

CONVENTION ON THE PROTECTION OF THE MARINE ENVIRONMENT OF THE BALTIC SEA AREA

HELSINKI COMMISSION - Baltic Marine Environment Protection Commission

HELCOM 16/17
Annex 13

16th Meeting
Helsinki, 14-17 March 1995

HELCOM RECOMMENDATION 16/9

Adopted 15 March 1995
having regard to Article 13, Paragraph b)
of the Helsinki Convention

NITROGEN REMOVAL AT MUNICIPAL SEWAGE WATER TREATMENT PLANTS

THE COMMISSION,

RECALLING Paragraph 1 of Article 6 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974 (Helsinki Convention), in which the Contracting Parties undertake to take all appropriate measures to control and minimize land-based pollution of the marine environment of the Baltic Sea Area,

RECALLING ALSO Paragraph 1 of Annex III of the Helsinki Convention in which the Contracting Parties agree to treat municipal sewage in an appropriate way so that the amount of organic matter does not cause harmful eutrophication of the Baltic Sea Area,

RECALLING FURTHER HELCOM Recommendation 9/2 in which the use of effective methods in waste water treatment is stressed upon,

RECOGNIZING that nitrogen removal has been found to be necessary in many parts of the Baltic Sea Area,

DESIRING to limit this pollution,

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that
a) municipal sewage treatment plants, located in areas sensitive to nitrogen, should be equipped with nitrogen removal according to the following stipulations, where values for concentration or for the percentage of reduction are applied:

Size of treatment plant	Concentration	Minimum ²⁾	Year	Countries in transition
tot-N, mg/l ¹⁾	percentage (yearly average)	(end of) reduction		
10 001-50 000 pe	15	70-80	1998 2020	
50 001-100 000 pe	15	70-80	1998 2020 ⁴⁾	
> 100 000 pe	10 ³⁾	70-80	1998 2010	

¹⁾tot-N means the sum of total Kjeldahl nitrogen (organic N + NH₄), nitrate (NO₃)-nitrogen and nitrite (NO₂)-nitrogen

²⁾reduction in relation to the load of the influent

³⁾alternatively the daily average must not exceed 20 mg/l N. This requirement refers to a water temperature of 12° C or more during the operation of the biological reactor of the waste water treatment plant. As a substitute for the condition concerning the temperature, it is possible to apply a limited time of operation, which takes into account the regional climatic conditions

⁴⁾most urgent plants should be equipped with nitrogen removal by 2010. Those plants should be specified to the Commission not later than in 1997.

b)the results of assessments which have evaluated areas for being sensitive or non-sensitive should be reported every three years according to the reporting format to the Commission,

RECOMMENDS ALSO that the Contracting Parties re-evaluate the present Recommendation and reconsider it in 1995 taking into account new developments on national or international or EU level for Member States. National and international research on the need, technology and economics of nitrogen removal should be intensified,

RECOMMENDS FURTHER that the Contracting Parties report to the Commission in 2000 and thereafter every three years.

**REPORTING FORMAT FOR HELCOM RECOMMENDATION 16/9
CONCERNING NITROGEN REMOVAL AT MUNICIPAL SEWAGE WATER TREATMENT PLANTS**

1. Country

2. For the different size classes (10 001-50 000 pe, 50 001-100 000 pe, >100 000 pe) give the following data:

-number of plants within the catchment area of the Baltic Sea

-number of plants which are located in sensitive areas

-number of plants which are located in sensitive areas and are in compliance with this Recommendation

3. Results of assessments which have evaluated areas for being sensitive or non-sensitive

4. Please give a map of sensitive and non-sensitive areas.