

## **M.S. NOTICE NO. 31 OF 2009**

-

No.11-NT (43)/2009

Dated : 23.09.2009

**Subject : Safe loading of solid bulk cargo with special reference to Iron ore fines from Indian ports**

### **1. Background**

1.1. The recent shipping casualties pertaining to the carriage of solid bulk cargo on General Cargo/ Bulk carrier ships from Indian ports has revealed negligence of Shippers, Ship Masters and Port Authorities in complying with the applicable International and National regulations for safe carriage of solid bulk cargo. The contravention of these regulations may have resulted in shifting of cargo at sea and even capsizing and sinking of ships in Indian waters. To prevent these incidents, the applicable IMO instruments such as Safety Conventions, Codes etc. impose obligations and prescribe guidance to Shippers, Port Terminals, Ship Masters and Owners for safe carriage of solid bulk cargo on ship.

### **2. The applicable International/National regulations in this respect are as follows:**

#### **2.1 SOLAS 1974 as amended**

2.1.1 Regulation 2 of Chapter VI, i.e. Declaration by shipper on information relating to stowage factor, trimming procedures, likelihood of shifting, including angle of repose and any other relevant special properties of the cargo.

2.1.2 Regulation 6 of Chapter VI, i.e. Acceptability for shipment for bulk cargoes

2.1.3 Regulation 7 of Chapter VI, i.e. Loading, Unloading and Stowage of bulk cargoes in accordance with Code of Practice of Safe Loading, Unloading of Bulk Carriers (BLU) Code.

2.1.4 Regulation 10 of Chapter XII, i.e. Solid bulk cargo density declaration in case of heavy density cargo by the Shipper.

#### **2.2 Code of safe practice for solid bulk cargoes - B.C. Code**

2.2.1 Section 2 - General precautions recommended when detailed information is not available for high density bulk materials.

2.2.2- Section 3 - Safety of personal and ship.

2.2.3- Section 4 - Assessment of acceptability for safe shipment

2.2.4- Section 5 - Trimming procedures

#### **2.3 Code of practice for the safe loading and un-loading of bulk carriers- BLU Code**

2.3.1- Section 2 - Suitability of ships and terminals

2.3.2- Section 3 ' Procedures between ship and shore prior to ship's arrival.

2.3.3- Section 4- Procedures between ship and terminal prior to cargo handling

2.3.4- Section 5- Cargo loading and handling of ballast

**2.4 Cargo Rules framed under M.S. Act. 1958- M.S. (Carriage of Cargo) Rules, 1995** 2.4.1- Rule 4- Cargo information

2.4.2- Rule 14- Carriage of solid bulk cargo other than grains

### **3. Lessons Learnt from the recent cargo related shipping casualties**

3.1- Since India is one of the major exporting nations of iron ore and other solid bulk cargoes listed in the B.C. Code, the Directorate has examined the issue relating to the carriage of such cargoes by ships in depth and taking into account some of the following lessons learnt from recent casualties occurred in Indian waters

3.1.1 Shipper declaration as required by Regulation 6/10 of SOLAS 74 chapter VI/XII respectively & Rule 2 of M.S. (Carriage of Cargo) Rules was not made by the Shipper to the Master in advance.

3.1.2 Ship Master/Port Terminal do not generally discharge their obligation as prescribed in BLU Code section 2, 3 & 4 with respect to loading of cargo from wet pile lying in the port during the rainy/south west monsoon period.

3.1.3 Ship Master/Port Terminal do not notify the port state authorities in such event.

3.1.4 Ship Master/Port Terminal do not ensure that vessel sail out in seaworthy condition as required by section 336/342(unsafe ship) of Indian Merchant. Shipping Act. 1958.

3.1.5 Ship Master/Port Terminal do not verify the Moisture content prior to vessel's departure from the Indian port

3.1.6 Ship owner/Ship Master/Port Terminal do not recognize the serious consequences of not following the guidelines for loading of bulk cargoes which has direct impact in terms of pollution, danger to navigation, loss of life and property.

### **4. Instructions to Ship Owner, Ship Master, Shipper and Port Terminal**

4.1 In view of the circumstances, the following instructions conforming to National/International regulations including prevailing International Practices are prescribed for safe carriage of solid bulk cargo from Indian ports/Indian waters.

#### **4.2 Ship**

4.2.1 Ship-owner Shall comply with additional safety measures for bulk carriers as specified in Chapter XII of SOLAS 1974

4.2.2 Ship Master shall ensure to obtain Cargo Information and Solid bulk cargo density declaration from the Shipper in the prescribed format of IMO as per the National/International Regulations. Where additional details, such as trimming or continuous measurement of water in the cargo etc. are required, the Master should inform the terminal accordingly.

4.2.3 The Ship Master should ensure that bilge lines, sounding pipes and other servicelines within the cargo space are in good order in view of high velocity at which such heavy density bulk materials are

loaded. For this reason, it is also prudent on part of the Ship's crew to sound bilges after the completion of loading.

4.2.4 The Ship owner/Ship Master should ensure that the cargo loaded on board is trimmed reasonably to the boundaries of the cargo space to minimize the risk of bulk material shifting.

4.2.5 The Ship owner/Ship Master should ensure to fill up the cargo spaces as full as practicable without resulting in an excessive mass of the material on the bottom structure or tween- deck.

4.2.6 The Ship owner/Ship Master should verify the angle of repose/moisture content. If in any doubt on the cargo information/density declaration provided by the Shipper the Ship Master shall verify the same by adopting the procedures as specified in section 4/6 of B.C. Code.

4.2.7 The Ship owner/Ship Master shall has the right to stop the loading or unloading in case of non compliance with the agreed loading or unloading plans or any other situation which endanger the safety of ship.

4.2.8 The Ship Master is responsible at all times for the safe loading or unloading of the ship. In doing so, the Master shall ensure that terminal representative is made aware of the cargo trimming requirements.

4.2.9 The Ship Master should also ensure that there is agreement between the ship and the shore as to the action to be taken in the event of rain or other change in the weather, which may cause the nature of cargo to change posing hazards to the ship.

4.2.10 The Ship owner should closely monitor the loading/unloading operations and provide adequate resources and shore based support to Master and it should be so prescribed in the Company's Safety Management System developed, implemented and maintained under the ISM Code.

4.2.11 The Ship Master, in the event of any interference by the external sources should not hesitate to use his overriding authority provided under the Safety Management System and discretion as specified in Regulation 34-1 of SOLAS Chapter V.

4.2.12 The Ship owner/Ship Master shall ensure that the ship is suitable for loading solid bulk cargo and weather tight, efficient in all respect for the normal perils of the sea and the intended voyage

4.2.13 The Ship owner/Ship Master shall ensure that the ship is provided with approved stability of loading booklet written in a language understood by ship's officers concerned and using standard expressions and abbreviations.

4.2.14 The Ship owner/Ship Master shall ensure that a copy of the agreed loading or unloading plan and any subsequent amendments to it is lodged with the appropriate authority of the port state as notified by the D.G. Shipping.

4.2.15 The Ship owner/Ship Master should not hesitate in notifying the nearest Port State Control Authority for timely intervention, in case of any breach of the provisions of BLU Code or SOLAS is apprehended.

4.2.16 The Ship Owner/Ship Master are encouraged to participate in the prevailing ship reporting system such as INDSAR and others prior to the departure of their vessel/s from Indian ports and during the intended voyage.

### **4.3 Shipper**

4.3.1 The Shipper shall provide the 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.

4.3.2 The Shipper shall confirm such information in writing (this does not preclude the use of Electronic Data Processing - EDP and Electronic Data Inter change- EDI) to the Master in appropriate shipping document prior to loading cargo on the ship.

4.3.3 The Shipper shall provide cargo information on the stowage factor of the cargo, the trimming procedure, likelihood of shifting including angle of repose and any other relevant special properties.

4.3.4 The Shipper shall provide an additional information in the case of concentrate or other cargo which may liquefy in the form of a certificate on the moisture content of the cargo and its transportable moisture limit.

4.3.5 The Shipper shall verify the moisture content, transportable moisture limit and the density of solid bulk cargoes and declare such information in the IMO standard format for cargo information as prescribed in MSC/Circ.663.

4.3.6 The Shipper shall ensure that the cargo information with regard to moisture content/transportable moisture limit and cargo density is verified by an accredited testing organization i.e. in accordance with MSC/Circ.908.or laboratories enlisted with National Accreditation Board for Testing and Calibration Laboratories (NABL) or prevailing customary practices in the solid bulk cargo trade.

### **4.4 Port Terminal**

4.4.1 The Port Authorities shall ensure that shipper gives the latest and accurate cargo information along with moisture content , transportable moisture limit, cargo density declaration and other details as specified in Para 2 of this Notice.

4.2.2 If such shipments (solid bulk cargo) are transported in ships other than bulk carriers, then Port terminal should ensure that the ship has proper documentation (approved stability booklet and a copy of applicable codes/conventions for reference) issued by the flag state and complies with the applicable provisions of the BC Code prior to the commencement of loading of cargo and, during loading of cargo and care required of the cargo during transit.

4.4.3 The Port terminal shall ensure that the applicable provisions of the (safe Loading and Unloading of bulk carrier) under BLU Code with regard to ships and terminals are strictly complied with.

4.4.4 The Port terminal should ensure that the stockpile of such cargoes in port areas is covered to the extent possible in the wet weather to avoid excessive moisture content in the cargo which may exceed the transportable moisture limit at the time of loading.

4.4.5 The Port authorities shall have the right to stop the loading or unloading of solid bulk

cargoes when the safety of the ship carrying such cargoes is endangered.

4.4.6 The Terminal operators shall be required to comply with the relevant IMO Codes and recommendations on ship/ port co-operation.

4.4.7 The Port terminal personnel should be trained in all aspects of safe loading and unloading of bulk carriers, commensurate with their responsibilities.

4.4.8 The Port terminal representative should monitor the weather conditions and provide the Master with the forecast of any local adverse weather condition.

4.4.9 The Port authority should not hesitate in notifying the nearest port state control authority for timely intervention, in case of any breach of provisions of BLU Code or SOLAS 1974 is apprehended.

4.4.10 The Port should advise the Master of such vessels (vessels loading solid bulk cargoes) to participate in the prevailing Ship Reporting System such as INDSAR and others during their intended voyage.

All concerned in the safe carriage of solid bulk cargoes from Indian ports or places are urged to comply with these directives and failing which an appropriate legal action as prescribed in Indian M.S. Act, 1958 and Rule 23 (a)/(b) of M.S. (Carriage of Cargo) Rules, 1995 shall be taken.

**Sd/-**

**(Capt. Deepak Kapoor)**

**Nautical Surveyor-cum-DDG (Tech)**