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**AUSTRALIAN NAVAL CLASSIFICATION AUTHORITY MANUAL
(VOLUME 2)**

DIVISION 2: CORE DESIGN RULES

CHAPTER 01: GENERAL REQUIREMENTS

PART 1: ANC RULES



This document is issued for use by Defence and Defence Industry personnel and is effective forthwith.

Handwritten signature of CN Dagg.

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May 2024 Edition

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ANCA Manual (Volume 2)

Division 2: Core Design Rules, Chapter 01: General Requirements, Part 1: ANC Rules, May 2024 Edition

Developer:

Australian Naval Classification Authority

¹ <https://www.legislation.gov.au/Series/C1968A00063>

² <https://www.legislation.gov.au/Series/C2004A04868>

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⁴ <http://drnet/AssociateSecretary/security/policy/Pages/dspf.aspx>

AUSTRALIAN NAVAL CLASSIFICATION RULES

First issued	May 2024
Reissue date	N/A
Issued by	CN Dagg, CSC, AS ANCA
Document management	This volume will be reviewed periodically from the date of issue, but sooner if necessitated by business requirements, and to ensure it continues to meet the intent of Defence policy.
Availability	The latest version of this volume is only available from the Defence Australia website. Its currency cannot be guaranteed if sourced from other locations. It is available for public release.
Policy domain	Defence Seaworthiness
Accountable Officer	Australian Naval Classification Authority
Publication Owner	Defence Seaworthiness Authority (DSWA)
Policy contact	anca.communications@defence.gov.au
Structure	see Contents ⁵
Cancellation	N/A
Definitions	Definitions that apply to this volume are located in the Division 1, Part 1 Annex A.

⁵ <https://www.defence.gov.au/business-industry/industry-governance/australian-naval-classification-authority/australian-naval-classification-rules>

AMENDMENTS

Proposals for amendments to the ANCA Manual (Volume 2) may be sent to:

Australian Naval Classification Authority

Mail to: anca.correspondence@defence.gov.au

EDITIONS

Edition	Edition	Amendment type	Effective
May 2024	Original issue		May 2024

Division 2: Core Design Rules
Part 1: ANC Rules

Chapter 01: General Requirements

Contents

Rule 0. Goal..... 2

Rule 1. General..... 2

Rule 2. Safety Management System..... 5

Rule 3. System Safety 6

Rule 4. Systems Architecture 7

Rule 5. Material Selection..... 8

Rule 6. Equipment Selection 9

Rule 7. Hazardous Areas..... 9

Rule 8. Human Factors Engineering 10

Rule 9. Maintainability..... 11

Rule 10. Control Stations..... 11

Rule 11. Documentation 13

Rule 12. Margins Management 13

Rule 13. Range and Endurance 13

Rule 14. Platform and Equipment Vibrations..... 13

Rule 15. Registered Plant..... 14

Rule 16. Temporarily Installed Sub-systems 14

Rule 17. Physical Security 14

Rule 18. Emanation Security 15

Australian Naval Classification Rules**Rule 0. Goal**

- 0.1 Naval Vessels shall be designed, constructed and maintained throughout life, so that when operated as intended, the following goals are fulfilled:
- 0.1.1 For the defined operating conditions, the Naval Vessel shall maximise the likelihood of achieving the specified operational effect;
 - 0.1.2 For the defined operating conditions, the Naval Vessel shall be safe to operate and prevent injury of embarked persons;
 - 0.1.3 For all foreseeable damage events, the Naval Vessel is to maintain availability of Essential Safety Functions;
 - 0.1.4 Comply with specified damage and post-damage requirements for all extreme threat conditions required by the Operating and Support Intent (OSI); and
 - 0.1.5 For the defined operating conditions, the Naval Vessel shall prevent the pollution of the environment, so far as is reasonable and practicable, whilst not impairing the operations or operational capabilities of the Naval Vessel.

Rule 1. General**Functional Objective**

- 1.1 The purpose of this Rule is to outline the principles and framework of Division 2 Chapter 01 General Requirements.

Purpose

- 1.2 This Chapter contains general Naval Vessel and system design requirements which apply to all chapters of Divisions 2 to 7 of the Rules.

Scope and Application

- 1.3 If there is a conflict between the requirements of this Chapter and the requirements in another Division or Chapter of the Rules, the ANC Authority shall decide which requirements take precedence.
- 1.4 The service categories defined for Naval Vessels are presented in Table 1 below. The required service category is defined by the criteria given in the OSI and is used elsewhere in the Rules to specify requirements. For reference, the equivalent domestic commercial vessel service categories, defined in the Australian National Standard for Commercial Vessels (NSCV), have been indicated in the Table where appropriate.

Table 1– Service Categories

Service Category	Description	Weather & Sea Characteristics	Survival & Rescue Infrastructure	NSCV Equiv.
Ocean Unlimited	Fully independent operation at sea, able to hold station in all but extreme conditions, able to resume duties after conditions abate.	Severe tropical cyclone or equivalent, extreme winds and extreme seas.	Early rescue not likely. Probable extended period in survival mode.	
Ocean Limited	Independent operation at sea, avoiding centres of severe tropical disturbance, able to resume duties when conditions abate.	Storm force weather or equivalent. Very high winds and very high seas.	Early rescue not likely. Probable extended period in survival mode.	
Offshore	Independent operation within 200 nautical miles or 12 hours at cruising speed (whichever is less) of a safe haven. Return to safe haven if winds likely to exceed Beaufort 8.	Gale force weather and very rough seas.	Survival in moderate conditions or early location likely and within helicopter range for rescue.	B
Restricted Offshore	Restricted operations within 4 hours travel at cruising speed of a safe haven.	Near gale force weather	Survival in benign conditions	C
Protected Waters	Operates within specified geographical limits or within 2 hours travel at cruising speed of a safe haven in waters specified as 'partially smooth'.	Strong breeze winds and moderate seas.	Rescue facilities and/or shoreline nearby.	D
Smooth Waters	Operates within specified geographical limits or within 1 hour travel at cruising speed of a safe haven in waters specified as 'smooth'.	Strong breeze winds and operates only in small waves.	Rescue facilities and/or shoreline nearby.	E

- 1.5 The four common operational environmental conditions applicable to each service category are presented in Table 2 to Table 5 below.
- 1.6 The operational environment defines the environment, applicable to its service category, in which the ship is expected to be able to undertake all missions. All equipment fitted to the ship shall be fully functional (including operable by the crew) in seas up to the operational environment.

Table 2: Operational Environment

Service Category	Operational				
	Sig. Wave Height (m)	Average Zero Up Crossing Period Range (sec)	Sea State	Wind Speed	
				Design (knots)	Nom (B'fort)
Ocean Unlimited	6.0	5.2 - 11.6	6	70	9
Ocean Limited	6.0	5.2 - 11.6	6	60	8
Offshore	4.0	4.2 - 9.5	5	50	7
Restricted Offshore	2.5	3.3 - 7.5	4	40	6
Protected Waters	1.25	2.4 - 5.3	3	30	5
Smooth Waters	0.5	1.5 - 3.3	2	30	5

1.7 The restricted environment defines the environment, applicable to its service category, in which the ship must, with caution, be capable of transiting.

Table 3: Restricted Environment

Service Category	Restricted				
	Sig. Wave Height (m)	Average Zero Up Crossing Period Range (sec)	Sea State	Wind Speed	
				Design (knots)	Nom (B'fort)
Ocean Unlimited	9.0	6.4 - 14.2	7	80	10
Ocean Limited	9.0	6.4 - 14.2	7	70	9
Offshore	5.1	4.8 - 10.7	6	60	8
Restricted Offshore	3.4	3.9 - 8.7	5	50	7
Protected Waters	1.9	2.9 - 6.5	4	40	6
Smooth Waters	0.6	1.6 - 3.7	3	30	5

1.8 The survival environment is the environment, applicable to its service category, in which the ship must be able to make way whilst satisfying the stability requirements in each Division for Buoyancy and Stability. Account shall be taken of operation over a sufficient range of speed and heading combinations to allow control of the ship and manoeuvring to avoid danger. Equipment critical to the safe operation of the ship shall be fully functional (including operable by the crew) in seas up to the survival environment.

Table 4: Survival Environment

Service Category	Survival			
	Sig. Wave Height (m)	Sea State	Wind Speed	
			Design (knots)	Nom (B'fort)
Ocean Unlimited	17.7	9+	100	12
Ocean Limited	11.2	8	80	10
Offshore	6.2	7	60	8
Restricted Offshore	4.3	6	50	7
Protected Waters	2.5	4	40	6
Smooth Waters	0.8	3	30	5

- 1.9 The damage environment defines the environment that the ship must be able to passively survive (i.e., ship could be in dead ship condition) whilst fully damaged and satisfying the damage stability requirements in each Division for Buoyancy and Stability.

Table 5: Damage Environment

Service Class	Damage		
	Sig. Wave Height (m)	Wind Speed	
		Nom (knots)	Design (knots)
Ocean Unlimited	2.5	26	39
Ocean Limited	2.5	26	39
Offshore	2.2	24	36
Restricted Offshore	1.8	22	33
Protected Waters	1.5	20	30
Smooth Waters	0.5	20	30

Rule 2. Safety Management System

Functional Objectives

- 2.1 The Naval Vessel Operator (NVO) shall establish, implement, and maintain a Safety Management System which ensures the safety at sea, prevention of human injury or loss of life, avoidance of damage to the environment, in particular, to the marine environment, and to property.
- 2.2 The safety management objectives of the NVO shall:
- 2.2.1 Provide for safe practices in Naval Vessel operations and a safe working environment;

- 2.2.2 Ensure compliance with Commonwealth and State legislation and Defence policy;
- 2.2.3 Risk assess all identified hazards to the Naval Vessel, embarked persons, the public and the environment and implement risk control measures; and
- 2.2.4 Continuously improve safety management skills of embarked persons and shore support workers, including preparing for emergencies related both to safety and environmental protection.

Performance Requirements

- 2.3 The Safety Management System shall include:
 - 2.3.1 Safety and environmental protection policy;
 - 2.3.2 Instructions and procedures to ensure safe operation of Naval Vessels and protection of the environment;
 - 2.3.3 Defined levels of authority and lines of communication between, and amongst, shore support workers and embarked persons;
 - 2.3.4 Procedures for reporting accidents, incidents and non-conformities with the provisions of these Rules;
 - 2.3.5 Procedures to prepare for and respond to emergency situations; and
 - 2.3.6 Procedures for internal audits and management reviews.

Rule 3. System Safety**Functional Objectives**

- 3.1 The Naval Vessel shall be designed and maintained throughout its lifecycle using a System Safety approach to ensure the health and safety of embarked persons, the public and the environment.
- 3.2 The System Safety approach shall include management of risks by:
 - 3.2.1 Eliminating health and safety risks So Far As is Reasonably Practicable (SFARP); and
 - 3.2.2 If it is not reasonably practicable to eliminate the risks, minimise those risks SFARP.

Note: See Rule 2 *Safety Management System* for the system that the system safety program is conducted within.

Performance Requirements

- 3.3 The System Safety approach for managing hazards as part of the systems engineering process shall be documented.
- 3.4 Hazards shall be identified and documented relating to the Naval Vessel's system hardware, software and interfaces, in the context of the Naval Vessel's lifecycle, their intended use or application, and the operational environment.
- 3.5 Risks shall be assessed and documented for each hazard across all system modes by evaluating the consequence and likelihood, including:
 - 3.5.1 Hazards identified in paragraph 3.4 shall be risk assessed to determine initial risk and include risk control measures to minimise the risk where it cannot be eliminated; and

- 3.5.2 Risks shall be documented with a risk assessment code, combining the consequence and likelihood as a risk level, in the risk matrix format of Defence's safety and environment policies.
- 3.6 Risk control measures shall be identified and documented according to the hierarchy of control measures in order to eliminate or minimise the risks SFARP.
- 3.7 Risk control measures shall be selected and approved based on their availability and suitability to eliminate or minimise the risk SFARP.
- 3.8 Approved control measures shall be implemented, verified, validated and documented once authorised by the NVO.
- 3.9 Risk assessments shall be documented for the review and acknowledgement of the NVO and include the:
 - 3.9.1 SFARP argument; and
 - 3.9.2 Residual risk.
- 3.10 Systems risks shall be managed using the System Safety approach to identify and document new hazards and modified risks and communicate throughout the Naval Vessel's lifecycle.
- 3.11 Software contribution to system risk, including to software-controlled or software-intensive systems shall be specially considered in accordance with Division 2 Chapter 03 *Software Systems*.

Rule 4. Systems Architecture

Functional Objective

- 4.1 The systems architecture shall be designed, constructed and maintained to enable the **Naval Vessel** to operate in all Foreseeable Operating Conditions, provide a high level of integrity and availability and maintain safety functions following any single failure.

Performance Requirements

- 4.2 The systems architecture shall consider the following modes of operation, and these shall be as required by the **OSI**:
 - 4.2.1 Normal operation;
 - 4.2.2 Reversionary operation; and
 - 4.2.3 Emergency operation.
- 4.3 For all systems installed, the choice of materials and components, the system design and equipment location shall be made in accordance with the environmental, maintenance and operating conditions to ensure the continued function of the system during all Foreseeable Operating Conditions and reduce the risk of:
 - 4.3.1 Harm to embarked persons;
 - 4.3.2 Damage to the equipment, the system it is contained within, or adjacent equipment and systems;
 - 4.3.3 Damage to the **Naval Vessel**; and
 - 4.3.4 Damage to third parties.

- 4.4 Safe access shall be provided to all system equipment and components to enable inspection and maintenance.

Note: See Rule 9 *Maintainability* for safe access to system equipment and components to enable inspection and maintenance.

- 4.5 The availability of safety functions shall be sustained or restored by means of reliability and/or redundancy.
- 4.6 Where the required availability of safety functions is achieved through the use of reconfigurable systems, the safe means of achieving the reconfiguration shall be ensured.
- 4.7 Where a watertight bulkhead extending from the keel to the weather deck is used to protect the remainder of the **Naval Vessel** from the consequences of collisions, any emergency systems or installations which are essential for the safety of the **Naval Vessel**, shall not be installed forward of this bulkhead, unless sufficient redundancy is provided elsewhere in the **Naval Vessel**.

Note: Anchor windlasses are typically excluded from this requirement

- 4.8 Inadvertent reconfiguration of systems shall be prevented.
- 4.9 The **Naval Vessel** and its systems shall be designed, constructed and maintained to be safe to operate, in all environmental conditions as defined in the **OSI**.
- 4.10 The **Naval Vessel** and its systems shall be designed and arranged to operate in a predictable manner with a level of integrity commensurate with operational requirements.
- 4.11 Essential safety functions shall be continuously available following one single operational error and/or system/equipment fault.
- 4.12 For safety functions, failure of one part of the integrated system shall not affect the functionality of other parts except for those functions directly **dependent** on the defective part.
- 4.13 Systems shall be designed such that they will not unduly affect any safety functions (even under failure conditions).
- 4.14 Any hazardous area which has the potential for embarked persons to become inadvertently trapped shall have a means to escape.

Rule 5. Material Selection

Functional Objective

- 5.1 Materials for **Naval Vessel** construction and outfitting shall be suitable for the intended use and not pose a hazard to the embarked persons in all Foreseeable Operating Conditions.

Performance Requirements

- 5.2 Materials shall be suitable for the intended use in all Foreseeable Operating Conditions including Foreseeable Damage Conditions. Particular consideration shall be given to the selection of materials which have properties that change under the effects of extremes of temperature, including fire.
- 5.3 Materials shall be selected and maintained to withstand the anticipated internal and external environmental conditions in all Foreseeable Operating Conditions.

- 5.4 The **Naval Vessel** shall be designed and constructed of materials, or combinations of materials, that do not pose any unnecessary risks to human health and/or the environment without compromising the safety and operational efficiency of the **Naval Vessel**.

Note: The use of materials restricted by paragraph 5.4, **are to be justified** and **risk control measures implemented** to manage the hazards. **See also Rule 3 System Safety**.

- 5.5 Materials, especially hazardous materials, shall be managed effectively to identify, **eliminate or minimise the risks of** adverse effects **to embarked persons and the environment**.
- 5.6 **Selection of materials shall include compatibility with the other materials and media in the system to reduce risk of galvanic corrosion or other adverse reaction from use of dissimilar materials.**

Rule 6. Equipment Selection

Functional Objective

- 6.1 Onboard equipment shall support safe operation of the **Naval Vessel** and shall operate safely under all Foreseeable Operating Conditions.

Performance Requirements

- 6.2 Equipment shall function as intended for its use under all Foreseeable Operating Conditions.
- 6.3 Equipment shall operate in a predictable manner with a level of reliability commensurate with that required by the system.
- 6.4 **Not Used.**
- 6.5 Means shall be provided to ensure isolation of equipment and systems (and where necessary **safe and controlled** dissipation of stored energy) to allow maintenance to take place safely.
- 6.6 Electronics systems shall comply with EMC requirements such that electrical and electronic equipment shall not be impaired in its function by electromagnetic energy.
- 6.7 The **Naval Vessel** shall remain operational where **an Integrated Platform Survivability (IPS) level is defined in the OSI**.
- 6.8 **Not Used.**

Rule 7. Hazardous Areas

Functional Objective

- 7.1 The design of Hazardous Areas **shall minimise** the risk to **embarked persons, equipment** and the **Naval Vessel**.

Performance Requirements

- 7.2 The categorisation of hazardous areas with potentially flammable or explosive atmospheres shall be in accordance with a national or international standard.
- 7.3 Electrical machinery and systems **in** potentially flammable or explosive atmospheres **shall be avoided**, however, where required for operational purposes it shall be:
- 7.3.1 **Of** a type suitable for the environment in which it will be operated; and

- 7.3.2 **Provided with** a means to detect any abnormal parameters which may lead to ignition of the atmosphere.
- 7.4 Any failure that can increase the level of risk in a space shall be indicated by an alert.
- 7.5 The hazardous area shall be designed so as to not compromise the safety of the adjacent space.
- 7.6 Suitable indication of the nature of the potential hazards shall be provided at the entrance(s) to the space, area and/or on the equipment where applicable.
- 7.7 Arrangements to prevent unauthorised or inadvertent access to hazardous or potentially hazardous areas or equipment shall be provided.
- 7.8 Embarked persons, equipment and platform shall be protected from the risk of static electricity.
- 7.9 **Embarked persons, equipment and the public** shall be protected from damaging exposure to radiation hazards.
- 7.10 Where embarked persons can access an exposed area where there is a risk of falling, that area shall provide protection to prevent falling.
- 7.11 Hazardous areas shall be provided with appropriate boundaries, detection and ventilation systems in cases where there is a risk of toxic and/or flammable gases.
- 7.12 Measures shall be taken to **ensure the noise embarked persons are exposed to does not exceed the exposure standard for noise as required by Commonwealth and State legislation and Defence policy.**

Rule 8. Human Factors Engineering

Functional Objectives

- 8.1 **The Naval Vessel and its** systems shall be designed to address the needs of the embarked persons in order to be safe to operate.

Performance Requirements

- 8.2 The physical dimensions of spaces, systems and workstations shall conform to the anthropometric and physical characteristics of embarked persons in combination with consideration of tasks to be performed.
- 8.3 All workstations shall have means to assist embarked persons to remain in position and conduct their duties.
- 8.4 The design of the **Naval Vessel**, systems and workstations shall:
- 8.4.1 Address compatibility requirements with operational clothing and equipment worn by embarked persons;
 - 8.4.2 Take account of the sensory capabilities and limitations of embarked persons;
 - 8.4.3 Meet the verbal and non-verbal communication needs of embarked persons;
 - 8.4.4 Take account of the cognitive capabilities and limitations of the relevant embarked persons;
 - 8.4.5 Provide appropriate means of information presentation to the embarked persons;

8.4.6 Provide safe working and recreational spaces for embarked persons; and

8.4.7 Facilitate maintenance activities required to ensure and maintain safe operation.

Note: See Rule 9 *Maintainability* for safe access to system equipment and components to enable inspection and maintenance.

Rule 9. Maintainability

Functional Objectives

9.1 The systems and equipment shall be designed to facilitate the safe conduct of maintenance.

Note: Rule 9 *Maintainability* is limited to safe access to system equipment and components to enable inspection and maintenance. It does not cover all aspects of Maintainability as defined in Division 1 Annex A *Definitions and Abbreviations*.

Performance Requirements

9.2 The Naval Vessel design shall allow maintenance, preventive maintenance, or servicing of systems and equipment.

Rule 10. Control Stations

Functional Objectives

10.1 The design of the control stations shall consider the human such that systems important to safety in all Foreseeable Operating Conditions are easy to operate and are tolerant to human error.

10.2 Special operating modes (e.g. onboard training, maintenance mode, diagnostic mode etc), *where fitted*, shall be implemented in a safe manner.

Performance Requirements

10.3 The process used to justify the number, hierarchy, type and location of the control stations shall be defined.

10.4 The number, type and location of control stations shall be sufficient to ensure the safe operation of the *Naval Vessel* and its systems in all Foreseeable Operating Conditions.

10.5 Control stations that operate Essential Safety Functions *and where specified, Mission Critical Functions*, shall continue to function in all Foreseeable Operating Conditions.

10.6 It shall not be possible for more than one control station to control the same operation from more than one location simultaneously.

10.7 Where a secondary and/or an additional control station is available, all related control stations shall provide a clear and unambiguous indication of their status as primary (i.e., in control) or secondary/additional (i.e., passive).

10.8 The means of transfer of control from one control station to another shall minimise the opportunity for, and reduce the consequence of, human error.

10.9 Transfer of control from one control station to another shall be indicated with clear and unambiguous visual and audible indications on all related control stations.

- 10.10 Transfer of control from one control station to another shall not affect the equipment and systems being controlled.
- 10.11 Failure of any control station for Essential Safety Functions shall initiate an appropriate audible and visual alert at the relevant control stations.
- 10.12 A secondary and/or an additional control station shall be available in case of loss of the primary control station for all Essential Safety Functions.
- 10.13 Alternative control stations shall be separated from the primary control station in terms of physical location, power supply, network, HVAC, redundant functionalities, etc. to ensure sufficient redundancy under all Foreseeable Operating Conditions.
- 10.14 Control stations shall clearly and unambiguously indicate the operational status of automated functions and integrated components, systems and/or sub-systems.
- 10.15 The design of control stations shall:
- 10.15.1 Be as simple as reasonably possible, consistent with the desired human-machine system functions, and compatible with expected maintenance and operational tasks;
 - 10.15.2 Minimise the opportunity for, and reduce the consequence of, human error;
 - 10.15.3 Ensure appropriate means for human operators to make correct control inputs to the system; and
 - 10.15.4 Enhance the vigilance of, and reduce the fatigue of, the human operator.
- 10.16 The design of control station displays shall enhance the usability of systems and equipment, reduce human error, enhance situational awareness and support safe and effective monitoring and control.
- 10.17 The design of control station controls shall enhance the usability of systems and equipment, reduce human error, and support safe and effective monitoring and control.
- 10.18 The design of control stations alert systems shall take into account the visual and auditory limitations of the human operator and shall have a means to prioritise alerts consistent with their priority to the safe operation of the **Naval Vessel**.
- 10.19 Automation shall not adversely affect human performance in carrying out the intended task.
- 10.20 Control stations shall provide an easy and timely means for the human operator to disable automation and control the system manually if necessary.
- 10.21 Switching to the special operating mode or training mode, **where fitted**, shall not prevent availability of Essential Safety Functions **and, where specified, Mission Critical Functions**, or the capacity to keep control of the **Naval Vessel** general operations.
- 10.22 While operating in the special operating mode, **where fitted**, adequate control and monitoring of the **Naval Vessel** shall remain available at all times.
- 10.23 Control stations shall indicate, without any ambiguity, **which** operating mode is **active**.
- 10.24 Usage of special operating modes shall be strictly limited to authorised users in accordance with the requirements of **Division 2 Chapter 2 Cyber Security**.
- 10.25 Control stations shall be designed to offer the user help functions and access to documentation in a manner that supports the user of the system without diminishing the safety of the system.

Rule 11. Documentation

Functional Objectives

- 11.1 Information and instructions shall be provided to support safe operation and maintenance during the full lifecycle of the Naval Vessel.

Performance Requirements

- 11.2 Documentation shall be provided to ensure that the embarked persons have the information and guidance for safe operation and maintenance in all Foreseeable Operating Conditions.
- 11.3 Documentation consistent with the design solution shall be provided to allow the configuration management of the Naval Vessel throughout its life.
- 11.4 The documentation shall be presented in English in a format that can be readily understood.
- 11.5 All documentation shall be provided in an agreed format (digital, paper or IETM (Interactive Electronic Technical Manual) that supports the method of working.

Rule 12. Margins Management

Functional Objective

- 12.1 The design of the Naval Vessel and its systems shall incorporate margins to allow for design, construction, modifications, and in-service growth for the design life.

Performance Requirements

- 12.2 Margins shall be established during design to allow for design, construction, modifications, and in-service growth.
- 12.3 Growth margins shall be monitored and recorded throughout the lifecycle of the Naval Vessel.

Rule 13. Range and Endurance

Functional Objective

- 13.1 The Naval Vessel shall meet the range and endurance requirements in the OSI.

Performance Requirements

- 13.2 The Naval Vessel shall meet its endurance requirements through sufficient capacity of systems and storage areas.
- 13.3 The Naval Vessel's shall meet its range requirements as at the parameters specified in the OSI.

Rule 14. Platform and Equipment Vibrations

Functional Objectives

- 14.1 The Naval Vessel and its systems shall be designed and constructed to operate while enduring the foreseeable vibration forces on board.
- 14.2 Equipment shall not induce vibrations into the Naval Vessel that are detrimental to the Naval Vessel, its equipment or embarked persons.

Performance Requirements

- 14.3 The performance of onboard equipment and systems shall not be adversely affected by the foreseeable vibratory forces imposed upon them.
- 14.4 Onboard equipment shall not impose vibrations upon surrounding equipment, systems or structure that can have an adverse effect on their performance.
- 14.5 Vibrations from the Naval Vessel shall not cause it to exceed the signature requirements, as required by the OSI.
- 14.6 Onboard equipment shall not impose vibrations that can cause harm to embarked persons.

Rule 15. Registered Plant**Functional Objectives**

- 15.1 Registered Plant shall be designed to ensure that risks to health and safety from plant are eliminated or minimised SFARP throughout its lifecycle.

Performance Requirements

- 15.2 Registered Plant shall be provided with design registration in accordance with, and as required by legislation and Defence policy.
- 15.3 Items of Registered Plant shall be registered and managed in accordance with, and as required by legislation and Defence policy.
- 15.4 Registered Plant shall be maintained, inspected and tested in accordance with the design requirements, and as required to maintain plant registration.

Rule 16. Temporarily Installed Sub-systems**Functional Objectives**

- 16.1 Temporarily installed sub-systems shall not pose a hazard to the embarked persons or the Naval Vessel, in all Foreseeable Operations Conditions.

Performance Requirements

- 16.2 Integration of temporarily installed sub-systems shall be provided with justification and shall be specially considered by the ANC Authority.

Rule 17. Physical Security**Functional Objectives**

- 17.1 The Naval Vessel shall be designed, constructed and maintained to eliminate or minimise security risks to embarked persons, official information and security-protected assets.

Performance Requirements

- 17.2 Physical security shall be provided as required by Defence policy.
- 17.3 Risks that impact the security of official information and security-protected assets of the Naval Vessel shall be identified, assessed and managed throughout the Naval Vessel's lifecycle.

- 17.4 The Naval Vessel's official information and security-protected assets shall be assigned an impact level relating to the consequence of their compromise, loss or damage.
- 17.5 Physical security measures, shall be implemented according to the required impact level to protect from unauthorised access, sabotage, wilful damage, theft or disruption.

Note: Chapter 02 *Cyberworthiness* supplements this rule for information protection.

Rule 18. Emanation Security

Functional Objectives

- 18.1 The Naval Vessel shall be designed, constructed and maintained to ensure Emanation Security (EMSEC) and to prevent creation of Compromising Emanations through unintended means.

Performance Requirements

- 18.2 Compromising Emanations from equipment and cabling shall be limited to contain emissions within secured compartments of the vessel.
- 18.3 Potential EMSEC vulnerabilities shall be identified and treated for all system installations that store, process, or transport classified information.

Note: Transmitter systems that are collocated with systems that store or process classified information are included as EMSEC vulnerabilities.

- 18.4 The system and equipment shall be provided as required by Defence policy.

Note: See Rule 17 *Physical Security* for measures to compartments and systems that store or process classified information.
