

HELSINKI COMMISSION

Baltic Marine Environment
Protection Commission



HELCOM RECOMMENDATION 24/1 *)

Adopted 25 June 2003
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

MONITORING OF AIRBORNE POLLUTION LOAD

THE COMMISSION,

RECALLING Paragraph 5 of Article 3 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention 1992), in which the Contracting Parties undertake to ensure that measurements and calculations of emissions from point sources to water and air and of inputs from diffuse sources to water and air are carried out in a scientifically appropriate manner in order to assess the state of the marine environment of the Baltic Sea Area and ascertain the implementation of this Convention,

RECALLING ALSO Paragraph 3 of the Article 24 of the Helsinki Convention 1992, in which the Contracting Parties undertake directly, or when appropriate through competent regional or other international organizations, and, on the basis of information and data acquired pursuant to Paragraphs 1 and 2 of this Article, to co-operate in developing inter-comparable observation methods, in performing baseline studies and in establishing complementary or joint programmes for monitoring,

RECALLING FURTHER that the Ministerial Declaration 1988, of the ninth meeting of the Helsinki Commission calls to develop methodologies and exchange data in order to further, as a matter of urgency, the reliable assessment of the pollution load of the Baltic Sea Area on a regular basis,

NOTING the wide-spread concern of harmful effects of pollutants in the environment and that an essential amount of various contaminants is entering the Baltic Sea via atmosphere, from industrial and municipal sources as well as from non-point sources,

NOTING FURTHER in particular the close co-operation established with UN ECE EMEP programme on monitoring and modelling of atmospheric pollutants, on quality assurance, on data reporting and management and on the establishment of emission inventories,

DESIRING to obtain a reliable assessment of the airborne load of pollutants entering the Baltic Sea via air and precipitation for the concerted actions to limit the pollution of the marine environment of the Baltic Sea Area,

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

*) This Recommendation supersedes HELCOM Recommendation 14/1.

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

1. Each Contracting Party should on a continuous basis collect data on the pollution air and precipitation that can:
 - contribute to descriptions and assessments of the atmospheric pollution load to the Baltic Sea and its catchment area,
 - be used for validation of models for calculations of such loads and their environmental impacts,
 - form a basis for decisions on emission reduction measures,
 - be used in combination with models for verification of compliance with such measures;
2. Each Contracting Party should for this purpose have at least one measurement station on the coast or on an island with simultaneous sampling and measurements of pollutants in air and precipitation according to the monitoring programme requirements set out below;
3. Each contracting party should report the measured data to the air quality data consultant at agreed deadlines in an agreed electronic format and with the actual time resolutions used for sampling by that Contracting Party;
4. Each Contracting Party should report whether changes in experimental procedures have occurred and, if so, report the changes and their consequences for the data quality;
5. Each Contracting Party should at the end of each year update emission estimates of selected pollutants (two years in arrears) according to the Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook and agreed formats,

RECOMMENDS ALSO that all institutes involved should wherever possible use the procedures for sampling, analysis and quality assurance and control contained in the *EMEP Manual for Sampling and Analysis* and otherwise use procedures that have been recommended in other relevant international fora,

RECOMMENDS FURTHER that all the Contracting Parties should support development of experimental methods to improve the data quality and development of chemical transport models that will improve the quality of the assessments of environmental impacts of atmospheric pollution in the Baltic Sea area,

RECOMMENDS FINALLY that the pollutants to be monitored and for which emission inventories are to be established and updated should, as a minimum for each Contracting Party, comprise the following mandatory programme (***Attachment 1***) and that additional pollutants should be monitored at a few stations in the Baltic Sea area either on a voluntary national basis or as a joint effort of the Contracting Parties.

Programme for monitoring of the pollution of air and precipitation

Pollutants in precipitation

Pollutant type	Mandatory programme	Non-mandatory Shared / Joint programme	Voluntary programme
Maximum sampling time	1 month	1 month	1 month
Precipitation	Amount – mm		
Nutrients	NO ₃ ⁻ ; NH ₄ ⁺ .		
Main ions (qa/qc)	Na ⁺ ; Mg ²⁺ ; Cl ⁻ ; K ⁺ ; Ca ²⁺ ; SO ₄ ⁼ ; pH; conductivity.		
Metals	Cd; Pb.	Cr; Ni; Cu; Zn; As; Hg	
POPs	γ-HCH (lindane).		
PCBs	Congeners 28, 52, 101, 118, 138, 153, 180.		
PAHs	Ba(P)		

Airborne pollutants

Pollutant type	Mandatory programme	Non-mandatory Shared / Joint Programme	Voluntary programme
Maximum sampling time	24 hours	1 week	1 week
Nutrients			
air - gas	NO ₂ .		
air - gas	HNO ₃ ; NH ₃ .		
air-particles	NO ₃ ⁻ ; NH ₄ ⁺ .		
or alternatively			
phase sums	(HNO ₃ + NO ₃ ⁻)		
phase sums	(NH ₃ + NH ₄ ⁺).		
Metals			
air particles		Hg Cr; Ni; Cu; Zn; As; Cd; Pb; Hg.	
POPs	γ-HCH (lindane).		
PCBs	Congeners 28, 52, 101, 118, 138, 153, 180.		
PAHs	Ba(P)		