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THE MERCHANT SHIPPING ACT, (CAP. 165)

REGULATIONS

(Made under section 284)

THE MERCHANT SHIPPING (CARRIAGE OF SOLID BULK CARGOES AND OIL FUELS) REGULATIONS, 2024

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THE MERCHANT SHIPPING ACT (CAP. 165)

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(Made under section 284)

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PART I PRELIMINARY PROVISIONS

Citation

1. These Regulations May be Cited as the Merchant Shipping (Carriage of Solid Bulk Cargoes and Oil Fuels) Regulations, 2024.

Application

2.-(1) These Regulations shall apply to carriage of cargoes covered under Chapter VI of the Safety Convention which, owing to their particular hazards to ships or persons on board, may require special precautions and in cargo ships of less than 500 gross tonnage:

Provided that, these Regulations may not apply to cargo ships of less than 500 gross tonnage, where the Corporation considers that the sheltered nature and conditions of voyage are such as to render the application of any of its specific requirements unreasonable or unnecessary.

- (2) Without prejudice to the generality of subregulation (1), these Regulations shall not apply to-
 - (a) pleasure craft;
 - (b) ship in which there is no master or crew or watchman;
 - (c) warship or naval auxiliary;

- (d) vessel owned or operated by the Government on non-commercial service;
- (e) fishing vessel;
- (f) vessels carrying liquids and gases in bulk; and
- (g) other carriage covered by other Chapters of Safety Convention.

Interpretation

3. In these Regulations, unless the context otherwise requires-

"cargo unit" means a vehicle, container, flat, pallet, portable tank, packaged unit, or any other cargos and loading equipment or any part thereof that belongs to a ship and is not fixed to it, and including wheeled cargo and any cargo transport unit;

"IMO" shall have the meaning ascribed to it under the Act; "International Grain Code" means the International Code for the Safe Carriage of Grain in Bulk adopted by IMO by resolution MSC.23(59) as may be amended;

"IMSBC Code" means the International Maritime Solid Bulk Cargoes Code adopted by IMO by resolution MSC.268(85), as may be amended;

"container" means an article of transport equipment-

- (a) of a permanent character and accordingly strong enough to be suitable for repeated use;
- (b) specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediately reloading;
- (c) designed to be secured or readily handled, having corner fittings for these purposes;
- (d) of a size such that the area enclosed by the four outer bottom corners is either-
 - (i) at least 14 square meters; or
 - (ii) at least 7 square meters if it is fitted with top corner fittings:

Provided that, container does not include vehicle or packaging, except when carried on chassis are included;

"oil" shall have the meaning ascribed to it under the Act;

- "oil fuel" means any oil used as fuel in connection with the propulsion and auxiliary machinery of the ship in which such oil is carried;
- "MARPOL" means International Convention for the Prevention of Pollution from Ships 1973 and its Protocol of 1978 together with amendments thereof;
- "cargo ship" means a ship which is not a passenger ship;
- "Safety Convention" shall have the meaning ascribed to it under the Act;
- Cap 415 "Registrar" means the Registrar appointed under section 31 of the Tanzania Shipping Agencies Act;
 - "grain" shall have the meaning ascribed to it under section 283 of the Act;
 - "cargo space" means any hold, tank or space in a ship appropriated for the carriage of cargo;
 - "Merchant Shipping Notice" means a Notice described as such issued by the Registrar and includes a reference to any document amending or replacing that Notice;
 - "short international voyage" shall have the meaning ascribed to it under the Act;
 - "bulk cargo" means cargo carried in bulk;
 - "solid bulk cargo" means any cargo, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material generally uniform in composition, which is loaded directly into the cargo spaces of a ship without any intermediate form of containment;
- Cap 165 "Act" means the Merchant Shipping Act;
- Cap 415 "Corporation" means the Tanzania Shipping Agencies Corporation established under section 4 of the Tanzania Shipping Agencies Act; and

"cargo information" means information relevant to the cargo, its stowage and securing which specify, in particular, the precautions necessary for the safe carriage of that cargo by sea.

PART II GENERAL REQUIREMENTS FOR CARRIAGE OF SOLID BULK CARGOES

Carriage of solid bulk cargoes other than grain

4. The carriage of solid bulk cargoes other than grain shall be in compliance with the relevant provisions of the IMSBC Code.

Cargo information

- **5.-**(1) The shipper shall provide a master or his representative with appropriate information on the cargo sufficiently in advance of loading to enable the precautions which may be necessary for proper stowage and safe carriage of the cargo to be put into effect.
- (2) The information referred to under subregulation (1), shall-
 - (a) be in the form prescribed under the First Schedule to these Regulations; and
 - (b) be confirmed in writing and by appropriate shipping documents prior to loading the cargo on the ship.
 - (3) The cargo information shall include-
 - (a) in the case of general cargo and of cargo carried in cargo units-
 - (i) a general description of the cargo;
 - (ii) the gross mass of the cargo or of the cargo units; and
 - (iii) any relevant special properties of the cargo;
 - (b) in the case of solid bulk cargo, information as required by section 4 of the IMSBC Code on

assessment of acceptability of consignments for safe shipment including:

- (i) identification and classification;
- (ii) provision of information;
- (iii) certificate of test;
- (iv) sampling procedures; and
- (v) interval between sampling or testing, loading for Transportable Moisture Limit (TML) and moisture content determination.
- (4) For the purpose of this regulation, the cargo information required under sub-chapter 1.9 of the Code of Safe Practice for Cargo Stowage and Securing, shall be provided.
- (5) Prior to loading cargo units on board a ship, the shipper shall ensure that the gross mass of such units is in accordance with the gross mass declared on the shipping documents.
- (6) In the case of cargo carried in a container, except for containers carried on a chassis or a trailer when such containers are driven on or off a ro-ro ship engaged in short international voyages, the gross mass according to the provisions of subregulation (3)(a) shall be verified by the shipper, either by-
 - (a) weighing the packed container using calibrated and certified equipment; or
 - (b) weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method prescribed under the Merchant Shipping (Verified Gross Mass of a Container Carrying Cargo) Regulations.
 - (7) The shipper of a container shall ensure the

GN. No. 197 of 2016

GN. No. 197 of 2016 verified gross mass is stated in the shipping document prescribed under the Merchant Shipping (Verified Gross Mass of a Container Carrying Cargo) Regulations.

- (8) The shipping document shall be-
- (a) signed by a person duly authorised by the shipper; and
- (b) submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan.
- (9) Where the shipping document, with regard to a packed container, does not provide the verified gross mass and the master or his representative and the terminal representative have not obtained the verified gross mass of the packed container, the container shall not be loaded onto the ship.
- (10) A master who loads cargo on board without appropriate information required under this regulation commits an offence and upon conviction shall be liable to a fine of not less than the equivalent in Tanzania Shillings of the United States Dollar two thousand or to imprisonment for a term not exceeding twelve months or to both.

Oxygen analysis and gas detection equipment

- 6. A master shall ensure that-
- (a) an appropriate instrument for measuring the concentration of gas or oxygen in the air is provided together with detailed instructions for its use when transporting a solid bulk cargo which is liable to emit a toxic or flammable gas, or cause oxygen depletion in the cargo space; and
- (b) crew is trained in the use of such instrument.

Use of pesticides in ship

7. A master shall ensure that appropriate precautions are taken in the use of pesticides in a ship, in particular for the purpose of fumigation.

Stowage and securing

- **8.-**(1) A master shall ensure that throughout the voyage, cargo, cargo units and cargo transport units carried on or under deck are loaded, stowed and secured to prevent-
 - (a) damage or hazard to the ship and the persons on board; and
 - (b) loss of cargo overboard.
- (2) Subject to subregulation (1), cargo, cargo units and cargo transport units shall be packed and secured within the unit, to prevent, throughout the voyage, damage or hazard to the ship and the person on board.
- (3) A master shall take appropriate precautions during loading and transport of heavy cargoes or cargoes with abnormal physical dimensions to ensure that-
 - (a) no structural damage to the ship occurs; and
 - (b) adequate stability is maintained throughout the voyage.
- (4) A master shall take appropriate precautions during loading and transport of cargo units and cargo transport units on board ro-ro ships, with regard to the-
 - (a) securing arrangements on board such a ship and on the cargo units and cargo transport units; and
 - (b) strength of the securing points and lashings.

GN. No. 197 of 2016

- (5) A master shall ensure that freight containers are not loaded to more than the maximum gross weight indicated on the Safety Approval Plate as prescribed under the Merchant Shipping (Verified Gross Mass of a Container Carrying Cargo) Regulations.
- (6) A master shall ensure that all cargoes other than solid and liquid bulk cargo, cargo units and cargo transport units, are loaded, stowed and secured throughout the

voyage in accordance with the Cargo Securing Manual.

- (7) A master shall ensure that in a ship with ro-ro spaces, securing of cargoes referred to under subregulation (6), shall be completed before the ship leaves the berth in accordance Cargo Securing Manual.
- (8) The Corporation shall ensure that the Cargo Securing Manual is drawn up to a standard equivalent to the Second Schedule.
- (9) A master who fails to load, stow and secure cargo, cargo units and cargo transport units as required under this regulation commits an offence and upon conviction shall be liable to a fine of not less than the equivalent in Tanzania Shillings of the United States Dollar five thousand or to imprisonment for a term not exceeding twelve months or to both.

Material safety data sheet

9. A master shall ensure that a ship carrying oil or oil fuel is provided with Material Safety Data Sheets, based on the IMO Recommendations for Material Safety Data Sheets for MARPOL Annex I Cargoes and Marine Fuel Oils, prior to the loading of such oil as cargo in bulk or bunkering of oil fuel.

Prohibition of blending of bulk liquid cargoes and production processes during sea voyages

- **10.-**(1) A master shall ensure that no physical blending of bulk liquid cargoes during sea voyages.
- (2) The prohibition referred to under subregulation (1), shall not apply to-
 - (a) the blending of products for use in the search; and
 - (b) exploitation of seabed mineral resources on board a ship used to facilitate such operations.
- (3) The master shall ensure that no production process on board a ship during sea voyages.
- (4) The prohibition referred to under subregulation (3) shall not apply to-
 - (a) the production processes of cargoes for use in

the search; and

- (b) exploitation of seabed mineral resources on board a ship used to facilitate such operations.
- (5) For the purpose of this regulation-
- (a) physical blending means the process whereby the ship cargo pumps and pipelines are used to internally circulate two or more different cargoes with the intent to achieve a cargo with a new product designation; and
- (b) production processes means any deliberate operation whereby a chemical reaction between a ship cargo and any other substance or cargo takes place.

PART III SPECIAL REQUIREMENTS FOR CARRIAGE OF SOLID BULK CARGOES

Acceptability for shipment

11. A master shall, prior to loading a solid bulk cargo, ensure that he is in possession of comprehensive information on the ship stability and on the distribution of cargo for the standard loading conditions.

Loading, unloading and stowage of bulk cargoes

- **12.-**(1) A master shall ensure that a ship is provided with a booklet which is written in English language, for the purpose of enabling him to prevent excessive stresses in a ship structure.
- (2) The booklet referred to under subregulation (1), shall include-
 - (a) stability data, as required under regulation II-1/5-1 of Safety Convention;
 - (b) ballasting and deballasting rates and capacities;
 - (c) maximum allowable load per unit surface area of the tank top plating;

- (d) maximum allowable load per hold;
- (e) general loading and unloading instructions with regard to the strength of the ship structure including any limitations on the most adverse operating conditions during loading, unloading, ballasting operations and the voyage;
- (f) any special restrictions such as limitation imposed by the Registrar through a Merchant Shipping Notice; and
- (g) where strength calculations are required, maximum permissible forces and moments on the ship hull during loading, unloading and the voyage.
- (3) The master and the terminal representative shall, before a solid bulk cargo is loaded or unloaded, agree on a loading and unloading plan to ensure that the permissible forces and moments on the ship are not exceeded during loading or unloading, including-
 - (a) the sequence;
 - (b) quantity and rate of loading or unloading, taking into consideration the speed of loading or unloading; and
 - (c) the number of pours and the deballasting or ballasting capability of the ship.
- (4) The plan referred to under subregulation (3), and any subsequent amendments shall be lodged with the Ports Authority.
- (5) The master and terminal representative shall ensure that loading and unloading operations are conducted in accordance with the agreed plan.
- (6) Where during loading or unloading any of the limits of the ship referred to under subregulation (2), are exceeded or are likely to become so if the loading or unloading continues, the master shall suspend operation and notify accordingly the Ports Authority.

- (7) Subject to subregulation (6), the master and the terminal representative shall ensure that-
 - (a) corrective action is taken when unloading cargo; and
 - (b) the unloading method shall not damage the ship structure.
 - (8) The master shall ensure that-
 - (a) ship personnel continuously monitor cargo operations; and
 - (b) where possible, the ship draught is checked regularly during loading or unloading to confirm the tonnage figures supplied.
- (9) The draught and tonnage observation referred to under subregulation (8), shall be recorded in a cargo logbook and where significant deviations from the agreed plan are detected, cargo or ballast operations or both be adjusted to ensure that the deviations are corrected.
- (10) For the purpose of this regulation, terminal representative means a person appointed by the terminal or other facility, where the ship is loading or unloading, who has responsibility for operations conducted by that terminal or facility with regard to the particular ship.

PART IV CARRIAGE OF GRAIN

Requirements for cargo ship carrying grain

- 13.-(1) Subject to any other applicable requirements under these Regulations, a master shall ensure that a cargo ship carrying grain-
 - (a) comply with the requirements of the International Grain Code; and
 - (b) hold a document of authorisation as required under the Code.
- (2) Corporation shall ensure that a ship without document of authorisation shall not load grain until master

satisfies the Corporation that the ship will comply with the requirements of the International Grain Code in its proposed loaded condition.

(3) For the purpose of this regulation, the requirements of the International Grain Code shall be mandatory.

PART V GENERAL PROVISION

General penalty

14. A person who contravenes any of the provisions of these Regulations, for which no specific penalty is provided, commits an offence and upon conviction shall be liable to a fine of not less than the equivalent in Tanzania shillings of the United States dollars one thousand or to imprisonment for a term not exceeding six months or to both.

Evaluation and report

15.-(1) The Registrar shall-

- (a) carry out an evaluation of the regulatory provision contained in these Regulations;
- (b) prepare a report of the evaluation process and setting out the conclusions of the review; and
- (c) submit the report to the Minister.
- (2) The first report shall be submitted to the Minister within five years from the date of publication of these Regulations.
- (3) Subsequent reports shall be submitted at the interval not exceeding five years.
- (4) The report under this regulation shall, in particular-
 - (a) set out the objectives intended to be achieved by the regulatory provision referred to in subregulation (1)(a);

- (b) assess the extent to which those objectives are achieved; and
- (c) assess whether those objectives remain appropriate, and if so, assess the extent to which they could be achieved with a system that imposes less regulation.

Complaint handling GN. No. 338 of 2018

16. A person who is aggrieved by the decision made under these Regulations may lodge complaint to the Corporation, in accordance with the Tanzania Shipping Agencies (Complaints Handling) Regulations.

FIRST SCHEDULE

(Made under regulation 5(2) (a))

FORM FOR CARGO INFORMATION

Note: This form is not applicable if the cargo to be loaded requires a declaration under the requirements of chapter VII, regulation 5 of the Safety Convention; Annex III, regulation 4 of the MARPOL; and General Introduction section 9 of the IMDG Code.

With OL, and General indoduction section 7 of the hydrocode.	
Shipper	Reference number(s)
Consignee	Carrier
Name/means of	Instructions of other matters
transport	
Port/place of	
departure	
Port/place of destination	
General description of cargo	Gross mass (kg/tonnes)
Type of material /particle size *	□ General cargo
*For sold bulk cargo	□ Cargo unit(s)
	□ Bulk cargo

Merchant Shipping (Carriage of Solid Bulk Cargoes and Oil Fuels)

Government Notice No. 372 (Continued)

Specification of bulk cargo*		
Stowage factor		
Angle of repose		
Trimming procedures		
Chemical properties** if potential hazard		
* If applicable		
** e.g IMO class, UN No. or BC No. and EmS No.		
Relevant special properties of the cargo	Additional certificate(s)*	
Trois value special properties of the sange	Certificate of moisture content and transportable	
	moisture limit	
	□ Weathering certificate	
	□ Exemption certificate	
	☐ Other (specify)	
	*if required	
DECLARATION	ii required	
I hereby declare that the consignment is fully and accurately described and that the given test		
results and other specifications are correct to the best of my knowledge and belief and can be		
considered as representative for the cargo to be loaded.		
Name and		
status		
Company/organisation of		
signatory		
Place and		
date		
Signature on behalf of		
shipper		

This form meets the requirements of chapter VI, regulation 2 of the Safety Convention; the BC Code and the CSS Code.

SECOND SCHEDULE

(Made under regulation 8(8))

GUIDELINES FOR THE PREPARATION OF THE CARGO SECURING MANUAL

PREAMBLE

In accordance with chapters VI, VII of the *Safety Convention* and the Code of Safe Practice for Cargo Stowage and Securing (CSS Code), cargo units, including containers, shall be stowed and secured throughout the voyage in accordance with a Cargo Securing Manual approved by the Corporation.

The Cargo Securing Manual is required on all types of ships engaged in the carriage of all cargoes other than solid and liquid bulk cargoes.

The purpose of these Guidelines is to ensure that Cargo Securing Manuals cover all relevant aspects of cargo stowage and securing and to provide a uniform approach to the preparation of Cargo Securing Manuals, their layout and content. The Corporation may continue accepting Cargo Securing Manuals drafted in accordance with *Containers and cargoes (BC) – Cargo Securing Manual* provided that they satisfy the requirements of these Guidelines.

Where necessary, the manuals should be revised explicitly when the ship is intended to carry containers in a standardized system.

It is important that securing devices meet acceptable functional and strength criteria applicable to the ship and its cargo. It is also important that the officers on board are aware of the magnitude and direction of the forces involved and the correct application and limitations of the cargo securing devices. The crew and other persons employed for the securing of cargoes should be instructed in the correct application and use of the cargo securing devices on board the ship.

1.1 Definitions

"cargo securing devices" means fixed and portable devices used to secure and support cargo units;

"Maximum Securing Load (MSL)" means the allowable load capacity for a device used to secure cargo to a ship. Safe Working Load (SWL) may be substituted for MSL for securing purposes, provided this is equal to or exceeds the strength defined by MSL;

"Standardised cargo" means cargo for which the ship is provided with an approved securing system based upon cargo units of specific types;

"Semi-standardised cargo" means cargo for which the ship is provided with a securing system capable of accommodating a limited variety of cargo units, such as vehicles and trailers; and

"non-standardised cargo" means cargo which requires individual stowage and securing arrangements.

1.2 Preparation of the manual

The Cargo Securing Manual shall be developed, taking into account the recommendations given in these Guidelines, and be written in English languages.

1.3 General information

The Manual shall contain the following general statements:

- (a) the guidance given herein shall by no means rule out the principles of good seamanship, neither can it replace experience in stowage and securing practice;
- (b) the information and requirements set forth in the Manual are consistent with the requirements of the vessel trim and stability booklet, International Load Line Certificate, the hull strength loading manual where provided and with the

- requirements of the International Maritime Dangerous Goods (IMDG) Code where applicable;
- (c) the Cargo Securing Manual specifies arrangements and cargo securing devices provided on board the ship for the correct application to and the securing of cargo units, containers, vehicles and other entities, based on transverse, longitudinal and vertical forces which may arise during adverse weather and sea conditions;
- (d) it is imperative to the safety of the ship and the protection of the cargo and personnel that the securing of the cargo is carried out properly and that only appropriate securing points or fittings shall be used for cargo securing;
- (e) the cargo securing devices mentioned in the Manual shall be applied so as to be suitable and adapted to the quantity, type of packaging and physical properties of the cargo to be carried.
- (f) when new or alternative types of cargo securing devices are introduced, the Cargo Securing Manual shall be revised accordingly and alternative cargo securing devices introduced shall not have less strength than the devices being replaced;
- (g) there shall be a sufficient quantity of reserve cargo securing devices on board the ship;
- (h) information on the strength and instructions for the use and maintenance of each specific type of cargo securing device, where applicable, is provided in the Manual;
- the cargo securing device shall be maintained in a satisfactory condition and items worn or damaged to such an extent that their quality is impaired, be replaced; and
- (j) the Cargo Safe Access Plan (CSAP) provides detailed information for persons engaged in work connected with cargo stowage and securing, and safe access be provided and maintained in accordance with the Plan.

SECURING DEVICES AND ARRANGEMENTS

2.1 Specification for fixed cargo securing devices

This part shall indicate and, where necessary, illustrate the number, locations, type and MSL of the fixed devices used to secure cargo and as a minimum contain the following information:

- (a) a list or plan of the fixed cargo securing devices, which shall be supplemented with appropriate documentation for each type of device as far as practicable, the documentation shall include information regarding:
 - (i) name of manufacturer;
 - (ii) type designation of item with simple sketch for ease of identification;
 - (iii) material;
 - (iv) identification marking;
 - (v) strength test result or ultimate tensile strength test result;
 - (vi) result of non-destructive testing; and
 - (vii) maximum securing load (MSL).
- (b) fixed securing devices on bulkheads, web frames, stanchions, and their types such as pad eyes, eyebolts, where provided, including their MSL;

- fixed securing devices on decks and their types such as elephant feet fittings, container fittings, apertures where provided, including their MSL;
- (d) fixed securing devices on deckheads, where provided, listing their types and MSL; and
- (e) for existing ships with non-standardised fixed securing devices, the information on MSL and location of securing points is deemed sufficient.

2.2 Specification for portable cargo securing devices

This part shall describe the number of, the functional and design characteristics of the portable cargo securing devices carried on board the ship, be supplemented by suitable drawings or sketches, containing the following information:

- (a) a list for the portable securing devices, which shall be supplemented with appropriate documentation for each type of device which shall include information regarding-
 - (i) name of manufacturer;
 - (ii) type designation of item with simple sketch for ease of identification;
 - (iii) material, including minimum safe operational temperature;
 - (iv) identification marking;
 - (v) strength test result or ultimate tensile strength test result;
 - (vi) result of non-destructive testing; and
 - (vii) maximum securing load (MSL);
- (b) container stacking fittings, container deck securing fittings, fittings for interlocking of containers, bridge-fittings, their MSL and use;
- (c) chains, wire lashings, rods, their MSL and use;
- (d) tensioners such as turnbuckles, chain tensioners, their MSL and use;
- (e) securing gear for cars, and other vehicles, their MSL and use;
- (f) trestles and jacks, for vehicles including trailers where provided, their MSL and use; and
- (g) anti-skid material such as soft boards for use with cargo units having low frictional characteristics.

2.3 Inspection and maintenance schemes

This part shall describe inspection and maintenance schemes of the cargo securing devices on board the ship.

- 2.3.1 Regular inspections and maintenance shall be carried out under the responsibility of the master and cargo securing devices inspections as a minimum include:
 - (a) routine visual examinations of components being utilised; and
 - (b) periodic examinations or re-testing as required by the Corporation and the cargo securing devices concerned shall be subjected to inspections, when required.
- 2.3.2 This part shall document actions to inspect and maintain the ship cargo securing devices and entries be made in a record book, to be kept with the Cargo Securing Manual, the record book shall contain the following information:
 - (a) procedures for accepting, maintaining and repairing or rejecting cargo securing devices; and
 - (b) record of inspections.
- 2.3.3 This part shall contain information for the master regarding inspections and adjustment of securing arrangements during the voyage.
- 2.3.4 Computerized maintenance procedures may be referred to in this part.

STOWAGE AND SECURING OF NON-STANDARDIZED AND SEMI STANDARDIZED CARGO

3.1 Handling and safety instructions

This part shall contain:

- (a) instructions on the proper handling of the securing devices; and
- (b) safety instructions related to handling of securing devices and securing and unsecuring of units by ship or shore personnel.

3.2 Evaluation of forces acting on cargo units

This part shall contain the following information:

- (a) tables or diagrams giving a broad outline of the accelerations which can be expected in various positions on board the ship in adverse sea conditions and with a range of applicable metacentric height (GM) values;
- (b) examples of the forces acting on typical cargo units when subjected to the accelerations referred to in paragraph (a) and angles of roll and metacentric height (GM) values above which the forces acting on the cargo units exceed the permissible limit for the specified securing arrangements;
- (c) examples of how to calculate number and strength of portable securing devices required to counteract the forces referred to in paragraph (b) as well as safety factors to be used for different types of portable cargo securing devices, calculations may be carried out according to annex 13 to the CSS Code or methods accepted by the Corporation;
- (d) it is recommended that the designer of a Cargo Securing Manual convert the calculation method used into a form suiting the particular ship, its securing devices and the cargo carried and the form may consist of applicable diagrams, tables or calculated examples; and
- (e) other operational arrangements such as electronic data processing (EDP) or use of a loading computer may be accepted as alternatives to the requirements of paragraphs (a) to (d), providing that the system contains the same information.

3.3 Application of portable securing devices on various cargo units, vehicles and stowage blocks

- 3.3.1 This part shall draw the master attention to the correct application of portable securing devices, taking into account the following factors, as reflected in annex 13 of the CSS Code:
 - (a) duration of the voyage;
 - (b) geographical area of the voyage with particular regard to the minimum safe operational temperature of the portable securing devices;
 - (c) sea conditions which may be expected;
 - (d) dimensions, design and characteristics of the ship;
 - (e) expected static and dynamic forces during the voyage;
 - (f) type and packaging of cargo units including vehicles;
 - (g) intended stowage pattern of the cargo units including vehicles; and
 - (h) mass and dimensions of the cargo units and vehicles.
- 3.3.2 This part shall describe the application of portable cargo securing devices as to number of lashings and allowable lashing angles, where necessary, the text be supplemented by

suitable drawings or sketches to facilitate the correct understanding and proper application of the securing devices to various types of cargo and cargo units.

- 3.3.3 For certain cargo units and other entities with low friction resistance, it is advisable to place soft boards or other anti-skid material under the cargo to increase friction between the deck and the cargo.
- 3.3.4 This part shall contain guidance as to the recommended location and method of stowing and securing of containers, trailers and other cargo carrying vehicles, palletized cargoes, unit loads and single cargo items such as woodpulp, paper rolls, heavy weight cargoes, cars and other vehicles.
- 3.3.5 When weather-dependent lashing is applied, operational procedures shall be developed in accordance with annex 13 of the CSS Code.

3.4 Supplementary requirements for ro-ro ships

- 3.4.1 The manual shall contain sketches showing the layout of the fixed securing devices with identification of strength (MSL) as well as longitudinal and transverse distances between securing points, in preparing this part further guidance shall be utilized from IMO resolutions on Elements to be Taken into Account when Considering the Safe Stowage and Securing of Cargo Units and Cargo Vehicles in Ships and Guidelines for Securing Arrangements for the Transport of Road Vehicles on ro-ro ships.
- 3.4.2 In designing securing arrangements for cargo units, including vehicles and containers, on ro-ro passenger ships and specifying minimum strength requirements for securing devices used, forces due to the motion of the ship, angle of heel after damage or flooding and other considerations relevant to the effectiveness of the cargo securing arrangement shall be considered.

3.5 Bulk carriers

Where bulk carriers carry cargo units falling within the scope of chapter VI/5 or chapter VII/5 of the Safety Convention, the cargo shall be stowed and secured in accordance with a Cargo Securing Manual.

STOWAGE AND SECURING OF CONTAINERS AND OTHER STANDARDISED CARGO

4.1 Handling and safety instructions

This part shall contain:

- (a) instructions on the proper handling of the securing devices; and
- (b) safety instructions related to handling of securing devices and securing and unsecuring of containers or other standardised cargo by ship or shore personnel.

4.2 Stowage and securing instructions

This part is applicable to any stowage and securing system such as stowage within or without cell guides for containers and other standardised cargo. On existing ships, the relevant documents regarding safe stowage and securing may be integrated into the material used for the preparation as prescribed under paragraph 4.2 to 4.4.

4.2.1 Stowage and securing plan

This part shall consist of a comprehensive and understandable plan or set of plans providing the necessary overview on:

- (a) longitudinal and athwartship views of under deck and on deck stowage locations of containers;
- (b) alternative stowage patterns for containers of different dimensions;
- (c) maximum stack masses;
- (d) permissible vertical sequences of masses in stacks;
- (e) maximum stack heights with respect to approved sight lines; and
- (f) application of securing devices using suitable symbols with due regard to stowage position, stack mass, sequence of masses in stack and stack height, the symbols used shall be consistent throughout the Cargo Securing Manual.
- 4.2.2 Stowage and securing principle on deck and under deck
- 4.2.2.1 This part shall support the interpretation of the Stowage and Securing Plan with regard to container stowage, highlighting:
 - (a) the use of the specified devices; and
 - (b) any guiding or limiting parameters such as dimension of containers, maximum stack masses, sequence of masses in stacks, stacks affected by wind load, height of stacks.
- 4.2.2.2 It shall contain specific warnings of possible consequences from misuse of securing devices or misinterpretation of instructions given.

4.3 Other allowable stowage patterns

- 4.3.1 This part shall provide the necessary information for the master to deal with cargo stowage situations deviating from the general instructions addressed under part 4.2, including appropriate warnings of possible consequences from misuse of securing devices or misinterpretation of instructions given.
- 4.3.2 Information shall be provided with regard to, *inter alia*:
 - (a) alternative vertical sequences of masses in stacks;
 - (a) stacks affected by wind load in the absence of outer stacks;
 - (b) alternative stowage of containers with various dimensions; and
 - (c) permissible reduction of securing effort with regard to lower stacks masses, lesser stack heights or other reasons.

4.4 Forces acting on cargo units

- 4.4.1 This part shall present the distribution of accelerations on which the stowage and securing system is based, and specify the underlying condition of stability.
- 4.4.2 Information on forces induced by wind and sea on deck cargo shall be provided.
- 4.4.3 Information on the nominal increase of forces or accelerations with an increase of initial stability and recommendations shall be given for reducing the risk of cargo losses from deck stowage by restrictions to stack masses or stack heights, where high initial stability cannot be avoided.

CARGO SAFE ACCESS PLAN (CSAP)

Merchant Shipping (Carriage of Solid Bulk Cargoes and Oil Fuels)

Government Notice No. 372 (Continued)

- 5.1 Ships which are specifically designed and fitted for the purpose of carrying containers shall be provided with a Cargo Safe Access Plan (CSAP) in order to demonstrate that personnel will have safe access for container securing operations.
- 5.2 The Plan shall detail arrangements necessary for conducting cargo stowage and securing in a safe manner and include the following for all areas to be worked by personnel:
 - (a) handrails;
 - (b) platforms;
 - (c) walkways;
 - (d) ladders;
 - (e) access covers;
 - (f) location of equipment storage facilities;
 - (g) lighting fixtures;
 - (h) container alignment on hatch covers or pedestals;
 - (i) fittings for specialised containers, such as reefer plugs or receptacles;
 - (j) first aid stations and emergency access or egress;
 - (k) gangways; and
 - (l) any other arrangements necessary for the provision of safe access.
- 5.3 Guidelines for specific requirements shall be as provided in Annex to the CSS Code.

Dodoma, 3th May, 2024

MAKAME M. MBARAWA

Minister for Transport