Commission states that it agrees with the Kingdom of Sweden that those plants do not satisfy the requirements of Directive 91/271, because the first 18 plants are not equipped to remove nitrogen, and the other 18 plants do not sufficiently remove nitrogen from urban waste water that they treat.

24 In the third place, as regards the plants listed in Annex 5 to the defence of the Kingdom of Sweden, the Commission distinguishes them according to whether their discharges flow directly or indirectly into the Bothnian Bay, and directly or indirectly into the Bothnian Sea. The Commission submits that, since most Swedish inland waterways flow into the Baltic Sea proper, whose eutrophication is caused mainly by phosphorus and nitrogen, those water bodies must be regarded as sensitive to both those nutrients. All those plants must therefore, in addition to phosphorus, establish more stringent treatment of nitrogen for the purposes of Article 5(2), (3) and (5) of Directive 91/271 ('tertiary treatment').

25 The Commission concedes that the water in the Bothnian Bay is sensitive only to phosphorus, but submits that that bay cannot be considered in isolation since nutrients, including nitrogen, are transported from its marine basin towards the other parts of the Baltic Sea. The Commission, relying in particular on a report compiled at its request in 2003 by the Water Research Center on the transposition of Directive 91/271 in Sweden ('the 2003 report'), is of the opinion that the water in the Bothnian Sea is at least partially sensitive to nitrogen. Thus, the flow of water from the Bothnian Bay and the Bothnian Sea towards the Baltic Sea proper results in the transfer of a considerable quantity of nitrogen.

26 In the last place, as regards the plants listed in Annex 4 to the defence of the Kingdom of Sweden, which are considered by that Member State to comply with the requirements of Directive 91/271, there is also no need remove nitrogen, because natural retention is so significant that their discharges do not contribute to eutrophication of coastal waters. In its statement in intervention, the Republic of Finland adds in this respect that such a natural cleansing process can be taken into account when assessing, in accordance with that directive, whether removal of nitrogen is necessary. The Commission asserts for its part that the retention rates advanced by the Kingdom of Sweden do not allow for sufficient nitrogen removal and that its calculations are based on average reduction of nitrogen, which Directive 91/271 does not permit. Retention cannot therefore be considered to satisfy the requirements laid down in Table 2 of Annex I to that directive so far as concerns a sufficient and constant level of treatment.

27 In its reply, the Commission claims that it follows from the requirement to ensure a high level of protection on the basis of the precautionary principle and the principle that preventive action should be taken, laid down in respect of Community policy on the environment in Article 174(2) EC and restated in settled case-law, that it is preferable to rectify pollution at source. In this respect, the Commission takes the view that the Kingdom of Sweden has failed to establish that removal of nitrogen from both inland and coastal waters would not lead to an improvement of the level of eutrophication of the Baltic Sea.

28 The Kingdom of Sweden replies in this respect that removal of nitrogen in cases where the local situation does not require it may stimulate the growth of cyanobacteria. In

such circumstances, unless the Commission adduces evidence that the local situation requires removal of nitrogen, the precautionary principle militates instead against such removal.

Findings of the Court

29 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.

30 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.

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

32 In this instance, it is common ground that in 1994 the Kingdom of Sweden 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.

33 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.

34 All Swedish waters have been identified as sensitive to eutrophication or to the risk of eutrophication as a result of phosphorus discharges. Only the coastal waters between the Norwegian border and the municipality of Norrtälje have been identified as sensitive to eutrophication or to the risk of eutrophication as a result of nitrogen discharges.

35 It must therefore be held that, contrary to what the Commission claims, the Kingdom of Sweden stated, when identifying sensitive areas, which nutrients must, under Table 2 of Annex I to Directive 91/271, be removed when urban waste water is discharged into inland Swedish waters. As the Kingdom of Sweden observes, no distinction has been drawn in this respect between coastal waters and inland waters.

36 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.

37 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.

38 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.

39 It should be pointed out that the Commission and the Kingdom of Sweden 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.

40 As the Kingdom of Sweden claimed, there is no uniform solution to the problem of eutrophication for the Baltic Sea as a whole.

41 In such circumstances, it is apparent from the file that 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.

42 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.

43 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.

44 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 Swedish inland waterways flow into that sea, Swedish lakes, rivers and coastal waters must be considered to be sensitive to both substances.

45 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.

46 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.

47 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.

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

49 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).

50 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).

51 In the first place, as regards the treatment plants listed in the amended Annex 1, the Commission alleges, without however demonstrating it, that the Eslöv, Kristianstad and Jönköping treatment plants are not equipped to remove nitrogen from urban waste water that they treat, and merely asserts that nitrogen has not been removed from waste water from the Hönö, Strömstad, Lidköping, Sävsjö, Borgholm, Bjuv, Svedala, Klippan, Torekov and Åmål agglomerations.

52 In those circumstances, the Court does not have sufficient evidence to enable it to appreciate exactly the scope of the infringement of Community law of which the Kingdom of Sweden is accused and thus to determine whether there is a breach of obligations as alleged by the Commission (see Case C-195/04 *Commission* v *Finland* [2007] ECR I-3351, paragraph 32).

53 As regards, in the second place, the treatment plants listed in the amended Annexes 2 and 3, it must be borne in mind that in an action for failure to fulfil obligations, it is for the Court to determine whether or not the alleged breach of obligations exists, even if the State concerned does not deny the breach (see, to that effect, Case C-439/99 *Commission* v *Italy* [2002] ECR I-305, paragraph 20, and Case C-43/05 *Commission* v *Germany* [2006], paragraph 11).

54 The Court notes that the Kingdom of Sweden recognises itself that it has failed, in that connection, to fulfil its obligations under Directive 91/271. That Member State states that, on expiry of the deadline laid down in the reasoned opinion, the treatment plants listed in the amended Annexes 2 and 3 did not satisfy the requirements applicable under Annex I to that directive. It is apparent, inter alia, from the replies of the Kingdom of Sweden to the written questions that the treatment plants listed in the amended Annex 2 did not have specific technology for removing nitrogen. The Kingdom of Sweden has also conceded that the treatment plants listed in the amended Annex 3 did have specific technology for removing nitrogen, but that the nitrogen discharges from those plants are so significant that, even where the retention rate is high, they contribute to eutrophication.

55 Even if the Commission's application adopts an overall approach with respect to all discharges from treatment plants of urban waste water from agglomerations of more than 10 000 p.e. which enter directly into sensitive areas or their catchment areas, that does not prevent a finding that there has been a failure to fulfil obligations in relation to some of those plants. That conclusion is supported by the fact that the Kingdom of Sweden, while conceding that the treatment plants listed in the amended Annexes 2 and 3 do not satisfy the requirements applicable under Annex I to Directive 91/271, explicitly stated that it does not dispute that part of the Commission's action.

56 It follows from the foregoing that the Kingdom of Sweden has failed to fulfil its obligations under Directive 91/271 so far as concerns discharges of nitrogen from the treatment plants listed in the amended Annexes 2 and 3.

57 In the third place, as regards the treatment plants listed in Annex 4 to the defence of the Kingdom of Sweden and the treatment plants listed in Annex 5 to that defence in respect of which no specific equipment for removing nitrogen is said to be necessary because their discharges do not contribute to the eutrophication of sensitive areas, it is necessary to examine whether the Commission has established that discharges from those plants do contribute to the eutrophication of those areas.

58 It should be noted, in that regard, as the file indicates, that those plants are spread between catchment areas whose receiving waters are, first, the Gulf of Bothnia, which is an arm of the Baltic Sea, and, second, the Baltic Sea proper.

Treatment plants whose discharges flow into the Gulf of Bothnia

59 Of the treatment plants included in Annex 5 to the defence of the Kingdom of Sweden, 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.

60 First, the treatment plants of urban waste water from agglomerations of more than 10 000 p.e. which discharge either directly into the Bothnian Bay or into its catchment

area are those of Haparanda, Luleå, Piteå, Skellefteå and Umeå and those of Kiruna, Gällivare and Boden respectively.

61 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.

62 In those circumstances, the Commission has failed to establish that because of the situation in the Bothnian Bay the Kingdom of Sweden 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.

63 Second, the treatment plants of urban waste water from agglomerations of more than 10 000 p.e. whose discharges flow either directly into the Bothnian Sea or into its catchment area are those of Örnsköldsvik, Härnösand, Timrå, Sundsvall, Hudiksvall, Söderhamn and Gävle and those of Sollefteå, Östersund, Åre, Ljusdal, Bollnäs, Mora, Falun, Borlänge, Avesta and Sandviken respectively.

64 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

65 According to the results of studies appended to the file by the Kingdom of Sweden, the Gulf of Bothnia, including the Bothnian Sea, is the only subregion of the Baltic Sea which does not show clear signs of eutrophication.

66 The Commission bases its assertion that nitrogen is a significant limiting factor of eutrophication of the Bothnian Sea on the 2003 report.

67 However, that report highlights that it is generally accepted that there is no eutrophication problem in the open waters of the Gulf of Bothnia.

68 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.

69 According to the conclusions of the 2003 report, eutrophication is a problem in the Baltic Sea proper, the Kattegat and the Sound, and in the coastal areas of the Bothnian Sea, where water exchange is poor and the nutrient content high.

70 The 2003 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 phosphorus is the principal limiting factor in Swedish coastal waters.

71 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, as regards 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, 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.

72 In this respect, the 2003 report reveals that doubts persist as to the efficacy of removing nitrogen and states that a reduction of nitrogen loads in the parts of the Baltic Sea where phosphorus is the limiting factor would have only a limited effect on eutrophication.

73 Moreover, the Kingdom of Sweden claims — and the Commission adduces no evidence to the contrary — that removal of nitrogen would mean that the transfer of nitrogen from the Bothnian Bay to the Bothnian Sea would be reduced by approximately 19 tonnes, which represents less than 0.1% of the total transfer of nitrogen between those two marine areas. The effect of removing nitrogen in the Gulf of Bothnia on the level of eutrophication of the Baltic Sea proper would therefore be insignificant.

74 In those circumstances, it must be held that the Commission has failed to establish that because of the situation in the Bothnian Sea the Kingdom of Sweden 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

75 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.

76 First, it is true, as the Commission and the Kingdom of Sweden 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 paragraph 44 of 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.

77 Second, as regards the Kingdom of Sweden's argument that water exchange between the Bothnian Bay, the Bothnian Sea and the Baltic Sea proper is extremely limited, 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, it is apparent from Annex 11 to the defence of the Kingdom of Sweden, which presents the topography of the Baltic Sea, that, between the Bothnian Bay and the Bothnian Sea, water exchange is limited by natural obstacles north of the Kvarken Archipelago. According to that map, the Bothnian Bay and the Bothnian Sea are linked by shallow waters with a maximum depth of 25 metres. That finding is also supported by Annex 12 to that defence which illustrates the profile of the seabed of the Baltic Sea.

78 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.

79 Moreover, as the Advocate General observed at point 93 of her Opinion, the Bothnian Sea is an effective sink for nitrogen. In addition, it is accepted in the 2003 report that problems of eutrophication linked to nitrogen in the Gulf of Bothnia are not significant and that only a small quantity of nitrogen is transported as far as the Baltic Sea proper. The presence of shallow seas and of a narrowing of the Gulf of Bothnia around the Åland Islands also suggests that such topography is not conducive to transfer of water, and thus of nitrogen.

80 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 Sweden whose treatment plants do not remove nitrogen.

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

82 However, as the documents in the file and the observations made by the Kingdom of Sweden at the hearing indicate, and as that Member State observes, the relevant percentage 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.

83 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.

84 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.

85 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.

86 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.

87 According to the observations of the Kingdom of Sweden 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%.

88 In those circumstances, the Commission has failed to show that the transfer of nitrogen from Swedish 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 can be considered significant if it accounts for approximately 10% of the total flow of nitrogen (see, to that effect, *Commission* v *France*, paragraph 77).

89 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.

90 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, that requirement is not aimed at the Kingdom of Sweden. It is instead aimed at the States in the catchment area of the Baltic Sea proper, namely the Federal Republic of Germany, the Republic of Latvia, the Republic of Lithuania and the Republic of Poland.

91 In those circumstances, it must be concluded that 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.

92 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 Kingdom of Sweden 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.

93 Accordingly, it must be held that the Commission has failed to prove that the Kingdom of Sweden 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 into the catchment area of the Baltic Sea proper

94 So far as concerns discharges from the treatment plants listed in Annex 4 to the defence of the Kingdom of Sweden located in inland southern Sweden which treat urban waste water from agglomerations of more than 10 000 p.e. situated in the catchment area whose waters drain towards coastal waters sensitive to nitrogen between the Norwegian border and the municipality of Norrtälje, the Kingdom of Sweden maintains that tertiary treatment of nitrogen is not necessary since the phenomenon of natural retention permits sufficient removal of that nutrient.

95 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.

96 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.

97 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.

98 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 Kingdom of Sweden observed that the calculation of the discharges of each agglomeration in sensitive coastal waters is based on the actual discharges of the agglomeration in combination with retention calculated on an individual basis. The method used includes the results of actual measurements of the nitrogen content in various rivers and the calculations are normally based on a programme of measurements carried out over periods of up to 10 years. It follows that those calculations also take into account nitrogen which is returned to the water, and that result therefore reflects net retention which includes all nitrogen, including that which has been captured before and released again.

99 Next, it should be noted that the 2003 report itself recognises that natural retention is a legally permissible option.

100 Lastly, it must be recalled that, as was pointed out at paragraph 47 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.

101 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.

102 It is therefore necessary to ascertain whether the Commission has demonstrated that the discharges of the plants in question do not comply with those requirements.

103 As a preliminary point, as the Kingdom of Sweden observes, the territory of that Member State contains numerous lakes and rivers. The Kingdom of Sweden also stated that there is a significant lapse of time before nitrogen discharged into the hydraulic system reaches the coast and that the natural process of separation of nitrogen in discharges thus occurs over a long period. In those circumstances, it must be stated that the natural characteristics of the Swedish territory appear to be conducive to retention of nitrogen.

104 First, the Kingdom of Sweden 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%. Second, it is apparent from the information provided by the Kingdom of Sweden in its reply to the written questions that, according to calculations undertaken in 2008, the rate of retention of nitrogen is 54% for the Filipstad treatment plant, 81% for the Kumla plant, 47% for the Flen plant, 92% for the Nässjö plant, 74% for the Tranås plant, 70% for the Vimmerby plant and 48% for the Olofström plant.

105 It must be held that, in those circumstances, the Commission has failed to establish that, for each of the plants listed in Annex 4 to the defence of the Kingdom of Sweden, 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.

106 In those circumstances, it must be held that the Commission has failed to prove the failure to fulfil obligations alleged as regards those plants.

107 It follows from all of the foregoing that, by not ensuring, by 31 December 1998 at the latest, that discharges from the treatment plants of urban waste water from agglomerations of more than 10 000 p.e. listed in the amended Annexes 2 and 3 which enter directly into sensitive areas or their catchment areas fulfil the relevant requirements of Annex I to Directive 91/271, the Kingdom of Sweden has failed to fulfil its obligations under Article 5(2), (3) and (5) of that directive.

108 The action is dismissed as to the remainder.

Costs

109 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. Although the Commission has been unsuccessful with respect to most of its pleas, since the Kingdom of Sweden has not applied for costs against it, the parties must be ordered to bear their own costs.

110 Pursuant to Article 69(4) of the Rules of Procedure, Member States which have intervened in the proceedings are to bear their own costs.

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

1. Declares that, by not ensuring, by 31 December 1998 at the latest, that discharges from the treatment plants of urban waste water from agglomerations of more than 10 000 population equivalent listed in Annexes 2 and 3 to its defence, as amended by its rejoinder, which enter directly into sensitive areas or their catchment areas fulfil the relevant requirements of Annex I to Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, as amended by Commission Directive 98/15/EC of 27 February 1998, the Kingdom of Sweden has failed to fulfil its obligations under Article 5(2), (3) and (5) of that directive;

2. Dismisses the action as to the remainder;

3. Orders the Commission of the European Communities, the Kingdom of Sweden and the Republic of Finland to bear their own costs.

[Signatures]