

Chemical tanker accidents and the 2010 HNS convention

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Abstract

The 2010 HNS Convention covers any damage caused by the carriage by sea of hazardous and noxious substances in the territory or territorial sea of a State Party to the Convention. The costs of preventive actions, i.e. measures to avoid or minimize damage, are also covered wherever taken. The HNSC includes preventive measures as any reasonable measures taken by any person after an incident has occurred to prevent or minimize damage, i.e. actions such as clean-up or removal of HNS from a wreck if the HNS present a hazard or pollution risk. It seems that after the CLC (1992), much environmental legislation has lost the concept of pro-activeness/prevention of an environmental hazard and are more focused on compensation and reactivity. This approach is not consistent with the purpose of environmental legislation and the examination of the basic principles of HNSC in parallel with distinctive environmental hazards, proves this theory of reactive strategy.

Keywords: HNS, CLC, Chemical Tankers, IMO.

1. Introduction

The 2010 HNS Convention established a regime which is primarily modelled on the preexisting legislation for oil pollution from tankers based on the International Convention on Civil Liability for Oil Pollution Damage, 1992 (CLC) which includes pollution damage caused by spills of persistent oil from tankers.

The HNS regime is governed by the 2010 HNS Convention, the purpose of which is to provide sufficient, prompt and adequate compensation for loss or damage to personnel, property and the environment arising from the carriage of HNS by sea. The Convention includes both pollution damage and damage caused by other risks, e.g. fire and explosion (Radović et al., 2012). Under the 2010 HNS Convention, the shipowner is liable for the loss or damage up to a certain amount, which is covered by insurance (1st tier). A compensation fund (the HNS Fund) will provide additional compensation when the victims do not obtain full compensation from the shipowner or its insurer (2nd tier). The HNS Fund will be funded by those companies and other entities which receive HNS after sea transport in a member state over the thresholds laid down in the Convention (Cunha, 2015).

2. Main Provisions of HNS Convention

2.1 Tier 1 – Liability of the shipowner

Tier 1 of the Convention imposes: (a) Strict liability for the shipowner. The registered owner of the ship in question is strictly liable to pay compensation following an incident involving HNS. This means that he is liable, even in the absence of fault on his part. (b) Limitation of liability: The shipowner usually is entitled to limit his liability under the 2010 HNS Convention in respect of any one incident to an aggregate amount calculated on the basis of the units of gross tonnage (G.T.) of the ship as follows: The shipowner will be denied the right to limitation of liability if it is proved that the damage resulted from his act or omission committed either, with intent to cause damage, or recklessly and with knowledge that damage would probably result. (c) Channelling of liability. As set out above, the registered shipowner is liable for pollution damage under the 2010 HNS Convention. Unless the damage resulted from his act or omission committed with intent to cause such damage, or recklessly and with sufficient knowledge that such damage would probably result. (d) Compulsory insurance: The owner of a ship that carries HNS is required to provide insurance policy to his vessel, or maintain other sufficient financial security to cover his liability under the 2010 HNS Convention.

2.2 Tier 2 – HNS Fund

The HNS Fund will pay compensation when the total admissible claims exceed the shipowner's liability, i.e. the Fund pays "top up" compensation when the shipowner, or his insurer, cannot meet in full the loss or damage arising from an incident. The HNS Fund also pays compensation in the following cases: a) the shipowner is exonerated from liability or b) the shipowner is liable for the damage caused, but he is financially incapable of meeting his obligations.

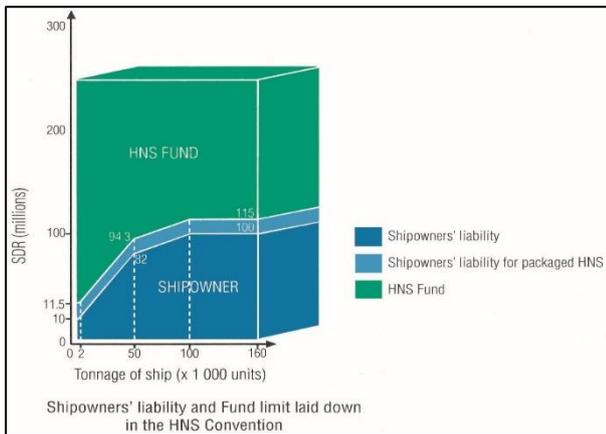


Figure 1. Compensation amounts under the 2010 Convention

The maximum amount payable by the HNS Fund in respect of any single incident is 250 million SDR, including the sum paid by the shipowner or his insurer. The 2010 HNS Convention also provides a financing of the HNS Fund. Below we present a graph depicting the ship-owner's liability and fund limit according to the HNSC (Harold et al., 2014).

3. The need for a proactive system

Below we present a short analysis of related maritime accidents that involved serious pollution due to chemical spills (Hakkinen et al., 2014). It would be relevant and consistent to your previous analysis on liability and compensation on HNS accidents, to provide data on the effects of these accidents (on human life and health, environment, property, economy etc). And probably estimations of the amounts of compensation, if they are available.

(i) The casualty of M/T "**Bahamas**" at Rio Grande (1998), a chemical tanker carrying sulfuric acid, suffered a leakage in the cargo pump room and subsequently loss of pressure in the hydraulic oil system. The accident report suggested the need for a *contingency plan*, as recommended by IMO, in order to improve the efficiency of the response operations and also to minimize the environmental consequences of such accidents. In the aftermath, there were many holes in the hull and the cargo tanks. As a result a considerable thickness reduction of the ship's structure was indicated, whereas the port was contaminated for months.

(ii) The casualty of M/T "**Panam Serena**" in Porto Torres, Sardinia, Italy (2004), a chemical tanker carrying benzene and cut C6. While the benzene discharge was completed and the vessel was close to completion of discharge of the C6, the ship exploded and caught fire. As an aftermath, the ship suffered catastrophic damage, and it was declared a constructive total loss (CLT). The accident report suggested that the most probable cause of the initial explosion was due to a static or electrical discharge of sufficient strength to

create ignition source within a volatile environment which had developed on board the vessel.

(iii) On 15 March 2012, the chemical tanker "**Stolt Valor**" (15,732gt, built 2004) carrying 13,000 tons of methyl tertiary-butyl ether (MTBE), suffered an explosion in international waters off Ras Tanura. The crew were evacuated by the US Navy and salvors appointed by the ship-owner to respond to the incident. In the following days, attempts to tow the vessel further away from the coast were made, until the towline broke in bad weather and the vessel drifted off Bahrain towards Qatar with the fire still raging. A towline was successfully re-established on 19 March a few nm from the coast of Qatar and the casualty was eventually towed offshore. No place of refuge was granted by the 4 neighboring states in order to carry out safe removal and lightering of the fuel oil and remaining cargo.

4. Conclusion

The 3 afore-mentioned accidents of chemical tankers have initially shown the dangerous nature of such cargoes and then how they should be transported to their final destination. It seems that, from the loading and stowage operations, the preventive measures during the transportation of cargo while at sea, until the discharge and delivery of it, a lot of risks are involved and it is of primary concern that the crew has acquired the knowledge to manage these types of cargo.

However, the convention includes many vague and repeating clauses that are identical to the platform set by the CLC, as most conventions prepared by IMO, referring to limitation of liability. Chemical spills are quite different from oil spills not only by assessing the damage to the environment but how they should be either prevented and/or dealt with, i.e. chemical dispersants used to break the oil slick are more toxic than the oil itself.

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