

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

HELSINKI COMMISSION - Baltic Marine  
Environment Protection Commission

HELCOM 23/2002  
Minutes of the Meeting

23rd Meeting  
Helsinki, Finland, 5-7 March 2002

Annex 8

---

**HELCOM RECOMMENDATION 23/6 \*)**

Adopted 6 March 2002  
Having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**REDUCTION OF EMISSIONS AND DISCHARGES OF MERCURY FROM CHLORALKALI  
INDUSTRY**

**THE COMMISSION,**

**RECALLING** Paragraph 1 of Article 6 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), in which the contracting Parties undertake to prevent and eliminate pollution of the Baltic Sea Area from land-based sources by using, inter alia, Best Environmental Practice for all sources and Best Available Technology for point sources,

**HAVING REGARD** also to Article 3 of the Helsinki Convention, in which the Contracting Parties shall individually or jointly take all appropriate legislative, administrative or the relevant measures to prevent and abate pollution in order to promote the ecological restoration of the Baltic Sea Area,

**RECALLING** Article 5 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), in which the Contracting Parties undertake to prevent and eliminate pollution of the marine environment of the Baltic Sea caused by harmful substances,

**RECALLING ALSO** Annex I, Part 1 of the Convention, according to which the Contracting Parties shall, in their preventive measures, give priority to the groups of substances listed in Annex I, Part 1, including mercury, which are generally recognized as harmful substances,

**RECALLING FURTHER** the Ministerial Communiqué 1998, calling to implement the HELCOM Recommendation 19/5 on the HELCOM Objective with regard to Hazardous Substances, which is to prevent pollution of the Convention Area by continuously reducing discharges, emissions and losses of hazardous substances, with the ultimate aim of concentrations in the environment near background values for naturally occurring substances and close to zero for man-made synthetic substances, until 2020,

**RECALLING FURTHER** that the Ministerial Declaration 1988, of the ninth meeting of the Helsinki Commission calls for a considerable reduction of land-based pollution,

**RECALLING FURTHER** the information provided by the European Commission on BAT (Best Available Technology) within the BREF document on the Chloralkali Industry which identifies mercury free chlorine production being BAT,

**DESIRING** to limit this pollution by accomplishing the treatment of chloralkali industry effluents corresponding to modern technology,

---

\*) Superseding HELCOM Recommendation 6/3

**RECOGNIZING** that chloralkali industry is one of the main sources of pollution by mercury,

**BEING MINDFUL** of the pollution caused by chloralkali industry,

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

1. The existing industrial plants in operation should meet the following requirements:
  - a) the total quantity of mercury in all water discharged from the site of the industrial plant should not exceed the monthly average of 1.0 g per ton chlorine production capacity;
  - b) technology should be developed and high-effective vacuum equipment in departments should be put into operation so that the losses in ventilation air are less than 2.0 g per ton chlorine production capacity;
  - c) the annual average mercury concentration in alkali should be reduced to 0.3 mg/l;
  - d) the monthly average amount of mercury in hydrogen gas should be reduced to 0.2 g per ton chlorine produced;
2. The mixing or diluting of different waste waters (i.e. mixing of treated process water with cooling water) for the purpose of compliance with the limit values established for the effluent should not be allowed. This means that all limit values mentioned above refer to the process waste water;
3. Internationally accepted standardized sampling, analyzing and quality assurance methods (e.g. CEN-standards, ISO-standards and OECD-Guidelines) should be used whenever available,

**RECOMMENDS ALSO** that measures taken in accordance with this Recommendation and the analyses and estimation methods used should be reported to the Commission in 2006 and thereafter every 3 years,

**RECOMMENDS FURTHER** that the Contracting Parties, whenever possible, apply even more stringent measures that stated above aimed at the reduction of mercury from chloralkali industry.

**REPORTING FORMAT FOR HELCOM RECOMMENDATION 23/6 CONCERNING REDUCTION OF EMISSIONS AND DISCHARGES OF MERCURY FROM CHOLRALKALI INDUSTRY**

Lead Country:

Country:

Year

1. Name, location and type of type of technology used at each plant;
2. Information on measures taken to reduce mercury emissions to water and to atmosphere at each plant;
3. Data for waste water discharges and emissions to the atmosphere for each plant separately;

Plant (No.)	Total quantity of mercury <sup>1)</sup> in all waste water discharged (g/t production capacity)	Mercury losses in ventilation air (g/t production capacity)	Amount of mercury in hydrogen gas <sup>1)</sup> (g/t chlorine produced)	Mercury concentration in alkali <sup>2)</sup> (mg/l)

<sup>1)</sup> monthly average

<sup>2)</sup> annual average

4. Summary of evaluation of compliance with the requirements of the Recommendation including:

- problems encountered in the implementation of the requirements and the foreseen development of the situation.

5. Specify means used when nationally putting into force the Recommendation:

- via general reference in the national legislation
- via a specific adoption of an amendment to existing national legislation
- via administrative or other means, please specify.

Possible problems identified when putting into force nationally the Recommendation.