Commercial Vessels (Equipment) Regulation 1986 (1987 SI 255)

[1987-255]

New South Wales

Status Information

Currency of version

Historical version for 27 June 2008 to 18 February 2010 (accessed 14 January 2025 at 3:11)

Legislation on this site is usually updated within 3 working days after a change to the legislation.

Provisions in force

The provisions displayed in this version of the legislation have all commenced.

Notes—

- **Proposed repeal**
  The Regulation is to be repealed on the commencement of Part 2 of Sch 2 to the *Marine Safety Act 1998* No 121.

Authorisation

This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the Interpretation Act 1987.

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Commercial Vessels (Equipment) Regulation 1986 (1987 SI 255)

New South Wales

Contents

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New South Wales

Part 1 Preliminary

1 Name of Regulation

This Regulation may be cited as the *Commercial Vessels (Equipment) Regulation 1986*.

2 Commencement

This Regulation shall take effect on and from the commencement of Part 6 of the *Commercial Vessels Act 1979*.

Editorial note—

Date of commencement of the *Commercial Vessels Act 1979*: 1.7.1987. See Gazette No 109 of 26.6.1987, p 3177.

3 Application of Regulation

(1) This Regulation applies to all vessels, except as provided by:

(a) section 4A of the Act (Application of Act),

(b) section 48 of the Act (Exemptions),

(c) Schedule 1 to the Act (Savings and transitional provisions with respect to existing vessels), and

(d) this Regulation.

(2) This Regulation does not apply to an existing vessel until the date on which the first survey of the vessel in accordance with its survey schedule falls due after the expiration of 2 years after the commencement of this Regulation if, during that period, the vessel complies with the provisions of the *Navigation Act 1901* and the regulations under that Act (as in force immediately before that commencement) relating to the carriage of equipment by the vessel.

(3) This Regulation applies in relation to an item of equipment fitted or provided on an existing vessel after the commencement of this Regulation.

(4) An existing vessel is not required to comply with the requirements of this Regulation with respect to windlasses, anchors and cables if it continues to carry the windlasses, anchors and cables which it was required to carry immediately before the commencement of this Regulation.

4 Interpretation

(1) In this Regulation, except in so far as the context or subject-matter otherwise indicates or requires:

Code means the *Uniform Shipping Laws Code* adopted by the Australian Transport Advisory Council as published in the Commonwealth of Australia Gazette No P 17 of 13 August 1984.

existing vessel means a vessel which was, immediately before the commencement of this Regulation, the subject of an unexpired certificate under Regulation 27 of the *Navigation (Survey and Equipment) Regulations—N.S.W.* or an unexpired certificate under the *Navigation Act 1901* certifying compliance with Part 4 of that Act.

the Act means the *Commercial Vessels Act 1979*.

(2) In this Regulation and in a provision of the Code adopted by clause 5, a reference to a vessel of a particular class is a reference to a vessel which is the subject of a vessel permit of that class as defined in the *Commercial Vessels (Permits) Regulation 1986*.

(3) Where a vessel is the subject of 2 or more vessel permits, the vessel shall carry the items of equipment, and satisfy the other requirements of this Regulation, applicable to each class of vessel to which it belongs.

Part 2 Equipment other than radio equipment

5 Adoption of Code—life-saving appliances, fire appliances and other miscellaneous equipment

(1) For the purposes of Part 6 of the Act, sections 10 (life-saving appliances), 11 (fire appliances) and 13 (miscellaneous equipment) of the Code are adopted subject to the modifications referred to in clause 6.

(2) For the purposes of the interpretation of the provisions of the Code so adopted and of those modifications, Schedule 1 has effect.

6 Modifications of the Code

Provisions of the Code adopted by clause 5 apply with the following modifications:

(a) in the case of section 10 of the Code (life-saving appliances)—the modifications specified in Schedule 2,

(b) in the case of section 11 of the Code (fire appliances) —the modifications specified in

Schedule 3,

(c) in the case of section 13 of the Code (miscellaneous equipment)—the modifications specified in Schedule 4.

Part 3 Radio equipment

Division 1 Interpretation

7 Definitions

(1) In this Part:

at sea, in relation to radio watchkeeping, means the period occupied on a voyage extending beyond partially smooth or smooth water operations within the meaning of the *Commercial Vessels (Permits) Regulation 1986*.

coast station means a land station in the maritime mobile service open for public correspondence.

compatible double sideband means a wave, emission or signal of type H3E.

frequency bands means the following radio bands:

Medium Frequency (M.F.), 300–3,000 kHz,

High Frequency (H.F.), 3,000–30,000 kHz (3–30 MHz),

Very High Frequency (VHF), 30,000–300,000 kHz (30–300 MHz).

length, in relation to a vessel, means:

(a) the distance from the fore part of the hull to the after part of the hull measured at the upperside of the uppermost weathertight deck or, in the case of an open vessel, at the height of the gunwale, or

(b) 96 per cent of the distance between a vertical line passing through a point being the foremost part of the hull and a vertical line passing through a point being the aftermost part of the hull, excluding appendages,

whichever is the greater.

limited coast station means a land station established by or on behalf of a public utility, the fishing industry or other commercial enterprise for the exchange of communications.

radio installation means radio-communication and ancillary equipment required by this Part.

radio-telegraphy means a system of radio-communication for the transmission of

written matter by the use of a signal code.

radio-telephone distress frequency means the frequency of 2182 kHz.

radio-telephone operator means a person holding an appropriate certificate complying with the provisions of the Radio Regulations.

radio-telephony means a system of radio-communication set up for the transmission of speech or, in some cases, other sounds.

Radio Regulations means Marine Orders, Part 26 (Equipment-Communication), made pursuant to the Regulations under the *Navigation Act 1912* of the Commonwealth.

radio watch means listening on the appropriate distress frequency for the type of installation on the vessel.

silence periods, in relation to radio-telephone vessels, means periods of 3 minutes duration beginning at each hour and at the expiration of 30 minutes after each hour of each day, according to Greenwich Mean Time.

(2) In this Part:

(a) a reference to a wave, emission or signal of type H3E is a reference to single sideband amplitude modulated radio-telephony having a carrier emitted at a level not more than 6 decibels below the peak envelope power,

(b) a reference to a wave, emission or signal of type R3E is a reference to single sideband amplitude modulated radio-telephony having a carrier emitted at a level of 16 decibels + 2 decibels below the peak envelope power, and

(c) a reference to a wave, emission or signal of type J3E is a reference to single sideband amplitude modulated radio-telephony with the carrier emitted at a level 40 decibels or more below the peak envelope power.

(3) The requirements of this Part are prescribed for the purposes of Part 6 of the Act.

Division 2 Radio-telegraphy

8 Application of Division

(1) This Division applies to:

(a) Class 1A vessels of 25 metres or more in length, and

(b) Class 2A vessels of 1,600 tonnes and over.

(2) The Minister may, by notice in writing given to the owner of the vessel, apply this Division to Class 2A vessels of 300 tonnes and over but less than 1, 600 tonnes,

subject to any conditions specified in the notice.

9 Requirements for vessels

A vessel to which this Division applies shall comply with the relevant provisions of the Radio Regulations, as amended and in force from time to time, relating to the carriage of a radio-telegraph installation by the vessel.

Division 3 Radio-telephony 1

10 Application of Division

The Minister may, by notice in writing given to the owner of the vessel, apply this Division to Class 2A vessels of less than 1,600 tonnes and:

(a) 300 tonnes or more, or

(b) less than 300 tonnes but 25 metres or more in length.

11 Requirements for vessels

A vessel to which this Division applies shall comply with the relevant provisions of the Radio Regulations, as amended and in force from time to time, relating to the carriage of a radio-telephone installation by the vessel.

Division 4 Radio-telephony 2

12 Application of Division

(1) This Division applies to:

(a) Class 1A vessels of less than 25 metres in length,

(b) Class 1B vessels and Class 1C vessels,

(c) Class 2A vessels of less than 25 metres in length, and

(d) Class 2B vessels, Class 2C vessels, Class 3A vessels, Class 3B vessels and Class 3C vessels.

(2) The Minister may, by notice in writing given to the owner of the vessel, apply this Division to vessels of Classes 1D, 1E, 2D, 2E, 3D and 3E.

13 Requirements for vessels

(1) A vessel to which this Division applies shall carry a radio-telephone installation which complies with the specifications contained in Appendix A in Schedule 5.

(2) A vessel of Class 1A or 2A of less than 25 metres in length, or of Class 3A, shall carry an Alarm Signal Generating Device complying with Specification RB 239 published by

the Department of Communications of the Commonwealth, in addition to the radio-telephone installation required by subclause (1).

(3) The Minister may, by notice in writing given to the owner of the vessel, require a vessel of Class 1D, 1E, 2D, 2E, 3D or 3E to carry a radio-telephone installation which complies with the specifications contained in Appendix B in Schedule 5.

14 Requirements for additional VHF installation

VHF equipment carried by a vessel to which this Division applies as an additional installation and which provides for operation on the international distress, safety and calling frequency for the maritime mobile VHF radio-telephone service of 156.80 MHz (Channel 16) shall comply with the provisions of Appendix B in Schedule 5.

15 Requirements for vessels of Class C

(1) Vessels to which this Division applies of Class 1C, 2C or 3C operating solely between the latitudes of 32 degrees South and 36 degrees 30 minutes South may, instead of the radio-telephone installation required by clause 13 (1), carry a radio-telephone installation which complies with the provisions of Appendix B in Schedule 5.

(2) Vessels of Class 3C operating solely within an area which is within 30 nautical miles from a port at which a limited coast station is installed may, instead of the radio-telephone installation required by clause 13 (1), carry a radio-telephone installation complying with Appendix B in Schedule 5 if:

(a) the limited coast station confirms in writing to the Minister that the station will remain open whilst the vessel is at sea, and

(b) both the vessel and the limited coast station are fitted with dual watch facilities to monitor the frequency 156.80 MHz (Channel 16).

16 Maintenance of radio installation

A radio-telephone installation carried by a vessel to which this Division applies shall be maintained so that, while the vessel is at sea, the radio-telephone installation is at all times capable of fulfilling the requirements of this Regulation.

17 Radio-telephone installation not to be hindered by interference

A radio-telephone installation carried by a vessel to which this Division applies shall be installed in such a position and manner, and other electrical apparatus on the vessel shall be equipped with such devices, that while the vessel is at sea effective reception of radio signals is not hindered by interference caused by electrical or other apparatus on the vessel.

18 General requirements for radio-telephone installation

A radio-telephone installation carried by a vessel shall be:

(a) licensed pursuant to the provisions of any relevant Commonwealth law,

(b) installed in the vessel in a satisfactory manner and in as high a position as is practicable,

(c) protected against the harmful effects of salt water and extremes of temperature, and

(d) installed in such a place that it will not affect any of the vessel's compasses or other navigational equipment.

19 Documents to be carried

There shall be carried by a vessel to which this Division applies:

(a) a log book in which is entered details as to dates, times, frequencies and callsigns with respect to:

(i) communications relating to tests required by clause 24, and

(ii) all distress calls together with the name and position of the vessel in distress and nature of the distress and the action taken, and

(b) a copy of the latest edition of the publication entitled "Handbook for Radio-Telephone Ship Station Operators" published by the Department of Communications of the Commonwealth.

20 Equipment to be provided in vicinity of radio installation

(1) A vessel to which this Division applies shall carry in the immediate vicinity of the radio installation, the following equipment:

(a) a reliable clock which is visible to the operator,

(b) a suitable card which explains in simple terms the use of the installation to an unskilled person for use in an emergency,

(c) an emergency electric light capable of illuminating the installation controls, the clock and the card referred to above, and capable of being controlled both from the installation and every entrance to the space in which the installation is fitted.

(2) If any such radio installation is not carried in the place from which the vessel is normally navigated, a loud speaker shall be installed in a place, and with a gain control, which, when adjusted to its minimum position, permits an output from the loud speaker of sufficient volume for the maintenance of an effective listening watch.

(3) Protection shall be provided from accidental access to all parts and wiring of any such

radio installation which at any time are at an instantaneous voltage (other than radio frequency voltage) of over 50 volts under normal conditions of operation.

21 Requirements for certain vessels

(1) A vessel of Class 1A, 1B, 2A or 2B to which this Division applies shall carry spare components commensurate with the radio installation on the vessel, including:

(a) 1 spare completely assembled antenna of identical characteristics for effective use on a distress frequency,

(b) 1 of each type of valve and semi-conductor device used in the installation,

(c) 4 of each type of fuse used in the installation, and

(d) 1 globe for the electric light referred to in clause 20 (1) (c).

22 Qualification of operator of radio-telephone

The radio-telephone station in a vessel to which this Division applies shall be operated by a duly authorised radio-telephone operator.

23 Radio watch to be maintained

(1) Except as is otherwise provided by this clause, a radio watch on a vessel to which this Division applies shall be maintained on 2182 kHz at all times while the vessel is at sea.

(2) The watch referred to in subclause (1) may, except at the silence periods, be suspended:

(a) whilst exchanging communications with coast, limited coast or other ship stations, or

(b) when conditions are such that in the opinion of the Master such watch would interfere with the safe navigation or safe working of the vessel.

(3) The watch referred to in subclause (1) may be suspended whilst a vessel is at anchor.

(4) Radio watch may be maintained by means of loud speaker reception at the place from which the vessel is navigated.

(5) If the radio installation carried by a vessel complies with Appendix B in Schedule 5, radio watch shall, as far as practicable, be maintained on the international distress, safety and calling frequency for the maritime mobile VHF radio-telephone service 156.80 MHz (Channel 16).

24 Radio installation to be tested

A radio-telephone operator shall test the radio installation on a vessel to which this

Division applies:

(a) once daily when at sea by communicating the vessel's position to a coast station or limited coast station and shall record the results in the log book referred to in clause 19 (a), and

(b) at other times on demand by the Minister.

Division 5 Miscellaneous

25 Master of vessel—offences

The master of a vessel which is in prescribed waters is guilty of an offence and liable to a penalty not exceeding $400 if:

(a) a provision of this Part is contravened on the vessel, and

(b) the contravention does not constitute an offence against section 42 of the Act.

Part 4 Additional equipment

26 Additional equipment

(1) An item of equipment carried on a vessel which is additional to the equipment required to be carried by or under this Regulation:

(a) shall be maintained and serviced in such manner (if any) as the Minister may, by notice to the owner of the vessel, direct, and

(b) shall be removed from the vessel if the Minister considers that the item of equipment may not be safe to use and has directed its removal by notice to the owner of the vessel.

(2) The owner of a vessel who fails to comply with a notice under this clause is guilty of an offence and liable to a penalty not exceeding $400.

Part 5 Savings and transitional

27 Dissolution of Maritime Services Board—savings and transitional

Anything done by the Maritime Services Board under a provision of this Regulation before the dissolution of the Board by the *Ports Corporatisation and Waterways Management Act 1995* that had any force or effect immediately before that dissolution is taken to have been done by the Minister.

Schedule 1 Interpretation of adopted provisions of the Code

(Clause 5 (2))

1 In the Code, except in so far as the context or subject-matter otherwise indicates or requires:

accommodation space, ***cargo space***, ***classification society***, ***control station***, ***crew space***, ***service space***, ***tanker***, ***tons***, ***unmanned machinery space*** have the same meanings respectively as in Section 1 of the Code.

Authority means the Minister administering the *Commercial Vessels Act 1979* of New South Wales.

measured length or ***length***, in relation to a vessel, means:

(a) the distance from the fore part of the hull to the after part of the hull measured at the upperside of the uppermost weathertight deck or, in the case of an open vessel, at the height of the gunwale, or

(b) 96 per cent of the distance between a vertical line passing through a point being the foremost part of the hull and a vertical line passing through a point being the aftermost part of the hull, excluding appendages,

whichever is the greater.

stored water area means any area of water:

(a) formed by the non-natural obstruction of any inland watercourse, and

(b) is open to the public for navigation.

offshore operations, ***partially smooth water operations***, ***restricted offshore operations***, ***smooth water operations***, ***unlimited operations*** have the same meanings respectively as in the *Commercial Vessels (Permits) Regulation 1986*.

2 A reference in a Section of the Code to an approved item of equipment is a reference to:

(a) an item which meets the specifications set out in the Appendices to that Section of the Code, or

(b) an item which has been accepted by the Equipment Machinery and Material Advisory Committee of the Australian Transport Advisory Council as meeting those specifications.

3 A reference in the Code to an Australian Standard, a British Standard or any other standard is a reference to the most recent edition of that standard.

Schedule 2 Life saving appliances—modifications to section 10 of the Code

(Clause 6)

Part 1 (Preliminary)—

Clause 2—

Omit the clause.

Clause 3—

Omit “the definitions in the Introduction, Definitions and General Requirements Section of these uniform requirements shall apply and”.

Part 3 (Scales of life-saving appliances)—

Classes 1B, 1C—

Omit wherever occurring:

	1 lifebuoy with light
Less than 10 metres	

Class 1B—

Before “LINE THROWING APPLIANCE” insert:

	EMERGENCY POSITION—INDICATING RADIO BEACON
All lengths	An emergency position-indicating radio beacon when not carried as part of the liferaft equipment.

Omit “All lengths” opposite the matter relating to emergency electrical installation, insert instead “15 metres and over”.

After “permitted by the Authority)” in the matter relating to emergency electrical installation, insert:

Less than 15 metres	(1) A number of electric torches or hand lamps as may be determined by the Authority, plus (2) Emergency installation capable of operating navigation lights where they are solely electric for 3 hours, plus (3) Emergency installation capable of operating signalling lamps (where they are normally operated from main electrical power source) and communication equipment for 3 hours. (In relation to (2) and (3), the emergency installation can be the normal starting batteries provided they are suitably placed in the vessel).

Classes 1B, 1C, 1D, 2B, 2C, 2D, 3A, 3B, 3C, 3D—

Omit wherever occurring:

All lengths	One Copy of the rescue signal table

Classes 1C, 2C, 3C—

Omit “15 metres and over but” wherever occurring.

Classes 1C, 2C, 3C—

Omit wherever occurring:

Less than 15 metres	3 parachute distress rockets

Classes 1C, 2B, 2C, 3A, 3B, 3C—

Before “ELECTRIC ALARM SIGNAL” wherever occurring, insert:

	EMERGENCY POSITION—INDICATING RADIO BEACON
All lengths	An emergency position-indicating radio beacon when not carried as part of the liferaft equipment.

Class 1D—

Omit “(A reduction in distress signals may be permitted by the Authority consistent with the area of operations allocated to the vessel)”.

Class 1E—

After ***PASSENGER VESSELS—SMOOTH WATERS***, insert:

Note.

1 Where, in the opinion of the Authority it is not practical for a sailing vessel to comply with internal buoyancy [requirements] as prescribed in Appendix N or with sub-division [requirements] in accordance with the construction section of the Code, the vessel shall be required to carry buoyant appliances for 100 % complement and life jackets for 100 % complement.

Omit “Reference”, insert instead “2. Reference”.

After “included in the buoyant appliances”, insert “provided that the percentage of lifejackets carried shall not be less than 25 % nor more than 100 % of the complement”.

Omit “Distress signals, consistent with the area of operations allocated, as determined by the Authority”, insert instead:

2 red hand flares.

1 hand held orange smoke signal.

1 parachute distress rocket, where the vessel is to be used on a stored water area, Batemans Bay, Port Hacking, Botany Bay, Broken Bay, Lake Macquarie, Port Stephens, the Myall and Smith Lakes System or Port Macquarie.

Classes 2C, 3C—

After “as prescribed by Appendix N” where firstly occurring in each case, insert:

Note.

An “existing vessel” within the meaning of the *Commercial Vessels (Equipment) Regulation 1986* of less than 10 metres which is limited to within 15 nautical miles to seaward of the coast may carry buoyant appliances and/or lifebuoys for 100 % complement instead of the requirements set out above.

Classes 2D, 3D—

Omit wherever occurring:

Note.

Consistent with the area of operations allocated to the vessel, a reduction in distress signals may be permitted by the Authority.

Class 2E—

Omit “Distress signals consistent with the area of operations as determined by the Authority”, insert instead:

2 red hand flares

1 hand held orange smoke signal

1 parachute distress rocket, where the vessel is to be used on a stored water area, Batemans Bay, Port Hacking, Botany Bay, Broken Bay, Lake Macquarie, Port Stephens, the Myall and Smith Lakes System or Port Macquarie.

Class 3B—

After “and communication equipment”, insert “for 3 hours”.

Class 3C—

After “Appendix N).” in the matter relating to Lifebuoys, insert:

, or

(3) an open vessel less than 7.5 metres in length which is fitted with internal buoyancy as prescribed by Appendix N and in which, in the opinion of the Authority, it is not practicable to stow such a lifebuoy)”.

Class 3E—

Omit:

	DISTRESS SIGNALS
All lengths	Distress signals consistent with the area of operations as determined by the Authority

Appendix A—

Clause 3.4.7 (a)—

Omit “0.5 metre”, insert instead “0.5 square metre”.

Clause 7.1.4—

Omit “cm”, insert instead “m”.

Appendix B—

Clause 2.4—

Omit the subclause, insert instead:

2.4 A first-aid outfit as specified below:

2.4.1 The contents of every first-aid outfit shall comply with the standards specified by the *Therapeutic Goods and Cosmetics Act 1966* where such standards are applicable to the articles and shall contain the following articles:

2.4.1.1 2 standard dressings No 14, medium, measuring 15 cm × 10 cm,

2.4.1.2 2 standard dressings No 15, large, measuring 15 cm × 20 cm,

2.4.1.3 3 triangular bandages with not less than 1 m sides (approximately),

2.4.1.4 2 open wove bandages, measuring 75 mm × 5 m,

2.4.1.5 1 self-adhesive waterproof wound dressing, measuring 60 mm x 1 m,

2.4.1.6 1 packet containing not less than 10 paraffin gauze dressings for burns, individually wrapped, measuring 10 cm × 10 cm (approximately),

2.4.1.7 2 tubes of cetrimide cream 0.5 % 50 g (antiseptic cream),

2.4.1.8 50 Paracetamol tablets 500 mg (analgesic tablets),

2.4.1.9 1 pair of rustless, stainless metal scissors measuring 10 cm with

one sharp and one blunt point,

2.4.1.10 12 rustless, stainless metal safety pins of assorted sizes,

2.4.1.11 1 small packet of silica gel (drying agent), and

2.4.1.12 approved instructions for use of the first-aid outfit painted on linen or waterproof paper in the English language.

Appendix C—

Clause 2.13.1—

Omit “74 kg”, insert instead “75 kg”.

Appendix I—

Clause 1.7—

Omit “m2”, insert instead “m3”.

Clause 3.13—

Omit “millimetres”, insert instead “millilitres”.

Appendix J—

Clause 1.14—

Omit “66° C to −18° C”, insert instead “−18° C to 66° C”.

Clause 3.11—

Omit the subclause, insert instead:

3.11 A first-aid outfit as specified below:

3.11.1 The contents of every first-aid outfit shall comply with the standards specified by the *Therapeutic Goods and Cosmetics Act 1966* where such standards are applicable to the articles and shall contain the following articles:

3.11.1.1 2 standard dressings No 14, medium, measuring 15 cm × 10 cm,

3.11.1.2 2 standard dressings No 15, large, measuring 15 cm × 20 cm,

3.11.1.3 3 triangular bandages with not less than 1 m sides (approximately),

3.11.1.4 2 open wove bandages, measuring 75 mm × 5 m,

3.11.1.5 1 self-adhesive waterproof wound dressing, measuring 60 mm

x 1 m,

3.11.1.6 1 packet containing not less than 10 paraffin gauze dressings for burns, individually wrapped, measuring 10 cm × 10 cm (approximately),

3.11.1.7 2 tubes of cetrimide cream 0.5 % 50 g (antiseptic cream),

3.11.1.8 50 Paracetamol tablets 500 mg (analgesic tablets),

3.11.1.9 1 pair rustless, stainless metal scissors measuring 10 cm with one sharp and one blunt point,

3.11.1.10 12 rustless, stainless metal safety pins of assorted sizes,

3.11.1.11 1 packet of silica gel (drying agent), and

3.11.1.12 approved instructions for use of the first-aid outfit painted on linen or waterproof paper in the English language.

Appendix K—

Clause 1.4—

Omit “0.86”, insert instead “086”.

Clause 2.1 (a)—

Omit “V^{-W}”, insert instead “V^{-W}”.

Clause 3.10—

Omit the clause, insert instead:

3.10 A first-aid outfit as specified below:

3.10.1 The contents of every first-aid outfit shall comply with the standards specified by the *Therapeutic Goods and Cosmetics Act 1966* where such standards are applicable to the articles and shall contain the following articles:

3.10.1.1 2 standard dressings No 14, medium, measuring 15 cm × 10 cm,

3.10.1.2 2 standard dressings No 15, large, measuring 15 cm × 20 cm,

3.10.1.3 3 triangular bandages with not less than 1 m sides (approximately),

3.10.1.4 2 open wove bandages, measuring 75 mm × 5 m,

3.10.1.5 1 self-adhesive waterproof wound dressing, measuring 60 mm x 1 m,

3.10.1.6 1 packet containing not less than 10 paraffin gauze dressings for burns, individually wrapped, measuring 10 cm × 10 cm (approximately),

3.10.1.7 2 tubes of cetrimide cream 0.5 % 50 g (antiseptic cream),

3.10.1.8 50 Paracetamol tablets 500 mg (analgesic tablets),

3.10.1.9 1 pair rustless, stainless metal scissors measuring 10 cm with one sharp and one blunt point,

3.10.1.10 12 rustless, stainless metal safety pins of assorted sizes,

3.10.1.11 1 packet of silica gel (drying agent), and

3.10.1.12 approved instructions for use of the first-aid outfit painted on linen or waterproof paper in the English language.

Appendix N—

After “shall not” in clause 4, insert “, unless the Authority otherwise approves,”.

Appendix S—

Omit “A2” wherever occurring, insert instead “A2A”.

Omit “A2H” wherever occurring, insert instead “H2A”.

Omit “A3” wherever occurring, insert instead “A3E”.

Omit “A3H” wherever occurring, insert instead “H3E”.

Appendix T—

Omit “A2” wherever occurring, insert instead “A2A”.

Omit “A2H” wherever occurring, insert instead “H2A”.

Omit “A1” wherever occurring, insert instead “A1A”.

Appendix Y—

After Appendix X, insert:

Appendix Y Emergency position indicating radio beacon

1 Requirements—SOLAS inflatable and rigid liferafts

An emergency position indicating radio beacon required in a SOLAS inflatable or rigid liferaft must comply with the relevant requirements of the *Marine Orders*, Part 25 *Equipment—Life-saving* made by the Australian Maritime Safety Authority under the *Navigation Act 1912* of the Commonwealth.

2 Requirements—others

Before 1 July 2008, any other emergency position indicating radio beacon must:

(a) be suitable for marine use, and

(b) comply with Australian/New Zealand Standard AS/NZ 4330:2006 or Australian/New Zealand Standard AS/NZ 4280.1:2003, and

(c) have an operational frequency of 121.5/243.0 or 406 MHz, and

(d) if it has an operational frequency of 406 MHz, be registered with the Australian Maritime Safety Authority and have affixed to it a registration sticker from that Authority, and

(e) be maintained and serviced in accordance with the manufacturer's instructions.

On or after 1 July 2008, any other emergency position indicating radio beacon must:

(a) be suitable for marine use, and

(b) comply with Australian/New Zealand Standard AS/NZ 4280.1:2003, and

(c) have an operational frequency of 406 MHz, and

(d) be registered with the Australian Maritime Safety Authority and have affixed to it a registration sticker from that Authority, and

(e) be maintained and serviced in accordance with the manufacturer's instructions.

Schedule 3 Fire appliances—modifications to Section 11 of the Code

(Clause 6)

Part 1 (General Provisions)—

Clause 1—

Omit the clause.

Clauses 5, 7—

Omit "15 metres" wherever occurring, insert instead "12.5 metres".

At the end of clause 7, insert:

Vessels of Classes 3B, 3C, 3D and 3E having a length of less than 12.5 metres shall be fitted with either valves or cocks as above or a shut-off valve or cock in every tank outlet line.

Part 2 (Scales of fire fighting equipment)—

Classes 1A, 1B, 1C, 1E, 2A, 2B, 2C, 3A, 3B, 3C—

Omit "Asbestos Blankets" wherever occurring, insert instead "Non-combustible Blankets".

Class 1D—

Omit “Asbestos Blanket”, insert instead “Non-combustible Blankets”.

Class 2C—

Omit:

Less than 25 metres	Two, suitable for extinguishing oil fires, for use in each space containing propelling machinery

Insert instead:

10 metres and over but less than 25 metres	Two, suitable for extinguishing oil fires, for use in each space containing propelling machinery
less than 10 metres	One, suitable for extinguishing oil fires, for use in— (a) each space containing propelling machinery, or (b) vessels propelled by an outboard engine or engines.

Classes 2D, 2E, 3C, 3D, 3E—

Omit:

less than 10 metres	One, suitable for extinguishing oil fires, for use in each space containing propelling machinery

Insert instead:

less than 10 metres	One, suitable for extinguishing oil fires, for use in— (a) each space containing propelling machinery, or (b) vessels propelled by an outboard engine or engines.

Class 3D—

After “manually operated emergency fire” under the heading “Emergency Fire Pumps”, insert “pump”.

Before:

10 metres and over but less than 25 metres	2 with lanyards

Insert:

Fire Buckets

Appendix E—

Clause 1.7—

After clause 1.6 insert:

1.7 The Authority may require all or any part of the installation to be inspected, serviced and tested by an acceptable fire fighting organisation.

Clause 2.3—

Omit clause 2.3, insert instead:

2.3 Fixed Halon Fire Smothering Installation

2.3.1 General

2.3.1.1 The extinguishing medium shall be Halon 1211 (Bromochlorodifluoromethane (BCF)) or Halon 1301 (Bromotrifluoromethane (BTM)).

2.3.1.2 Halon 1211 (BCF) shall not be used in manned machinery spaces.

2.3.1.3 The installation shall be designed to comply with the National Fire Protection Code, Standard 12A or Standard 12B as appropriate, and this Appendix.

2.3.1.4 The installation shall incorporate a fixed automatic fire detection system.

2.3.1.5 If required by the owner, provision may be made in the fire alarm panel to provide for automatic operation of the system. When required, the system should be such that on operation of the fire alarm system, a time delay, adjustable from 30–60 seconds, would operate and, on the completion of the time delay, discharge the Halon into the machinery space. This provision shall be provided via a key switch operation or similar lock on, lock off facility. If provided the system shall be in the manual mode while the vessel is manned.

2.3.1.6 Means shall be provided for stopping all main and auxiliary internal combustion engines from outside the machinery space.

2.3.2 Quantity of Halon

2.3.2.1 The quantity of Halon for machinery spaces shall be calculated in accordance with Table 1. This quantity shall be based on the gross volume of the space in respect of the minimum concentration and the net volume of the space in respect of the maximum concentration, and shall include the casing.

Table 1

Halon	***Minimum***	***Maximum***
1301	4.25 %	7.0 %
1211	4.25 %	5.5 %

2.3.2.2 The quantity shall be calculated on a volumetric ratio basis and for the purpose of these requirements, the volume of Halon 1301 shall be calculated at 0.16 m^3/kg and the volume of Halon 1211 shall be calculated at 0.14 m3/kg.

2.3.3 Halon Storage

2.3.3.1 Halon shall be stored in metal cylinders and be super pressurised with dry nitrogen to a total pressure permitted by the National Fire Protection Code Standard 12A or Standard 12B as appropriate.

2.3.3.2 Halon shall not be stored at a density greater than:

(a) for Halon 1211—1.634 kg/litre of the internal volume of the cylinder,

(b) for Halon 1301—1.12 kg/litre of the internal volume of the cylinder.

2.3.3.3 Each cylinder for the storage of Halon shall be designed in accordance with the appropriate Australian Standard or other standard acceptable to the Authority.

2.3.3.4 The cylinders and system shall be designed for a working pressure at least equal to the maximum pressure that may be developed at 55° C, or, where the maximum normal operating temperature may exceed 55° C, that higher temperature.

2.3.3.5 Each cylinder shall be provided with a pressure gauge or such other means to permit personnel to check safely the pressure within the cylinder. Damage to the pressure gauge, or other pressure indicating means, shall not permit release of the Halon.

2.3.3.6 Each cylinder shall be clearly and permanently marked to indicate the following:

(i) its gross mass,

(ii) its tare mass,

(iii) its internal volume,

(iv) its maximum allowable working pressure/temperature,

(v) Halon 1211 or Halon 1301.

2.3.4 Location of Cylinders

2.3.4.1 Cylinders may be located either outside or within a protected machinery

space. Cylinders that are located within a protected space shall be individually distributed throughout the space, having regard to the requirement for uniform distribution of medium throughout the space.

2.3.4.2 Cylinders shall be positioned such that they are not subject to extreme temperatures, or do not present a danger to personnel, and be located to the satisfaction of the Authority.

2.3.4.3 The lowest part of a cylinder shall be at least 300 mm above the deck when located in a machinery space and at least 50 mm above the deck when located outside a machinery space. They shall be secured in a manner which prevents movements of the cylinders, as well as being mounted in a manner which facilitates the maintenance, operation and survey of the system.

2.3.5 Halon Discharge and Warning Arrangements

2.3.5.1 The arrangements shall be so designed that the required quantity of Halon can be discharged to the machinery space in 20 seconds or less based on the discharge of the liquid phase.

2.3.5.2 For cylinders located outside the machinery space the system shall be arranged for manual initiation of power or mechanical discharge.

2.3.5.3 For cylinders located within the machinery space:

(a) the system shall be provided with a manually initiated, power or mechanical discharge system, located outside the protected space. If electric power, duplicate sources shall be provided, the second source shall be outside the protected space.

(b) electrical power circuits connecting the cylinders shall be automatically monitored for open circuit and short circuit fault conditions as defined in Australian Standard 1670 with visual and audible alarms provided at the control panel.

2.3.5.4 Halon discharge shall not endanger personnel using the normal access ladders and escapes serving the space.

2.3.5.5 Means shall be provided for giving warning within the machinery space of the impending release of Halon.

2.3.5.6 A warning arrangement which depends upon a source of power for its operation shall be capable of being supplied from two sources of power, one of which shall be a power source outside the machinery space.

2.3.5.7 The discharge arrangement shall be such as to indicate readily if it has been operated and be provided with effective means to prevent accidental release especially when the system is being serviced.

2.3.6 Controls and Notices

2.3.6.1 The control associated with the operation of the Halon system shall:

(a) be capable of being operated from a safe position and be protected from accidental contact,

(b) be located entirely outside the protected space, and

(c) have any actuation pull cables enclosed in a suitable conduit.

2.3.6.2 A clear and permanent notice relating to the operating procedure for the system shall be provided at each location from which the system can be operated.

2.3.6.3 As far as is appropriate the notice should be in the sequence:

(a) notify person in wheelhouse,

(b) sound Halon discharge alarm,

(c) shut down internal combustion machinery,

(d) shut down ventilation fans supplying the space,

(e) close all openings which may admit air to the space,

(f) stop inflammable oil pumps,

(g) close inflammable oil remote closing valves,

(h) ensure that all personnel have vacated the space,

(i) discharge Halon (indicate the sequence for operating the distribution valves and discharge mechanism and the location of back up discharge facilities).

2.3.7 Piping and Nozzles

2.3.7.1 The arrangement of piping and discharge nozzles shall be such as to ensure uniform distribution throughout the space.

2.3.7.2 Piping shall:

(a) be permanent in nature,

(b) be of Schedule 40 steel piping, or copper to the satisfaction of the Authority and having due regard to the storage pressure in the cylinder,

Note.

If piping is steel it shall be galvanised both internally and externally.

(c) not pass through accommodation or refrigerated spaces,

(d) be securely supported and protected, having due regard for forces generated during the release of Halon, thermal expansion and contraction, vibration and mechanical damage,

(e) be cleared internally of foreign matter prior to the attachment of discharge

nozzles,

(f) if water may accumulate in the piping, be self-draining, and

(g) be provided with suitable directional valves to direct the flow of gas to the required space in the case of vessels having more than one machinery space.

2.3.7.3 A discharge nozzle shall:

(a) be constructed of corrosion resistant material, and

(b) be permanently marked to identify its size.

2.3.7.4 The number and orifice size of the discharge nozzles, the pipe diameter, pipe lengths and pipe bends shall be decided by calculations of discharge time, pressure and flow in accordance with the National Fire Protection Code, Standard 12A or Standard 12B, as appropriate.

2.3.7.5 Where the internal volume of the distribution network is equal to or greater than the liquid volume of Halon in the containers of the system, the Authority may require a full discharge test, and where the internal volume of distribution network is 125 % or more of the liquid volume Halon in the containers of a system, a full discharge test of the system shall be undertaken.

2.3.7.6 Where, in the opinion of the Authority, conditions are such as to warrant a full discharge test to verify that the system operates as designed, the system shall be subjected to such a test. During a full discharge test of the system, measurements to verify:

(a) discharge period,

(b) concentration achieved, and

(c) distribution,

shall be carried out, and additional holding time shall be determined.

Note.

The Authority may, subject to such conditions as it considers appropriate, permit a discharge test to be undertaken using Halon 122 or other suitable medium.

2.3.8 Requirements for Cylinders Located within a Machinery Space

2.3.8.1 Not more than 2 discharge nozzles shall be fitted to any cylinder and the maximum quantity of medium in each cylinder shall be to the satisfaction of the Authority having regard to the requirement for uniform distribution of medium throughout the space.

2.3.8.2 Within the machinery space, electrical circuits essential for the release of the system shall be mineral insulated cable, or equivalent fire resistant material, and be acceptable to the Authority. Piping systems essential for the

release of systems designed to be operated mechanically, hydraulically, or pneumatically, shall be of steel or copper.

2.3.8.3 Each cylinder shall be fitted with an automatic over-pressure release device that, in the event of the cylinder being exposed to the effects of the fire and the system not being operated will safely vent the contents of the container into the space.

2.3.8.4 Each cylinder shall be fitted with a discharge valve or discharge head, so designed that the minimum quantity of Halon required can be discharged in 20 seconds or less, based on the discharge of the liquid phase, and where the discharge fitting is top mounted, it shall be provided with a metal internal dip tube, extending to near the bottom of the container, to permit the discharge of Halon in the liquid phase.

Appendix F—

Omit the Appendix, insert instead:

Appendix F Fixed fire extinguishing installations

1 General

1.1 This Appendix covers the requirements for fixed automatically operated Halon 1211 (Bromochlorodifluoromethane (BCF)) or Halon 1301 (Bromotrifluoromethane (BTM)) fire extinguishers.

1.2 A notice indicating that the space contains an automatically operated fire extinguisher and stating which medium is used shall be displayed outside each access to the space or in the wheel house of the vessel.

1.3 Halon 1211 (BCF) shall not be used in manned machinery spaces.

1.4 The Authority may require all or any part of the installation to be inspected, serviced and tested by an acceptable fire fighting organisation.

2.1 Quantity of Halon

2.1.1 The quantity of Halon gas shall be calculated in accordance with Table 1. This quantity shall be based on the gross volume of the space in respect to the minimum concentration and the net volume of the space in respect to the maximum concentration, including the casing.

Table 1

Halon	***Minimum***	***Maximum***
1301	5 %	7.0 %
1211	5 %	5.5 %

The Halon concentration percentages shall be at an assumed temperature of 20° C.

2.1.2 The quantity shall be calculated on a volumetric ratio basis and for the purposes of these requirements, the volume of Halon 1301 shall be calculated at 0.16 m3/kg and the volume of Halon 1211 shall be taken at 0.14 m3/kg.

2.2 Storage

2.2.1 The Halon shall be stored in a single metal cylinder and be super pressurised with dry nitrogen to pressures permitted by the National Fire Protection Code, Standard 12A and Standard 12B as appropriate.

2.2.2 The cylinder shall be designed in accordance with the appropriate Australian Standard Specification or other standards acceptable to the Authority.

2.2.3 The cylinder shall be designed for a working pressure at least equal to the maximum pressure that may be developed in it at 55° C, or where the maximum normal operating temperature may exceed 55° C, that higher temperature.

2.2.4 The cylinder shall be fitted with a discharge head, so designed that the minimum quantity of Halon required can be discharged in 10 seconds or less, based on the discharge of the liquid phase.

2.2.5 The cylinder shall be provided with a pressure gauge or such other means to permit personnel to check safely the pressure within the container. Damage to the pressure gauge or other pressure indicating means, shall not permit release of Halon.

2.2.6 The Halon cylinder shall be clearly and permanently marked to indicate the following:

(a) its gross mass,

(b) its tare mass,

(c) its internal volume,

(d) its design maximum allowable working pressure/temperature,

(e) Halon 1211 or Halon 1301.

3 Location and Operation

3.1 Location

3.1.1 The cylinder shall be installed above the maximum fire risk area having regard to the uniform distribution of Halon throughout the space; the cylinder shall be positioned so that it does not present a danger to personnel and be secured to the satisfaction of the Authority.

3.1.2 Due account shall be taken of:

(a) proximity to hot surfaces, and

(b) the location of air intakes to the main and auxiliary engines.

3.2 Operation

3.2.1 The discharge head shall be designed to operate between 55° C and 70° C except that, where the normal in-service temperature exceeds 55° C, the Authority may permit the operating temperature to be increased to not more than 5° C above the maximum.

Appendix K—

Clause 1—

Before “metal painted”, insert “a capacity of not less than 9 litres,”.

Schedule 4 Miscellaneous equipment—modifications to section 13 of the Code

(Clause 6)

PART 1 (Preliminary)—

Clause 2—

Omit the clause.

PART 2 (General Provisions)—

Clause 5.7.1—

Omit:

Unlimited Sea-going Vessels;

All Limited Sea-going Vessels of Classes 1 and 2, and

All Restricted Sea-going Vessels of Classes 1 and 2

Insert instead:

All vessels of Class A, Classes 1B and 2B and Classes 1C and 2C

Clause 5.7.2—

Omit:

All Limited Sea-going and Restricted Sea-going Vessels of Class 3;

All vessels operating only within Partially Smooth Water Limits and Smooth Water Limits

Insert instead:

All vessels of Classes 3B and 3C and Classes D and E

Clause 5.9, 5.10—

After clause 5.8, insert:

5.9 Vessels not provided with navigation and other lights in accordance with the requirements of the *Navigation (Collision) Regulations 1983* shall be limited to operations between the hours of sunrise and sunset on any day.

5.10 The Authority may limit a vessel fitted with navigation and other lights in accordance with the *Navigation (Collision) Regulations 1983* to operations between the hours of sunrise and sunset on any day.

PART 3 (Scales of miscellaneous equipment)—

Classes 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 2E, 3B, 3C, 3D, 3E—

After “strength having regard to the size and service of the vessel” wherever occurring, insert “and for the purpose of towing”.

Classes 1A, 1C, 1D, 1E, 2A—

After “medical stores in accordance with” wherever occurring, insert “Appendix L”.

Class 1B—

Before “Scale D”, insert “Appendix L,”.

Classes 1B, 2B—

Omit wherever occurring:

Less than 35 metres	Vessel Record Book

Classes 1C, 3A—

Omit wherever occurring:

Less than 50 metres	Vessel Record Book

Classes 1D, 2C, 2D, 3C—

Omit wherever occurring:

All lengths	Clock

Insert instead:

10 metres and over	Clock

Classes 1D, 2C, 2D—

Omit wherever occurring:

All lengths	Barometer

Insert instead:

10 metres and over	Barometer

Classes 1D, 2D—

Omit wherever occurring:

All lengths	Hand lead line

Insert instead:

10 metres and over Hand lead line or mechanical depth sounding device

Classes 1E, 2E—

Omit wherever occurring:

All lengths	Clock or Watch

Insert instead:

10 metres and over	Clock or Watch

Class 1E—

Omit “Compass”, insert instead “Magnetic compass (not required if operating on inland waters)”.

Classes 2B, 3A, 3B—

Before “Scale E” wherever occurring, insert “Appendix L,”.

Classes 2C, 3C—

Omit wherever occurring:

All lengths	Mechanical depth sounding device or a

Hand lead line

Insert instead:

10 metres and over	Mechanical depth sounding device
or a Hand lead line	

Classes 2C, 3C—

Omit wherever occurring:

All lengths	Flags NC

Insert instead:

10 metres and over	Flags NC
Less than 10 metres	Either— (a) Flags NC, or (b) A V distress signal sheet as defined in the *Boating (Safety Equipment) Regulation—N.S.W.*

Class 2C—

Before “Scale F”, insert “Appendix L,”.

Omit:

10 metres and over but less than 50 metres	Vessel Record Book

Class 2D—

After “normal steering position”, insert “(compass only required where the vessel carries passengers)”.

Classes 2D, 2E, 3C, 3D, 3E—

Before “Scale G” wherever occurring, insert “Appendix L,”.

Class 2E—

Omit:

All lengths	Compass

Class 3A—

After “strength having regard to the use and service of the vessel”, insert “and for the purpose of towing”.

Class 3B—

Omit:

All lengths	Vessel Record Book

Class 3C—

Omit:

All lengths	Barometer or Barograph

Insert instead:

10 metres and over	Barometer or Barograph

Class 3C—

Omit:

10 metres and over	Vessel Record Book

Class 3D—

Omit:

All lengths	Magnetic Compass

Appendix B, Part 1—

Clause 3—

Omit “Class C and D Vessels”, insert instead “Class C, D and E Vessels”.

Clause 6.2.1—

After clause 6.2, insert:

6.2.1 Vessels of Class 2C or 3C, being vessels of less than 10 metres in length, are exempt from subclause 6.1 unless the Authority directs that a compass adjustment be carried out.

Appendix F—

After clause 6, insert:

7 Safe Means of Access

7.1 Vessels shall be provided on both sides with a safe means of access to the satisfaction of the Authority.

7.2 A safe means of access shall, where practicable, comply with the following criteria:

7.2.1 For vessels of Class 1:

7.2.1.1 a landing of not less than 300 mm deep and 500 mm wide,

7.2.1.2 a ladder or similar structure from the landing to the deck or floors, having rises of not more than 250 mm, treads of not less than 100 mm, and an angle to the vertical of not less than 22 degrees,

7.2.1.3 handrails or means at a suitable height to enable persons to steady themselves whilst embarking or disembarking,

7.2.1.4 non-slip surfaces on all landing and steps,

7.2.1.5 adequate lighting.

7.2.2 For vessels of Class 2:

7.2.2.1 a landing to enable persons to embark or disembark,

7.2.2.2 a ladder or means from the landing to the decks or floors,

7.2.2.3 handrails or means at a suitable height to enable persons to steady themselves whilst embarking or disembarking,

7.2.2.4 non-slip surfaces on all landings and steps.

7.2.3 For vessels of Class 3:

7.2.3.1 an unobstructed area to enable persons to embark and disembark,

7.2.3.2 handrails or means at a suitable height to enable persons to steady themselves whilst embarking or disembarking.

Appendix H—

In Table 1 (B), insert:

Hm	0.5	1.0
Lm		
4	4	5
5	5	

In Table 1 (C), insert:

Hm	0.5	1.0	1.5
Lm			
3	4	4	5
4	4	5	
5	5		

Renumber Table 1 (C) appearing on page 17 as Table 1 (D).

In Table 1 (D), insert:

Hm	0.5	1.0	1.5
Lm			
3	3	3	4
4	3	4	
5	4		

Omit Table 3, insert instead:

Table 3

LENGTHS OF ANCHOR CABLE TO BE CARRIED

Length of vessel	***Length of cable per anchor* (See note 2)** ***Prescribed water-classes***	
	A,B,C	**D,E**
metres	**metres**	**metres**
3	—	15
4	45	19
5	45	24
6	55	28
7	55	33
8	55	37
9	55	41
10	55	45
11	55	50

12	70	55
13	70	55
14	70	55
15	82	55
16	82	55
17	82	55
18	96	55
19	96	55
20	96	55
21	110	55
22	110	55
23	110	55
24	110	55
25	110	55

Note 1—

For intermediate values of length of vessel, use the length of cable per anchor given for the lower whole number of length of vessel in the Table.

Note 2—

This length does not include the length of chain shackled between the rope and anchor as required in Table 2.

Appendix K—

Clause 7.3—

Omit “renewal of the vessel’s Certificate”, insert instead “continuation of the vessel’s Permit”.

Appendix L—

Clause 1.1—

Omit “Certificate of Survey”, insert instead “Permit”.

Appendix N—

Omit the Appendix.

Appendix O—

Clause 1—

Omit “International Regulations for Preventing Collisions at Sea, 1972”, insert instead “*Navigation (Collision) Regulations 1983*”.

Clause 3.2—

Omit “1972 Collision Regulations”, insert instead “*Navigation (Collision) Regulations 1983*”.

Schedule 5 Radio-telephony 2—specifications

Appendix A Single sideband radio-telephone installations

Division 1 Main installation

1 Specification

1.1 The equipment shall comply with the specification published by the Commonwealth Department of Communications for SSB Radio-Telephone equipment—RB 211B.

2 Transmitter

2.1 The transmitter shall be capable of transmission on carrier frequencies using the types of emission listed below:

Frequencies	Type of emission
2 182 kHz	2.8 H3E or 2.8 J3E
4 125 kHz	2.8 J3E
6 215.5 kHz	2.8 J3E

and may also provide for operation on such other frequencies as are appropriate to the service in which the vessel is engaged.

2.2 The total unmodulated output carrier power of any transmitter referred to in sub-item 2.1 shall in no case be less than 15 watts on the frequency of 2 182 kHz.

3 Receiver

3.1 The receiver shall be capable of effective reception on the carrier frequencies using the types of emission listed below:

Frequencies	Type of emission
2 182 kHz	2.8 H3E or 2.8 J3E
4 125 kHz	2.8 J3E
6 215.5 kHz	2.8 J3E

and the receiver may provide for reception of such other frequencies as are appropriate to the service in which the vessel is engaged.

Division 2 Sources of electrical energy

4 Main source

4.1 There shall be a source of electrical energy capable of operating the main radio-telephone installation in the vessel.

4.2 When the main source of electrical energy meets the requirements of the reserve source, as specified in the following items, the main and reserve sources of energy may be combined.

5 Reserve source

5.1 The reserve source of electrical energy shall be of such capacity and be so maintained at all times while the vessel is at sea as to be able to supply continuously for a period of six hours a total current equal to the sum of:

5.1.1 one half of the current required to operate the single sideband radio-telephone transmitter for the transmission of speech,

5.1.2 the current required to operate the radio-telephone single sideband receiver, and

5.1.3 the current consumed by the electrical light referred to in clause 20 (1) (c) of this Regulation.

6 Batteries

6.1 Batteries provided as a source of any part of the electrical energy for the radio-telephone installation shall in no case be of the dry type.

6.2 Batteries shall be placed and housed to the satisfaction of the Minister.

6.3 If the supply of electrical energy is derived wholly or in part from a battery or set of batteries means shall be provided on the vessel for charging the batteries, and preventing discharge of the battery or set of batteries other than by equipment listed in sub-item 5.1 above.

6.4 Each battery shall be capable of being fully charged by the means referred to in sub-item 6.3 within a period of 16 hours.

6.5 Means shall be provided for testing the charge condition of the batteries.

6.6 If the batteries provided are not solely for the use of the single sideband radio-telephone installation means shall be provided at the installation for readily isolating all other loads in an emergency and the battery, as well as being capable of meeting the requirements set forth in sub-item 5.1, shall be capable of sustaining all other loads to which it is connected for such time as required by the Minister.

6.7 Where, in the opinion of the Minister, electrical generating devices in the vessel may cause damage to radio equipment through voltage fluctuations, the source of energy shall consist of two banks of batteries situated in or adjacent to the wheelhouse. The means of charging and discharging the batteries shall be through an interlocking isolating switch which separates the battery on charge from the transmitter and combined or separated receiver.

7 General

7.1 The Master of a radio-telephone vessel shall cause a sufficient supply of electrical energy to be available for testing the radio-telephone installation on the vessel at all reasonable times whilst in port.

Division 3 Radiation system

8 Aerial

8.1 The aerial of the radiating system shall be of such type and dimensions and be so erected and insulated as to secure efficient radiation.

8.2 The aerial shall be so placed and constructed that it—

8.2.1 is adequately protected from mechanical damage,

8.2.2 precludes danger to personnel as a result of accidental contact,

8.2.3 does not interfere with the safe navigation or working of the vessel, and

8.2.4 is adequately protected from the adverse effects of salt water.

Note—

To secure efficient radiation, a whip aerial of 5.5 metres in length would normally be required.

9 Earth

9.1 An efficient radio frequency earth together with a suitable connection to the radio-telephone installation shall be provided.

Appendix B VHF frequency modulated radio-telephone installations

Division 1 Main installations

1 Specification

1.1 The equipment shall comply with the specification published by the Commonwealth Department of Communications for VHF FM Radio-Telephone equipment—RB 274.

2 Transmitter and receiver

2.1 All equipment shall be capable of transmitting and receiving on the international distress, safety and calling frequency for the maritime mobile VHF radio-telephone service 156.80 MHz.

2.2 All equipment shall also be capable of transmitting and receiving on such other frequencies as are appropriate to the service in which the vessel is engaged.

2.3 Equipment fitted in accordance with clause 13 (3) of this Regulation shall be capable of transmitting and receiving on those frequencies which may be determined by the Minister from time to time.

2.4 The maximum radio frequency output power of the transmitter must be not less than 7.5 watts and not more than 25 watts mean power. The transmitter for new or replacement equipment must include provision for readily reducing the output to not more than 1 watt mean power.

Division 2 Sources of electrical energy

3 Main source

3.1 There shall be a source of electrical energy capable of operating the main radio-telephone installation in the vessel.

3.2 When the main source of electrical energy meets the requirements of the reserve source, as specified in the following items, the main and reserve sources of energy may be combined.

4 Reserve source

4.1 The reserve source of electrical energy shall be of such capacity and be so maintained at all times while the vessel is at sea as to be able to supply continuously for a period of six hours a total current equal to the sum of—

4.1.1 one half of the current required to operate the VHF radio-telephone transmitter for the transmission of speech,

4.1.2 the current required to operate the VHF radio-telephone receiver, and

4.1.3 the current consumed by the electric light referred to in clause 20 (1) (c) of this Regulation.

5 Batteries

5.1 Batteries provided as a source of any part of the electrical energy for the radio-telephone installation shall in no case be of the dry type.

5.2 Batteries shall be placed and housed to the satisfaction of the Minister.

5.3 If the supply of electrical energy is derived wholly or in part from a battery or set of batteries means shall be provided on the vessel for charging the batteries, and preventing discharge of the battery or set of batteries other than by equipment listed in sub-item 4.1 above.

5.4 Each battery shall be capable of being fully charged by the means referred to in sub-item 5.3 within a period of 16 hours.

5.5 Means shall be provided for testing the charge condition of the batteries.

5.6 If the batteries provided are not solely for the use of the VHF radio-telephone installation means shall be provided at the installation for readily isolating all other loads in an emergency and the battery, as well as being capable of meeting the requirements set forth in sub-item 4.1, shall be capable of sustaining all other loads to which it is connected for such time as required by the Minister.

5.7 Where, in the opinion of the Minister, electrical generating devices in the vessel may cause damage to radio equipment through voltage fluctuations, the source of energy shall consist of two banks of batteries situated in or adjacent to the wheelhouse. The means of charging and discharging the batteries shall be through an interlocking isolating switch which separates the battery on charge from the transmitter and combined or separate receiver.

6 General

6.1 The Master of a vessel carrying a VHF radio-telephone shall cause a sufficient supply of electrical energy to be available for testing the VHF radio-telephone installation on the vessel at all reasonable times whilst in port.

Division 3 Radiation system

7 Aerial

7.1 The aerial of the radiating system shall be of such type and dimensions and be so erected and insulated as to secure efficient radiation.

7.2 The aerial shall be so placed and constructed that it—

7.2.1 is adequately protected from mechanical damage,

7.2.2 precludes danger to personnel as a result of accidental contact,

7.2.3 does not interfere with the safe navigation or working of the vessel, and

7.2.4 is adequately protected from the adverse effects of salt water.

7.3 The aerial installation shall be of vertical polarization.

7.4 The product of the antenna gain (with reference to an isotropic radiator) and the

power of the transmitter measured at the point of connection to the aerial terminal shall not exceed 41 watts Effective Isotropic Radiated Power.