



Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

**Amendment No. 1 to
MSN No. 1643/MARPOL 1**

Notice to Shipowners, Masters, Certifying Authorities and Surveyors

The schedule attached to this Notice and the regulations referred to in the schedule are those referred to in the Merchant Shipping (Prevention of Oil Pollution)(Amendment) Regulations 2000.

Summary

- New requirements specifying intact stability criteria for tankers of 5,000 tons deadweight or over, ordered after 1st February 1999, have been introduced by International Maritime Organisation (IMO) Resolution MEPC.75(40).
- “Certifying Authority” is re-defined to include Registro Italiano Navale.

The following part should be added to Schedule 5 of MSN No. 1643/MARPOL 1

Schedule 5A: Intact stability of oil tankers of 5,000 tons deadweight and above

In this Merchant Shipping Notice-

1. a reference to a numbered paragraph is, unless otherwise stated, a reference to the paragraph of that number in the Schedule;
2. a reference to a numbered Schedule is, unless otherwise stated, a reference to the Schedule of that number, in this Merchant Shipping Notice.

The definition of “Certifying Authority” below of MSN No. 1643/MARPOL 1 is amended as follows to include the Italian Classification Society-

“Certifying Authority” means the Secretary of State or any person authorised by the Secretary of State and includes in particular (if so authorised) Lloyd’s Register of Shipping, the British Committee of Bureau Veritas, the British Committee of Det Norske Veritas, the British Committee of Germanischer Lloyd, the British Technical Committee of the American Bureau of Shipping and the British Committee of Registro Italiano Navale.

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*An executive agency of the Department of the
Environment, Transport and the Regions*

Intact Stability

This Schedule gives effect to Regulation 25A of Annex 1 to MARPOL introduced by IMO Resolution MEPC.75 (40)

- (1) The intact stability criteria for oil tankers to which this Schedule applies are specified in subparagraphs (a) and (b) of this paragraph, as appropriate, for any operating draught under the worst possible conditions of cargo and ballast loading, consistent with good operational practice, including intermediate stages of liquid transfer operations. Under all conditions the ballast tanks shall be assumed slack.
 - (a) In port, the initial metacentric height GMO , corrected for free surface measured at 0° heel, shall not be less than 0.15 m;
 - (b) At sea, the following criteria shall be applicable:
 - (i) the area under the righting lever curve (GZ curve) shall be not less than 0.055 m.rad up to $\theta = 30^\circ$ angle of heel and not less than 0.09 m.rad up to $\theta = 40^\circ$ or other angle of flooding θ_f^* if this angle is less than 40° . Additionally, the area under the righting lever curve (GZ curve) between the angles of heel of 30° and 40° or between 30° and θ_f , if this angle is less than 40° , shall be not less than 0.03 m.rad;
 - (ii) the righting lever GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30° ;
 - (iii) the maximum righting arm shall occur at an angle of heel preferably exceeding 30° but not less than 25° ; and
 - (iv) the initial metacentric height GMO , corrected for free surface measured at 0° heel, shall be not less than 0.15 m.
- (2) The requirements of paragraph (1) shall be met through design measures. For combination carriers simple supplementary operational procedures may be allowed.
- (3) Simple, supplementary, operational procedures for liquid transfer operations referred to in paragraph (2) shall mean written procedures made available to the master which:
 - (a) are approved by the Administration;
 - (b) indicate those cargo and ballast tanks which may, under any specific condition of liquid transfer and possible range of cargo densities, be slack and still allow the stability criteria to be met. The slack tanks may vary during the liquid transfer operations and be of any combination provided they satisfy the criteria;
 - (c) will be readily understandable to the officer-in-charge of liquid transfer operations;
 - (d) provide for planned sequences of cargo/ballast transfer operations;
 - (e) allow comparisons of attained and required stability using stability performance criteria in graphical or tabular form;

* θ_f is the angle of heel at which openings in the hull, superstructures or deck-houses, which cannot be closed weathertight, immerse.
In applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open.

- (f) require no extensive mathematical calculations by the officer-in-charge;
- (g) provide for corrective actions to be taken by the officer-in-charge in case of departure from recommended values and in case of emergency situations; and
- (h) are prominently displayed in the approved trim and stability booklet and at the cargo/ballast transfer control station and in any computer software by which stability calculations are performed.