HELCOM RECOMMENDATION 14/3

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

LIMITATION OF EMISSIONS TO THE ATMOSPHERE AND DISCHARGES INTO WATER FROM GLASS INDUSTRY

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,

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 the emissions to the atmosphere and discharges into water from glass production by the use of Best Environmental Practice and Best Available Technology,

RECOMMENDS to the Governments of the Contracting Parties to apply the following basic principles in glass industry

i) minimizing the hazards to human health and to the environment from toxic, persistent and bioaccumulative substances by the application of Best Available Technology;

ii) developing processes and techniques for the collection and treatment of atmospheric emissions;

iii) substituting hazardous substances as far as possible,

These include the following, or other as environmentally efficient, measures:

use of gasfired melting and heating or a combination of gasfired and electrical melting and heating; heat recovery; glass breakage in the batch; pelletizing of the batch; covered furnace or doghouse encapsulation to avoid fugitive dust emissions; avoidance of heavy metal compounds in the raw materials as far as possible; lime-reactor for cleaning of fluoride, boron and SO_x,

RECOMMENDS ALSO that

1)fabric filters or other dry technology for gas cleaning should be used. The dust concentration in emitted process gases should not exceed 50 mg/m^3 (ndg). If raw material contains heavy metals the dust concentration should not exceed 10 mg/m^3 (ndg) or alternatively 5 mg Pb/m^3 (ndg) and 1 mg As/m^3 (ndg),

2)the NO_x emissions may, by catalytic or equally efficient process, not exceed 2.5 kg per produced tonne glass, calculated as NO_2, if the capacity of the production unit is more than 20 000 tonne/a,

3)mechanical processing of glass should require recirculation of process waters. Wastewater from glass industry which is discharged into water bodies or municipal treatment plants should not exceed the following limit values:

Pb (lead)1 mg/l
As (arsenic)0.3 mg/l
Sb (antimony)0.5 mg/l
F (fluoride)30 mg/l,

RECOMMENDS ALSO that these measures should be implemented by 1994 for new plants and by 1998 for existing plants,

RECOMMENDS FURTHER that the actions taken by the Contracting Parties should be reported to the Commission in 1997 and thereafter every three years.

REPORTING FORMAT FOR HELCOM RECOMMENDATION 14/3 CONCERNING LIMITATION OF EMISSIONS TO THE ATMOSPHERE AND DISCHARGES INTO WATER FROM GLASS INDUSTRY

Country _____ **Year** _____

1.Number of plants, their location and their actual yearly production.

2.The total annual use (in tonnes) of heavy metals, such as Pb, As and Sb, in glass production.

3.Measures taken to reduce the emissions since the last reporting year.

4.Dust emission (in mg/m^3 (ndg)) from each plant.

5.Measures taken to avoid fugitive dust emissions.

6.NO_x emissions (in kg/tonne glass) for each plant with a production exceeding 20 000 tonnes/year.

7.Measures taken to achieve recirculation of wastewater.

8.Wastewater volume, concentrations (in mg/l) and annual load of Pb, As, Sb and F for each plant in wastewater.

9.Total annual emissions to the atmosphere and discharges into water of Pb, As and Sb and F from glass production.