

SC30 Fire-extinguishing arrangements in machinery spaces

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(Rev.2
Nov. 2005)
(Rev.3
Mar 2023)

{Interpretation of SOLAS Chapter II-2, Regulation 10.5.1 and 10.5.2}

SOLAS Regulation II-2/10.5.1 reads as follows:

5.1 Machinery spaces containing oil-fired boilers or oil fuel units

5.1.1 Fixed fire-extinguishing systems

Machinery spaces of category A containing oil-fired boilers or oil fuel units shall be provided with any one of the fixed fire-extinguishing systems in paragraph 4.1. In each case, if the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler room into the engine-room, the combined engine and boiler rooms shall be considered as one compartment.

5.1.2 Additional fire-extinguishing arrangements *

5.1.2.1 There shall be in each boiler room or at an entrance outside of the boiler room at least one portable foam applicator unit complying with the provisions of the Fire Safety Systems Code.

5.1.2.2 There shall be at least two portable foam extinguishers or equivalent in each firing space in each boiler room and in each space in which a part of the oil fuel installation is situated. There shall be not less than one approved foam-type extinguisher of at least 135 L capacity or equivalent in each boiler room. These extinguishers shall be provided with hoses on reels suitable for reaching any part of the boiler room. In the case of domestic boilers of less than 175 kW, or boilers protected by fixed water-based local application fire-extinguishing systems as required by paragraph 5.6, an approved foam-type extinguisher of at least 135 L capacity is not required.

5.1.2.3 In each firing space there shall be a receptacle containing at least 0.1 m³ sand, sawdust impregnated with soda, or other approved dry material, along with a suitable shovel for spreading the material. An approved portable extinguisher may be substituted as an alternative.

* Refer to Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships (MSC.1/Circ.1275 and Corr.1).

Note:

1. Changes introduced in Rev.1 are to be implemented by IACS Members and Associates from 1 January 2001.
2. Rev.3 is updated to include the text of SOLAS Regulation II-2/10.5.1.2.2 as adopted by MSC.409(97), which entered into force on 1 January 2020.

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(cont)

SOLAS Chapter II-2, Regulation 10.5.2 reads as follows:

5.2 Machinery spaces of category A containing internal combustion machinery

5.2.1 Fixed fire-extinguishing systems

Machinery spaces of category A containing internal combustion machinery shall be provided with one of the fixed fire-extinguishing systems in paragraph 4.1.

5.2.2 Additional fire-extinguishing arrangements *

5.2.2.1 There shall be at least one portable foam applicator unit complying with the provisions of the Fire Safety Systems Code.

5.2.2.2 There shall be in each such space approved foam-type fire extinguishers, each of at least 45 L capacity or equivalent, sufficient in number to enable foam or its equivalent to be directed onto any part of the fuel and lubricating oil pressure systems, gearing and other fire hazards. In addition, there shall be provided a sufficient number of portable foam extinguishers or equivalent which shall be so located that no point in the space is more than 10 m walking distance from an extinguisher and that there are at least two such extinguishers in each such space. For smaller spaces of cargo ships the Administration may consider relaxing this requirement.

* Refer to Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships (MSC.1/Circ.1275 and Corr.1).

Interpretation

Number of systems, appliances and extinguishers
required by Reg. II-2/10.5.1 & 10.5.2 (MSC/Circ. 1120)

Systems, appliances & extinguishers Category A machinery spaces	Fixed fire-extin-guishing system	Portable foam applicator* ¹	Portable foam extinguishers	Add'l portable foam extinguishers	135 / foam extinguisher	45 / foam extinguishers* ²	Sand boxes* ³
SOLAS paragraph	10.5.1.1 10.5.2.1	10.5.1.2.1 10.5.2.2.1	10.5.1.2.2	10.5.2.2.2	10.5.1.2.2	10.5.2.2.2	10.5.1.2.3
Boiler room containing:							
Oil-fired boilers	1	1	2N	NA	1* ⁴	-	N
Oil-fired boilers and oil fuel units	1	1	2N + 2	NA	1* ⁴	-	N
Engine room containing:							
Oil fuel units only	1	-	2	NA	-	-	-
Internal combustion machinery	1	1	x		-	y	-
Internal combustion machinery and oil fuel units	1	1	x		-	y	-
Combined engine/boiler room containing:							
Internal combustion machinery, oil fired boilers and oil fuel units	1	1	(2N + 2) or x whichever is greater		1* ⁴	y* ⁵	N
<p><i>N</i> = number of firing spaces. <i>"2N"</i> means that two extinguishers are to be located in each firing space. <i>x</i> = sufficient number, minimum two in each space, so located that there are at least one portable fire extinguisher within 10 m walking distance from any point. <i>y</i> = sufficient number to enable foam to be directed onto any part of the fuel and lubricating oil pressure systems, gearing and other fire hazards.</p>							

Notes:

- *1 May be located at outside of the entrance to the room.
- *2 May be arranged outside of the space concerned for smaller spaces of cargo ships.
- *3 The amount of sand is to be at least 0.1 m³. A shovel is to be provided. Sand boxes may be substituted by approved portable fire extinguishers.
- *4 Not required for such spaces in cargo ships wherein all boilers contained therein are for domestic services and are less than 175 kW, or boilers are protected by fixed water-based local application fire-extinguishing systems as required by Reg. II-2/10.5.6.
- *5 In case of machinery spaces containing both boilers and internal combustion engines (case not explicitly considered in Reg. 10.5) Reg. 10.5.1 and 10.5.2 apply, with the exception that one of the foam fire-extinguishers of at least 45 L capacity or equivalent (required by Reg. 10.5.2.2.2) may be omitted on the condition that the 135 L extinguisher (required by Reg. 10.5.1.2.2) can protect efficiently and readily the area covered by the 45 L extinguisher.
- *6 Oil fired machinery other than boilers such as fired inert gas generators, incinerators and waste disposal units are to be considered the same as boilers insofar as the required number and type of fire fighting appliances are concerned.

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