INTERNATIONAL MARITIME ORGANIZATION (IMO): GUIDANCE AND INSTRUCTION ON ARRANGEMENTS "TO THE SATISFACTION OF THE ADMINISTRATION"

This document provides guidance and instructions on Malaysia Marine Department's compliance with the IMO conventions on specific arrangements "to the satisfaction of the Administration".

MALAYSIA MARINE DEPARTMENT
MARINE HEADQUARTERS | P.O. BOX 12, JALAN LIMBUNGAN, 42007 PORT KLANG, SELANGOR, MALAYSIA

1. Background

1.1 International Maritime Organization (IMO) conventions such as SOLAS, MARPOL, Load Line and COLREG have several provisions which do not prescribe arrangements but there remains a specific requirement for that the arrangement be *'to the satisfaction of the Administration'*.

1.2 The International Instruments Implementation (III) Code (Resolution A.1070(28)) requires the development, documentation and provision of guidance concerning those requirements found in the relevant international instruments that are to the satisfaction of the Administration. This information is provided in this document.

2. Purpose

2.1 The purpose of this document is to provide guidance and instruction for shipowners, Recognized Organization (RO), surveyor and officer of Malaysia Marine Department (MMD) on specific arrangements '*to the satisfaction of the Administration'* for ship registered under Malaysia flag.

3. Application

3.1 This guidance and instruction apply to all Malaysia flagged ships.

4. Legal Provision

4.1 This guidance and instruction are made up pursuant to the following provisions:

4.1.1 Section 10 (7) of the Merchant Shipping Ordinance 1952;

4.1.2 Paragraph 16.5 of Part 2 (Flag Sates) of the International Maritime Organization (IMO), Resolution A.1070(28) IMO Instrumentation Implementation (III) Code.

5. Requirements

5.1 Malaysia flagged ship requirements are provided in paragraph *'6.0 Appendices'*;

5.2 Whilst the purpose of this document is to provide guidance or instruction on arrangements that are to be *'the satisfaction of the Administration'* it is recognized that this is not appropriate to provide prescriptive guidance or instruction for all requirements due to the number of factors that have to be taken into consideration.

5.3 Whenever *'case by case' basis'* requirements as appears in this guidance/instruction, it shall be provided/supported with reasonable justification or recommendation from the RO, prior submission to the MMD for consideration of any approval.

6. Appendices

6.1 List of requirements as follows:

6.1.1 Appendix A - International Convention for the Safety of Life at Sea (SOLAS) 1974;

6.1.2 Appendix B - International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78;

6.1.3 Appendix C - International Convention on Load Lines, 1966 (LOADLINE);

6.1.4 Appendix D - International Regulations for Preventing Collisions at Sea (COLREGS).

APPENDIX A *– International Convention for the Safety of Life at Sea (SOLAS) 1974*

International Convention for the Safety of Life at Sea (SOLAS)					
#	**Chapter**	**Regulation**	**Regulation Title**	**Convention Text**	**MMD Requirements**
1.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	3-6	Access to and within Spaces in, and forward of, the Cargo Area of Oil Tankers and Bulk Carriers	2.3 - The construction and materials of all means of access and their attachment to the ship's structure shall be to the satisfaction of the Administration. The means of access shall be subject to survey prior to, or in conjunction with, its use in carrying out surveys in accordance with regulation I/10	IACS Unified Interpretation SC190 for application of SOLAS II-1/3-6 (MEPC.134(76)) and technical provisions on permanent means of access (MEPC.133(76))
2.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	3-6	Access to and within Spaces in, and forward of, the Cargo Area of Oil Tankers and Bulk Carriers	5.3 - For oil tankers of less than 5,000 tonnes deadweight, the Administration may approve, in special circumstances, smaller dimensions for the openings referred to in paragraphs 5.1 and 5.2, if the ability to transverse such openings or to remove an injured person can be proved to the satisfaction of the Administration	IACS Unified Interpretation SC190 for application of SOLAS II-1/3-6 (MEPC.134(76)) and technical provisions on permanent means of access (MEPC.133(76)). Approval for smaller dimesions determine on case by case basis subject to be verified by a practicable demonstration.
3.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	5	Intact Stability	2 - The Administration may allow the inclining test of an individual cargo ship to be dispensed with provided basic stability data are available from the inclining test of a sister ship and it is shown to the satisfaction of the Administration that reliable stability information for the exempted ship can be obtained from such basic data, as required by regulation 5-1. A weight survey shall be carried out upon completion and the ship shall be inclined whenever in comparison with the data derived from the sister ship, a deviation from the lightship displacement exceeding 1% for ships of 160m or more in length and 2% for ships of 50m or less in length and as determined by linear interpolation for intermediate lengths or a deviation from the lightship longitudinal centre of gravity exceeding 0.5% of Ls is found.	Approved on a case by case basis taking account of IACS Unified Interpretation SC297 Basic stability data from the sister ship shall be built by the same yard from the same plans which consistent to MSC/Circ.1158.

4.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	15	Opening in the Shell Plating below the Bulkhead Deck of Passenger Ships and the Freeboard Deck of Cargo Ships	2 - The arrangement and efficiency of the means for closing any opening in the shell plating shall be consistent with its intended purpose and the position in which it is fitted and generally to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs
5.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	15	Opening in the Shell Plating below the Bulkhead Deck of Passenger Ships and the Freeboard Deck of Cargo Ships	8.5 - All shell fittings and valves required by this regulation shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this regulation refers shall be of steel or other equivalent material to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs
6.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	16	Construction and initial test of Watertight Doors, Sidescuttles, etc.	1.1 - The design, materials and construction of all watertight closures such as doors, hatches, sidescuttles, gangway and cargo ports, valves, pipes, ash-chutes and rubbish-chutes referred to in these regulations shall be to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs
7.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	16-1	Construction and initial test of watertight decks, trunks, etc.	1 - Watertight decks, trunks, tunnels, duct keels and ventilators shall be of the same strength as watertight bulkheads at corresponding levels. The means used for making them watertight, and the arrangements adopted for closing openings in them, shall be to the satisfaction of the Administration. Watertight ventilators and trunks shall be carried at least up to the bulkhead deck in passenger ships and up to the freeboard deck in cargo ships.	Compliance with Class Rules of MMD's ROs
8.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	20	Loading of passenger ships	2- Water ballast should not in general be carried in tanks intended for oil fuel. In ships in which it is not practicable to avoid putting water in oil fuel tanks, oily-water separating equipment to the satisfaction of the Administration shall be fitted, or other	Ships which carry water ballast in oil fuel tanks shall be fitted with equipment required by MARPOL Annex I, Reg 14(2) for the control of machinery space bilges and dirty

				alternative means, such as discharge to shore facilities, acceptable to the Administration shall be provided for disposing of the oily-water ballast.	water ballast. The equipment fitted should be of adequate capacity to deal with the quantities of dirty water ballast to be discharge
9.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	29	Steering gear	1 - Unless expressly provided otherwise, every ship shall be provided with a main steering gear and an auxiliary steering gear to the satisfaction of the Administration. The main steering gear and the auxiliary steering gear shall be so arranged that the failure of one of them will not render the other one inoperative.	Apply MSC.1/Circ.1398 – Unified Interpretation concerning mechanical, hydraulic and electrical independency and failure detection and response of steering control systems.
10.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	29	Steering gear	2.1 - All the steering gear components and the rudder stock shall be of sound and reliable construction to the satisfaction of the Administration. Special consideration shall be given to the suitability of any essential component which is not duplicated. Any such essential component shall, where appropriate, utilize antifriction bearings such as ball-bearings, roller-bearings or sleeve-bearings which shall be permanently lubricated or provided with lubrication fittings.	Compliance with Class Rules of MMD's ROs
11.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	29	Steering gear	6.3 - Steering gears, other than of the hydraulic type, shall achieve standards equivalent to the requirements of this paragraph to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs
12.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	41	Main source of electrical power and lighting systems	4 - Where the total installed electrical power of the main generating sets is in excess of 3 MW, the main busbars shall be subdivided into at least two parts which shall normally be connected by removable links or other approved means; so far as is practicable, the connection of generating sets and any other	Compliance with Class Rules of MMD's ROs

				duplicated equipment shall be equally divided between the parts. Equivalent arrangements may be permitted to the satisfaction of the Administration	
13.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	42	Emergency source of electrical power in passenger ships	1.3 The location of the emergency source of electrical power and associated transforming equipment, if any, the transitional source of emergency power, the emergency switchboard and the emergency electric lighting switchboards in relation to the main source of electrical power, associated transforming equipment, if any, and the main switchboard shall be such as to ensure to the satisfaction of the Administration that a fire or other casualty in spaces containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard or in any machinery space of category A will not interfere with the supply, control and distribution of emergency electrical power. As far as practicable, the space containing the emergency source of electrical power, associated transforming equipment, if any, the transitional source of emergency electrical power and the emergency switchboard shall not be contiguous to the boundaries of machinery spaces of category A or those spaces containing the main source of electrical power, associated transforming equipment, if any, or the main switchboard.	Class to verify during plan appraisal that a fire or other casualty in spaces containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard or in any machiney space of category A will not interfere with the supply, control, and distribution of emergency electrical power. To be verified by simulation during vessel commissioning.
14.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	43	Emergency source of electrical power in cargo ships	1.3 - The location of the emergency source of electrical power, associated transforming equipment, if any, the transitional source of emergency power, the emergency switchboard and the emergency lighting switchboard in relation to the main source of electrical power, associated transforming equipment, if any, and the main switchboard shall be such as to	Class to verify during plan appraisal that a fire or other casualty in spaces containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard or in any machiney space of category A will not

				ensure to the satisfaction of the Administration that a fire or other casualty in the space containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard, or in any machinery space of category A will not interfere with the supply, control and distribution of emergency electrical power. As far as practicable the space containing the emergency source of electrical power, associated transforming equipment, if any, the transitional source of emergency electrical power and the emergency switchboard shall not be contiguous to the boundaries of machinery spaces of category A or those spaces containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard	interfere with the supply, control, and distribution of emergency electrical power. To be verified by simulation during vessel commissioning.
15.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	45	Precautions against shock, fire and other hazards of electrical origin	3.3 - Where the hull return system is used, all final subcircuits, i.e. all circuits fitted after the last protective device, shall be two-wire and special precautions shall be taken to the satisfaction of the Administration	Compliance with Class Rules of MMD's ROs and any relevant IEC standards IACS Unified Interpretation SC8 is acceptable.
16.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	45	Precautions against shock, fire and other hazards of electrical origin	5.4 - Where cables which are installed in hazardous areas introduce the risk of fire or explosion in the event of an electrical fault in such areas, special precautions against such risks shall be taken to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs and any relevant IEC standards IACS Unified Interpretation SC12 is acceptable.
17.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	45	Precautions against shock, fire and other hazards of electrical origin	9.3 - Accumulator batteries shall not be located in sleeping quarters except where hermetically sealed to the satisfaction of the Administration	Compliance with Class Rules of MMD's ROs and any relevant IEC standards

18.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	45	Precautions against shock, fire and other hazards of electrical origin	11 - In tankers, electrical equipment, cables and wiring shall not be installed in hazardous locations unless it conforms with standards not inferior to those acceptable to the Organization. However, for locations not covered by such standards, electrical equipment, cables and wiring which do not conform to the standards may be installed in hazardous locations based on a risk assessment to the satisfaction of the Administration, to ensure that an equivalent level of safety is assured	Compliance with Class Rules of MMD's ROs and any relevant IEC standards. (Ex: IEC 60092-502: 1999: Electrical installations in ships - Tankers)
19.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	46	General	2 - Measures shall be taken to the satisfaction of the Administration to ensure that the equipment is functioning in a reliable manner and that satisfactory arrangements are made for regular inspections and routine tests to ensure continuous reliable operation	Maintenance of Class 'UMS' notation fulfils this requirement. If manning has been reduced due to provision of 'UMS', then this is to be considered 'critical equipment' in the SMS and Planned Maintenance System.
20.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	46	General	3 - Every ship shall be provided with documentary evidence, to the satisfaction of the Administration, of its fitness to operate with periodically unattended machinery spaces	Maintenance of Class 'UMS' notation fulfils this requirement.
21.	II-1 Construction: Structure, Subdivisions and Stability, Machinery and Electrical Installations	53	Special requirements for machinery, boiler and electrical installations	1 - The special requirements for the machinery, boiler and electrical installations shall be to the satisfaction of the Administration and shall include at least the requirements of this regulation.	Compliance with Class Rules of MMD's ROs.
22.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	1	Application	6.2.1.2 - the type of foam concentrates for use in chemical tankers shall be to the satisfaction of the Administration taking into account the guidelines developed by the Organization	Apply IMO MSC.1/Circ.1312 and Corr.1
23.	II-2 Construction: Fire Protection, Fire	1	Application	6.6 - Chemical tankers and gas carriers shall comply with the requirements for tankers, except where	Chemical Tankers and Gas Carriers complying with the provisions of the

	Detection and Fire Extinction			alternative and supplementary arrangements are provided to the satisfaction of the Administration, having due regard to the provisions of the International Bulk Chemical Code and the International Gas Carrier Code, as appropriate	IBC Code and the IGF Code are considered as complying with the requirements for tankers carrying crude oil or petroleum products having a flashpoint not exceeding 60 degrees. Any proposals for the alternative and supplementary arrangements must be sent to MMD by the RO for approval.
24.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	4	Probability of ignition	2.2.5.1 - Oil fuel pipes and their valves and fittings shall be of steel or other approved material, except that restricted use of flexible pipes shall be permissible in positions where the Administration is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the Administration. For valves fitted to oil fuel tanks and under static pressure, steel or spheroidal-graphite cast iron may be accepted. However, ordinary cast iron valves may be used in piping systems where the design pressure is lower than 7 bar and the design temperature is below 60°C.	IACS Requirements for Fire Protection F35 and ISO 15540 & 15541. Hose clamps and similar types of attachments for flexible pipes are not permitted.
25.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	4	Probability of ignition	5.1.4.4 - Where cargo wing tanks are provided, cargo oil lines below deck shall be installed inside these tanks. However, the Administration may permit cargo oil lines to be placed in special ducts provided they are capable of being adequately cleaned and ventilated to the satisfaction of the Administration. Where cargo wing tanks are not provided, cargo oil lines below deck shall be placed in special ducts.	ROs are authorized for approval of general ship structure, any novel arrangements must be submitted to the Administration for review and assessment on case by case basis.

26.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	4	Probability of ignition	5.6.3 - The arrangements for inerting, purging or gas-freeing of empty tanks as required in paragraph 5.5.3.1 shall be to the satisfaction of the Administration and shall be such that the accumulation of hydrocarbon vapours in pockets formed by the internal structural members in a tank is minimized and that:	IACS Unified Interpretation SC58 Rev.2 is acceptable
27.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	5	Fire growth potential	2.2.5 - In passenger ships, the controls required in paragraphs 2.2.1 to 2.2.4 and in regulations 8.3.3 and 9.5.2.3 and the controls for any required fire-extinguishing system shall be situated at one control position or grouped in as few positions as possible to the satisfaction of the Administration. Such positions shall have a safe access from the open deck	MMD will determine if this is acceptable on a case by case basis.
28.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	7	Detection and alarm	3.2 - The function of fixed fire detection and fire alarm systems shall be periodically tested to the satisfaction of the Administration by means of equipment producing hot air at the appropriate temperature, or smoke or aerosol particles having the appropriate range of density or particle size, or other phenomena associated with incipient fires to which the detector is designed to respond.	Testing equipment to be in accordance with the manufacturer's recommendations/instructions
29.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	7	Detection and alarm	6 - A fixed fire detection and fire alarm system or a sample extraction smoke detection system shall be provided in any cargo space which, in the opinion of the Administration, is not accessible, except where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply this requirement.	MMD will determine if this is acceptable on a case by case basis.

30.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	8	Control of smoke spread	3.4 - In passenger ships, the controls required by paragraph 3.3 shall be situated at one control position or grouped in as few positions as possible to the satisfaction of the Administration. Such positions shall have a safe access from the open deck.	MMD will determine if this is acceptable on a case by case basis.
31.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	9	Containment of fire	2.2.3.1 - In addition to complying with the specific provisions for fire integrity of bulkheads and decks of passenger ships, the minimum fire integrity of all bulkheads and decks shall be as prescribed in tables 9.1 and 9.2. Where, due to any particular structural arrangements in the ship, difficulty is experienced in determining from the tables the minimum fire integrity value of any divisions, such values shall be determined to the satisfaction of the Administration.	MMD will determine if this is acceptable on a case by case basis.
32.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	9	Containment of fire	2.2.4.4 - External boundaries which are required in regulation 11.2 to be of steel or other equivalent material may be pierced for the fitting of windows and sidescuttles provided that there is no requirement for such boundaries of passenger ships to have "A" class integrity. Similarly, in such boundaries which are not required to have "A" class integrity, doors may be constructed of materials which are to the satisfaction of the Administration.	Substantially constructed, non combustible or hardwood doors. This does not obviate the need to comply with any Load Line requirements for doors. IACS Interpretations are accepted, any novel arrangements must be submitted to MMD for review and assessment on case by case basis.
33.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	9	Containment of fire	2.3.3.4 - External boundaries which are required in regulation 11.2 to be of steel or other equivalent material may be pierced for the fitting of windows and sidescuttles provided that there is no requirement for such boundaries of cargo ships to have "A" class integrity. Similarly, in such boundaries which are not required to have "A" class integrity, doors may be constructed of materials which are to the satisfaction of the Administration.	Substantially constructed, non combustible or hardwood doors. This does not obviate the need to comply with any Load Line requirements for doors. IACS Interpretations are accepted, any novel arrangements must be submitted to MMD for review and assessment

34.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	9	Containment of fire	2.4.2.4 - External boundaries which are required in regulation 11.2 to be of steel or other equivalent material may be pierced for the fitting of windows and sidescuttles provided that there is no requirement for such boundaries of tankers to have "A" class integrity. Similarly, in such boundaries which are not required to have "A" class integrity, doors may be constructed of materials which are to the satisfaction of the Administration.	Substantially constructed, non combustible or hardwood doors. This does not obviate the need to comply with any Load Line requirements for doors.
35.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	9	Containment of fire	5.2.4 - In passenger ships, the means of control required in paragraph 5.2.3 shall be situated at one control position or grouped in as few positions as possible to the satisfaction of the Administration. Such positions shall have safe access from the open deck.	MMD will determine if this is acceptable on a case by case basis.
36.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	10	Fire fighting	2.1.2 - The arrangements for the ready availability of water supply shall be: .2 in cargo ships: .2.1 to the satisfaction of the Administration	Automatic start of at least one fire pump or by remote starting from a continually manned control station.
37.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	10	Fire fighting	2.3.2.1 - Ships shall be provided with fire hoses the number and diameter of which shall be to the satisfaction of the Administration.	The number of hoses to be as per Reg II-2/10.2.3.2.3 Fire hoses to have diameter not be less than 38mm and must be sized to deliver the required capacity and pressure.
38.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	10	Fire fighting	3.2.1 - Accommodation spaces, service spaces and control stations shall be provided with portable fire extinguishers of appropriate types and in sufficient number to the satisfaction of the Administration. Ships of 1,000 gross tonnage and upwards shall carry at least five portable fire extinguishers.	Apply MSC.1/Circ.1275 rev.1

39.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	10	Fire fighting	7.1.2 - Where it is shown to the satisfaction of the Administration that a passenger ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirements of paragraph 7.1.1 and also in ships of less than 1,000 gross tonnage, the arrangements in cargo spaces shall be to the satisfaction of the Administration, provided that the ship is fitted with steel hatch covers and effective means of closing all ventilators and other openings leading to the cargo spaces.	MMD will not waive this requirement. Would need to be presented to MMD on a case by case basis
40.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	10	Fire fighting	7.3.2.4 - The operational performance of each mobile water monitor shall be tested during initial survey on board the ship to the satisfaction of the Administration.	In accordance to guidelines in MSC.1/Circ1472
41.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	13	Means of escape	3.1.4 - If a radiotelegraph station has no direct access to the open deck, two means of escape from or access to, the station shall be provided, one of which may be a porthole or window of sufficient size or other means to the satisfaction of the Administration.	Clear opening to be no less than (600x600)mm in dimension.
42.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	13	Means of escape	3.2.6.2 - Escape doors from public spaces that are normally latched shall be fitted with a means of quick release. Such means shall consist of a door-latching mechanism incorporating a device that releases the latch upon the application of a force in the direction of escape flow. Quick release mechanisms shall be designed and installed to the satisfaction of the Administration and, in particular:	Requirements stated in SOLAS II-2/13.3.2.6.2.1 to 13.3.2.6.2.3 to be met as well as single action release.
43.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	13	Means of escape	5.1 - In special category and open ro-ro spaces to which any passengers carried can have access, the number and locations of the means of escape both below and above the bulkhead deck shall be to the	MMD will determine if this is acceptable on a case by case basis.

				satisfaction of the Administration and, in general, the safety of access to the embarkation deck shall be at least equivalent to that provided for under paragraphs 3.2.1.1, 3.2.2, 3.2.4.1 and 3.2.4.2. Such spaces shall be provided with designated walkways to the means of escape with a breadth of at least 600 mm. The parking arrangements for the vehicles shall maintain the walkways clear at all times.	
44.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	19	Carriage of Dangerous Goods	3.1.2 - The quantity of water delivered shall be capable of supplying four nozzles of a size and at pressures as specified in regulation 10.2, capable of being trained on any part of the cargo space when empty. This amount of water may be applied by equivalent means to the satisfaction of the Administration.	MSC.1/Circ.1550 Unified Interpretation is accepted. IACS UI SC168 Rev.1 relating to the hydrants is accepted.
45.	II-2 Construction: Fire Protection, Fire Detection and Fire Extinction	20	Protection of Vehicle, Special Category and Ro-Ro Spaces	4.1 - Fixed fire detection and fire alarm systems Except as provided in paragraph 4.3.1, there shall be provided a fixed fire detection and fire alarm system complying with the requirements of the Fire Safety Systems Code. The fixed fire detection system shall be capable of rapidly detecting the onset of fire. The type of detectors and their spacing and location shall be to the satisfaction of the Administration taking into account the effects of ventilation and other relevant factors. After being installed the system shall be tested under normal ventilation conditions and shall give an overall response time to the satisfaction of the Administration.	MMD will determine if this is acceptable on a case by case basis.
46.	III Life-Saving Appliances	4	Evaluation, Testing and Approval of Life-Saving Appliances and Arrangements	2.2 - Before giving approval to life-saving appliances and arrangements, the Administration shall ensure that such life-saving appliances and arrangements: have successfully undergone, to the satisfaction of	MMD will determine if this is acceptable on a case by case basis. MMD does not undertake type approvals.

				the Administration, tests which are substantially equivalent to those specified in those recommendations.	
47.	III Life-Saving Appliances	4	Evaluation, Testing and Approval of Life-Saving Appliances and Arrangements	6 - Life-saving appliances required by this chapter for which detailed specifications are not included in the Code shall be to the satisfaction of the Administration.	MMD will determine if this is acceptable on a case by case basis. MMD does not undertake type approvals
48.	III Life-Saving Appliances	7	Personal Life-Saving Appliances	2.2 - Lifejackets shall be so placed as to be readily accessible and their position shall be plainly indicated. Where, due to the particular arrangements of the ship, the lifejackets provided in compliance with the requirements of paragraph 2.1 may become inaccessible, alternative provisions shall be made to the satisfaction of the Administration which may include an increase in the number of lifejackets to be carried.	MMD will determine if this is acceptable on a case by case basis.
49.	IV Radiocommunications	16	Radio personnel	1 - Every ship shall carry personnel qualified for distress and safety radiocommunication purposes to the satisfaction of the Administration. The personnel shall be holders of certificates specified in the Radio Regulations as appropriate, any one of whom shall be designated to have primary responsibility for radiocommunications during distress incidents.	Refer to MMD issued Minimum Safe Manning Document for the vessel.
50.	IV Radiocommunications	17	Radio records	A record shall be kept, to the satisfaction of the Administration and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.	Radio Logbook compliant with the International Telecommunication Union (ITU) specified format to be carried.
51.	V Safety of Navigation	23	Pilot transfer arrangements	3.3.1.3 - each step rests firmly against the ship's side; where constructional features, such as rubbing	IACS Interpretations are accepted. Any novel arrangements should be subject

				bands, would prevent the implementation of this provision, special arrangements shall, to the satisfaction of the Administration, be made to ensure that persons are able to embark and disembark safely	to a 'mock-up' and final practical demonstration in the presence of Class before the vessel enters service. IACS Unified Interpretation SC257 Rev.1 is acceptable.
52.	VI Safety of Cargoes	3	Oxygen Analysis and Gas Detection Equipment	1 - When transporting a solid bulk cargo which is liable to emit a toxic or flammable gas, or cause oxygen depletion in the cargo space, an appropriate instrument for measuring the concentration of gas or oxygen in the air shall be provided together with detailed instructions for its use. Such an instrument shall be to the satisfaction of the Administration.	Atmosphere testing instrument for enclosed spaces as per VI-1 Reg. 7 subject to risk of harm from toxic gas being mitigated by another appropriate instrument.
53.	VI Safety of Cargoes	6	Acceptibility for Shipment	1 - Prior to loading a solid bulk cargo, the master shall be in possession of comprehensive information on the ship's stability and on the distribution of cargo for the standard loading conditions. The method of providing such information shall be to the satisfaction of the Administration	Refer to SOLAS II-1/5-1 on Stability information to be supplied to the master
54.	VIII Nuclear Ships	4	Approval of reactor installation	The design, construction and standards of inspection and assembly of the reactor installation shall be subject to the approval and satisfaction of the Administration and shall take account of the limitations which will be imposed on surveys by the presence of radiation.	MDM currently does not register nuclear ships.

APPENDIX B *– International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78*

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<tr><th colspan="6">International Convention for the Prevention of Pollution from Ships (MARPOL)</th></tr>
<tr><th>#</th><th>Annex & Chapter</th><th>Regulation</th><th>Regulation Title</th><th>Convention Text</th><th>MMD Requirements</th></tr>
<tr><td>1.</td><td>I-3 Requirements for Machinery Spaces of All Ships (Part B: Equipment)</td><td>14.3</td><td>Oil Filtering Equipment</td><td>Ships, such as hotel ships, storage vessels, etc., which are stationary except for non-cargo-carrying relocation voyages need not be provided with oil filtering equipment. Such ships shall be provided with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water. All oily bilge water shall be retained on board for subsequent discharge to reception facilities.</td><td>Such shall be provided with a holding tank(s) having a volume adequate for the retention on board of the oily bilge water. Calculation of capacity for the tank(s) shall be submitted to RO for approval considering the longest foreseen single passage for the vessel. Refer to MARPOL Unified Interpretation 26.</td></tr>
<tr><td>2.</td><td>I-3 Requirements for Machinery Spaces of All Ships (Part B: Equipment)</td><td>14.5.3.1</td><td>Oil Filtering Equipment</td><td>5 - The Administration may waive the requirements of paragraphs 1 and 2 of this regulation for:

.3.1 - the ship is fitted with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water</td><td>Capacity of bilge water holding tanks should be as follows:<table><tr><th>Main Engine Rating (MER) [kW]</th><th>Capacity [m^3]</th></tr><tr><td>Up to 1000</td><td>1.5</td></tr><tr><td>1000 – 20 000</td><td>1.5 + (P-1000)/1500</td></tr><tr><td>Above 20 000</td><td>14.2 + 0.2(P-20 000)/1500</td></tr></table>Where;
P = MER in kW</td></tr>
<tr><td>3.</td><td>I-4 Requirements for the Cargo Areas of Oil Tankers (Part A: Construction)</td><td>18.5</td><td>Segregated Ballast Tanks</td><td>Notwithstanding the provisions of paragraph 2 of this regulation the segregated ballast conditions for oil tankers less than 150 metres in length shall be to the satisfaction of the Administration.</td><td>The guidance in MARPOL Unified Interpretation 37 is to be followed.</td></tr>
<tr><td>4.</td><td>I-4 Requirements for the Cargo Areas of Oil Tankers (Part A: Construction)</td><td>18.8.4</td><td>Segregated Ballast Tanks</td><td>Every product carrier operating with dedicated clean ballast tanks shall be provided with a Dedicated Clean Ballast Tank Operation Manual footnote detailing the system and specifying operational procedures. Such a Manual shall be</td><td>The guidance contained in IMO Res A.495(XII) to be followed</td></tr>
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				to the satisfaction of the Administration and shall contain all the information set out in the Specifications referred to in subparagraph 8.2 of this regulation. If an alteration affecting the dedicated clean ballast tank system is made, the Operation Manual shall be revised accordingly.	
5.	I-4 Requirements for the Cargo Areas of Oil Tankers (Part A: Construction)	23.3.1	Accidental Oil Outflow Performance	for oil tankers of 5,000 tonnes deadweight (DWT) and above, the mean oil outflow parameter shall be as follows: [outflow parameter calculations] for combination carriers between 5,000 tonnes deadweight (DWT) and 200,000 m3 capacity, the mean oil outflow parameter may be applied, provided calculations are submitted to the satisfaction of the Administration, demonstrating that after accounting for its increased structural strength, the combination carrier has at least equivalent oil out flow performance to a standard double hull tanker of the same size having a OM ≤ 0.015. [further calculations]	Calculations of oil outflow performance for combination carriers should consider the provisions of MEPC.122(52) amended by MEPC.146(54)
6.	I-4 Requirements for the Cargo Areas of Oil Tankers (Part A: Construction)	28.6.2	Subdivision and Damage Stability	notwithstanding the requirements of subparagraph .1 a stability instrument fitted on an oil tanker constructed before 1 January 2016 need not be replaced provided it is capable of verifying compliance with intact and damage stability, to the satisfaction of the Administration	The stability instrument fitted to an oil tanker constructed before 1 January 2016 should comply with the requirements of Part B, Chp 4 of the 2008 Intact Stability (IS) Code
7.	I-4 Requirements for the Cargo Areas of Oil Tankers (Part A: Construction)	30.7	Pumping, Piping and Discharge Arrangement	Every oil tanker of 150 gross tonnage and above delivered on or after 1 January 2010, as defined in regulation 1.28.8, which has installed a sea	MARPOL Unified Interpretation 64 is to be followed on positive means.

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				chest that is permanently connected to the cargo pipeline system, shall be equipped with both a sea chest valve and an inboard isolation valve. In addition to these valves, the sea chest shall be capable of isolation from the cargo piping system whilst the tanker is loading, transporting, or discharging cargo by use of a positive means that is to the satisfaction of the Administration. Such a positive means is a facility that is installed in the pipeline system in order to prevent, under all circumstances, the section of pipeline between the sea chest valve and the inboard valve being filled with cargo.	
8.	I-4 C Requirements for the Cargo Areas of Oil Tankers (Part C: Control of Operational Discharge of Oil)	35.1	Crude Oil Washing Operations	Every oil tanker operating with crude oil washing systems shall be provided with an Operations and Equipment Manual footnotedetailing the system and equipment and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the specifications referred to in paragraph 2 of regulation 33 of this Annex. If an alteration affecting the crude oil washing system is made, the Operations and Equipment Manual shall be revised accordingly.	Every oil tanker operating with crude oil washing systems shall be provided with an Operations and Equipment Manual in accordance with the requirements of MEPC.3(XII) amended by MEPC.81(43).
9.	II-1 General	5.3.4	General: Equivalents	be provided with pumping and piping arrangements, which, to the satisfaction of the Administration, ensure that the quantity of cargo residue remaining in the tank and its associated piping after unloading does not	Procedure outlined in MARPOL Annex II, Appendix 5 to be followed and documented.

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				exceed the applicable quantity of residue as required by regulation 12.1, 12.2 or 12.3	
10.	IV-3 Surveys and Certification	9.1.2	Sewage Systems	a sewage comminuting and disinfecting system approved by the Administration. Such system shall be fitted with facilities to the satisfaction of the Administration, for the temporary storage of sewage when the ship is less than 3 nautical miles from the nearest land	The capacity of the sewage holding tank is to meet or exceed the volume using the formula: $C_r > AN_pD_a$ Where; Cr = Capacity of the holding tank (m^3), A = 0.06m^3/person/day, Np = Total number of persons on board, Da = maximum number of days operating in areas where the discharge of sewage which is not comminuted or disinfected into the sea is probihited. Construction of the tank should meet the requirements of the RO.
11.	IV-3 Surveys and Certification	9.1.3	Sewage Systems	a holding tank of the capacity to the satisfaction of the Administration for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents.	Construction and capacity of the sewage holding tank shall meet the requirements of the RO.
12.	IV-3 Surveys and Certification	9.2.2	Sewage Systems	a holding tank of the capacity to the satisfaction of the Administration for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall be constructed to the satisfaction of the	Construction and capacity of the sewage holding tank shall meet the requirements of the RO.

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				Administration and shall have a means to indicate visually the amount of its contents.	
13.	VI-3 Requirements for Control of Emission from Ships	13.7.2	Nitrogen Oxides (NOx)	Paragraph 7.1 of this regulation shall apply no later than the first renewal survey that occurs 12 months or more after deposit of the notification in paragraph 7.1. If a shipowner of a ship on which an approved method is to be installed can demonstrate to the satisfaction of the Administration that the approved method was not commercially available despite best efforts to obtain it, then that approved method shall be installed on the ship no later than the next annual survey of that ship that falls after the approved method is commercially available.	MMD will determine if this case is acceptable on case by case basis.

APPENDIX C *– International Convention on Load Line (LOADLINE) 1966*

International Convention on Load Lines, 1966 (LOADLINE)					
#	**Chapter**	**Regulation**	**Regulation Title**	**Convention Text**	**MMD Requirements**
1.	II - General	8	Details of marking	The ring, lines and letters shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the ships to the satisfaction of the Administration. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose.	IACS Unified Interpretation LL4 rev.1 is acceptable
2.	II – Condition assignments of freeboard	11	Superstructure end bulkheads	Bulkheads at exposed ends of enclosed superstructures shall be of efficient construction and shall be to the satisfaction of the Administration	Compliance with Class Rules of MMD's ROs IACS Unified Reccomendation S3 rev.1 is acceptable
3.	II – Condition assignments of freeboard	15.8	Pontoon covers	The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the Administration.	Compliance with Class Rules of MMD's ROs
4.	II – Condition assignments of freeboard	16.3	Weathertight cover	The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the Administration	IACS Unified Interpretation LL6 rev.3 is acceptable
5.	II – Condition assignments of freeboard	16.4	Means for securing weathertightness	The means for securing and maintaining weathertightness shall be to the satisfaction of the Administration. The arrangements shall ensure that the tightness can be maintained in any sea conditions, and for this purpose tests for tightness shall be required at the initial survey, and may be required at periodical surveys and at annual inspections or at more frequent intervals.	Compliance with Class Rules of MMD's ROs

International Convention on Load Lines, 1966 (LOADLINE)					
#	**Chapter**	**Regulation**	**Regulation Title**	**Convention Text**	**MMD Requirements**
6.	II – Condition assignments of freeboard	19.5	Ventilators	In exposed positions, the height of coamings may be required to be increased to the satisfaction of the Administration	IACS Unified Interpretation LL36 rev.2 & Unified Reccomendation (S) 27 are accepted
7.	II – Condition assignments of freeboard	22.5	Scuppers, inlet and discharges	All valves and shell fittings required by this Regulation shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this Regulation refers shall be of steel or other equivalent material to the satisfaction of the Administration.	Compliance with Class Rules of MMD's RO
8.	II – Condition assignments of freeboard	24.4	Freeing ports	In ships having superstructures which are open at either or both ends, adequate provision for freeing the space within such superstructures shall be provided to the satisfaction of the Administration	IACS Unified Interpretation LL60 rev.1 is acceptable
9.	II – Condition assignments of freeboard	25.1	Protection of the crew	The strength of the deckhouses used for the accommodation of the crew shall be to the satisfaction of the Administration	Compliance with Class Rules of MMD's RO IACS Unified Reccomendation S3 rev.1 is accepted
10.	II – Condition assignments of freeboard	25.1	Protection of the crew	Efficient guard rails or bulwarks shall be fitted on all exposed parts of the freeboard and superstructure decks. The height of the bulwarks or guard rails shall be at least 1 metre (39½ inches) from the deck, provided that where this height would interfere with the normal operation of the ship, a lesser height may be approved if the Administration is satisfied that adequate protection is provided	The height specified may be reduced at a particular point if: (a) The normal working of the ship would be unreasonably impeded; and (b) Adequate protection is provided at that point.
11.	II – Condition assignments of freeboard	26.2	Gangway and access	An efficiently constructed fore and aft permanent gangway of sufficient strength shall be fitted on Type 'A' ships at the level of the superstructure deck between the poop and the midship bridge or deckhouse where fitted, or equivalent means of	IACS Unified Interpretation LL50 rev.5 is acceptable

International Convention on Load Lines, 1966 (LOADLINE)					
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				access shall be provided to carry out the purpose of the gangway, such as passages below deck. Elsewhere, and on Type 'A' ships without a midship bridge, arrangements to the satisfaction of the Administration shall be provided to safeguard the crew in reaching all parts used in the necessary work of the ship	
12.	III - Freeboards	39.2b	Minimum bow height	for ships over 100 metres (328 feet) in length it need not comply with Regulation 3 (10) but shall be fitted with closing appliances to the satisfaction of the Administration.	Compliance with Class Rules of MMD's RO IACS Unified Interpretation LL17 rev.1 is acceptable.

APPENDIX D *– International Regulations for Preventing Collisions at Sea (COLREGS)*

International Regulations for Preventing Collisions at Sea (COLREG)					
#	**Chapter**	**Regulation**	**Regulation Title**	**Convention Text**	**MMD Requirements**
1.	I - Positioning and Technical Details of Lights and Shapes	14	Approvals	The construction of lights and shapes and the installation of lights on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.	Follow MSC.253(83) - Performance Standards for Navigation Lights, Navigation Light Controllers and associated equipment IACS Unified Interpretations COLREG rev.1 Corr.1, COLREG3 rev.1 Corr.1, COLREG4 Corr.1 and COLREG5 are acceptable
2.	III - Technical Details of Sound Signal Appliances	3	Approvals	The construction of sound signal appliances, their performance and their installation on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.	