

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

BALTIC MARINE ENVIRONMENT PROTECTION HELCOM 14/18  
COMMISSION - HELSINKI COMMISSION - Annex 12

14th Meeting  
Helsinki, 2-5 February 1993

---

**HELCOM RECOMMENDATION 14/2**

Adopted 3 February 1993 having regard to Article 13, Paragraph b) of the Helsinki Convention

**LIMITATION OF DISCHARGES INTO WATER AND EMISSIONS TO THE ATMOSPHERE FROM PRODUCTION AND FORMULATION OF PESTICIDES**

**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** that according to Paragraph 2 of Article 2 of the Helsinki Convention land-based pollution includes also airborne pollution,

**RECALLING ALSO** that according to Paragraph 8 of Article 6 of the Helsinki Convention, the Contracting Parties undertake to endeavour to use best practical means in order to minimize airborne pollution of the Baltic Sea by noxious substances,

**HAVING REGARD** to the Ministerial Declaration of 1988 and to the Baltic Sea Declaration of 1990 calling, inter alia, for a substantive reduction of the load of pollutants most harmful to the ecosystem of the Baltic Sea,

**RECOGNIZING** the importance of reducing discharges into water and emissions to the atmosphere from the production and formulation of pesticides as a source of substances with toxic, persistent and bioaccumulative properties of pesticides,

**RECOMMENDS** to the Governments of the Contracting Parties to apply the following measures to the plants which produce or formulate more than 5 t/a of active substance(s)

1. Liquid concentrates out of the production or formulation processes should be kept away from water, be recycled for the active substances and/or solvents or be incinerated.

2. Waste waters which occur continuously or discontinuously, e.g. during synthesizing, washing and rinsing processes, should be reused as far as possible and should be treated to meet the following requirements for discharge into waters:

A.

	2 h or 24 h-sample
Absorbable Organic Halogen (AOX)	1 mg/l
Copper *)	0.5 mg/l
Chromium, total *)	0.5 mg/l

Chromium (VI) *)	0.1 mg/l
Zinc *)	2.0 mg/l
Arsenic *)	0.3 mg/l

\*) only if expected in waste water, e.g. from production of wood preservatives.

B.

Toxicity to Fish	$G_F = 2$
Toxicity to Daphnia	$G_D = 8$
Toxicity to Algae	$G_A = 16$
Toxicity to Bacteria	$G_B = 8$

Out of these four toxicity tests two should be chosen for testing and would have to fulfill the values mentioned above.

The toxic effect is determined in a test by using the different species (fish, daphnia, bacteria, algae) as test species and by applying various degrees of waste water dilutions, e.g.  $G_F = 2$  means that in waste water which is diluted by the factor 1 : 1 all fish are surviving during 48 hours.

If available the CEN toxicity testing standard should be applied.

C.

In case of joint treatment of waste water out of production and formulation of pesticides with other waste waters in a biological treatment plant (industrial or municipal) the pretreatment for waste water out of production and formulation of pesticides should be run in such a manner that the biological process is not disturbed.

The requirements in 2A for AOX and heavy metals apply also for the outlet of the biological treatment plant taking into account the dilution by the other waste water streams.

3. Dust emissions into the atmosphere out of facilities for the production and formulation of pesticides should not exceed mass concentrations of  $5 \text{ mg/m}^3$  (ndg) if the mass flow is 25 g/h or more.

**RECOMMENDS ALSO** that these measures should be implemented by 1 January 1994 for new plants and by 1 January 1997 for existing plants,

**RECOMMENDS FURTHER** that the Contracting Parties report to the Commission in 1997 and thereafter every three years.

#### **REPORTING FORMAT FOR HELCOM RECOMMENDATION 14/2 CONCERNING LIMITATION OF DISCHARGES INTO WATER AND EMISSIONS TO THE ATMOSPHERE FROM PRODUCTION AND FORMULATION OF PESTICIDES**

**Country**                      **Year**

1. Name of the plant, location and producing/formulating capacity for every active substance.
2. Description of waste water collecting and treatment systems including waste water volume, measures for its minimization and recycling processes.
3. Discharge data (in mg/l and kg/a) for AOX, heavy metals (if expected) and single active substances.
4. Data for results of toxicity tests (toxicity testing standard to be indicated).
5. Data for emissions of dust and other relevant substances into the atmosphere.