



MARINA CIRCULAR NO. 2015-08

Series of 2015

**TO : ALL PHILIPPINE SHIP OWNERS/ OPERATORS/ CHARTERERS/
MANAGERS OF PHILIPPINE REGISTERED SHIPS; ACCREDITED/
RECOGNIZED ORGANIZATIONS AND ALL OTHERS CONCERNED**

**SUBJECT: RULES AND REGULATIONS ON SUBDIVISION AND DAMAGE STABILITY
REQUIREMENTS FOR PHILIPPINE-REGISTERED DOMESTIC SHIPS.**

Pursuant to the provisions of Presidential Decree No. 474, Executive Order No. 125/125-A, Republic Act No. 9295 and its Implementing Rules and Regulations, and Philippine Merchant Marine Rules and Regulations (PMMRR) '97, the following Rules and Regulations are hereby adopted and prescribed;

I. OBJECTIVES

The purpose of these rules and regulations is to foster the safe operation of Philippine-registered domestic ships covered under this circular, by requiring compliance with the herein prescribed subdivision and damage stability requirement, standards and criteria, thereby minimizing the risk to such ships, their personnel on board and to the marine environment.

II. COVERAGE

This Circular shall apply to Philippine-registered ships to the following:

- cargo ships of 80 m in length (L) and above;
- oil tankers;
- chemical tankers;
- gas carriers; and
- passenger ships except those ships that rely on outriggers for their stability and passenger ships carrying 12 passengers and below.

III. DEFINITION OF TERMS

1. **"Administration"** refers to the Maritime Industry Authority (MARINA).
2. **"Damage Stability"** refers to a ship in the assessed "Worst Intact Condition", analytically damaged by opening various combinations of watertight compartments to the sea. The number of compartments and their location are prescribed by IMO regulations, SOLAS conventions, or other applicable rules. Typically these conditions are identified by the compartment(s) damaged.
3. **"Stability Booklet"** refers to the booklet of stability information for intact and damage conditions provided onboard to enable the master obtain accurate data as to the stability of the ship under varying conditions of service.

IV. GENERAL PROVISIONS

1. The requirements under Resolution MSC.216(82), adopting the regulations on subdivision and damage stability as contained in SOLAS Chapter II-1 which are based on the probabilistic concept, using the probability of survival as a measure of ships' safety in a damaged condition, shall be adopted.
2. All ships covered under this Circular shall be subjected to, and be in compliance with standards, requirements and criteria provided under the Damage Stability Regulation (SOLAS Chapter II-1).
3. In the case of a ship with approved Damage Stability Booklet, where conversion, modifications and alterations are made affecting its righting moment of the ship, such ship shall be subjected to recalculation of damage stability.
4. All ships shall keep a copy of the approved Damage Stability Booklet on board at all times.

V. SCOPE OF STABILITY VERIFICATION AND ASSUMPTIONS FOR CALCULATIONS

1. Damage Stability Requirements

Ships complying with the requirements of the international conventions and codes, listed in the below Table, are not subject to damage stability requirements of SOLAS, Chapter II-1, Part B.

Ship type	Assigned freeboard	Ship length	Compliance with requirements
Oil tanker	Type "A" ship with assigned freeboard less than Type "B"	$L \leq 150$ m	MARPOL, ANNEX I
		$L > 150$ m	MARPOL, ANNEX I + ICLL, Reg. 27
	Not less than Type "B"	Regardless of length	MARPOL, ANNEX I
Gas carrier	Type "A" ship with assigned freeboard less than Type "B"	$L \leq 150$ m	IGC
		$L > 150$ m	IGC + ICLL, Reg. 27
	Not less than Type "B"	Regardless of length	IGC
Chemical tanker	Type "A" ship with assigned freeboard less than Type "B"	$L \leq 150$ m	IBC
		$L > 150$ m	IBC + ICLL, Reg. 27
	Not less than type "B"	Regardless of length	IBC

2. Scope of Stability Verification

The scope of the stability verification should be such as to demonstrate compliance with relevant stability criteria in all anticipated loading conditions. The aim of the verification is to provide the ship's master with a sufficient number of approved loading conditions to be used for the loading of the ship.

For non-approved loading conditions, the ship's master should be provided with instruments to verify compliance with stability criteria. The instruments include:

- KG_{max}/GM_{min} limiting curve, approved by Administration,
- computer software and hardware, approved by Administration.

Such instruments should be provided to verify compliance with stability requirements (intact and after flooding a compartment) for the draft range to be covered.

3. Calculation Methodology

For loading calculations, the initial metacentric height GM and the righting lever curve should be corrected for the effect of free surfaces of liquids in tanks;

- Superstructures and deckhouses not regarded as enclosed can be taken into account in stability calculations up to the angle at which their openings are flooded;
- When calculating the ship's stability after flooding, lost buoyancy method should be used; and,
- The scope of loading instructions and other useful tools, such as KG_{max}/GM_{min} curve and computer software should cover the whole range of cargoes to be carried and variation of cargo loading patterns.

VI. DOCUMENTARY REQUIREMENTS

1. Design Documentation

1.1 Prior to the commencement of the ship's construction, the following documentation should be submitted to Administration:

- 1.1.1 lines drawing;
- 1.1.2 hydrostatic curves (drawing and/or table);
- 1.1.3 cross curves of stability (drawing and/or table);
- 1.1.4 watertight compartments plan with moulded volumes, center of gravity and permeability, as well as calculation guidelines;
- 1.1.5 watertight integrity plan with particulars on openings, their closing devices, watertight bulkheads penetrations, as well as the location of watertight door position indicators and controls;
- 1.1.6 preliminary stability booklet containing loading conditions required by the Administration;
- 1.1.7 preliminary subdivision and damage stability verification, including definitions of damage cases, information on Rule

damage extent, as well as the results of calculations for loading conditions in accordance with stability booklet and all anticipated damage scenarios. The calculations should take into account the real distribution of cargo, density of cargo and consumables, as well as the effect of free surfaces of liquids on stability.

- 1.2 Where necessary, irrespective of calculations demonstrating compliance with damage stability criteria, calculations of possible cross/down flooding effects should be submitted. The calculations should be made in accordance with Annex to MSC.281(85).
- 1.3 If any stability criteria during intermediate flooding stages (before equalization or during replacement of cargo by ballast water) show more severe values than in the final stage of flooding, calculations of these intermediate flooding stages should be submitted to Administration for approval.
- 1.4 If design documentation contains KG_{max}/GM_{min} limiting curve, this curve should be developed in accordance with section V.3.
2. Other specific procedures, guidelines, criteria and standards for the conduct of damage stability calculation/determination shall be based on the applicable provisions of IMO MSC Resolutions 216(82) and 281(85).
3. If the Damage Stability Booklet is invalidated by the Administration or its Recognized Organization after due process, the other Safety Certificate(s) issued to such ship shall automatically be suspended, and the ship shall be under "no sail condition".
4. Non-possession onboard of an approved Damage Stability Calculation shall be considered as major deficiency/major non-conformity warranting immediate suspension/cancellation/non-issuance of other ship safety certificates and authority to operate (CPC/PA/SP).

V. IMPLEMENTATION

1. The Administration, shall henceforth principally undertake the conduct of a ship's stability determination, and attendant evaluations/ calculations/ activities/ issuances, through its duly registered Naval Architect.
2. Duly Accredited Marine Surveying Companies or Recognized Classification Societies authorized to conduct stability determination in behalf of the Administration for Philippine-registered domestic ships shall continue to perform such function, subject to the conditions in Sec. V.3 of this Circular.
3. Upon completion of the needed calculations, whether undertaken by the Administration or its accredited entities, the damage stability booklet shall be approved by the Administration.
4. Applications for the approval of Damage Stability Booklet shall be filed at the concerned Administration Office where the ship is home ported

VI. FEES AND CHARGES

The following fees and charges shall be imposed for purposes of implementing the herein rules and regulations:

1. Review & Approval of Damage Stability Booklet:

Particulars		Fees
1.1	50 GT or less	P 500.00
1.2	Over 50 GT – 500 GT	P 500.00 + P 1.60/GT in excess of 50 GT
1.3	Above 500 GT – 1,500 GT	P 1,500.00 + P 1.60/GT in excess of 500 GT
1.4	Above 1,500 GT	P 4,500.00 ÷ P 1.50/GT in excess of 1,500 GT

VII. FINES AND PENALTIES

1. Operating without an approved Damage Stability Booklet:

Particulars		Fines and Penalties
1.1	50 GT or less	P 50,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
1.2	Over 50 GT – 500 GT	P 100,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
1.3	Above 500 GT – 1,500 GT	P 150,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
1.4	Above 1,500 GT	P 200,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)

2. Failure to secure Approval of recalculation of Damage Stability Booklet due to conversion alteration, modification:

Particulars		Fines and Penalties
2.1	50 GT or less	P 50,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
2.2	Over 50 GT – 500 GT	P 100,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
2.3	Above 500 GT – 1,500 GT	P 150,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)
2.4	Above 1,500 GT	P 200,000.00 plus suspension and/or cancellation of Authority to Operate (no sail condition until compliance)

VIII. TRANSITORY PROVISION

1. New Ships constructed, converted, altered, modified covered shall comply immediately upon the effectivity of this Circular; and,

2. All existing ships covered shall be given the following dates to comply from the effectivity of this Circular.

<i>Particulars</i>		<i>Date of Compliance</i>
2.1	Above 1,500 GT	Not later than 30 October 2016
2.2	Above 500 GT – 1,500 GT	Not later than 28 February 2017
2.3	Over 50 GT – 500 GT	Not later than 30 June 2017
2.4	50 GT or less	Not later than 30 October 2017

IX. REPEALING CLAUSE

The herein rules and regulations accordingly amend Chapter IV of the Philippine Merchant Marine Rules and Regulations of 1997. Any provisions of the PMMRR 1997 and other existing MARINA Circulars which are inconsistent herewith are hereby repealed or modified accordingly.

X. SEPARABILITY CLAUSE

Should any provision or part of this Circular be declared by competent authorities to be invalid or unconstitutional, the remaining provisions or parts thereof shall remain in full force and effect and shall continue to be valid and effective.

XI. EFFECTIVITY

This Circular shall take effect fifteen (15) days after its publication once in a newspaper of general circulation.

Manila, Philippines, 03 November 2015.

BY THE AUTHORITY OF THE BOARD:


MAXIMO Q. MEJIA, JR PhD
Administrator

SECRETARY'S CERTIFICATE

This is to certify that MARINA Circular No. **2015- 08** has been approved by the MARINA Board in its 237th Regular Board Meeting held on 03 November 2015.


ATTY. VIRGILIO B. CALAG
Corporate Board Secretary