

Solid bulk cargo liquefaction



Over a number of years, problems arising from the carriage of certain types of cargo have required both the International Group and its Clubs to coordinate efforts with other industry associations – in particular, the IMO. Last year, three vessels sank carrying cargoes of nickel ore from Indonesia to China, with the loss of 45 seafarers.

While the cause of these casualties has not yet been definitively determined, nickel ore (like iron ore fines) is a cargo that is likely to liquefy if its moisture content exceeds the Transportable Moisture Limit when loaded. Liquefaction of ore cargoes can also be caused by the normal incidents of a sea voyage, for example, the motion of the ship in the seaway or vibrations caused by the running of the main engine or other onboard machinery.

Liquefaction of such cargo can result in a loss of stability, which in turn can lead to a vessel capsizing. It is therefore very possible that all three vessels were lost as a result of cargo liquefaction. There have been a number of other recent reports of cargoes of nickel ore – loaded in both Indonesia and the Philippines – liquefying and causing loss of stability to the carrying vessel, although fortunately none resulted in the loss of the vessel. In one such case the carrying vessel grounded, causing extensive hull damage.

The International Group has been co-operating with other industry organisations, including Intercargo, ICS and Bimco, to inform shipowners of the dangers

associated with the carriage of solid bulk cargoes that have a propensity to liquefy, and the importance of ensuring that shippers comply with the requirements of the IMSBC Code. In this context, the International Group has co-sponsored papers on the issue, which have been submitted to the IMO Maritime Safety Committee, and most recently the 16th Session of the IMO Sub-Committee on Dangerous Goods and Solid Bulk Cargoes held in September 2011. The International Group has also written to a number of states and to individual shippers expressing its concerns around the subject, as well as organising a number of meetings with relevant industry players and experts to address the technical issues arising in relation to the loading and carriage of such cargoes.

The International Group will continue to work with other industry associations to promote the reduction or elimination of the risks in this area.