

## HELCOM RECOMMENDATION 11/5

Adopted 15 February 1990, having regard to Article 13, Paragraph b) of the Helsinki Convention

### RESTRICTION OF DISCHARGES FROM THE IRON AND STEEL INDUSTRY

#### THE COMMISSION,

**RECALLING** that according to Article 6 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974 (Helsinki Convention) the Contracting Parties shall take all appropriate measures to control and strictly limit pollution by noxious substances,

**RECALLING ALSO** that Annex II of the Helsinki Convention defines certain metals, oil and cyanide contained in industrial waste waters as noxious substances for the purposes of Article 6 of the Convention,

**RECOGNIZING** that iron and steel industry is a major source of metal, oil and cyanide discharges,

**RECALLING** the Ministerial Declaration at the ninth meeting of the Helsinki Commission,

**DESIRING ALSO** more information about the discharges from iron and steel industry,

**RECOGNIZING** the importance of reducing the discharges from iron and steel industry

- i) by minimizing the hazards to human health and to the environment from toxic, persistent and bioaccumulative substances by the application of best available technology; \*)
- ii) by developing industrial processes and in particular recycling of waters and by preventing incidental effluent discharges;
- iii) by developing waste- and stormwater treatment techniques and reuse or further processing of the sludge and by disposing the sludge in a manner causing as little environmental hazard as possible,

**RECOMMENDS** to the Governments of the Contracting Parties that as a first step

- a) the total discharges from iron and steel industry including related process units like sinter plant and including storm waters and run off from sludge disposal within the catchment area of the Baltic Sea shall as soon as possible, but not later than 1995, not exceed an upper limit, varying with the annual production and calculated by multiplying total national production with specific discharge coefficients as shown below:

Type of process	Specific coefficient, g/t **)			
	SS	Oil ***)	Zn	Pb
Blast furnace including sintering plant 1)	20	--	1	0.1
Open-heart furnace 1)	70	--	--	--
Converter	20	--	--	--
Electric arc furnace 1)	20	--	--	--

Continuous casting	20	5	--	--
Hot rolling	100	10	--	--
Cold rolling	50	10	--	--

b) discharges of cyanide (CN) should be restricted with best available technology, but may not exceed 0.1 mg/l in waste water from any process;

c) closed systems should be developed to circulate process water and polluted cooling water to at least 90% at each production plant,

**RECOMMENDS FURTHER** that the Contracting Parties re-evaluate before the Commission meeting in 1994 the emission limit values of the present Recommendation and reconsider them, e.g. on a "plant by plant" basis,

**RECOMMENDS ALSO** that the Contracting Parties report to the Commission every three years starting 1994.

\*) The term "best available technology" is understood to take into consideration technical and economic feasibility.

\*\*) Referring to the production of each process.

\*\*\*) Measured preferably by the IR-method (SFS 3010; SS 02 81 45; DEV H 17/18.4), but also other suitable methods can be used.

1) Sintering plants, open-heart furnaces and electric arc furnaces should preferably apply to gas cleaning methods which cause no discharges to water.