

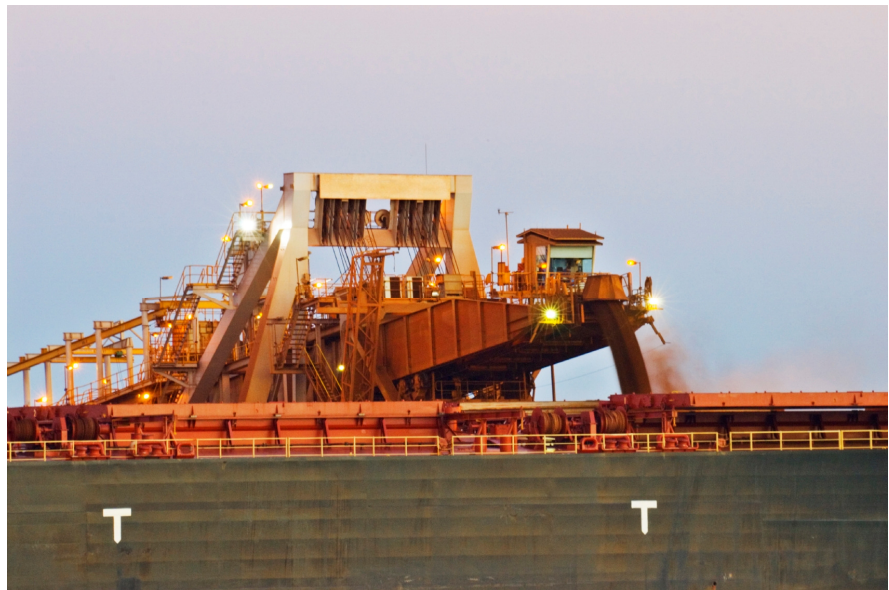
Indian Iron Ore – Excessive Moisture Content

There have recently been further casualties and incidents following the loading and carriage of iron ore fines from Indian ports. Two vessels have been lost and one developed a list following departure and had to return to the load port, as following heavy monsoon rains, cargoes had been loaded with an excessive moisture content.

When concentrates of other cargoes that may liquefy are to be loaded shippers are obliged by SOLAS chapter VI to provide in advance a valid certificate stating the moisture content of the cargo in question and the allowable transportable moisture limit (TML). Cargo with a moisture content that exceeds its transportable moisture limit is liable to liquefy. Should that occur, the stability of the vessel will be compromised and may result in severe consequences, including the potential loss of the vessel.

Masters loading these cargoes must satisfy themselves that the cargo is safe to carry. They need to ensure not only that the actual moisture content is below the TML, but also that the information in the moisture content certificate is valid: for example, a moisture content analysis carried out at a different location, or at some time in the past may be of little value if the cargo has been sitting in the open immediately prior to shipment, unprotected from rain.

If the Master reasonably believes that the moisture content of a cargo may be excessive, possibly based on visual observation during loading, he should take a series of samples and carry out a "can test" as detailed in the Code of Safe Practice for Solid Bulk Cargoes (BC Code) or the International Maritime Solid Bulk Cargoes (IMSBC) Code. This is a rudimentary test. It will not indicate definitively whether a bulk cargo does



contain excessive moisture; however, it may provide evidence allowing the Master to require further testing to be carried out on the cargo in order to assess whether it is safe to carry. It is recommended that the Master undertake such tests when he believes that a cargo may be excessively moist and/or that liquefaction may occur. If in doubt, he should seek assistance from the Club's local correspondent.

It is recommended that Members loading these cargoes instruct their Masters to proceed with extreme caution and to contact the Managers' London representatives if they have any concerns. Masters may face considerable local pressure to load and sail. Such pressure should be resisted where the cargo potentially presents a threat to the safety of the vessel and the crew; Steamship Mutual's highly experienced, well established and widespread correspondent network in

India will be able to assist in such circumstances.

The principles and potential problems involved in the carriage of this type of cargo are not necessarily limited to Indian iron ore. It is important that the correct regulations are complied with and precautions observed when loading similar cargoes anywhere in the world.

For further information on this or other Loss Prevention topics please contact the Loss Prevention Department, Steamship Insurance Management Services Ltd.

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