

Chapter 1 Preliminary

- 1.1 Scope** - This provides the design, and installation standards for fire protection on domestic commercial vessels.
- 1.2 Application** - all domestic commercial vessels other than special vessels. The standards for special vessels are provided for in NSCV Part F of this standard.
- 1.3 Reference documents**
- 1.4 Definitions**
- flammable and combustible vessel's stores**—includes paints, *flammable liquids*.
- limited quantities of dangerous goods**—small quantities of packaged *dangerous goods* specified in the current IMDG Code. Limited quantities of *dangerous goods* amount to quite small quantities, e.g. 1 lit.
- minor quantity of dangerous goods**—packaged of quantity less than the placarding quantity specified EG: Paints the placarding quantity is 1000 L. Petrol the placarding quantity is 250 L.
- Ro-Ro spaces** - spaces intended primarily for carrying motor vehicles with fuel in their tanks.
- small galley** - contains a single compact domestic range (no more than 4 burners, and oven) of gas consumption less than 65 mJ/hr or total electricity consumption less than 9 kW.
- small machinery space** - a space of *Moderate Fire Risk* that - is not capable of being occupied; has a volume of less than 10 m³; and, access to the space to extinguish a fire would prove hazardous.

Chapter 2 Requirements for fire safety

- 2.1 General requirements vessel must have fire safety measures designed, constructed, installed, maintained and serviced in accordance with this standard**

Chapter 3 Vessel Categorisation

- 3.1 Vessel fire risk category - The vessel is to be assigned a fire risk category, there are four fire risk categories :**
- | | | |
|------------------------|-----|-----------------|
| (a) Fire Risk Category | I | (lowest risk). |
| (b) Fire Risk Category | II | (moderate risk) |
| (c) Fire Risk Category | III | (high risk). |
| (d) Fire Risk Category | IV | (highest risk). |

Table 1 – Applicable standards

Kind of Vessel	Operational areas A & B Extended except <i>tankers</i>		Operational area B except <i>tankers</i>		Operational areas C, D or E except <i>tankers</i>	Tankers
Class 1 vessel	<i>Lm</i> ≥35m	Marine Order 15	<i>Lm</i> ≥35m	Marine Order 15	NSCV Part C Sect 4	Not permitted
	<i>Lm</i> <35m	Marine Order 15 or NSCV Part C Sect 4	<i>Lm</i> <35m	Marine Order 15 or NSCV Part C Sect 4		
Class 2 vessel	<i>Lm</i> ≥35m	Marine Order 15	NSCV Part C Sect 4		NSCV Part C Sect 4	Marine Order 15
	<i>Lm</i> <35m	NSCV Part C Sect 4				
Class 3 vessel	NSCV Part C Section 4		NSCV Part C Sect 4		NSCV Part C Sect 4	Marine Order 15

Marine Order 15 means that the vessel must comply with the standards mentioned in Marine Order 15 for SOLAS vessels.

NSCV Part C, Section 4 means that the vessel must comply with solutions in Chapters 3 to 17 in this Section as applicable unless there is an equivalent means of compliance approved by the National Regulator in accordance with Marine Order 503.

Table 2 — Fire Risk Category

Kind of Vessel	Operational area category (see NSCV Part B)				
	A and B Extended	B	C	D	E
Class 1 - Length of vessel	< 35 m (1)	<35 m (1)	All lengths	All lengths	All lengths
Class 1 - 13 to 36 day pax	III	II	II	I	I
Class 1 - 37 to 200 day pax	IV	III	II	II	II
Class 1: 201 to 450 day pax	IV	IV	III	II	II
Class 1 - 451 or more day pax	MO 15 (2)	MO 15 (2)	IV	IV	III
Class 1 - 13 to 36 berthed pax	IV	III	II	II	II
Class 1 - 37 or more berthed pax	MO 15 (2)	MO 15 (2)	IV	IV	IV
Class 2 – Length of vessel	< 35 m (1)	All lengths	All lengths	All lengths	All lengths
Fire Risk Category	II	II	I	I	I
Class 3 – Length of vessel	All lengths	All lengths	All lengths	All lengths	All lengths
Fire risk category	II	II	I	I	I

Key: (1) Class 1A, 2A, 1B extended, 2B extended and 1B vessels ≥ 35 m long are required to comply with the requirements specified in Marine Order 15 for SOLAS vessels. See Table 1
(2) 1A, 1B extended and 1B vessels carrying more than 450 day passengers or more than 36 berthed passengers are required to comply with the requirements specified in Marine Orders 15 for SOLAS vessel

3.2 Categories of spaces on a vessel are to be assigned a space category in accordance with Table 3. Where there is doubt as to the category of a space, the space is to be assigned and meet the higher space category standards.

3.3 Spaces of multiple classification - Where two or more classifications may apply, the more stringent of the requirements for each applicable classification are to be used.

Table 3 — Categories of spaces

Space category	Description	Examples
High Fire Risk Spaces	Spaces where risk of fire are high.: <ul style="list-style-type: none"> potential for the spillage dangerous quantities of <i>flammable liquid</i>, and sources of heat or ignition. 	Spaces containing - main propulsion where the total power output of internal combustion machinery is 120 kW or more; Other than propulsion where the total power output of the machinery within the space is 375 kW or more; or 120 kW or more where for very occasional use. <i>Ro-Ro spaces</i> ; Store spaces containing <i>flammable liquids</i> , including paint. Shops of deck area 50 sq.m or more containing packaged <i>flammable liquids</i> for sale and where no dedicated store is provided separately.
Moderate Fire Risk Spaces	Spaces that contain: <ul style="list-style-type: none"> quantities of <i>flammable liquids with low ignition sources</i>; or ignition sources where the material to fuel a fire is such that the risk is low. 	Spaces containing: machinery where power of internal combustion machinery is less than 120 kW; machinery not for propulsion where total power is less than 375 kW where machinery is for very occasional use; or - 120 kW otherwise. <i>Switchboards</i> , electrically powered propulsion or auxiliary motors or transformers with power of 30 kVA or more. Oil fuel pump, oil fuel filter or oil fuel separator, not <i>oil fuel unit</i> . Any solid fuel fired boiler. <i>Galleys</i> . Sales shops less than 50 sq.m containing <i>flammable liquids</i> for sale.
Accommodation Space	Spaces with persons : <ul style="list-style-type: none"> unfamiliar with vessel, asleep, or may initiate a fire. 	Sleeping rooms, Mess rooms, <i>Pantries</i> , <i>Public spaces</i> . Toilets and washrooms. Sales shops not containing <i>flammable liquids</i> for sale. <i>Storerooms</i> of floor area less than 4 sq.m within or adjacent to other types of <i>Accommodation and Spaces</i> not used for the storage of <i>dangerous goods</i> .
Minor Fire Risk Spaces	Spaces where the risk and consequence of fire is low.	Spaces used for the carriage of cargo that is not <i>dangerous goods</i> . <i>Closed vehicle spaces</i> . Void spaces. Fuel tanks and spaces containing fuel tanks. <i>Storerooms</i> including baggage or mail rooms not used for the storage of or <i>dangerous goods</i> .
Control Stations	Spaces with essential safety systems.	Operating <i>compartment</i> , Radio room, Central fire <i>Control Station</i> . Damage <i>Control Station</i> , Emergency electrical power or emergency switchboard.
Escape or Evacuation Routes	Spaces essential for escape and evacuation from the vessel.	Corridors of length 14 m and over in <i>Accommodation Spaces</i> and corridors for escape and evacuation. Enclosed stairways and stairway towers. Assembly stations. Survival craft stowage locations.

Chapter 4 Passive fire protection measures

Chapter 5 Active fire protection measures

5.1 Fire detection and alarm

Table 10 - Spaces requiring a fire detection system

Location	Required on
Machinery Spaces	All vessels
Small Machinery Spaces	Vessels of fire risk category II, III and IV
Control Stations	All vessels fire category III, IV; and Vessels fire category II > 200 pax
Ro-Ro Spaces	All vessels
Accommodation Spaces	All vessels of fire category III, IV; and Vessels fire category II > 200 pax
Closed escape and evacuation spaces	All vessels of fire category III, IV; and Vessels fire category II > 200 pax
Closed vehicle spaces	Class 1 vessels
Cargo Spaces	Vessels of fire risk categories III and IV

5.1.2 The fire detection and fire alarm system must be suited to the nature of the spaces.

5.1.3 Fire detection and alarm systems - must comply with FSS Code – Ch 9; or HSC Code, clause 7.7; or AS 1603.

5.1.4 Limitations - when using only thermal detectors, they must not be used in spaces higher than 5m.

5.1.5 Fire alarms

1. A fixed fire detection and fire alarm system must provide audible and visual alarms.
2. Fire alarms must be easily distinguished from other alarms that do not indicate fire.
3. Fire alarms must be located so that they can be monitored from the operating compartment and other places to ensure a member of the crew hears them when the operating compartment is unmanned.

5.1.6 Class 1 Vessels - For Class 1 vessels of Fire Category II, III or IV, fire system must be of the self-monitored type.

5.2 Manual call points - must be provided; within 20m of any point; and connected to a detection /alarm system.

Table 11 — Spaces requiring manual call points

Location	Required on
Ro-Ro Space	All vessels - within 20m of any point & close to each escape exit
Accommodation & Control station	Vessels of fire category IV & III; fire category II > 200 pax

5.3 Smoke detectors (self-contained) - Vessel accommodation spaces that are not required to be fitted with a fire alarm system in accordance clause 5.1.1 must be provided with self- contained smoke detectors in Accommodation Spaces with berthed accommodation or certified to more than 36 day passengers

5.4 Fixed fire-extinguishing systems

Table 13 — Spaces requiring fixed fire-extinguishing systems

Location	Requirement
High fire risk machinery spaces	Required
Closed Ro-Ro spaces	Fixed gas, foam or water-spraying system required
Open Ro-Ro spaces	Water-spraying system required for each open Ro-Ro spaces
Cargo spaces containing dangerous goods	Required
Store spaces containing flammable liquid	Required
Galleys	Automatic fire systems required for each deep fat cooker on any vessel and each range in Fire Category III or IV vessels > 36 pax.
Accommodation spaces	Aqueous system on class 1 vessels with > 200 day pax or 36 berthed pax.
Closed vehicle spaces	All vessels
Cargo spaces (other than low risk cargo spaces)	Required for Fire Category II and III vessels ≥ 55m; and Fire Category IV vessels ≥ 45m

5.4.2 Fire System to be suited to application:

- a) the likely types of fire hazards within the space or associated with the item of equipment;
- b) the characteristics of the space including the dimensions, movement of air and effective sealing; and special risks such as essential equipment; electrical equipment; persons that might be within the space.

5.4.3 Standards for fixed fire-extinguishing systems

The fire-extinguishing system must be of a designed, *assessed*, installed and tested in accordance Table 14.

Table 14 — Acceptable standards for fixed fire-extinguishing systems

Type	Standard
Gaseous fixed fire-extinguishing systems	FSS Code – Chapter 5; AS 4214; or AS ISO 14520
Foam fixed fire-extinguishing systems	FSS Code – Chapter 6
Aerosol fixed fire-extinguishing systems	IMO MSC/Circ. 1270; AS 4487; or ISO 15779
Pressure water fire systems (incl sprinkler systems)	FSS Code – Chapter 7 & 8; NFPA 15; NFPA 750; AS 2118; AS 4587; or SP-method 2377
Dry chemical fixed fire-extinguishing systems	NFPA 17
Galley automatic local fire extinguishing systems	UL 300 (4); ISO 15371; or NFPA 17

5.4.4 Closing appliances for aerosol fire-extinguishing systems - openings that may admit air to, or allow agent to escape from, a protected space must be capable of being sealed from outside the protected space.

5.4.5 Protection of the fixed fire-extinguishing system - Components of a fire system, must be located: in a space behind the collision bulkhead; and outside the space protected to the extent necessary to isolate any components of the system that would be vulnerable to exposure to a fire within the protected space.

5.4.7 Pre-release alarm

1. An audible and visual warning must be given of the impending release of fire-extinguishing agent into any space in which personnel normally work, or to which they have access. The alarm permits the orderly evacuation of the space and provides time to shut down machinery and seal the space.
2. The alarm must operate for a suitable period before the agent is released, but not less than 20 seconds.
3. The evacuation alarm must be separate and distinct from any fire alarm, including a different sound, separate warning lights and wiring.
4. The time delay before release of agent must be either engineered into the system or achieved by delaying the manual operation of the release in accordance with instructions adjacent to the release mechanism.

5.4.8 Limitations on automatic activation

1. Fire-extinguishing systems must be provided with a means of manual activation.
2. Automatic release of fire-extinguishing medium must not occur, except for:
 - a) Aqueous fixed fire-extinguishing systems in Accommodation;
 - b) pressure water-spraying systems in Ro-Ro; or
 - c) automatic local-fire extinguishing systems in galley spaces.

5.4.9 Controls

1. Controls for the *fixed fire-extinguishing system* must be readily accessible and simple to operate.
2. Controls must be grouped at positions not likely to be cut off by a fire in the protected space.
3. Controls must be capable of operating when exposed to flame and heat from a fire within the space for the time specified in Table 4, Table 5 or Table 6 without modification by the table keys.

5.4.10 Instructions

1. At each control location there must be instructions on the use of the fire-system.
2. The instructions must include all prerequisite tasks and possible effects on the safety of personnel.
3. Warning should be displayed highlighting risks of premature release or re-entry such as toxicity, asphyxiation and/or reduced visibility.

5.4.11 Systems that serve more than one space

- 5.5 Centralised fire control functions on vessels**, must have a control station in the operating compartment or another normally continuously manned Station having a safe access from the open deck. The control station must contain the equipment listed in Table 16, where fitted. **The control panels must be continuously powered and are to have an automatic changeover to standby power supply.**

Table 15 — Grouping of remote shut-downs and controls

Category	Application
Fire Risk Category I	Not required
Fire Risk Category II	Not required
Fire Risk Category III	Applies to vessels carrying more than 450 passengers.
Fire Risk Category IV	Applies

Table 16 — Functions centralized in a central control station

Equipment	Functions
Fixed fire detection and fire alarm systems	Indicators and controls
Fixed fire extinguishing systems	Indicators and controls
General and evacuation alarms	Controls
Main fire pumps	Controls
Fire doors	Indicators and closures
Machinery space and other High Fire Risk Space fire flaps and fire dampers	Indicators and closures
Watertight doors	Indicators and closures
Ventilation fans	Indicators and controls
Fuel transfer pumps, fuel pumps, oil service & circulating pumps, oil separators	Remote stops
Communication systems including telephones	Operation and controls
Public address systems	Operation and controls

5.6 Portable fire extinguishers & fire blankets

5.6.1 Quantity of Fire Extinguishers

- Each space must be provided with the number of fire extinguishers specified in Table 18.
- Each space must be provided with the number of fire blankets specified in Table 17.

Table 17 — Fire blankets by space

Type of Space	Vessel	Number	Location
Large Galley	Fire Risk Category I & II Vessels	1	Within the space
	Fire Risk Category III & IV Vessels	2	Within the space
Small Galley	All	1	Within the space

Table 18 — Portable fire extinguishers by space

Type of Space	Vessel	Number
Machinery space	All Fire Category I vessels; and Fire Category II, III & IV vessels less than 10m	1
	Fire Category II, III & IV vessels 10m or longer	2 (A)
Small Machinery space	All	1 See clause 8.1
Accommodation space	Fire Category I Vessels	1
	All other vessels	2
Small Galley	Fire Risk Category I & II Vessels	0 (B)
	All other vessels	1
Large Galely	All	2
Control stations	All	1(C)
Vessel's stores locker	All	1 (as an option see 14.2.3)
Ro-Ro space	All	1 at each access/entrance (D)
Helicopter facility	All	3

- Key** (A) additional as required to ensure one is within 10m walking distance of any point.
(B) at least one accomm space extinguisher for Class B fires is to be located readily from the galley.

- (C) extinguisher is not required on Fire Risk Category I or II vessels provided at least one accommodation or machinery space suited to the hazards likely to arise within the control station, is located within close proximity.
- (D) additional as required to ensure one is within 15m walking distance from any point.

5.6.1.2 Vessels with no extinguishers specified in Table 18

Even though no extinguishers may be specified in Table 18, the following must have at least one extinguisher:

- a) any mechanically powered vessel;
- b) any non-mechanically powered vessel that has:
 - i. open flame devices, (e.g. cooking appliances and heaters, including those on an open deck); or
 - ii. deck mounted internal combustion machinery, enclosed petrol tanks or other potential sources of fire such as incinerators or boilers.

5.6.2 Extinguisher Types

5.6.2.1 Extinguishers to be suited to hazard

1. Extinguishers must be suited to the fire likely within the space comply with AS 1841.
2. Extinguishers must be fitted with a hose to enable access to awkward locations.
3. Extinguishers for spaces containing equipment essential for the safety of the vessel must use an agent that is not harmful to the equipment and appliances.
4. Extinguishers for spaces containing electrical equipment must be E Rated.

5.6.3 Extinguisher Size and rating

1. Helideck must have at least 2 powder extinguishers with total capacity $\geq 45\text{kg}$ and 1 CO₂ with capacity $\geq 18\text{kg}$.
2. For other spaces, the minimum size and rating of fire extinguishers must not be less than that in Table 19.
3. If a single unit is for multiple classes of fire, the extinguisher must be sized and rated to the minimum requirements of each of the classes.

Table 19 — Minimum size and rating of portable fire extinguishers

Fire Class	Risk criterion	Extinguisher Characteristic	Type of portable extinguisher				
			Water	Foam	DCP	WChem	CO ₂
Class A	Vessel $\geq 10\text{m}$	Min. size	9 L	9L	4.5 kg	7 L	NDTS
		Min. rating	3A	3A	3A	3A	NDTS
	Vessel $< 10\text{m}$	Min. size	4.5 L	4.5L	2 kg	7 L	NDTS
		Min. rating	2A	2A	2A	2A	NDTS
Class B	Machinery (4) $\geq 750\text{ kW}$	Min. size	NDTS	2 x 9L	4.5 kg	NDTS	NDTS
		Min. rating	NDTS	30B	60B	NDTS	NDTS
	Machinery (4) $\geq 25\text{ kW}$ & $< 750\text{ kW}$, Ro-Ro spaces, helidecks	Min. size	NDTS	9 L	4.5 kg	NDTS	NDTS
		Min. rating	NDTS	20B	20B	NDTS	NDTS
	Machinery (4) $< 25\text{ kW}$	Min. size	NDTS	4.5L	2 kg	NDTS	5 kg
		Min. rating	NDTS	10B	10B	NDTS	10B
Class E	Electrical system $\geq 25\text{ kW}$ electrical power	Min. size	NDTS	NDTS	4.5 kg	NDTS	5 kg
		Min. rating (5)	NDTS	NDTS	E	NDTS	E
	Electrical system $< 25\text{ kW}$ electrical power	Min. size	NDTS	NDTS	2 kg	NDTS	3 kg
		Min. rating (5)	NDTS	NDTS	E	NDTS	E
Class F	Large galleys	Min. size	NDTS	NDTS	4.5 kg	3.5 L	NDTS
		Min. rating (5)	NDTS	NDTS	30B (1)	4F	NDTS
	Small galleys	Min. size	NDTS	NDTS	2 kg	2 L	NDTS
		Min. rating (5)	NDTS	NDTS	20B (1)	2F	NDTS

- Key:**
1. Must be of BE type dry powder.
 2. **NDTS** means 'not deemed-to-satisfy' the required outcomes in this section.

5.6.4 Fire extinguishers must be located ready for use at places so they can be used quickly and easily in a fire.

- a) Be mounted so that their serviceability is not impaired by the weather, vibration or other factors.
- b) One extinguishers for use in a High or Moderate Risk must be stowed near the entrance to that space.

- c) Where a high or *Moderate Fire Risk Space* is unlikely to be manned, the portable extinguisher stowed near the entrance to that space may be mounted externally and adjacent to the entrance of the space.
- d) For a helideck, the extinguishers must be located near the means of access to the helideck.
- e) For a Ro-Ro space the extinguishers must be located at each access to the space and at locations such that no point in the space is more than approximately 15m walking distance from an extinguisher.

5.6.7 Replenishment of Extinguishers in the event of use

- 1. Vessels in Class A or B Extended must have provision to replenish discharged extinguishers at sea.
- 2. Replenishment may be by replacement with extinguishers of the same type and capacity, or by recharging.
- 3. Replacement extinguishers or spare charges must be provided for the first 10 and half of the remaining extinguishers. However, not more than 60 spare extinguishers and charges are required.
- 4. Where replenishment is by recharging, instructions for recharging must be carried on board.

5.9 Fire buckets

- 1. Fire buckets must be provided on a vessel that is not required to have fire hose appliances.
- 2. If Vessel is less than 10m then 1 bucket, if greater 2 buckets required.
- 3. A fire bucket must be of minimum 4 L capacity; fitted with a handle; manufactured from waterproof and robust material; designed so as not to collapse, distort or lose the handle when full of water; and fitted with a lanyard of sufficient length to allow the bucket to be cast over the side and retrieved full of water.

Chapter 6 Fire safety preparedness documentation

6.1 Vessels must have a Fire Control Plan, Fire Training Manual and Fire Safety Operational Booklet where: Fire Risk Category 1 or 2 and length > 25m , and Fire Risk Category III and IV. Vessels that carry dangerous goods in cargo spaces must have a fire control plan, fire training manual and fire safety operational booklet.

6.2 Fire control plan - The fire control plan complying with ISO 17631 must show for each deck the following:

- | | |
|--|---|
| a) control stations; | i) the means of access to the various compartments and decks in the vessel; |
| b) sections protected by <i>fire-resisting divisions</i> ; | j) the ventilating system (incl. location of fan controls, smoke flaps and <i>fire dampers</i>); |
| c) smoke zones; | k) the location of the international shore connection, if fitted; and |
| d) evacuation alarms; | l) the position of all means to control the fuel shut-off valves, ventilation shutdown, fire systems. |
| e) fixed fire detection and alarm systems; | |
| f) fixed fire-extinguishing systems; | |
| g) fire appliances; | |
| h) personal equipment including fire-fighters' outfits and emergency escape breathing devices; | |

6.2.2 Vessel must have a fire control plan permanently exhibited in a location for ready reference by the crew.

6.2.3 Duplicate set of fire control plans - Vessels of length 35 m or more must have a duplicate set of fire control plans stored in a marked weathertight enclosure outside the deckhouse for the use of shore-side personnel.

6.3 Training manual - must explain the following in detail:

- a) fire safety for the dangers of smoking, electrical hazards, flammable liquids, dangerous goods etc;
- b) instructions on fire-fighting procedures including notification of a fire and use of manual call points;
- c) meanings of the vessel's alarms;
- d) operation and use of *fire equipment*;
- e) operation and use of fire doors;
- f) operation and use of ventilation shutdowns, *fire flaps*, smoke flaps, *fire dampers*
- g) and fuel shut-offs; and

- h) escape systems and appliances.

6.3.2 Training manual must be located in each crew mess room or in each crew cabin.

6.4 Fire safety operational booklet - must contain the necessary information and instructions for the operation of the vessel and cargo handling with respect to fire safety. The booklet may be combined with the training manual. The booklet must include :

- a) the crew's responsibilities for general fire safety while loading cargo and while underway.
- b) an explanation of necessary fire safety precautions for handling general cargoes.
- c) for vessels carrying *dangerous goods*, relevant stowage and segregation
- d) information for the *dangerous goods* to be carried.
- e) for vessels carrying *dangerous goods*, the applicable references to the fire-fighting and emergency cargo handling contained in the IMSBC Code; or the IMDG Code, as appropriate.

6.4.2 Fire safety operational booklet must be located in each crew mess room or in each crew cabin.

Chapter 7 Additional measures for machinery spaces

7.1 Signage - "No smoking" or "No naked light" notices must be displayed in a prominent position at points of entry into and, where appropriate, within *Machinery Spaces*.

7.3 Protected escape from machinery spaces below the weather deck on vessels of 45m length or more.

7.4 Additional fire appliances

1. A High Fire Risk machinery space containing machinery of power > 750 kW or an oil-fired boiler must be provided with wheeled extinguishers, portable foam applicators or fire extinguishers - Table 30. This is in addition to any extinguishers specified in Table 18.
2. The equipment must comply with relevant provisions.

Table 30 — Wheeled or additional extinguishers, portable foam applicators for High Risk machinery spaces

Space containing	Int. combustion machinery ≥ 750 kW in aggregate	Oil-fired boiler ≥ 175 kW	Oil-fired boiler < 175 kW
Fire Risk Category I	Not required	Not required	Not required
Fire Risk Category II	Two additional 9L foam extinguishers for Class B fires (1)	One additional 9L foam extinguisher for Class B fires (1)	Not required
Fire Risk Category III	Two additional 9L foam extinguishers for Class B fires (1)	Two additional 9L foam extinguishers for Class B fires (1)	One additional 9L foam extinguisher for Class B fires (1)
Fire Risk Category IV	One 90L foam extinguisher (2) or one portable foam applicator with foam concentrate (3)	One 90L foam extinguisher (2) or one <i>portable foam applicator</i> with foam concentrate (3)	One additional 9L foam extinguisher for Class B fires (1)

7.5 Sand - Spaces that contain an oil-fired boiler must be provided with 0.1 m³ of sand. An additional extinguisher suitable for Class B fires, complying with clause 5.6, may be substituted as an alternative.

Chapter 8 Additional measures for small machinery spaces

8.1 Portable fire extinguishers - provided for a small machinery space must comply with the following:

- a) The extinguishing agent must be discharged from outside without having to open the primary access.
- b) The portable extinguisher must be stowed outside the small machinery space.
- c) The extinguishing agent must be able to flood the entire space and extinguish a fire within the space.
- d) The extinguishing capacity of the extinguisher must be sufficient for the volume of the small space.

Note 1 A 5 kg carbon dioxide fire extinguisher is needed to flood a space having a volume of 4.7 m³.

Note 2 A 4.5 kg dry powder extinguisher is needed to flood a space having a volume of 5 m³.

Note 3 A 9 kg dry powder extinguisher is needed to flood a space having a volume of 10 m³

Chapter 9 Additional measures for accommodation spaces

- 9.1 **Smoking** - smoking is prohibited in *Accommodation Spaces* for berthed persons.
- 9.2 **Heating appliances** - Electric radiators, if used, must be fixed to reduce fire risks. No exposed element or flame.
- 9.3 **Waste receptacles** - must be constructed of *non-combustible* materials with no openings in the sides or bottom.

Chapter 10 Additional measures for galleys

Chapter 11 Additional measures for control stations

- 11.1 **Concealed or inaccessible spaces** adjacent to electrical or other fire hazards in Control Stations must be faced with low flame spread materials.
- 11.2 **Ventilation of control stations**

Chapter 12 Additional measures for escape and evacuation routes

Chapter 13 Additional measures for cargo spaces

- 13.1 Applies to cargo spaces that are not *Ro-Ro spaces* and do not contain *dangerous goods*.

Chapter 14 Additional measures for combustible stores spaces

- 14.1 **Small combustible liquids stores** - stores containing < 1000 L of flammable liquids, with some exceptions.
- 14.2 **Lockers** - Including paints, flammable liquids, have a total volume < 10 m³ and remote from accommodation.

Chapter 15 Additional measures for Dangerous Goods Vessels

- 15.1 **Vessels and cargo spaces used for the carriage of *dangerous goods***. - Excluding spaces containing limited quantities of packaged dangerous goods, that comply with clause 14.1; and spaces comply with clause 14.2.
- 15.2 **Classes of dangerous goods voyages**.

Chapter 16 Additional measures for Ro-Ro spaces

Chapter 17 Additional measures for helidecks

Chapter 18 Assessment, installation and servicing of fire equipment

- 18.1 **Assessment** - Each component, system or installation of *active or passive fire protection measures* must be assessed and verified as meeting the applicable standard or specification. They must be:
 - (a) Tested and specifically listed by a recognised testing and listing Organisation in Australia.
 - (b) Certified by a JAS-ANZ accredited product certification body;
 - (c) Type approved by a recognised organisation; or
 - (d) Certified by a Notified Body, in accordance with the EU Marine Equipment Directive, Module B.
- 18.3 **Servicing scope and frequency** - Items of fire equipment must be serviced in accordance with AS 1851.
- 18.4 **Competence** - A competent person or organisation must undertake the installation and servicing of fire equipment and must be relevant to the particular equipment. Competent persons or organisations must be:
 - (a) A member of the vessel's crew, to the extent that the service functions specified in AS 1851 fall within the crew member's level of competence; or
 - (b) Accredited or licensed by an appropriate Authority within the state or Territory; or
 - (c) Manufacturer, an agent of the manufacturer or a service station approved by the manufacturer; or
 - (d) Accredited or licensed by a Recognised Organisation.

AMSA MO 2018/8 Transitional Arrangements for Existing Vessels

The general application of the NSCV changes is that any vessel that had survey approval prior to the July 2018, will still be a complying vessel unless any changes to the vessel are made, Schedule 1 provides a definition of changes. In the event of any changes then the Current NSCV requirements must be met.

Schedule 1 Vessel changes					
1	<p>Upgrade in the category of the vessel, including the assignment of any additional service category.</p> <p><i>Examples</i></p> <table border="0"> <tr> <td>1 Class 2 vessel to operate as Class 1 vessel.</td><td>3 Class 2D vessel to operate as Class 3B vessel.</td></tr> <tr> <td>2 Class 2C vessel to operate as Class 2B vessel</td><td>4 Class 2D vessel to operate as Class 3D vessel</td></tr> </table>	1 Class 2 vessel to operate as Class 1 vessel.	3 Class 2D vessel to operate as Class 3B vessel.	2 Class 2C vessel to operate as Class 2B vessel	4 Class 2D vessel to operate as Class 3D vessel
1 Class 2 vessel to operate as Class 1 vessel.	3 Class 2D vessel to operate as Class 3B vessel.				
2 Class 2C vessel to operate as Class 2B vessel	4 Class 2D vessel to operate as Class 3D vessel				
2	<p>Changes to the vessel's geographical location restrictions - certificate of operation</p> <p><i>Example</i> A vessel has a certificate of survey or certificate of operation that restricts the vessel to operating in Sydney Harbour, but the vessel has relocated to operate in Spencer Gulf.</p>				
3	The vessel commences the carriage of dangerous goods.				
4	The vessel commences overnight operations with overnight accommodation provided.				
5	There is an increase in the number of persons on the vessel, or passengers permitted on the vessel.				
6	<p>Any of the following changes:</p> <ul style="list-style-type: none"> (a) installation of berths or extra berths; (b) increase in propulsion power; (c) variation to lightship displacement of at least 4%; (d) variation to lightship LCG by at least 2%; (e) increase in windage profile of the vessel; (f) modifying of: fixed ballast; lifting equipment; trawl apparatus; refrigeration equipment; tank including for fish, fuel or water; or towing points. 				
7	<p>Change to the vessel's structure or watertight integrity including:</p> <ul style="list-style-type: none"> (a) change to vessel dimensions; (b) alteration of the passageways or access to the vessel or its spaces; (c) fitting of, or alteration to, a deck or watertight bulkhead. 				
8	<p>Other than a like for like replacement of equipment or fittings, there is a change to any of the following for the vessel:</p> <ul style="list-style-type: none"> (a) fixed fire system; (b) stern gear; (c) gas system; (d) electrical power and generators. 				