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Civil Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances: Chinese Perspective

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Abstract

The International Convention on Liability and Compensation for Damage in Connection with the

Carriage of Hazardous and Noxious Substances by Sea (the HNS Convention) has not entered

into force. In China, a two-tier compensation regime has been established for vessel-source oil

pollution damage, but this regime does not address damage in connection with the carriage of

HNS by sea. This article examines the Chinese law approach to civil liability and compensation

for damage in this respect, and discusses whether there is an adequate framework in place to

address issues that may arise.

Keywords: China, HNS, liability, compensation

3

I. Introduction

In the past two decades, the volume of carriage of hazardous and noxious substances (hereinafter referred to as HNS) by sea in China has been continuously increasing. This growth in the carriage of chemicals by sea increases the risk of HNS spill accidents in China. During the period from 1996 to 2010, approximately 7,016 tons of HNS were discharged from ships, involving 19 chemical spill incidents in China. Although incidents involving spills of HNS are statistically less likely to occur (see Figure 1) compared with oil spill incidents, when they do occur the risk of a life-threatening situation is greater, because such substances not only disperse more easily at sea, but are more toxic to marine organisms than oil.

[INSERT FIGURE 1]

In the wake of the historic disaster of the *Torrey Canyon* oil spill incident in March 1967,⁵ an international regime of liability and compensation for vessel-source oil pollution damage has been established through the 1992 International Convention on Civil Liability for Oil Pollution Damage (hereinafter referred to as the 1992 CLC)⁶ and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (hereinafter referred to as the Fund Convention)⁷ and its 2003 Protocol,⁸ which is usually referred to as the 2003 Supplementary Fund Convention, create a three-tier regime for oil pollution damage caused by tanker vessels carrying persistent oil cargoes. The 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (hereinafter referred to as the Bunkers Convention)⁹ provides a single tier compensation for bunker fuel oils. This well-known international regime has proved to be successful in assuring adequate and prompt compensation

for oil pollution victims. However, its scope does not extend to pollution damage caused by spills of non-persistent oil as cargoes or HNS.

To fill this gap, the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances (hereinafter referred to as the 1996 HNS Convention)¹⁰ was adopted with the purpose of establishing civil liability and to provide compensation for damage arising out of the carriage of HNS by sea. The 1996 HNS Convention was largely modelled on the CLC/Fund regime, and established a two-tier liability and compensation framework.¹¹ The shipowner and its compulsory liability insurer provide the first-tier compensation up to a specific limit. A fund contributed to by cargo receivers provides the second-tier supplementary compensation where the liability of the shipowner is excluded, or where compensation offered by the liability insurer is not sufficient to cover all claims. It is interesting to note that, instead of having two independent international conventions, as is the case for oil pollution compensation, the two tiers of the compensation regime for HNS are contained in one single instrument.

The 1996 HNS Convention has not enter into force mainly due to practical difficulties concerning the HNS Fund. ¹² As a result, in 2010 a Protocol was adopted to address some of the major problems. ¹³ It remains to be seen whether the 2010 HNS Convention will be accepted widely and enter into force. ¹⁴

This article will investigate the Chinese legal approach to civil liability and compensation for damage in connection with the carriage of HNS by sea and discuss whether there is an adequate framework in place to address issues that may arise therefrom.

II. The HNS Convention

HNS is defined in Article 1.5 of the 2010 HNS Convention by reference to a number of IMO Conventions and Codes on maritime safety and prevention of pollution. The definition covers a broad range of substances, including packaged goods, bulk solids, liquids and liquefied gases. 15 Persistent oil is included in the list. To avoid overlap with the 1992 CLC, oil pollution damage covered by the CLC is expressly excluded from the application of the 2010 HNS Convention. 16 The scope of damage covered by the 2010 HNS Convention is much wider than the 1992 CLC as the 2010 HNS Convention covers both pollution damage and non-pollution damage caused by fire or explosion.¹⁷ The 1992 CLC only covers persistent oil pollution damage caused by tankers carrying persistent oil cargoes, no matter whether the oil is carried on board as cargoes or in the bunkers, 18 whereas the 2010 HNS Convention applies to non-pollution damage caused by tankers carrying persistent oil cargoes, as well as pollution damage and non-pollution damage caused by tankers carrying non-persistent oil cargoes. In addition, as defined in Article 1(5)(a) of the 2010 HNS Convention, HNS means any substances, material and articles carried on board a ship as cargo. The Convention does not deal with damage caused by bunker fuel oil. 19 Pollution damage caused by the spill of bunker oil from vessels carrying non-persistent oil cargoes, as well as pollution damage caused by the spill of non-persistent bunker oil from vessels carrying persistent oil cargoes, are covered by the Bunkers Convention.²⁰ A further clarification relating to application scopes of the 1992 CLC, the Bunkers Convention and the 2010 HNS Convention is illustrated in Table 1.

[INSERT TABLE 1]

The 2010 HNS Convention, similar to other liability conventions, strict liability, as the first-tier compensation, is imposed on the registered owner of the ship that causes damage, ²¹ with limited exceptions. ²² By channeling the liability to the registered owner, no claims for damage under the 2010 HNS Convention may be raised against servants or agents of the owner, members of the crew, the pilot, charterer, manager, operator and salvor etc. ²³ To relieve the consequence of strict liability, the shipowner is entitled to limit their liability in respect of one incident to an aggregate amount calculated on the basis of the units of gross tonnage of the ship, ²⁴ unless it is proved that the damage resulted from the personal act or omission by the owner, committed either with intent to cause damage, or recklessly and with knowledge that damage would probably result. ²⁵

The maximum compensation for damage caused by bulk HNS is 100 million SDR, while the maximum compensation amount for damage caused by packaged HNS is 115 million SDR. In order to limit liability, the registered owner is required to establish a limitation fund with one of the courts that have jurisdiction, or with another competent authority, for the total sum representing the limit of liability as described in Article 9 (1) of the 2010 HNS Convention. The claims for death and personal injury are paid first, up to two-thirds of the limitation fund. The remaining one-third is distributed pro-rata between any unpaid claims of death and personal injury and any other claims. In addition, the registered owner is required to maintain compulsory liability insurance or other financial security. Claimants may directly claim against the insurer or person providing financial security.

As the second-tier compensation, the HNS fund is contributed to by persons who have received, in a calendar year, contributing cargoes following sea transport in a Member State, in quantities above the thresholds laid down in the 2010 HNS Convention.³¹ The HNS fund will

pay where: (1) the owner is exempted from its liability; (2) the damage exceeds the owner's limit of liability; or (3) the owner and their insurer are financially incapable of meeting their obligations in full.³² However, in no case may the maximum compensation paid by the HNS fund exceed 250 million SDR, inclusive of any compensation provided by the owner and their insurer.³³

III. Chinese Law

1. Legal Framework

China has not adopted legislation that specifically assigns liability or provides compensation for damage arising from marine HNS spill incidents. Nevertheless, it is possible to perceive some rules that are scattered throughout a number of domestic laws. Table 2 shows the list of laws and regulations that may apply to civil liability and compensation for HNS damage.

[INSERT TABLE 2]

A. China Maritime Code (1992)

In the China Maritime Code (hereinafter referred to as the CMC) there is no specific chapter dealing with liability and compensation for vessel-source pollution damage, whether it be oil pollution damage or HNS damage. However, Article 207 in Chapter XI, the Limitation of Maritime Claims, sets out a list of claims which are subject to limitation. A claim in respect of recovering HNS damage is in this list.

B. Marine Environmental Protection Law (1999)

The Marine Environmental Protection Law was originally adopted in 1982 and then revised in 1999 (hereinafter referred to as MEPL 1999). Chapter VIII of the MEPL 1999 is dedicated to the prevention and control of pollution damage to the marine environment caused by vessels and

their related operations. Principally set out is civil liability for marine pollution damage, including the strict liability³⁴ along with any exemptions.³⁵

C. Regulations on the Prevention and Control of Marine Pollution from Ships (The Prevention and Control Regulation)

The Prevention and Control Regulation covers a wide range of matters relating both to the prevention of and compensation for marine pollution from ships. Chapter 7, which deals with liability and compensation for vessel-source pollution damage, includes provisions with respect to the strict liability,³⁶ exemptions,³⁷ and limitation of liability³⁸ of parties who cause pollution damage to the marine environment. The Prevention and Control Regulation also provides some general rules concerning compulsory insurance³⁹ and compensation funds,⁴⁰ but its scope is limited only to oil pollution damage caused by ships.

D. The Tort Law

The Tort Law provides general tort principles, such as rights and interests, criteria of liability, damages and compensation for damages, together with particular rules for specific torts. Chapter VIII concerns liability incurred as a result of environmental torts with the polluter being strictly liable for any pollution damage. ⁴¹ Besides this, the joint and several liability of any third party who causes pollution damage is stipulated. ⁴²

E. Measures of the People's Republic of China for the Implementation of Civil Liability Insurance for Vessel-induced Oil Pollution Damage (The Oil Pollution Insurance Regulation)

The Oil Pollution Insurance Regulation covers specific issues with regard to civil liability insurance for oil pollution damage, including the subject matter insured, the insured value, competent insurance institutions, and insurance certificates. According to Article 2, vessels carrying non-persistent oil cargoes are required to maintain compulsory liability insurance. This will be further analyzed in section III.2 (C).

F. Administrative Measures for Use and Collection of the Compensation Fund for Oil Pollution Damage from Ships (The Compensation Fund Regulation) and its Detailed Rules

The Compensation Fund Regulation and Its Detailed Rules are specifically designed for the creation of a domestic compensation fund to provide supplementary compensation for oil pollution damage caused by ships. It covers a wide range of vessel-source oil pollution damage, including pollution damage caused by vessels carrying persistent oil cargoes and pollution damage caused by bunker oil, as well as pollution damage caused by vessels carrying non-persistent oil cargoes.⁴³

G. Provisions of the Supreme People's Court on Several Issues concerning the Trial of Cases Involving Disputes over Compensation for the Damage Caused to Marine Natural Resources and Ecological Environment (The Judicial Interpretations on Compensation for Marine Environmental Damage)

The Judicial Interpretation on Compensation for Marine Environmental Damage was promulgated at the end of 2017 and has been effective since 15 January 2018. It contains 13 provisions designed to clarify several controversial issues that have or may arise in court proceedings respecting the compensation for marine environmental damage. In particular, it establishes the scope of compensation for the marine environment, that includes: (a) the cost of preventive measures; (b) the cost of reasonable measures of reinstatement; (c) the loss during the period of reinstatement; and (d) the cost of investigation and assessment.⁴⁴

2. Key Issues Respecting HNS Liability

Issues that typically arise regarding civil liability and compensation for damage in connection with sea carriage include: 1) the definition; 2) the basis of liability, liable parties, liability of a third party and limitation of liability; and 3) the insurance requirement and necessity of establishing a compensation fund.

A. Definition of HNS

There is no provision in Chinese law that provides an explicit definition of HNS.

According to Article 36 of the Safety Supervision and Administration of Carriage of Dangerous Goods by Vessel, dangerous goods are defined as articles that need special custody during transportation due to their explosive, inflammable, corrosive, radioactive or pollutant nature, which may result in personal injury, property loss or environmental pollution. Some in China believe that HNS is more or less similar to "dangerous goods" described in the above. However, the definition in the 2010 HNS Convention is made by reference to lists provided under existing technical instruments, while only a general definition of "dangerous goods" is given in Chinese law. The general definition could be problematic in that it fails to provide sufficiently clear guidance as to whether or not a particular substance would fall within the scope of the legislation. Furthermore, it could also cause difficulties for a shipowner in deciding whether compulsory liability insurance is needed for a particular substance. Although a stand-alone list including all relevant substances of a hazardous and noxious nature is not workable for practical reasons, a "reference-solution" would be a good approach for defining HNS in Chinese law.

To facilitate the study of some of the relevant issues in Chinese law, the damage in connection with the carriage of HNS discussed in this article covers both damage caused by non-persistent oil as cargoes and damage caused by HNS other than oil substances.

B. Liability

(1) Basis of Liability

Chapter II of the Tort Law sets out three principles that provides for the imputation of tort liability. There is fault-based liability, as a general principle of the imputation of tort liability, where one who is at fault for infringement upon a civil right or interest of another person is to bear liability.⁴⁷

Second there is presumed fault liability, where one is presumed to be at fault according to the law and cannot prove otherwise is subject to tort liability.⁴⁸ Finally, there is strict liability, where one who causes harm to a civil liability or interest of another person, whether at fault or not, is to bear liability if provided for by law.⁴⁹

Chapter VIII of the Tort Law specifically establishes principles for environmental pollution liability. According to Article 65, strict liability is imposed on a polluter. A liable party who seeks to discharge this liability is to bear the burden of proving that the pollution damage was caused by exemptions provided by other legislations or by proving that there is no causal link between the wrongful conduct and the damage. ⁵⁰

Consistent with Chapter VIII of the Tort law, both Article 90 of the MEPL 1999 and Article 50 of the Prevention and Control Regulation provide that parties causing pollution damage to the marine environment are to clean up the pollution and compensate for losses. This imposes liability unless the pollution damage is caused by any of the following circumstances, and if the damages to the marine environment cannot be avoided despite prompt and reasonable measures taken: (a) war; (b) irresistible natural calamities; and (c) negligence or other reckless acts of the departments responsible for the maintenance of lights or other aids to navigation in the exercise of that function. Therefore, as with oil pollution liability, the liable party for HNS pollution damage is strictly liable for the damages with a limited number of exceptions.

It is noteworthy that "pollution damage" is defined in Article 95 of the MEPL 1999 as any direct or indirect introduction of substances or energy into the marine environment which results in deleterious effects such as harm to marine living resources, hazards to human health, hindrance to fishing and other legitimate operations at sea, impairment of the utilization quality of sea water and degradation of the environment quality.

Although this definition gives only limited guidance on the types of claims that can be made, it is clear that the strict liability rules under the MEPL 1999, the Prevention and Control Regulation, and Chapter VIII of the Tort Law, are only applicable to pollution damage – in other words, contamination caused by HNS carried on board. Thus, compensation for non-pollution damage, such as death or personal injury, and property loss caused by fire or explosion, would be subject to the general fault-based liability rules provided in Article 6 of the Tort Law. ⁵² For non-pollution damage claimants not only have to prove the damage they suffered, along with the causal link between the wrongful conduct of liable parties and the damage, but also they need to prove the negligence or intentional act of the liable parties.

As explained above, the liability rules for pollution damage and non-pollution damage arising out of an HNS incident are different under current Chinese laws. More specifically, strict liability applies to the pollution damage, whereas the fault-based liability applies to non-pollution damage. This is different than the liability rule in the 2010 HNS Convention, where strict liability is to be applied to both pollution and non-pollution damage in connection with the carriage of HNS.⁵³

(2) Liable Parties

Unlike in the 2010 HNS Convention under which the liability is channeled to the registered owner, the Chinese legislation does not contain provisions which define the liable parties or channel liability to the shipowner. Thus, it is uncertain as to whether parties other than a shipowner could be considered to be liable parties respecting HNS damage. Such parties may include: (1) the charterer, manager or operator of the vessel; (2) servants or agents of the shipowner; (3) independent contractors (i.e. salvor or pilot); and (4) any person who takes preventive measures. The identification of liable parties could be of more relevance for claimants seeking pollution

damage. This is because strict liability exists for parties identified as liable parties to the pollution damage under the MEPL 1999 or the Prevention and Control Regulation. Otherwise, the general fault-based liability rule shall apply, and claimants must prove the negligence of those parties.

One other issue related to the shipper's liability in this regard may arise. Article 68 of the CMC directs that, in the case of dangerous cargo, the shipper is under an obligation to comply with the regulations governing the carriage of such cargo and must have the cargo properly packed, distinctively marked and labelled, and notify in writing the carrier of the proper description, nature, and precautions to be taken. Failing to do so may constitute a breach of contract and may result in the liability of a shipper for damages being borne by the carrier. Except for contractual liability based on the general fault-based tort liability rule, a shipper of dangerous cargo could be liable if its fault causes a casualty. Nevertheless, it seems unlikely that a shipper could be identified as a liable party to pollution damage caused by an HNS incident and thus have strict liability imposed on them.

(3) HNS Incidents Caused by Collision: Liability of the Third Party

According to data of the chemical spill incidents over 10 tons in China during the period from 1997-2010, collison is one of the major causes of such spills. (See Figure 2.)

[INSERT FIGURE 2]

Where HNS is discharged from both vessels following a collision incident, according to Article 8 of the Tort Law, the shipowners of both vessels are jointly and severally liable for the pollution damage.⁵⁴ However, issues can arise as to the liability of a third party where there is a discharge from only one of the vessels following the collision of two vessels. The debate on this provides some insight into the issues relating to HNS pollution liability.⁵⁵

First, where a collision incident is wholly caused by the fault of the non-spilling vessel, conflicts will arise as to the pollution liability of the non-spilling vessel. This is because, according to Article 90 of the MEPL 1999 and Article 50 of the Prevention and Control Regulation, the third party can only be sued for claims of compensation for pollution damage. Thus, despite the causal link of the non-spilling vessel, the environmental damage arises from the spilling vessel. According to Article 68 of the Tort Law, victims are entitled to bring their claims for pollution damage against either shipowners or the third party. It is uncertain as to which legislation takes priority on this issue.

Second, where the collision incident is caused by the fault of both the spilling and non-spilling vessels, there are conflicting opinions with regard to the liability of the parties. Three different theories exist. Some scholars consider that there is only one tortious behavior, namely the collision, in the case of pollution from a single-vessel spill caused by a both-to-blame collision. This is because the collision is the sole direct cause of the pollution damage.⁵⁶ Thus, all vessels involved in the both-to-blame collision are regarded as liable parties (tortfeasors) in a tort action arising out of the collision. Concerning the rule of apportionment of liability, it has been argued that both the spilling ship and non-spilling ship should bear the fault-based pollution liability according to the rule in CMC.⁵⁷ Others have argued that all vessels involved in a both-to-blame collision should be liable for pollution damage jointly and severally on the basis of contributory infringement.⁵⁸

Others argue that there are two tortious behaviors in the case of pollution from a single-vessel spill caused by a both-to-blame collision. These are: (1) the collision between spilling and non-spilling vessels; and (2) the discharge or escape of the pollutant from the spilling vessel. The view is that the collision does not necessarily contribute to the pollution.⁵⁹

In other words, the pollution is not an inevitable result of a collision. The causal link between collision and pollution is broken by the discharge or escape of the pollutant from the spilling ship.⁶⁰ Therefore, it is only the discharge or escape of the pollutant that is the direct cause of pollution damage, with the spilling vessel being solely liable for the pollution damage in a tort action arising out of the escape or discharge of pollutant. The spilling ship is, however, entitled to recourse against the non-spilling ship in the collision incident after having compensated for the pollution damage.

Still others consider that although there are two tortious behaviors in the case of oil pollution from a single-vessel spill caused by a both-to-blame collision, the causal link between collision and pollution damage should not be separated. Pollution damage is the consequence of collision and thus there is an adequate causal link with the collision. 61 Therefore, on the one hand, compensation for pollution can be claimed against a non-spilling vessel based on the tort liability arising out of the collision, to which the fault-based liability rule applies; on the other hand, pollution damage can be claimed against a spilling vessel based on the tort liability arising out of escape or discharge of a pollutant from the spilling vessel, to which the strict liability rule applies. Following this opinion, the spilling vessel is the liable party for pollution damage in a tort action arising out of discharge or escape of pollutant. At the same time, the non-spilling vessel is the liable party for pollution damage in a tort action arising out of the collision. There will of course be an overlap or concurrence between the two types of claims mentioned above, this being the claim against the non-spilling vessel for the pollution, in proportion to their fault in the collision. Victims should be entitled to claim against the spilling vessel for all the pollution damage. However, if the shipowner of a spilling ship is exempt from liability or financially

incapable of meeting their obligations, victims should be entitled to claim for pollution damage against the non-spilling vessel in proportion to its fault in the collision.

With respect to oil pollution damage, the above uncertainty is partly clarified by the Judicial Interpretations on Compensation for Vessel-Source Oil Pollution. In Article 4, victims are entitled to claim against the spilling vessel for all the pollution damage. This article does not explicitly prevent a claim being brought against non-spilling vessels on the basis of tort liability. It should be noted that this article does not apply to damage caused by non-persistent cargo oil and HNS other than oil substances. 62

(4) Limitation of liability

According to Article 207 of the CMC, four types of claims are subject to limitation of liability, including: claims in respect of loss of life or personal injury or loss of or damage to property, including damage to harbor works, basins and waterways, and aids to navigation occurring on board or in direct connection with the operation of the ship or with salvage operations, as well as consequential damages resulting therefrom; claims in respect of loss resulting from delay in delivery in the carriage of goods by sea, or from delay in the arrival of passengers or their luggage; claims in respect of other loss resulting from infringement of rights other than contractual rights occurring in direct connection with the operation of the ship or salvage operations; and claims of a person other than the person liable in respect of measures taken to avert or minimize loss for which the person liable may limit his liability in accordance with the provisions of this Chapter, and further loss caused by such measures.

Claims seeking to recover HNS damages fall into the first type of claim. Thus, similar to the 2010 HNS Convention, a shipowner is entitled to limit their liability, unless it is proved that the loss resulted from their act or omission was done with the intent to cause such loss, or

recklessly and with knowledge that such loss would probably result.⁶³ The limitation amounts are those provided in Article 210 of the CMC.⁶⁴

As shown in Table 3, both HNS damage, including damage caused by non-persistent oil cargo, and bunker oil pollution damage⁶⁵ is subject to the limits provided for in the CMC. Such limits are apparently much lower than the 1992 CLC limits for persistent oil pollution damage caused by tankers carrying persistent oil cargoes. Moreover, unlike the requirement for establishing an exclusive limitation fund for claims arising out of persistent oil pollution damage caused by tankers carrying persistent oil cargo,⁶⁶ there is no exclusive limitation fund for claims regarding the damage caused by non-persistent oil cargo and HNS other than oil substances. Thus, claims for HNS damage have to share one limitation fund, established by Article 213 of the CMC,⁶⁷ along with claims of other natures.⁶⁸ Due to lack of a separate limitation regime and low limitation amounts, compensation available for victims of HNS damage could be far from sufficient.

[INSERT TABLE 3]

As to the distribution of the limitation fund, according to Article 210 of the CMC, separate limitation funds with different limits are to established for the claims for loss of life or personal injury and for claims other than for loss of life or personal injury.⁶⁹ Where the limitation fund for the claims for loss of life or personal injury are not sufficient to cover all of the claims for loss of life or personal injury, the limitation fund for claims other than for loss of life or personal injury is to be available to be distributed among the claimants in proportion to the amount of their established claims.⁷⁰ In addition, without prejudice to the right of claims for loss of life or personal injury, claims in respect of damage to harbor works, basins and waterways,

and aids to navigation have priority over other property claims.⁷¹ Other property claims are to be treated equally. However, Article 55 of the Prevention and Control Regulation provides that the necessary expenses incurred in an emergency response and cleanup operation by the relevant governmental units are to be compensated with priority. According to the Legislation Law, laws, such as the CMC, supercede administrative regulations, such as the Prevention and Control Regulation.⁷² Thus, the distribution rule provided in the CMC would prevail over Article 55 of the Prevention and Control Regulation.

C. Insurance and Compensation

(1) Compulsory Insurance

Pursuant to Article 53 of the Prevention and Control Regulation, owners of all vessels navigating the sea areas under the jurisdiction of China are required to maintain liability insurance for oil pollution damage or have other financial security. The only exception is for vessels of less than 1,000 gross tonnage carrying cargoes other than oil. For vessels carrying non-persistent oil cargo with a gross tonnage of 1,000 or more, the insured subject matter covers pollution damage caused by the non-persistent oil cargo and the pollution damage caused by bunker oil. To vessels carrying non-persistent oil cargo with a gross tonnage no more than 1,000 gross tons, the insured subject matter only covers pollution damage caused by the non-persistent oil cargo. To vessels carrying HNS other than oil substances with a gross tonnage of 1,000 or more, the insured subject matter covers the pollution damage caused by bunker oil. Claimants for oil pollution damage can make a claim against the shipowner causing oil pollution damage, or can make a claim directly against the liability insurer or other person providing financial security, who is also then entitled to require the shipowner to join in the proceedings.

As discussed above, the insured subject matter for compulsory liability insurance is confined to pollution damage caused by oil, including both persistent and non-persistent oil, no matter whether it is carried on board as cargos or in bunkers. Although owners of vessels carrying HNS other than oil substances are required to purchase liability insurance, the insured subject matter is limited to pollution damage caused by bunker oil and not damage caused by HNS (if any) carried on board.

Compulsory liability insurance for damage caused by HNS other than oil substances has not yet been imposed by legislation due to several difficulties. First, there is not a clear and explicit definition of HNS, which is a pre-condition of compulsory insurance. Without this a shipowner cannot decide whether compulsory liability insurance for a specific type of HNS is required. Second, since the HNS Convention has not entered into force, the question of how to issue an insurance certificate to foreign vessels carrying HNS requires consideration. It is also unlikely that the liability insurers, usually the P&I Clubs, will accept direct action against them prior to the HNS Convention becoming effective.

(2) Compensation Fund

With respect to vessel-source oil pollution damage, as noted above, China is a party to the 1992 CLC and the Bunkers Convention, but it has not joined in the Fund Convention. A domestic compensation fund has been set up to provide supplementary compensation for vessel-source oil pollution damage where the compensation available from the shipowner or their liability insurer is not sufficient. Compulsory insurance and the domestic compensation fund are two important components in ensuring a comprehensive two-tier compensation regime for vessel-source oil pollution damage.

Compensation is provided for pollution damage caused by persistent and non-persistent oil discharged or escaped from vessels, no matter whether it is carried on board as cargoes or in bunkers. Accordingly, pollution damage caused by non-persistent oil cargoes is covered by the domestic fund, whereas damage caused by HNS other than oil substances and non-pollution damage caused by non-persistent oil cargoes both fall outside of the compensation scope of this domestic fund.

IV. Conclusions

Compensation for vessel-source oil pollution damage has been greatly improved in China by the establishment of a comprehensive two-tier compensation regime for vessel-source oil pollution damage. However, this regime does not extend to covering damage in connection with the carriage of HNS by sea.

With respect to civil liability and compensation for damage in connection with carriage of HNS by sea, there are only a few general rules that are scattered throughout different domestic laws. There is no explicit definition of HNS nor a comprehensive legal framework covering liability and compensation for damage in connection with the carriage of HNS by sea in China. However, with the increasing volume of chemical transportation, incidents involving HNS are unavoidable, and various liability and compensation issues will inevitably arise. Due to the current legal fragmentation and uncertainty, claimants may face difficulties in recovering damages.

- (1) The liability rules for pollution damage and non-pollution damage are inconsistent, with claimants for non-pollution damage having to prove the fault of liable parties.
- (2) It is uncertain as to both the identification of liable parties and the liability of the non-spilling vessel involved in an HNS incident following the collision of two vessels.

- (3) The limits of liability for HNS damage are much lower than for those of persistent oil pollution damage and the claimants for HNS damage only have access to one limitation fund along with claims arising from other causes.
- (4) Except for pollution damage caused by non-persistent oil cargo, there is no compulsory liability insurance nor a second-tier compensation fund to assure adequate and prompt compensation for the victims and the marine environment in China.

This being the case, a good approach for China would be to extend the two-tier compensation regime for vessel-source oil pollution damage to include HNS damage and thereby unify the domestic liability and compensation regime for vessel-source pollution damage. At the same time, China may consider clarifying the definition of HNS to remove the existing uncertainty for both shipowner and liability insurers, and also consider establishing a separate limitation regime for HNS damage, with higher limitation amounts that would give victims greater protection.

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¹⁰ International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances, (1996) 35 *I.L.M.* 1406.

- ¹¹ Richard Shaw, "Hazardous and noxious substances Is the end in sight? Proposed Protocol to the HNS Convention 1996," *Lloyd's Maritime & Commercial Law Quarterly*, (2009): 279-284.
- ¹² Michael Tsimplis, "Marine Pollution from Shipping Activities," in Yvonne Baatz (ed.), *Maritime Law 3rd edition,* (Oxon and New York, Informa Law from Routledge, 2014), 403.
- ¹³ Protocol to the Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances. Three major problems are: (1) contribution obligation of packaged HNS goods; (2) contribution obligation of liquefied natural gas (LNG); and (3) reporting obligations of contracting states.
- ¹⁴ Up to January 2018, although eight States (Canada, Denmark, France, Germany, Greece, the Netherlands, Norway and Turkey) signed the 2010 HNS Protocol. Norway is the first and only State to ratify the protocol. See: www.hnsconvention.org/.
- Jingjing Xu, David Testa and Proshanto K. Mukherjee, "The Use of LNG as a Marine Fuel:
 Civil Liability Considerations from an International Perspective," *Journal of Environmental Law* (2017) 29: 129.

Damage means: (a) loss of life or personal injury on board or outside the ship carrying the hazardous and noxious substances caused by those substances; (b) loss of or damage to property outside the ship carrying the hazardous and noxious substances caused by those substances; (c) loss or damage by contamination of the environment caused by the hazardous and noxious substances, provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken; and (d) the costs of preventive measures and further loss or damage caused by preventive measures.

¹⁶ The 2010 HNS Convention, supra note 13, Article 4.3 (a).

¹⁷ The HNS Convention, Article 1.6:

¹⁸ The 1992 CLC, supra note 6, Article 1.5: "Oil" means any persistent hydrocarbon mineral oil such as crude oil, fuel oil, heavy diesel oil and lubricating oil, whether carried on board a ship as cargo or in the bunkers of such a ship.

No liability shall attach to the owner if the owner proves that: (a) the damage resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; or (b) the damage was wholly caused by an act or omission done with the intent to cause damage by a third party; or (c) the damage was wholly caused by the negligence or other wrongful act of any Government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function; or (d) the failure of the shipper or any other person to furnish information concerning the hazardous and noxious nature of the substances shipped either (i) has caused the damage, wholly or partly; or (ii) has led the owner not to obtain insurance in accordance with article 12; provided that neither the owner nor its servants or agents knew or ought reasonably to have known of the hazardous and noxious nature of the substances shipped.

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<sup>23</sup> Ibid., Article 7(5).
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¹⁹ Magnus Goransson, "The HNS Convention," *Uniform Law Review n.s.* 2 (1997): 249-270.

²⁰ Bunkers Convention, supra note 3, Articles 1(1), 1(5) and 4(1).

²¹ The 2010 HNS Convention, supra note 13, Article 7(1).

²² *Ibid.*, Article 7(2):

²⁴ *Ibid.*, Article 9(1).

²⁵ *Ibid.*, Article 9(2).

²⁶ *Ibid.*, Article 9(3).

²⁷ *Ibid.*, Article 11.

²⁸ Tsimplis, supra note 12, 410.

²⁹ The 2010 HNS Convention, supra note 13, Article 12(1).

³⁰ *Ibid.*, Article 12(8).

³¹ "An Overview of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances By Sea, 2010 (The 2010 HNS Convention), IOPC Fund," available at:

<www.hnsconvention.org/fileadmin/IOPC_Upload/hns/files/HNS%20Convention%20Overview
_e.pdf>.

- ³² The 2010 HNS Convention, supra note 13, Article 14(1).
- ³³ *Ibid.*, Article 14 (5).
- ³⁴ Marine Environmental Protection Law, 1999, Article 90.
- 35 *Ibid.*, Article 92.
- ³⁶ The Prevention and Control Regulation, Article 50.
- ³⁷ *Ibid.*, Article 51.
- ³⁸ *Ibid.*, Article 52.
- ³⁹ *Ibid.*, Article 53.
- ⁴⁰ *Ibid.*. Article 56.
- ⁴¹ The Tort Law, Article 65.
- ⁴² *Ibid.*, Article 68. In this article, an imitative form of joint liability that is derived from the concept "Unechte Solidaritat" in German law is imposed on the polluter and the third party. In this pseudo joint liability, the victim is entitled to choose either the polluter or the third party from whom to claim compensation for their pollution damage. The polluter has the right of recourse against the third party after having compensated the victims.
- ⁴³ The Detailed Rules of the Compensation Fund Regulation, Article 5.
- ⁴⁴ The Judicial Interpretation on Compensation for Marine Environmental Damage, Article 7.
- ⁴⁵ Goransson, supra note 19.

⁴⁶ Reinhard H. Ganten, "HNS and Oil Pollution: Developments in the Field of Compensation for Damage to the Marine Environment," *Environmental Policy and Law*, 27/4 (1999): 310-314.

- ⁵¹ MEPL 1999, Article 92, and the Prevention and Control Regulation, Article 51.
- ⁵² The Tort Law, Article 6: "One who is at fault for infringement upon a civil right or interest of another person shall be subject to the tort liability."
- ⁵³ The 2010 HNS Convention, supra note 13, Article 7(1).
- ⁵⁴ The Tort Law, Article 8: "Where two or more persons jointly commit a tort, causing harm to another person, they shall be liable jointly and severally."
- The following discussion on oil pollution liability is drawn from Bingying Dong,

 Compensation for Vessel-source Oil Pollution Damage in China (China Communications Press,
 2017), at p. 128-130.
- ⁵⁶ Yixing Du, "Civil Liability of Pollution Damage Caused by Collision---A Discussion of Application of Law", published on the website of China Foreign-related Commercial and Maritime Trial (publication date: 9 October 2002). The same opinion was also stated in a judicial case "MIN RAN GONG 2 v. DONG HAI 209" (No.328 [2000], High Court of Guangdong Province).
- ⁵⁷ CMC, Article 168: "If the collision is caused by the fault of one of the ships, the one at fault shall be liable therefore."

⁴⁷ The Tort Law, Article 6, para.1.

⁴⁸ *Ibid.*, Article 6, para.2.

⁴⁹ *Ibid.*, Article 7.

⁵⁰ *Ibid.*, Article 66.

⁵⁸ Hong Zhao, "The Legal Issues of Compensation for Oil Pollution in Judicial Practice," paper presented at *Conference on Maritime Law of Chinese Lawyer*, 2005.

⁵⁹Lixin Han and Yuzhuo Si, "On the Determination of the Compensation Liability of Oil Pollution," *Annual of China Maritime Law*, 13 (2003): 215-226 (in Chinese).

- ⁶⁰Lixin Han and Beiping Chu, "Legal Analysis on the Joint and Several Liability for Oil Pollution Damage Caused by Ships Collision," *Journal of Liaoning University (Philosophy and social sciences)* 7 (2008): 136-141 (in Chinese).
- ⁶¹ Yuzhuo Si, "To Explain the Overlapping Claimant from the Oil Pollution Caused by Ship Collision," *Annual of China Maritime Law*, 19 (2009): 1-12 (in Chinese).
- ⁶² Judicial Interpretations on Compensation for Vessel-source Oil Pollution, Article 31(2): "Oil means any hydrocarbon mineral oil and the residuum thereof, limited to persistent oil carried on board a vessel as cargo and persistent or non-persistent fuel oil carried in the bunkers of such a vessel, not including non-persistent oil carried on board a vessel as cargo."
- ⁶³ The CMC, Article 209.
- According to the last paragraph of Article 210 of the CMC, the limitation of liability for ships with a gross tonnage not exceeding 300 tons, those engaged in transport services between ports of the PRC, and those engaged in other coastal works, shall be regulated by the relevant administrative regulation promulgated by the Ministry of Communications. A much lower limitation amount with respect to small vessels not exceeding 300 tons and those vessels carrying out domestic services are accordingly provided.
- ⁶⁵ The bunker pollution damage mentioned in this paragraph and in Table 3 does not include persistent bunker pollution damage caused by tanker vessels carrying persistent oil cargoes.
- ⁶⁶ Judicial Interpretations on Compensation for Vessel-source Oil Pollution, Article 21.

- ⁶⁷ CMC, Article 213: "Any person liable claiming the limitation of liability under this Code may constitute a limitation fund with a court having jurisdiction. The fund shall be constituted in the sum of such an amount set out respectively in Articles 210 and 211, together with interest thereon from the date of the occurrence giving rise to the liability until the date of the constitution of the fund."
- ⁶⁸ Provisions governing the establishment and administration of a limitation fund also apply to claims for bunker oil pollution damage.
- ⁶⁹ The CMC, Article 210:

The limitation of liability for maritime claims, except as otherwise provided for in Article 211 of this Code, shall be calculated as follows:

- (1) In respect of claims for loss of life or personal injury: a) 333,000 Units of Account for a ship with a gross tonnage ranging from 300 to 500 tons; b) For a ship with a gross tonnage in excess of 500 tons, the limitation under a) above shall be applicable to the first 500 tons and the following amounts in addition to that set out under a) shall be applicable to the gross tonnage in excess of 500 tons: For each ton from 501 to 3,000 tons: 500 Units of Account; For each ton from 3,001 to 30,000 tons: 333 Units of Account; For each ton from 30,001 to 70,000 tons: 250 Units of Account; For each ton in excess of 70,000 tons: 167 Units of Account.
- (2) In respect of claims other than that for loss of life or personal injury:
 a) 167,000 Units of Account for a ship with a gross tonnage ranging from 300 to 500 tons; b) For a ship with a gross tonnage in excess of 500 tons, the limitation under a) above shall be applicable to the first 500 tons, and the following amounts in addition to that under a) shall be applicable to the part in excess of 500 tons: For each ton from 501 to 30,000 tons: 167 Units of Account; For each ton from 30,001 to 70,000 tons: 125 Units of Account; For each ton in excess of 70,000 tons: 83 Units of Account.

⁷⁰ The CMC, Article 210 (3).

⁷¹ *Ibid.*, Article 210(4).

⁷² Legislation Law, Article 79.

⁷³ The Oil Pollution Insurance Regulation, Article 4(2).

⁷⁴ *Ibid.*, Article 4(4).

⁷⁵ *Ibid.*, Article 4(3).

⁷⁶ The Special Maritime Procedure Law, Article 97.

⁷⁷ Detailed Rules of Oil Pollution Compensation Fund Regulation, Article 5.