

HELCOM RECOMMENDATION 28E/8

Adopted 15 November 2007
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

ENVIRONMENTALLY FRIENDLY PRACTICES FOR THE REDUCTION AND PREVENTION OF EMISSIONS OF DIOXINS AND OTHER HAZARDOUS SUBSTANCES FROM SMALL-SCALE COMBUSTION

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 other 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,

RECOGNISING that small-scale combustion appliances are land-based sources from which considerable emissions of dioxin are likely to reach, directly or indirectly, the marine area,

RECALLING that dioxin compounds are hazardous substances selected for immediate action by HELCOM,

RECOGNISING ALSO that dioxins are toxic and carcinogenic to aquatic organisms, and bioconcentrate at low trophic levels in the aquatic ecosystem,

RECOGNISING ALSO that the release of dioxins arising in domestic combustion appliances can be minimised by applying Environmental Friendly Practices,

TAKING INTO ACCOUNT that abatement measures for dioxins also affect the emissions of other hazardous substances,

NOTING that for the purpose of this Recommendation the following definitions apply:

- "Dioxin" means chlorinated dibenzo-p-dioxin (PCDD) and dibenzofuran (PCDF) compounds;
- "Domestic combustion appliances/small-scale combustion appliances" mean boilers, stoves and open fireplaces, used for domestic heating, cooking, baking, sauna bathing or other, similar purposes generating an input effect of less than 50 kW;
- "Fuel" means solid fuel consisting of pure material of wood, peat or coal,

NOTING ALSO that the purpose of this Recommendation is to prevent and eliminate pollution of the marine environment by the application of Environmentally Friendly Practices for the use of small-scale combustion appliances with a view to limiting emissions of dioxins and other dioxin-like compounds,

NOTING FURTHER that this Recommendation applies to combustion appliances using solid fuel,

RECOMMENDS to the Governments of the Contracting States to take the necessary measures to:

1. Ensure the introduction of the use of an increasing number of low-emission combustion appliances
 - Environmentally sound combustion appliances should be promoted for small-scale combustion installations. Suppliers should be made aware of environmentally sound practices for

combustion appliances below 50 kW and should be involved in the promotion of Best Environmental Practices (BEP) for households;

- At enterprises, annual internal inspections (by the operator) and regular instructions on the proper use of the technical equipment by authorised experts (e.g. professional chimney sweepers) should be recommended or made mandatory,

2. Enhance public awareness

2.1 Public awareness should be enhanced regarding

- a) importance of environmentally friendly practices to minimise effects of small-scale combustion in domestic and small enterprise furnaces;
- b) purchase of domestic combustion appliances, the preparation and storage of fuel and the operation of the combustion appliances,

2.2. Public awareness should be enhanced in the abovementioned fields by developing guidelines and arranging information campaigns for households and small enterprises. The information should aim at promoting the following measures and practices:

- a) when new appliances are installed, certified or other products with high environmental performance should be chosen;
- b) only combustion appliances constructed in accordance with the amount of energy required for its purpose should be installed;
- c) combustion appliances should be operated in a way that optimises combustion processes, taking into account at least the following modes of operation:
 - (i) fuel:
 - fuel should be prepared and stored in a way that ensures that it is dry when combusted
 - fuel should be homogeneous in quality and size
 - any such waste (plastics, paper, painted wood, etc.) which contribute to the formation of dioxins should not be incinerated or used as fuel; However wood waste, with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood-preserved or coating, can be used as fuel
 - (ii) loading:
 - each load of fuel should be in accordance with the quantity/size for which the combustion appliance is designed and constructed
 - frequency of loading should be adapted to the combustion appliance and adjusted to maintain good combustion conditions
 - (iii) operation:
 - start-up periods should be as short as possible and dry fuels of appropriate size/shape should be used.
 - during the burning period, inlet of air should be adjusted to optimal combustion conditions. Deficit or excess air should be prevented;
- d) combustion appliances should be regularly maintained by removing bottom ash. Chimneys should be regularly swept in order to reduce emission of dioxins and to prevent chimney fire.

RECOMMENDS FURTHER that the Contracting Parties develop in 2008 specific efficiency requirements and emission limit values for small scale combustion appliances,

RECOMMENDS FURTHERMORE that the Contracting Parties report on the implementation of the Recommendation to the Commission, based on reporting requirements developed by the Land-based Pollution Group.