

The Britannia Steam Ship Insurance Association Limited

Managers Tindall Riley (Britannia) Limited New City Court 20 St Thomas Street London SE1 9RR

Tel +44 (0)20 7407 3588 Fax +44 (0)20 7403 3942 www.britanniapandi.com

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TO ALL MEMBERS Sent by fax/email

Bulletin

Carriage of Nickel Ore from Indonesia, New Caledonia and the Philippines

In recent weeks three ships loaded with Indonesian nickel ore have capsized and sunk with tragic loss of life. It is not yet clear exactly what caused the loss of these ships but Members are reminded of the importance of ensuring that nickel ore cargo is safe to load and are aware of the dangers of liquefaction.

The normal vibration of a ship can cause apparently dry nickel ore to transform into fluid form, with potentially serious consequences for the ship's stability. The problem is particularly acute with cargo from ports that stockpile the ore in open conditions, such as those in Indonesia, New Caledonia and the Philippines.

Nickel Ore is subject to the provisions of SOLAS and the International Maritime Solid Bulk Cargoes (IMSBC) Code regarding the testing and certification of cargoes that are liable to liquefy – 'Group A' hazards. Sections 4, 7 and 8 of the IMSBC Code deal with the assessment of acceptability of consignments for safe shipment and the production of test certificates showing the 'transportable moisture limit' (TML) and also the actual moisture content of cargoes. The TML must be established by a competent laboratory for each shipment of nickel ore. The 'flow moisture point' (FMP) of any cargo that may liquefy is absolutely critical and must be identified by an approved laboratory.

The TML is defined as 90% of the FMP and the safety margin provided by the lower TML should never be compromised. The Master of the ship must be satisfied that testing has been carried out strictly in accordance with the procedures set out in Appendix 2 of the IMSBC Code.



Shippers of nickel ore have often issued certificates based on sampling and testing carried out by the mine's own laboratory which renders the values certified by shippers as questionable. Cargo documentation provided for nickel ore cargo is often deficient and does not alert the crew to the potential danger of the cargo liquefying. It is essential for the safe operation of the ship that the Officers on board fully understand the characteristics of the cargo to be loaded. Many of the load ports in the countries specified are in remote areas and this means a cargo surveyor will require plenty of time to travel to the port and carry out the required investigations and tests. The non-homogenous nature of nickel ore is known to cause significant difficulties when experts try to determine its suitability for carriage.

In view of these recent casualties and the difficulties likely to be faced if fixed to carry the cargo, Members fixing long-term charters should consider listing nickel ore as a prohibited cargo. Alternatively, if Members are to fix a ship to load nickel ore then consideration should be give to including a protective clause in the charter which ensures that any cargo to be shipped is compliant, and loaded in accordance, with all applicable international regulations including the IMSBC Code. The Master should be left the absolute discretion to reject any cargo where there is a risk of liquefaction or to refuse to sail with such cargo onboard.

Additionally, Members who aim to trip or voyage charter a ship to load nickel ore from ports in Indonesia, New Caledonia and the Philippines are advised to contact the Managers and the Association's local Correspondent at the earliest opportunity in order to arrange for guidance and expert assistance to be provided.