



Ref. T4/4.01

MSC/Circ.1003
8 June 2001

**GUIDELINES ON A SIMPLIFIED CALCULATION FOR THE TOTAL AMOUNT
OF COMBUSTIBLE MATERIALS PER UNIT AREA IN
ACCOMMODATION AND SERVICE SPACES**

1 The Maritime Safety Committee, at its seventy-fourth session (30 May to 8 June 2001), recognizing the need for improving fire safety on board ships by the development of a simplified calculation for the total amount of combustible materials per unit area in accommodation and service spaces, agreed with the recommendation made by the Sub-Committee on Fire Protection that:

- .1 calculation for the total amount of combustible materials per unit area in accommodation and service spaces may be performed using the formula contained in the attached annex; and
- .2 mandatory application of the calculation for the total amount of combustible materials per unit area in accommodation and service spaces could be further considered when sufficient experience is gained in the application of the Guidelines,

and approved Guidelines on a simplified calculation for the total amount of combustible materials per unit area in accommodation and service spaces, as set out in the annex.

2 Member Governments are invited to:

- .1 use the annexed Guidelines when considering the calculation for the total amount of combustible materials per unit area in accommodation and service spaces as an improved means of fire safety; and
- .2 submit to the Sub-Committee on Fire Protection information on experience gained in the implementation of the Guidelines.

ANNEX

**GUIDELINES ON A SIMPLIFIED CALCULATION FOR THE TOTAL AMOUNT
OF COMBUSTIBLE MATERIALS PER UNIT AREA IN
ACCOMMODATION AND SERVICE SPACES**

1 Application

These Guidelines are intended to be used by Administrations to calculate the maximum fire load on board ships. These Guidelines are not intended to support alternative design and arrangements process specified in SOLAS regulation II-2/17*.

2 Formula for calculating the total mass of combustible materials

2.1 In accommodation spaces, service spaces and control stations of all types of ships, the total mass of combustible materials of each enclosed space should be calculated based on the following formula:

$$TCMPA = M_{CMBST}/A$$

where:

TCMPA is the total mass of combustible materials per unit area of the space (kg/m²)

M_{CMBST} is the total mass of combustible materials of the space (kg); and

A is the floor area of the space (m²).

2.2 The following combustible materials should be included in the calculation required by paragraph 2.1:

- .1 construction materials such as cable insulation, plastic pipes, veneers and combustible materials permitted to be used under the relevant regulations of SOLAS chapter II-2; and
- .2 outfitting which may be installed during the construction or provided by the ship's owner or crew, including furniture, bedding components and electrical appliances.

2.3 Maximum values for the total mass of combustible materials per unit area *TCMPA* are provided in the table below. Space categories should be classified in accordance with SOLAS regulation II-2/9*.

* Refers to the revised SOLAS chapter II-2 adopted by resolution MSC.99(73).

Type of space	Passenger ships carrying more than 36 passengers	Passenger ships carrying not more than 36 passengers	Cargo ships
Stairways, corridors	5 kg/m ²	5 kg/m ²	5 kg/m ²
Control stations	5 kg/m ²	5 kg/m ²	5 kg/m ²
Accommodation spaces	Minor fire risk 15 kg/m ²	35 kg/m ²	35 kg/m ²
	Moderate fire risk 35 kg/m ²		
	Greater fire risk 35 kg/m ²		
Service spaces surrounded by "A" class divisions	45 kg/m ²	45 kg/m ²	45 kg/m ²