

## **HELCOM RECOMMENDATION 11/7**

Adopted 14 February 1990, having regard to Article 13, Paragraph b) of the Helsinki Convention

### **MEASURES AIMING AT THE REDUCTION OF EMISSIONS TO THE ATMOSPHERE FROM THE IRON AND STEEL 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,

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

**RECALLING ALSO** 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 techniques for the collection and treatment of air emissions,

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

**RECOMMENDS** to the Governments of the Contracting Parties that

1. as of January 1st 1995 dust emissions from processes \*) in the iron and steel industry should be avoided or collected and filtered before being allowed to enter into the atmosphere;
2. fugitive emissions from all processes should be avoided as far as technically feasible e.g. by encapsulation, evacuation hoods combined with good housekeeping practices;
3. fabric filters or technology environmentally equivalent should be used for dust cleaning e.g. in sintering plants, for secondary gases from blast furnaces and basic oxygen furnaces, in electric arc furnaces and at cutting and grinding operations.

When these technologies are used the particulate matter content of the filtered gases should, as a guiding value, not exceed 10 mg/m<sup>3</sup> (ndg). In any case, the particulate matter content of the filtered gases should not exceed 50 mg/m<sup>3</sup> (ndg);

- 4.a low emission coke cooling techniques, preferably dry quenching, should be used for new installations and from 1995 for existing coke plants. Dust emissions in the waste gas from dry quenching shall not exceed 20 mg/m<sup>3</sup> (ndg). The total dust emissions from wet quenching may not exceed 20 g per tonne of coke for new plants and 50 g per tonne from existing plants;
- 4.b filling gases from coke plants are to be conveyed to the crude gas as far as possible. Filling gases which may not be passed on shall be burned. The emission of particulate matters in the combustion waste gas shall not exceed 25 mg/m<sup>3</sup>;
- 4.c waste gases from coke oven pushing shall be captured and passed through a dust collector. Dust emission shall not exceed 5 g per tonne of coke;
- 5.a as of January 1st 1992 the total emissions (fugitive emissions from charging and tapping and filtered gas) from all processes should be measured or estimated and reported;
- 5.b a good process and device control and regular monitoring should be maintained in order to keep emissions low. From 1997 dust emissions shall be continuously monitored if the particulate emission is 5 kg/h or more or the cadmium emission is 5 g/h or more and that installations with a particulate emission of 2 to 5 kg/h shall be equipped with measuring instruments which continuously determine waste gas opacity, e.g., optical transmission.

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- \*) Examples of processes:
- coke plants
  - sintering plants
  - blast furnaces
  - basic oxygen furnaces
  - electric arc furnaces
  - casting
  - rolling, furnaces in rolling mills
  - cutting