

HELCOM RECOMMENDATION 11/1

This Recommendation supersedes HELCOM Recommendation 7/1

Adopted 14 February 1990, having regard to Article 13, Paragraph b) of the Helsinki Convention

MONITORING OF AIRBORNE POLLUTION LOAD

THE COMMISSION,

RECALLING 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, and to endeavour to use best practicable means in order to minimize the airborne pollution of the Baltic Sea Area by noxious substances,

RECALLING ALSO Paragraph 3 of the Article 16 of the Helsinki Convention, in which the Contracting Parties undertake directly, or when appropriate, through competent regional or other international organizations and other basis of information and data acquired pursuant to Paragraphs 1 and 2 of Article 16, to cooperate in developing intercomparable observation methods, in performing baseline studies and in establishing complementary or joint programmes for monitoring,

NOTING the increasing concern on harmful effects of pollutants in the environment and that an essential amount of various contaminants is transported via the atmosphere,

NOTING FURTHER the decision by the Commission to start joint monitoring programme as adopted as the HELCOM Recommendation 7/1,

DESIRING to limit the pollution of the Baltic Sea due to atmospheric transport of harmful substances,

BEING MINDFUL of the need of reliable data on the amounts of harmful substances carried by the air to the Baltic Sea,

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that:

a) each Baltic Sea State should have at least one monitoring station on the sea (or on the coast), to be included in the joint monitoring programme

b) the list attached to this Recommendation (Appendix 1) should be used as the basis for the monitoring programme in all Baltic Sea States, bearing in mind that the list consists of minimum requirements; and

c) whenever possible, also experimental monitoring of those substances which are now included in the present list attached to this Recommendation, should be started,

RECOMMENDS ALSO that all laboratories involved would apply reliable analytical procedures taking into account also the development in other relevant international organizations concerning analytical, technological and data quality assurance,

RECOMMENDS FURTHER that as prerequisite for reliable calculations for modelling concerning precipitation of the substances to the Baltic Sea, emission data should be provided by all Baltic Sea States on relevant substances,

RECOMMENDS FURTHERMORE that the Baltic Sea States would report their monitoring data, to the Commission using the form attached to this Recommendation (Appendix 2),

RECOMMENDS FURTHERMORE that:

a) the annual monitoring data be submitted 1 April of the following year to the Secretariat;

b) the methodological and other relevant additional information concerning monitoring be submitted every third year/or when there will be changes in the methods or in the monitoring network, following the procedure started in 1986 and using the form attached to this Recommendation (Appendix 3);

c) the emission data to be submitted in 1990 and later on in a harmonized way with other relevant international organizations.

Appendix 1

		Routine Minimum requirements	Experimental
N	NO ₃ ⁻ precipitation	+	
	NH ₄ ⁺ precipitation	+	
	NO ₂ gas	-	+
	HNO ₃ gas + NO ₃ ⁻ particles	-	+
	NH ₃ gas + NH ₄ ⁺ particles	-	+
Pb	precipitation	+ *)	
	particles	-	+
Cd	precipitation	+ *)	
	particles	-	+
Cr Ni As Hg	precipitation	-	+

+ monitored on routine or experimental basis

- not monitored on routine basis

*) monitored on routine basis, from at least one station of each country

For quality assurance purposes, the Countries are requested to report the major ion (Na, K, Ca, MG, SO₄⁻, CL⁻) concentrations in precipitation although they are not on the list of the routine minimum requirements

Appendix 2

TENTATIVE INSTRUCTIONS FOR REPORTING MONITORED DATA TO THE BALTIC MARINE ENVIRONMENT PROTECTION COMMISSION

Monthly mean values should be reported in the following way:

Precipitation

The precipitation amount should preferably be based on the volume collected in the actual deposition sampler; if not, the base should be given.

Concentrations of precipitation

Sampling periods less than a month

The concentration of each species should be precipitation amount weighted arithmetic mean values, i.e. calculated with the following formula:

where C_M is the weighted monthly mean. P_i is the precipitation amount (mm) collected at each sampling period and C_i is the corresponding concentration. $\sum P_i C_i$ is thus the total collected amount per unit area and month and. $\sum P_i$ the total precipitation amount for the month in question.

Weekly sampling

If weekly sampling is used and if a week includes two adjacent months, the measured data should be allocated to the month which contains the largest number of days in the week in question.

Concentrations below the detection limit

When the concentrations are below the detection limit the value zero should be used for the mean calculations. When sampling or analysis have failed due to a too small sample this should be neglected. If sampling and analysis have failed due to other reasons this should be marked with an asterisk after the concentration values.

Units

The concentrations should be expressed in mg or μg of the element in question (e.g. N or S) per dm^{-3} precipitation or per m^{-3} air as indicated in the reporting format.

Appendix 3