



MARINE ENVIRONMENT PROTECTION  
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## ROLE OF THE HUMAN ELEMENT

### Fair treatment of Seafarers

Submitted by BIMCO, ICS, IFSMA, IGP&I, INTERCARGO, INTERMANAGER,  
INTERTANKO, ISF, ITF, IUMI and SIGTTO

#### SUMMARY

<i>Executive summary:</i>	This document provides the industry's comments in support of the actions of Chawla Jasprit Singh and Chetan Syam, the Master and Chief Officer of <b>M/T Hebei Spirit</b> , following the striking of the <b>M/T Hebei Spirit</b> , by the crane barge <b>Samsung No. 1</b>
<i>Strategic direction:</i>	-
<i>High-level action:</i>	-
<i>Planned output:</i>	-
<i>Action to be taken:</i>	Paragraph 24
<i>Related document:</i>	A 26/INF.4

### Background

1 This document has been submitted to highlight, from a technical perspective, the view of the co-sponsors on the actions of the officers of the **M/T Hebei Spirit** which led to them being held guilty of criminal negligence by the Korean Supreme Court in April 2009. The case also raises issues relating to the international rules and regulations under UNCLOS and MARPOL and the wider issue of fair treatment of seafarers when acting in accordance with standards agreed by industry and governments.

### Introduction

2 On 23 April 2009 the Korean Supreme Court made its ruling in the **M/T Hebei Spirit** case, upholding the Master's and Chief Officer's guilty verdicts of criminal negligence relating to causing of marine pollution and thus not reinstating the innocent verdict of the first instance court.

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3 The co-sponsors are, however, of the view that following the incident these two officers followed the good practices observed by seafarers and both acted correctly according to these good practices but were still penalized for their professional and correct actions. The co-sponsors are submitting this document to provide their comments in support of the actions taken by Master Chawla Jasprit Singh and Chief Officer Chetan Syam following the striking of the **M/T Hebei Spirit** by the crane barge **Samsung No. 1** on the morning of 7 December 2007.

4 Whilst a further, more elaborate submission will be made to the Legal Committee, we have confined our comments in this document to comparing the technical actions undertaken by the Master and Chief Officer with those technical aspects relating to the usual accepted good practices within the tanker industry and the general good practices of seamanship and tanker safety. We believe that the two officers behaved in a way that was fully consistent with these good practices and with international tanker standards which emphatically put the safety of the seafarer first.

5 The following paragraphs deal with three technical aspects where the Master and Chief Officer were deemed by the Korean Authorities to violate their duty of care following the collision. The co-sponsors consider that the crew acted fully in accordance with good seamanship and best practices.

#### **Verifying Vessel Integrity (Soundings)**

6 The co-sponsors understand that the Master and Chief Officer of the **M/T Hebei Spirit** were criticized for their decision to undertake soundings prior to taking immediate measures to reduce spillage.

7 Following any collision, stranding, grounding or contact damage it is imperative for the safety of the vessel and those onboard, that the water tight integrity of the vessel is verified. The need to establish the actual state of a casualty vessel as a first response is underlined in many accident investigation reports. There is, however, only one recognized method of verifying this on any vessel and that is by sounding all the tanks and spaces onboard the vessel. The Master will need to obtain detailed information on the damage sustained by the ship and, whilst many tankers have remote ullaging and sounding equipment fitted onboard, which is regularly tested, calibrated and used, the reason for reverting to hand soundings following any contact damage is due to the absolute certainty provided by this method. Some damage may well be self evident, if this has resulted in the outflow of oil externally outside the ships shell, however it must be borne in mind that damage may also have been caused that is not immediately self evident, such as internal damage either between cargo tanks, or between cargo tanks and ballast spaces or vice-versa, this is why it is so important to verify the condition of all spaces onboard the vessel, because otherwise, transferring oil from one damaged tank to another damaged tank would be futile and could even exacerbate the situation or have an adverse affect upon the stability of the tanker.

8 The co-sponsors believe it is the good practice of seafarers to manually ascertain the condition of all spaces onboard the vessel and also to ensure that any space used for oil contamination is sound, prior to any subsequent oil transfer into that space even though it is a time-consuming process. Consequently, the co-sponsors concur with the most recent guidance regarding the provision of Shipboard Marine Pollution Emergency Plans (SOPEPS) as produced by IMO: resolution MEPC.54(32) as amended by resolution MEPC.86(44) and contained in the IMO publication "Guidelines for the development of Shipboard Marine Pollution Emergency Plans" 2001 edition which clearly states in section 2.5.3.1.2: "... A visual inspection should be carried out and all cargo tanks, bunker tanks and other compartments should be sounded".

### **Safety Actions Following Collision (Inert Gas)**

9 The co-sponsors understand that the Master and Chief Officer of the **M/T Hebei Spirit** were criticized for their decision to inject inert gas into the cargo tanks due to their concerns that the cargo tanks may explode, as it was claimed that this increased the oil spillage due to the increased pressure in the cargo tanks.

10 The risk of explosion during or following a collision is a very real threat to the safety of any tanker. Therefore, an immediate concern of any tanker Master following a collision which has resulted in rupture to a cargo tank, will be the prevention of fire or explosion. This has been recognized by the IMO in its “Guidelines for the development of Shipboard Marine Pollution Emergency Plans” 2001 edition, section 2.5.3.1.1:

11 “In responding to a casualty, the master’s priority will be to ensure the safety of personnel and the ship and to take action to prevent escalation of the incident. v In casualties involving spills, immediate consideration should be given to measures aimed at preventing fire, personnel exposure to toxic vapours, and explosion, such as altering course so that the ship is upwind of the spilled cargo, shutting down non-essential air intakes, etc. If the ship is aground and cannot therefore manoeuvre, all possible sources of ignition should be eliminated ...”.

12 Importantly, the SOPEP makes reference directly to preventing the “ingress of air”, because the atmosphere within the cargo tank would become diluted by the air and thus the tank atmosphere could pass through the flammable range. So by ensuring the supply of inert gas instead of air into the cargo tank, the ingress of air is prevented and the atmosphere of the cargo tank is maintained outside the flammable range.

13 The co-sponsors concur with the SOPEP that the actions of a Master in ensuring that priority is given to the safety of the vessel and those onboard is the correct approach to take, and when the safety of both the ship and personnel has been addressed, the Master can initiate mitigating activities according to the guidance as provided in the guidelines.

14 In our collective opinion, this further clearly indicates the importance of inert gas systems, where fitted, in preventing fires and explosions onboard tankers. Indeed, as the Committee will be aware, the IMO is currently reviewing the existing inert gas regulations for certain new tankers in recognition of the safety benefits attained from inert gas in preventing fires and explosions.

15 In our collective opinion, the application of inert gas to a ruptured cargo tank is unequivocally the correct and safest procedure to follow. By inerting the cargo tanks and safeguarding further damage to the vessel; by ensuring the safety and lives of those onboard; by preventing the risk of fire and/or explosion; all such actions actually contribute to the “protection” of the environment. These steps can prevent the escalation of an incident which could otherwise result in catastrophic consequences for the vessel, the crew, and for the surrounding environment.

16 The co-sponsors would also like to stress that, any conclusion to the contrary regarding the use of inert gas in such situations will have very serious safety consequences for the tanker industry.

### **Pollution Prevention Actions Following Collision (List and Transfer)**

17 The co-sponsors understand that the Master and Chief Officer were criticized for not transferring cargo from the damaged cargo tanks to the undamaged tanks by operating cargo pumps at full rate and for not listing the vessel sufficiently to minimize the outflow from the ruptured tanks.

18 When undertaking a cargo transfer following an incident which has resulted in damage to one or more cargo tanks, once the Master has obtained detailed information by soundings, regarding the full extent of any damage sustained, he can then make an assessment of any necessary remedial action. This may include cargo transfer; any cargo transfer following a casualty must however take into account the stability and strength of the vessel.

19 Where undamaged cargo tanks are to be used to receive transferred cargo, then intact cargo tanks are ideal for the purpose, because main cargo transfer pumps can be used at high speed into an empty tank.

20 However, in a situation where all the cargo tanks are almost full (in this case in the region of between 95% to 97% capacity), any subsequent cargo transfer into these tanks will have to be at a controlled slow pumping speed, (as described in any Tanker Operation Manual for “topping off”), to ensure there is no resulting spillage on deck.

21 Transferring cargo into almost full tanks which are filled to between 95% to 97% will therefore take much longer than if empty cargo tanks are used to receive the transferred cargo. Consequently, to a person unfamiliar with tanker operations this could be mistakenly perceived as an unnecessary slow response.

22 With regard to the matter of listing the vessel after an incident that results in rupture of the vessel’s cargo tanks, it is our view there is no optimum amount of list that should be applied, or that should or should not be attained, because this will very much depend upon the individual circumstances of each case, including but not limited to matters such as the extent of damage sustained, the location of the damage, (above or below the water line and subsequent effect on hydrostatic balance), the intact stability of the vessel, the capabilities of the ship and the prevailing weather conditions. However, we hold the view that 10 degrees is a large list and will make working on and movement around the vessel difficult and potentially unsafe.

### **Conclusion**

23 This document highlights, from a technical perspective, the view of the co-sponsors that the officers of the **M/T Hebei Spirit** acted in accordance with the applicable guidelines and customary practice in the tanker industry. It is also the joint view that if any doubt is allowed to continue as to the merit of these actions then there will be considerable and serious uncertainty within the industry. In addition to these important technical concerns and as stated above, the guilty verdict raises broader issues relating to the international rules and regulations under UNCLOS and MARPOL which also require serious consideration. Accordingly, a further document will be submitted commenting on these issues and the wider issue of fair treatment of seafarers when acting in accordance with standards agreed by Industry and Governments and contained in guidelines adopted under the auspices of the IMO.

### **Action requested of the Committee**

24 The Committee is invited to note the comments expressed in this document and comment as appropriate.