Liability and Compensation for Oil Spill Accidents: International Regime and Its Implementation in China

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ABSTRACT

Marine oil spill accidents have long been caused by ship collisions. However, the proliferation of offshore oil and gas installations portends a marked increase in oil spills from these sources. This presents a unique enforcement challenge for international and Chinese domestic systems for oil pollution liability and compensation that were developed in response to the threat of ship-based oil pollution. This article focuses on how the international liability and compensation regime for oil pollution has been implemented in China, and whether a combination of the international regime and domestic Chinese regulations could provide an adequate mechanism for holding offshore oil operators liable for accidents and for ensuring adequate compensation to injured parties. Analysis of Chinese law demonstrates that the current international liability and compensation regime for oil pollution, the 1992 Civil Liability Convention (CLC)–International Oil Pollution Compensation (IOPC Funds), has been only partially implemented in China and lacks domestic adaptation mechanisms. The CLC–IOPC Funds regime also does not extend to oil pollution accidents resulting from offshore operations. An international convention containing universal liability provisions for offshore oil spill accidents would require a long-term process of joint international efforts. Based on this international and domestic Chinese legal environment, this article concludes that China should first develop a domestic liability and compensation mechanism that implements the international regime for ship-source oil pollution in its entirety, but which also extends to pollution caused by offshore oil spills.
INTRODUCTION

Historically, shipping accidents have been a major source of the world’s oil spills. This reality has significantly impacted the development of the current international regime on liability and compensation for oil pollution through the efforts of the International Maritime Organization (IMO). The regime is comprised of a series of conventions adopted pursuant to the IMO’s objective of keeping the shipping industry safe and clean. Considered together, these conventions establish a liability and compensation framework for ship-source oil pollution, which was adopted and implemented by signatory states. However, in its current form, the regime does not extend to non-ship-source oil pollution, which poses a significant challenge both to assigning liability to offshore oil and gas operators and to compensating parties suffering damages as a result of pollution caused by offshore oil and gas operations.

There have been several attempts by international and governmental agencies to establish a unified liability regime for pollution damage from offshore oil and gas operations. Due to disagreement over the definition of “ship,” early attempts comprised only exploratory discussions without establishing a unified regime. As offshore drilling increases and moves into deep waters, catastrophic


2. The International Maritime Organization (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. Maritime safety was considered to be the IMO’s most important responsibility. In 1967, the Torrey Canyon accident occurred, with 120,000 tonnes of oil being spilled, which drew the IMO’s attention to the growth in the amount of oil being transported by sea and in the size of oil tankers. After that, a series of measures were gradually designed to prevent and compensate tanker accidents, including the International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, 34 U.S.T. 3407, 1340 U.N.T.S. 184; the International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 973 U.N.T.S. 3; 9 I.L.M. 45; and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Dec. 18, 1971, 1110 U.N.T.S. 57, 11 I.L.M. 284. The latter two conventions originally established the international liability and compensation regime for oil pollution. See Brief History of IMO, INT’L MAR. ORG., http://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx [https://perma.cc/U7G2-7GAX].

3. The majority of conventions adopted under the auspices of IMO or for which the Organization is otherwise responsible, fall into three main categories. The first group is concerned with maritime safety; the second with the prevention of marine pollution; and the third with liability and compensation, especially in relation to damage caused by pollution. Outside these major groupings are a number of other conventions dealing with facilitation, tonnage measurement, unlawful acts against shipping and salvage, etc. In the context of the liability and compensation regime for oil pollution, “a series of conventions” mainly refer to: the International Convention on Civil Liability for Oil Pollution Damage, supra note 2; the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, supra note 2; and the International Convention on Civil Liability for Bunker Oil Pollution Damage, Mar. 27, 2001, 40 I.L.M. 1493 (entered into force Nov. 21, 2008), and the amendments of the three conventions. See Introduction to Conventions, INT’L MAR. ORG., http://www.imo.org/en/About/Conventions/Pages/Home.aspx [https://perma.cc/EFE3-9GAX].


5. See Introduction to Conventions, supra note 3.

6. See infra Table 2, Part II.C.
accidents in offshore operations\textsuperscript{7} are occurring more frequently and pose a significant global environmental and human health risk. Except for some private laws and regional agreements, few liability and compensatory rules universally apply to pollution damage from major offshore accidents, including marine transboundary pollution.\textsuperscript{8}

China, as a country that has long engaged in both shipping and offshore industries, has confronted frequent oil spill accidents in its territory, within the boundaries of its territorial sea, exclusive economic zone (EEZ),\textsuperscript{9} and continental shelves, as well as on the high seas. In the face of ship-source oil pollution, China has adopted and partially implemented a series of IMO Civil Liability and Fund conventions.\textsuperscript{10} The implemented conventions chiefly apply to persistent oil spills from tankers and bunker oil pollution damage in China.

As a mechanism for compensating those adversely affected by oil pollution not covered by the IMO conventions in force in China, a domestic liability fund regime for oil pollution was established in 2015.\textsuperscript{11} However, this regime does not extend to oil pollution from offshore operations, and total domestic

\textsuperscript{7} For example, the 2009 Australia Montara oil spill; 2010 US Deepwater Horizon oil spill; 2011 China Bohai Bay oil spill; and 2012 Brazil Frade oil spill.

\textsuperscript{8} One example here is the 1975 Offshore Pollution Liability Agreement (OPOL), which is not an international convention but a private agreement between 16 operators in the offshore sector. This Agreement was initially an interim measure to provide a strict liability regime whilst awaiting the entry into force of a regional Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources (CLEE), a regional convention for the Baltic, North Sea, and North Atlantic areas. The Convention was, however, never ratified by any of the nine states that participated in the Diplomatic Conference which adopted the Convention and it has never come into force. However, OPOL continues to operate and imposes strict liability on operators of offshore facilities and guaranteed payment of compensation up to a limit currently set at US $ 250 million per incident. The parties to OPOL are 16 operators of offshore facilities within the jurisdiction of any of the “Designated States” to the Agreement which are UK, Denmark, Germany, France, Republic of Ireland, Netherlands, Norway, Isles of Man, Faroe Islands and Greenland. COMITE MAR. INT’L, OFFSHORE ACTIVITIES: POLLUTION LIABILITY AND RELATED ISSUES, http://www.comitemaritime.org/Uploads/Work%20In%20Progress/Oil%20Spill%20Liability%20and%20Compensation%20Fund%20Regime%20in%20China.pdf [https://perma.cc/4NUU-CCHR].

\textsuperscript{9} The exclusive economic zone (EEZ) is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in Part V of the United Nations Conventions on the Law of the Sea (UNCLOS), under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention. The EEZ shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. U.N. Convention on Law of the Sea, art. 56, 57, Dec. 10, 1982, 1833 U.N.T.S. 3, 21 I.L.M. 1261 (entered into force Nov. 16, 1994).


compensable oil pollution damages are much lower than that under the international system.\textsuperscript{12} For offshore oil spill damages, there are only basic rules in China’s Marine Environmental Protection Law (MEPL)\textsuperscript{13} and Tort Law,\textsuperscript{14} which do not form a unified liability regime. As a result of these inadequate compensation criteria and holes in domestic law, mechanisms for compensating ship-source and offshore oil pollution are insufficient in China.

The aim of this article is threefold. First, it examines the international regime on liability and compensation for oil spill accidents. This examination reveals a gap in the international regime, which lacks provisions addressing oil spill pollution caused by offshore oil and gas operations. Second, this article introduces the Chinese framework for liability and compensation for oil spill accidents. This discussion also addresses how the international liability and compensation regime for oil pollution has been implemented in China. Third, it further explores whether the implemented international regime and the Chinese system of oil pollution liability and compensation are applicable to offshore oil spill damages in China.

In this respect, the article is structured as follows. Part I provides a historical overview of major oil spill accidents and discusses the nature of the damage caused by accidents in shipping and offshore industries. Part II reviews the international regime on liability and compensation for oil spill accidents, including the development of international law on ship-source oil pollution and the attempts to establish a unified convention for pollution from offshore operations. Part III analyzes the implementation of the international liability and compensation regime for oil spill accidents in China. In comparing criteria for oil pollution under Chinese law and international conventions, this section also discusses why China has not fully implemented the 1992 CLC–IOPC regime, and the increasing challenges arising from the legal gap in the Chinese system concerning assigning liability and providing compensation. The article concludes by arguing that China should endeavor to fully implement the 1992 CLC–IOPC Funds regime, and proposing that a unified domestic liability-fund regime should be extended to the pollution damage caused by offshore oil spill accidents.

I. OIL SPILL ACCIDENTS

A. Overview

“Oil spill accident” usually refers to unexpected and heavy releases of oil with the potential of causing significant economic loss, personal injury, or environmental damage.\textsuperscript{15} These accidents are chiefly caused by human activities (e.g., oil drilling, manufacturing, storage, transportation, and waste management) and come in conspicuous forms such as well blowouts, pipeline breaks, and ship

\textsuperscript{12} See infra Table 5, Part III.B.


\textsuperscript{15} See Oil Spill Accidents, LAWS, http://accident.laws.com/oil-spills [https://perma.cc/3ZU3-MD5C].
collisions or groundings. Since the 1970s, numerous oil spill accidents have been recorded worldwide; they are less frequent than operational oil spills but involve a high percentage of total spilled volume. The recorded spills mostly occurred in marine transportation and offshore oil and gas operations, especially in cases where an oil tanker broke up in heavy seas or a disaster occurred at an offshore oil platform.

B. Major Accidents in Shipping and Offshore Industries

Over time, the source of oil spill accidents in the industry has shifted from shipping accidents to accidents occurring during offshore oil extraction and conveyance. Ship-source oil spills account for a large amount of marine oil pollution between 1970 and 2010. However, the quantity of ship-source oil spilled per year during that same period has seen a reduction from 314,000 tons in 1970 to 21,000 tons in 2000. This reduction may be closely related to the use of pipelines for transporting petroleum products, safer and structurally-improved tankers, and improved ship traffic control. In addition, whereas the number of pipeline spills per decade has increased dramatically since the 1970s, only a few very large offshore accidents—such as the Ixtoc I and Deepwater Horizon oil spills—account for a larger volume of oil spilled. Indeed, spillage figures for a particular year may be severely distorted by a single large accident.

Over the past decade, accidents on offshore oil platforms have led to dramatic pollution damage. However, except for widespread media coverage of four recent major offshore accidents (Australia, 2009; United States, 2010; China, 2011; Brazil, 2012), worldwide sharing of information concerning the safety of offshore oil extraction operations is limited. As offshore oil and gas operations move from shallow coastal areas to deep waters (over 500 meters below sea level), poor information sharing undoubtedly breeds difficulties in remediating damaged areas when extreme accidents occur. In contrast, statistics for tanker accidents are available worldwide and comprehensively calculated each year. This service is offered by the International Tanker Owners Pollution Federation (ITOPF) and

17. Most spills from tankers result from routine operations such as loading, discharging, and bunkering which normally occur in ports or at oil terminals, while larger spills tend to result from accidental causes such as collisions and groundings. See INT’L TANKER OWNERS POLLUTION FED’N LTD., OIL TANKER SPILL STATISTICS 2015, at 2 (2016), http://www.itopf.com/fileadmin/data/Documents/Company_Lit/Oil_Spill_Stats_2016.pdf [https://perma.cc/L4XY-JL55].
19. Id. at 182–183.
22. Id. at 183.
23. See supra note 7.
24. The International Tanker Owners Pollution Federation (ITOPF) was established in 1968 in the wake of the Torrey Canyon oil spill. Its original function was the administration of an oil spill compensation scheme. During the 1970s, ITOPF developed its technical services function and
provides a successful model for the development of a database for offshore accidents that a non-profit organization, like ITOPF and others interested in monitoring and evaluating offshore accidents, should work toward.

C. Damage Caused by Oil Spill Accidents

The damages suffered by those adversely affected by an oil spill include personal injury, property damage, economic loss, and environmental damage. The first three damages together are regarded as “traditional damage[s]” and usually trigger the application of international civil liability conventions. However, environmental damage, and particularly “pure environmental damage” or “ecological damage,” is seldom cited as the sole basis for liability.26

For example, the International Convention on Civil Liability for Oil Pollution Damage defines “pollution damage” as:

(a) loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, 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;
(b) the costs of preventive measures and further loss or damage caused by preventive measures.27

This definition of oil pollution reflects the policy position of most oil spill liability treaties currently in force, i.e., to impose liability upon oil and gas operators for property and economic loss resulting in damage to the environment, but not to impose liability for damage inflicted upon the environment per se. In particular, this definition is unsatisfactory because it does not state explicitly what types of damages are compensable under the convention. With respect to environmental damage, the compensable aspects are limited to removal of hazardous substances and “reinstatement” of the environment. It should also be noted that this definition does not contain a mechanism for compensation for unrecoverable damage to the environment itself. However, being the first of its

established a team of well qualified scientists able to offer around the clock technical support to tanker owners, their P&I insurers and other groups. ITOPF has been providing its key service of emergency response to tanker owners since the 1970s. From 1999 this service was formally extended to the owners of other types of ship as well. See Our History, INT’L TANKER OWNERS POLLUTION FED’N LIMITED, http://www.itopf.com/about-us/our-history/ [https://perma.cc/R9AW-QB9P].


26. 6 ALENA DOUHAN, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW, LIABILITY FOR ENVIRONMENTAL DAMAGE 830 (Rüdiger Wolfrum ed. 2013).


kind, this definition has substantially influenced the concept of environmental damage in most subsequent international liability regimes.

In practice, the extent of damages resulting from a given oil spill depends on a wide range of factors, including the particular characteristics of the spill.\(^{29}\) Compared with light oils, highly persistent oil—such as heavy fuel oil or heavy crude—is more likely to cause widespread damage in the intertidal zones of shorelines through smothering, which usually occurs in major oil spill accidents.\(^{30}\) Therefore, both international and domestic liability regimes for oil pollution usually divide spilled oils into categories of persistent oil and non-persistent oil spills,\(^{31}\) and the compensation criteria for oil pollution damage are established based on the quantity of oil released in a given case.

II. THE INTERNATIONAL REGIME ON LIABILITY AND COMPENSATION FOR OIL ACCIDENTS

A. Liability and Compensation for Ship-Source Oil Pollution

Historically, ship-source oil spills have caused considerable amounts of damage; this reality stimulated the development of international conventions for governing and managing oil pollution. These conventions are focused in their scope and drafted to apply to spills based on the source of the spill and type of oil spilled in a given case (see Table 1 below). Together, these conventions aim to establish a unified liability regime and mechanisms for providing adequate compensation to parties affected by oil pollution.

<table>
<thead>
<tr>
<th>Year</th>
<th>Convention</th>
<th>Type of Pollution</th>
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<tbody>
<tr>
<td>1969 / 1992</td>
<td>International Convention on Civil Liability for Oil Pollution Damage</td>
<td>Persistent oil pollution</td>
</tr>
<tr>
<td>1971</td>
<td>International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage</td>
<td>Persistent oil pollution</td>
</tr>
<tr>
<td>1996</td>
<td>International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea</td>
<td>Hazardous and noxious substances</td>
</tr>
<tr>
<td>2001</td>
<td>International Convention on Civil Liability for Bunker Oil Pollution Damage</td>
<td>Bunker oil pollution</td>
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\(^{30}\) Id. at 3.

\(^{31}\) “[P]ersistent oils generally contain a considerable proportion of heavy fractions or high-boiling material such as crude oil, fuel oil, heavy diesel oil and lubricating oil.” In contrast, “non-persistent oils are those that are generally of a volatile nature and are composed of lighter hydrocarbon fractions, which tend to dissipate rapidly through evaporation.” CARYN ANDERSON, INT’L TANKER OWNERS POLLUTION FED’N LTD., PERSISTENT VS NON-PERSISTENT OILS: WHAT YOU NEED TO KNOW 1–2 (2001), http://www.itopf.com/fileadmin/data/Documents/Papers/persistent.pdf [https://perma.cc/Y9Z9-6J8C].
The original liability and compensation regime for oil pollution is set forth in the 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC)32 and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 Fund).33 In 1967, an accident involving the oil tanker Torrey Canyon caused 120,000 tonnes of crude oil to escape, causing major damage to the coastline and wildlife in the vicinity of Southern England and Northern France.34 This accident led to the establishment of the 1969 CLC, which provided strict liability and compulsory insurance for “[oil] pollution damage.”35 After that, the 1971 Fund was created as an additional compensation mechanism for “pollution damaged[s]” that exceed the liability limitation under the 1969 CLC. The ceiling for compensation thus reached 60 million SDR36 (84 million USD in 2016 terms) per incident, which included the amount paid under the 1969 CLC.37

In 1992, two protocols amended the old regime (the 1969 CLC–1971 Funds regime), thus formulating the 1992 Civil Liability Convention (1992 CLC)38 and the 1992 Fund Convention (1992 Fund).39 The amended CLC and Fund convention established a new regime that, for all practical purposes, inherited the old liability and compensation framework for ship-source oil spills,40 but provided

32. International Convention on Civil Liability for Oil Pollution Damage, supra note 2.
34. See Brief History of IMO, supra note 2; see also Moss, supra note 1.
35. “Pollution damage” means . . . loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur,” and includes “the costs of preventive measures and further loss or damage caused by preventive measures.” Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, supra note 10, 1956 U.N.T.S. at 285–86.
37. The unit of currency in the CLC and its Fund Conventions is the Special Drawing Right (SDR) as defined by the International Monetary Fund (IMF). In this article, to clearly compare the compensation standards between international conventions and Chinese legislations, the SDR has converted into U.S. dollars at the rate applicable on July 1, 2016 (1 SDR=US$1.395960). See SDR Valuation, INT’L MONETARY FUND, https://www.imf.org/external/np/fi/fin/data/rms_sdrv.aspx [https://perma.cc/4RN9-CYET].
40. The 1969 CLC applied to any persistent oil such as crude oil, fuel oil, heavy diesel oil, lubricating oil, and whale oil, whether carried on board a ship as cargo or in bunkers of such a ship; whereas oil in the 1992 CLC means any persistent hydrocarbon mineral oil (excluded whale oil), whether carried on board a ship as cargo or in the bunkers of such a ship. See International Convention on Civil Liability for Oil Pollution Damage, supra note 2, 973 U.N.T.S. at 5; see also Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, supra note 10, 1956 U.N.T.S. at 285.
much higher limits of compensation.\textsuperscript{41} In 2003, a protocol to the 1992 Fund—the 2003 Supplementary Fund Protocol—was adopted that further increased the maximum potential compensation for a given spill.\textsuperscript{42} Membership in the Supplementary Fund is optional and any member state of the 1992 Fund may join the Supplementary Fund.\textsuperscript{43} The 1992 Fund and the Supplementary Fund together constitute the International Oil Pollution Compensation Funds (IOPC Funds), which gradually developed into two intergovernmental organizations providing compensation for oil pollution damages resulting from tanker spills of persistent oil.\textsuperscript{44}

Although the 1992 CLC–IOPC Funds is a compensation regime for oil pollution resulting from tankers, this regime is limited in its scope, only covering pollution damage arising from spills of persistent oil from tankers. It does not provide compensation for other types of oil spills in maritime transportation, such as non-persistent oil (e.g., gasoline, light diesel oil, kerosene) or oils from other types of substances (e.g., chemicals, liquefied gases or noxious liquid substances), nor does it cover spills occurring during offshore extraction activities. In other words, when pollution damages derive from a source other than maritime transport or are not caused by persistent oil, the related accidents are not compensable through the 1992 CLC–IOPC Funds regime.

To address non-persistent oil spills, as well as spills involving other substances, the International Marine Organization (IMO) developed the International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (Bunker Convention)\textsuperscript{45} and the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substance by Sea (HNS Convention).\textsuperscript{46} The Bunker Convention provides a framework for liability and compensation for bunker oil\textsuperscript{47} pollution caused by all categories of sea-going vessels other than oil tankers. It is closely modeled after the 1992 CLC, which imposes upon ship owners strict, but limited, liability for

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\textsuperscript{41} Article 6(1) of the 1992 CLC Protocol is amended as follows: a. the reference to “3 million units of account” shall read “4,510,000 units of account”; b. the reference to “420 units of account” shall read “631 units of account”; and c. the reference to “59.7 million units of account” shall read “89,770,000 units of account.” See Adoption of Amendments of the Limitation Amounts in the Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, Oct. 18, 2000, IMO Doc. LEG 82/12, annex 2, at 2 [hereinafter Adoption of the Amendments of the Limitation Amounts].


\textsuperscript{44} Id.

\textsuperscript{45} International Convention on Civil Liability for Bunker Oil Pollution Damage, supra note 3.


\textsuperscript{47} “Bunker oil” means any hydrocarbon mineral oil, including lubricating oil, used or intended to be used for the operation or propulsion of the ship, and any residues of such oil. See International Convention on Civil Liability for Bunker Oil Pollution Damage, supra note 3, art. 1.5.
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pollution damages. This strict liability provision is coupled with a compulsory insurance requirement provision establishing a claimant’s right of action against the insurer. The HNS Convention is also modeled after the 1992 CLC and 1992 Fund Convention, and was adopted in 1996 to complement the CLC–IOPC Fund regime by providing compensation to victims of accidents involving a wide range of hazardous and noxious substances, including bulk cargoes (solids, liquids including oils, and liquefied gases) and packaged goods.48

B. The 1992 CLC–IOPC Funds Regime

The 1992 CLC–IOPC Funds regime creates a three-tier system to effectively compensate for oil spill damages in shipping activities. Under this regime, the following compensatory damages are available to parties injured as a result of an oil spill:

- cleanup costs and preventive measures;
- property damage;
- economic loss
  - to fisheries, mariculture, and fish processing sector,
  - in the tourism sector;
- measures to prevent pure economic loss; as well as
- environmental damage and post-spill studies.49

Regardless of the flag state of the tanker and the nationality of the ship owner, the regime covers oil spills that occur in a member state’s territory, territorial sea, or EEZ or equivalent area.50

The 1992 CLC is the first tier of compensation. It imposes strict liability on ship owners in the context of accidental oil spills whereby a ship owner is liable for pollution damage caused by its tanker regardless of fault.51 A ship owner is also entitled to liability limitation, based on gross ship tonnage,52 in the maximum amount of 89.77 million SDR (125.32 million USD). However, a ship owner will be deprived of this right to limited liability “if the damage resulted from the

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50. INTERNATIONAL REGIME FOR COMPENSATION FOR OIL POLLUTION DAMAGE, supra note 43, at 2.
51. There are a limited number of exceptions for strict liability, including where (a) the damage resulted from an act of war or a grave natural disaster; (b) the damage was wholly caused by sabotage by a third party; and (c) the damage was wholly authorities in maintaining lights or other navigational aids that the damage resulted from. See International Convention on Civil Liability for Oil Pollution Damage, supra note 2, 973 U.N.T.S. at 5.
52. Monetary limit of liability of 1992 CLC is based on ship gross tonnage (GT): ≤5000 GT, 4.51 million SDR; 5,000–14,0000 GT, 4.51 million SDR plus 631 SDR for each GT; > 14,0000 GT, 89.77 million SDR. The ship owner’s insurer will be entitled to the same limits as the ship owner. See Adoption of the Amendments of the Limitation Amounts, supra note 41; see also Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, supra note 10, at 287.
owner’s personal act with the intent to cause such loss or recklessly and with knowledge that such damage would probably result.\textsuperscript{53}

In order to ensure that compensation claims against a ship owner are not frustrated by insolvency, the 1992 CLC also established compulsory insurance requirements. In particular, owners of ships registered in member states carrying more than 2000 tons of persistent oil as cargo must maintain insurance or other financial security to cover their liability for potential pollution damages.\textsuperscript{54} Similarly registered ships must carry a certificate on board attesting to the insurance coverage. These insurance certificates must also be carried aboard ships not registered in a member state but that navigate seas under the jurisdiction of a party to the 1992 CLC.\textsuperscript{55} In addition, claims for pollution damages under the 1992 CLC must be brought directly against a registered ship owner, the insurer, or other person providing financial security for the owner’s pollution damage liability.\textsuperscript{56}

The second tier of protection provided by the 1992 Fund is triggered when a state party victim does not obtain sufficient compensation under the 1992 CLC for one of the following reasons:\textsuperscript{57}

- the ship owner is
  - exempt under the 1992 CLC because it can invoke one of the exemptions under that convention,\textsuperscript{58} or
  - financially incapable of meeting its obligations under the 1992 CLC in full and its insurance is insufficient to satisfy the claims for compensation; or
- the damage exceeds the ship owner’s maximum liability under the 1992 CLC.

The 1992 Fund complements the 1992 CLC, and also regulates the limited circumstances in which the Fund is not triggered (for example, where the pollution

\textsuperscript{54} See International Convention on Civil Liability for Oil Pollution Damage, supra note 2, 973 U.N.T.S. at 7; see also Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, supra note 10, at 289.
\textsuperscript{55} See International Convention on Civil Liability for Oil Pollution Damage, supra note 2, 973 U.N.T.S. at 7; see also Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, supra note 10, at 289.
\textsuperscript{56} INTERNATIONAL REGIME FOR COMPENSATION FOR OIL POLLUTION DAMAGE, supra note 43, at 10.
\textsuperscript{57} Id. at 23.
\textsuperscript{58} See International Convention on Civil Liability for Oil Pollution Damage, supra note 2, 973 U.N.T.S. at 5.

No liability for oil pollution damage shall attach to the owner if he proves that the damage: (a) resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character, or (b) was wholly caused by an act or omission done with intent to cause damage by a third part, or (c) 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.

\textit{Id.}
damage “resulted from an act of war,” or where the claimant “cannot prove that the pollution damage resulted from an incident involving one or more ships, as defined in the Convention.” In terms of liability limitations, the 1992 Fund currently offers up to 203 million SDR (283 million USD) in coverage for each oil spill incident, which includes any compensation actually paid by or on behalf of a ship owner under the 1992 CLC. The 1992 Fund is supported by contributions from member state private parties who annually receive more than 150,000 metric tons (mt) of “contributing oil.” This means accession to the 1992 Fund may be associated with certain financial burdens. Thus, for the states whose “contributing oil” is less than 150,000 mt, accession to the 1992 Fund, it “would appear only advantageous and, therefore, highly advisable.”

The 2003 Supplementary Fund Protocol offers a third tier of compensation in cases where the protection afforded under the 1992 CLC and the 1992 Fund Convention is insufficient. The maximum amount of compensation available under the 2003 Supplementary Fund is 750 million SDR (1.04 billion USD), which includes any compensation paid under the 1992 CLC and the 1992 Fund. Similar to the 1992 Fund, the 2003 Supplementary Fund is also financed by member state “oil receivers,” but only those from member states deemed to have received at least 1 million mt of “contributing oil” per year. Since no accident has yet occurred and been compensated by the Supplementary Fund, only a small amount of administrative expense is currently levied on the member states of the Supplementary Fund. Accordingly, the Supplementary Fund can guarantee claimants sufficient compensation in the case of catastrophic oil spills, and

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59. Id.
63. See U.N. CONF. ON TRADE AND DEV., supra note 60, at 28.
64. Id. at 18.

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(3) ‘Contributing oil’ means crude oil and fuel oil as defined . . . below:
(a) ‘Crude Oil’ means any liquid hydrocarbon mixture occurring naturally in the earth whether or not treated to render it suitable for transportation. It also includes crude oils from which certain distillate fractions have been removed (sometimes referred to as ‘topped crudes’) or to which certain distillate fractions have been added (sometimes referred to as ‘spiked’ or ‘reconstituted’ crudes).
(b) ‘Fuel Oil’ means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the ‘American Society for Testing and Materials’ Specification for Number Four Fuel Oil (Designation D 396-69), or heavier.

widespread adoption of the Supplementary Fund may reduce the financial burden on each member state.

C. Liability and Compensation for Pollution from Offshore Operations

Although the 1992 CLC–IOPC regime offers a model of compensating oil pollution, it does not apply to pollution from offshore oil and gas operations. Other international conventions on liability and compensation for ship-source oil pollution also do not cover oil spills in offshore extractive activities; offshore accidents usually occur on offshore installations that are not generally considered "ships" by definition. Only some offshore installations would be treated as ships, but there is no uniform rule for the legal status of these installations under international law.

Practically speaking, the term “ship” is defined differently in various international conventions with different purposes. Some conventions, like the 1992 CLC and its Fund, provide the explicit criterion that a “ship” must have the capacity to navigate at sea. Accordingly, only those mobile installations that

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"Ship" means any sea-going vessel and seaborne craft of any type whatsoever that is used for the purpose of exploring for, producing, treating, storing, transmitting or regaining control of the flow of crude oil from the seabed or its subsoil; any well which has been used for the purpose of exploring for, producing or regaining control of the flow of crude oil from the seabed or its subsoil and which has been abandoned after the entry into force of this Convention for the Controlling State concerned; (c) any well which is used for the purpose of exploring for, producing or regaining control of the flow of gas or natural gas liquids from the seabed or its subsoil during the period that any such well is being drilled, including completion, or worked upon except for normal maintenance operations; (d) any well which is used for the purpose of exploring for any mineral resources other than crude oil, gas or natural gas liquids, where such exploration involves the deep penetration of the subsoil of the seabed; and (e) any facility which is normally used for storing crude oil from the seabed or its subsoil; which, or a substantial part of which, is located seaward of the low-water line along the coast as marked on large-scale charts officially recognized by the Controlling State; provided, however, that (i) where a well or a number of wells is directly connected to a platform or similar facility, the well or wells together with such platform or facility shall constitute one installation; and (ii) a ship as defined in the International Convention on Civil Liability for Oil Pollution Damage, done at Brussels on 29 November 1969 shall not be considered to be an installation.

Id.
“have [their] own independent motive power and steering equipment for seagoing navigation, and are employed either as storage units or for carriage of oil in bulk as cargo,” would be classified as ships under the CLC–Funds definitions. Others such as the Bunker Convention and the HNS Convention define “ship” simply as “any seagoing vessel and seaborne craft, of any type whatsoever.” Although this definition could potentially be interpreted broadly enough to cover both mobile and fixed oil installations, and thereby trigger a duty to obtain insurance for those installations, it remains difficult to apply the compensation mechanism for ship-source oil spills to offshore oil spills based on the distinct characteristics of offshore installations and ships. In practice, there have been no offshore installation oil spills compensated under the IMO Civil Liability and Fund conventions.

Although a series of international legal practices for oil pollution in offshore extractive activities have developed since the 1970s, few conventions effectively establish an international liability and compensation regime for offshore oil accidents (see Table 2 below). Due to different levels of development in the offshore oil and gas industry around the world, as well as different interests among countries, regulations applicable to offshore accidents tend to come in the form of contracts or regional agreements. Although they serve an important function in promoting and ensuring regional offshore oil and gas safety, it is not ideal to have different legal regimes for individual countries. For example, under different regimes, offshore installations could fall under the definition of “ships” in one jurisdiction and “independent drilling units” in another; and the ceiling for an offshore installation operator’s liability for accidental spills may be limited in one country and unlimited in another. As a result, unification of definitions and legal mechanisms must be addressed “before the various regions of the world develop incompatible legal and liability regimes.”

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69. Balkin, supra note 67.
70. Id.
TABLE 2. Legal practices on international convention for oil pollution in offshore extractive activities

<table>
<thead>
<tr>
<th>Convention</th>
<th>Legal Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Offshore Pollution Liability Agreement (OPOL), 1974</td>
<td>The OPOL is a private agreement initially applied to offshore facilities within the jurisdiction of the United Kingdom, but has subsequently been extended to apply to such facilities within the jurisdiction of other countries as well. It covers oil discharges from offshore facilities within the jurisdiction of any state that is specified in OPOL, and participating states now require applicants for offshore exploration, exploitation, and pipe-laying licenses to be a party to OPOL. In terms of compensation, the OPOL establishes a current maximum of 250 million USD per incident, subject to a few exceptions, for pollution damage and the cost of remedial measures incurred. Each operator should accept strict liability.</td>
</tr>
<tr>
<td>Convention on Civil Liability for Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources (CLEE), 1977</td>
<td>The CLEE was an attempt at establishing a separate liability regime for the offshore oil and gas industry. It provides detailed rules concerning the standards of liability (strict or fault), limitations of liability (limited or unlimited), and jurisdiction, referring to “installations” that covers all fixed or mobile units, storage installations and most pipelines. Unfortunately, this instrument has never achieved the necessary ratifications for entry into force, but offers a useful model on liability for offshore oil pollution to study and optimize.</td>
</tr>
</tbody>
</table>


“Offshore facility” means (a) any well and any installation or pipeline or portion thereof of any kind, fixed or mobile, being used for the purpose of exploring for, producing, treating, storing or transporting Oil from the seabed or its subsoil; (b) any well used for the purpose of exploring for or recovering gas or natural gas liquids from the seabed or its subsoil during the period that any such well is being drilled (including completion), re-completed or worked upon (except for normal work-over operations); or (c) any installation of any kind, fixed or mobile, intended for the purpose of exploring for, producing, treating or storing Oil from the seabed or its subsoil where such installation has been temporarily removed from its operational site for whatever reason. Id.

73. See The Offshore Pollution Liability Agreement (OPOL), OFFSHORE POLLUTION LIAB. ASS’N LTD. 2 (2016), http://www.opol.org.uk/about-1.htm [https://perma.cc/5BRN-R9GJ]. Until July 1, 2016, the OPOL applied to the offshore facilities in Denmark, the Federal Republic of Germany, France, the Republic of Ireland, the Netherlands, Norway, the Isle of Man, the Faroe Islands, and Greenland, but excluding such facilities located in the Baltic and Mediterranean Seas. It can be extended to apply to offshore facilities within the jurisdiction of any other state. Id.

74. See OFFSHORE POLLUTION LIAB. ASS’N LTD., supra note 72, at 6.


76. Gold, supra note 71, at 221.

77. See Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, supra note 65.

The CMI draft convention, also known as the Rio Draft, constituted a model of incorporation by reference, but initially could not form “a practical regime suitable for offshore units.” The convention was later revised in 1994, then accepted by the CMI. This instrument became known as the Sydney Draft. Notwithstanding the creation of the Sydney Draft, the International Association of Drilling Contractors and the United States Maritime Law Association insisted that a comprehensive international treaty for oil installations was not necessary. This led to the striking of Sydney Draft from the IMO long-term working plan. However, although establishment of an international convention for offshore installations had been officially ceased, a CMI working group and the Canadian Maritime Law Association developed the Draft Convention on Offshore Units, Artificial Islands and Related Structures Used in the Exploration for and Exploitation of Petroleum and Seabed Mineral Resources 2001, i.e., the Canadian Draft, which provides for comprehensive coverage for of oil installations, including “property, registration, privileges, mortgages, civil and penal jurisdiction to salvage, pollution and liability for leakage.” At the 2004 CMI Conference in Vancouver, this draft convention received overall support despite continued strong opposition from the United States; and participants of the conference agreed to continue to work towards improving this instrument.

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80. Among the problems sought to be addressed by the original Rio Draft were unclear definitions of the term “ship” and disordered practices in applying the term to “offshore units”. See Michael White, Offshore Craft and Structures: A Proposed International Convention, 18 AUSTL. MINING & PETROLEUM L.J. 21, 22 (1999).


82. Article 1 of the Comité Maritime International (CMI) Constitution provides that the CMI “is a non-governmental not-for-profit international organization established in Antwerp in 1897, the object of which is to contribute by all appropriate means and activities to the unification of maritime law in all its aspects.”


86. Allen, supra note 84, at 91.
The UN Law of the Sea Convention, 1982

| UN Law of the Sea Convention, 1982 | The UNCLOS provides a fruitful framework for future development, rather than an operational treaty on liability and compensation for offshore oil spill damages. In particular, article 194(3) calls upon member states to take measures to minimize the "pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices." Article 208 additionally encourages member states to "cooperate in the implementation of existing international law and further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes." |

In effect, liability and compensation for offshore oil accidents are not strictly legal problems, but also relate to a political issue: “[s]tates do not [wish to relinquish] their sovereignty over [c]ontinental [s]helves and [EEZs] and resist [subscribing] to an international convention [regarding those offshore extraction activities because] they understand [international law] may limit [their] jurisdictional [authority].” However, as the risk of offshore oil spill accidents increases, a unified international regime is likely to be the most effective method for providing adequate and fair compensation for oil pollution damages of member states. One reason for this is that offshore oil and gas facilities are usually operated by multinational corporations, a situation which presents complications in stating claims for compensation when oil spill accidents occur. For example, in developing countries, ineffectively structured international and national regulations not only aggravate damages for victims in the event of an oil spill accident, but also allow multinational oil and gas corporations to profit without taking responsibility for oil pollution. Another reason an international regime is necessary is that offshore accidents can easily cause transboundary pollution; and without a unified liability and compensation regime, applicable laws may conflict inter se involved states. Furthermore, with offshore extractive industries expanding their activities to the high seas and polar areas, international regulations will be of particular importance in preventing and controlling the potential risks of offshore oil accidents in those common areas of the world not within any one country’s exclusive jurisdiction. All these considerations together demonstrate that an international convention addressing offshore extractive activities should be promoted and introduced to the IMO’s agenda.

III. IMPLEMENTATION OF THE INTERNATIONAL LIABILITY AND COMPENSATION REGIME FOR OIL SPILL ACCIDENTS IN CHINA

Worldwide, coastal states may be divided into three categories based on the compensation regimes they have adopted in the face of marine oil pollution. In the first category are the majority of coastal states, which have fully adopted the 1992 CLC–IOPC funds regime, South Korea and Japan being notable examples.

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88. Gold, supra note 71, at 224.
89. Position Paper, supra note 85, at 9.
These states deal with oil spill accidents based on international conventions without regard to whether the accidents involve domestic or non-domestic tankers. The second category includes states that fully rely on domestic law, without taking part in any international convention. For instance, the United States applies a unilateral approach to the compensation for oil pollution. Compared with the 1992 CLC–IOPC funds regime, the United States’ regime provides substantially unlimited liability, and recognizes broader compensation for natural resources damages. States in the third category adopt a regime combining international and domestic legal frameworks, such as Canada and China. Under this approach, international conventions and domestic regulations are likely to complement each other, which accords with the rule of the United Nations Convention of the Law of the Sea (UNCLOS):

States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

A. Overview of the Chinese Regime on Liability and Compensation for Oil Pollution

Presently, the Chinese regime concerning liability and compensation for oil pollution adopts the double mechanism approach. On one hand, China has fully acceded to the 1992 CLC and the Bunker Convention, but only applied the 1992 Fund to the Hong Kong Special Administrative Region. According to the general principles of Chinese law (see Table 3 below), international treaties are applied with priority when they contain provisions that differ from domestic regulations. On the other hand, a domestic liability fund regime can be applied to ship-source oil pollution when the pollution damage cannot be compensated under the international regime. China has also selectively assimilated certain rules of CLC–IOPC Funds into its domestic liability-fund regime, but the compensation criteria is far lower than the criteria established in the CLC–IOPC Funds regime. In terms of oil pollution from offshore operations, China has neither adopted an international convention nor enacted domestic legislation that would create a unified liability and compensation system. Some Chinese laws, such as the Marine Environmental Protection Law and Tort Law, provide fundamental principles on liability and compensation for oil pollution, which can apply to offshore oil spill damage, but

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these principles are too general to explicitly direct liability to responsible parties. As a result, adjudication of compensation for offshore oil spill accidents occurs mainly through administrative mediation in China.

### TABLE 3. Chinese laws and regulations related to the liability and compensation for oil spill accidents

<table>
<thead>
<tr>
<th>Category</th>
<th>Year</th>
<th>Legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General legal principles related to the liability and compensation for oil pollution</td>
<td>2014</td>
<td>Environmental Protection Law of the People’s Republic of China (EPL)</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>Marine Environmental Protection Law of the People’s Republic of China (MEPL)</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>Tort Law of the People’s Republic of China</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>General Principles Of the Civil Law of the People’s Republic Of China</td>
</tr>
<tr>
<td>Special laws related to the liability and compensation for ship-source oil spills</td>
<td>2013</td>
<td>Measures of the People’s Republic of China for the Implementation of Civil Liability Insurance for Vessel-induced Oil Pollution Damage (Insurance Implementation Measures)</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Detailed Rules for the Implementation of the Administrative Measures for the Collection and Use of Compensation Funds for Vessel-Induced Oil Pollution Damage</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Administrative Measures for the Collection and Use of Compensation Funds for Vessel-Induced Oil Pollution Damage</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>Provisions of the Supreme People’s Court on Several Issues Concerning the Trial of Cases of Disputes over Compensation for Vessel-induced Oil Pollution Damage (the 2011 Judicial Interpretation)</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Administrative Provisions of the People’s Republic of China on the Prevention and Control of Marine Environmental Pollution by Vessels and Their Operations</td>
</tr>
<tr>
<td></td>
<td>2009</td>
<td>Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment (Prevention Regulation)</td>
</tr>
<tr>
<td></td>
<td>1992</td>
<td>Maritime Law of the People’s Republic of China</td>
</tr>
<tr>
<td>Special laws related to the liability and compensation for offshore oil spills</td>
<td>2017</td>
<td>Regulation of the People’s Republic of China on the Administration of Environmental Protection for Offshore Oil Exploration and Exploitation</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>Measures for the Implementation of the Regulation of the People’s Republic of China on the Administration of Environmental Protection for Offshore Oil Exploration and Exploitation</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>Regulation of the People’s Republic of China on the Exploitation of Offshore Petroleum Resources in Cooperation with Foreign Enterprises</td>
</tr>
</tbody>
</table>


95. The year of the latest revision of the laws and regulations.
B. Implementation of the International Liability Regime for Ship-source Oil Pollution in China

As a signatory of the 1992 CLC and Bunker Convention, China has confirmed the applicability of the 1992 CLC to persistent oil spill accidents caused by tankers as long as the pollution damages occur within China’s territory and EEZs. Meanwhile, non-persistent oil spills caused by oil tankers or oil spills caused by non-oil tankers are to be settled according to the Maritime Law. Since the Bunker Convention does not have an independent limitation of liability or exclusive funds available to compensate bunker oil pollutions, the Chinese liability regime incorporated rules from the Bunker Convention into its domestic regulations for bunker oil pollutions (see Table 4 below). According to Article 5 of the 2011 Judicial Interpretation:

If oil pollution damage is done due to the persistent oil carried by oil tankers, the limits of liability shall be determined according to the Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment and the International Convention on Civil Liability for Oil Pollution Damage (1992).

If oil pollution damage is caused by non-persistent bunker oil carried by oil tankers or by bunker oil carried by vessels other than oil tankers, the limits of liability shall be determined according to the provisions of the Maritime Law on the limits of liability for maritime claims.

### TABLE 4. Applicable law for different types of oil pollution in China

<table>
<thead>
<tr>
<th>Ships</th>
<th>Types Oil Pollution</th>
<th>Applicable Law</th>
<th>Applicable Limitation of Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ships under the 1992 CLC (oil tankers)</td>
<td>Persistent oil as cargo</td>
<td>1992 CLC</td>
<td>1992 CLC</td>
</tr>
<tr>
<td></td>
<td>Persistent bunker oil</td>
<td>1992 CLC</td>
<td>1992 CLC</td>
</tr>
<tr>
<td></td>
<td>Non-persistent oil as cargo</td>
<td>Prevention Regulation Bunker Convention</td>
<td>Maritime Law</td>
</tr>
<tr>
<td></td>
<td>Non-persistent bunker oil</td>
<td></td>
<td>Maritime Law</td>
</tr>
<tr>
<td>Ships not under the 1992 CLC (non-oil tankers)</td>
<td>Persistent oil as cargo</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Persistent bunker oil</td>
<td>Bunker Convention</td>
<td>Maritime Law</td>
</tr>
<tr>
<td></td>
<td>Non-persistent oil as cargo</td>
<td>Prevention Regulation Bunker Convention</td>
<td>Maritime Law</td>
</tr>
<tr>
<td></td>
<td>Non-persistent bunker oil</td>
<td></td>
<td>Maritime Law</td>
</tr>
</tbody>
</table>

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96. The territory includes the territorial sea. See Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, supra note 10, at art. 3.


98. Provisions of the Supreme People’s Court on Several Issues Concerning the Trial of Cases of Disputes over Compensation for Vessel-induced Oil Pollution Damage (promulgated by the 1509th meeting of the Judicial Comm. of the Sup. People’s Ct., May 4, 2011, in force July 1, 2011), art. 5.
Similar to the 1992 CLC, China’s Maritime Law also adopts a strict liability principle, exempting only damages resulting “from war, natural disaster, the negligence of public authorities in maintaining lights or other navigational aids, and either the sabotage or wrongful acts of the third party.”\textsuperscript{99} The limitation of liability is also established according to the gross tonnage of the ship, and is divided into the categories of personal injury compensation and non-personal injury compensation (see Table 5 below).\textsuperscript{100} Notably, domestic limitation of liability for oil pollution established by the Maritime Law is significantly lower than that of the 1992 CLC. As a result, for those non-persistent bunker oil spills or bunker oil spills caused by non-oil tankers in China, domestic limitation of liability insufficiently compensates economic loss as well as environmental damage, and urgently needs improvement via amendment to the Maritime Law.

Further, to guarantee the financial security of ship owners, China has established a compulsory insurance system (see Table 5 below). The system, together with liability rules, constitutes the first tier of compensation for oil pollution. According to Insurance Implementation Measures,

for the vessels carrying oil substances and vessels carrying non-oil substances with a gross tonnage of not less than 1,000 gross tons which are navigating within the sea areas of the People’s Republic of China, the owners thereof shall buy civil liability insurance for vessel-induced oil pollution damage or obtain corresponding financial guarantee in accordance with these Measures.\textsuperscript{101}

Consistent with the Prevention Regulation, this rule confirms the insurance requirement for owners for three types of ships: those carrying as bulk cargo either (1) persistent or (2) non-persistent oil, or (3) more than 1,000 gross tons of non-oil substances.\textsuperscript{102} Compared with the 2,000 ton persistent oil carriage requirement under the 1992 CLC, China’s domestic oil pollution insurance provision actually provides a stricter standard for the shipping industry. Furthermore, the domestic minimum insurance is set at no less than the insurance criteria for oil pollution in the Maritime Law and the 1992 CLC, respectively.\textsuperscript{103} This high standard insurance may increase the cost of shipping, but in the long term it will tend to eliminate ineffectively managed oil ships and reduce the risks of ship-source oil pollution.


\textsuperscript{100} Peng Zhang et al., supra note 90, at 78.


\textsuperscript{102} Id. at art. 4.

\textsuperscript{103} Compare id. at arts. 5, 6 with Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, art. 6, supra note 10, at 285–86.
TABLE 5. Liability limitation comparison between the 1992 CLC-IOPC Funds regime and the Chinese regime

<table>
<thead>
<tr>
<th>Tier</th>
<th>1992 CLC-Funds Regime</th>
<th>Chinese Regime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Injury</td>
<td></td>
</tr>
<tr>
<td>First</td>
<td></td>
<td>Personal Injury</td>
</tr>
<tr>
<td></td>
<td>(a) ≤ 5000 GT, 4.51 million SDR</td>
<td>20–21 GT, 54000 SDR</td>
</tr>
<tr>
<td></td>
<td>(b) 5000—140000 GT, 4.51 million SDR plus</td>
<td>&gt; 21 GT, 54000 SDR plus 1000 SDR for each GT</td>
</tr>
<tr>
<td></td>
<td>(c) &gt; 140000 GT, 89.77 million SDR</td>
<td>300–500 GT, 333000 SDR</td>
</tr>
<tr>
<td></td>
<td>Non-personal injury</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20–21 GT 27500 SDR; 21–300 GT, 27500 SDR plus 500 SDR for each GT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>300–500 GT, 167000 SDR for each GT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>501–3000 GT, 167000 SDR 167 SDR for each GT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000–70000 GT, SDR3000 GT plus 125 SDR for each GT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 70000 GT, SDR70000 GT plus 83 SDR for each GT</td>
<td></td>
</tr>
</tbody>
</table>

Insurance

For ships carrying more than 2000 tonnes of oil as cargo in bulk, the shipowner is obliged to maintain insurance to cover his liability under the 1992 CLC, and claimants have a right of direct action against the insurer. 104

Vessels carrying persistent oil substances:

≤ 5000 GT, 4.51 million SDR
> 5000 GT, 4.51 million SDR plus 631 SDR for each GT, no more than 89.77 million SDR

Vessels carrying non-persistent oil substances:

20–21 GT 27500 SDR
21–300 GT, 27500 SDR plus 500 SDR for each GT
300–500 GT, 167000 SDR for each GT
501–3000 GT, 167000 SDR 167 SDR for each GT
3000–70000 GT, SDR3000 GT plus 125 SDR for each GT
> 70000 GT, SDR70000 GT plus 83 SDR for each GT

C. The Implementation of the IOPC Funds and its Challenges in China

Taking into consideration the heavy contributions levied by the IOPC Funds and the limited financial ability of domestic ship owners, China has now adopted the 1992 Funds only in the Hong Kong Special Administrative Region. As China has become the largest global net importer of crude oil in recent years, the risk of spills in its oil shipping has also necessarily increased. As potential loss magnitude of losses rises along with this increased risk, China should fully accept the international Funds for oil pollution to assure sufficient compensation in the event an oil spill accident occurs.

Nonetheless, many oil ships in China operate in marginal situations, from the standpoint of the current compensation regime. For example, some ships that transport less than 1,000 gross tons of oil do not have oil spill insurance and operate in a grey area in terms of potential liability as these ships cannot apply the Insurance Implementation Measures. Other Chinese ships are designed with single-layer hulls, which are more likely than double-layer hulls to leak oil in low-impact collisions and groundings. These factors illustrate that a significant portion of the Chinese shipping industry currently cannot afford the contributions required by the IOPC Funds and thus needs reform.

While a domestic fund for compensating ship-source oil pollution has been created as a second tier of compensation in China, since 1999, the Marine Environment Protection Law (MEPL) has provided the legal authority for establishing such a fund. The law states:

[t]he State shall perfect and put into practice the civil liability system of compensation for vessel-induced oil pollution, and shall establish a fund system for vessel-induced oil pollution insurance and oil pollution compensation based on the principle

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108. See supra note 13.
of the vessel and cargo owners jointly undertaking the risks of any vessel-induced oil pollution compensation liability.\textsuperscript{109}

In 2010, the Prevention Regulation also proposed a basic framework for such a domestic compensation fund, providing that the fund would be operated by the government and oil receivers.\textsuperscript{110} Accordingly, China issued Administrative Measures\textsuperscript{111} in 2012 which, together with Detailed Rules,\textsuperscript{112} provide guidance for the fund levy. Finally, in June 2015, a Fund Management Committee\textsuperscript{113} was established to administer the compensation mechanism for vessel-induced oil pollution.\textsuperscript{114} Responsible for decision-making, the Fund Executive Committee is comprised of nine relevant government agencies.\textsuperscript{115} A Claim Affairs Center independently enforces the Committee’s compensation decisions.

Similar to the IOPC Funds, the domestic fund was also established with the purpose of providing additional compensation for ship-source oil spill damage, while balancing the financial burden between Chinese ship owners and oil receivers. The provisions of the Administrative Measures are nearly identical their IOPC Funds counterparts. While the domestic fund provides compensation for ship-source oil pollution, its first priority is covering emergency disposal of oil pollution,\textsuperscript{116} which is not reflected in the 1992 CLC–IOPC Funds regime. According to the Administrative Measures, the Fund Executive Committee levies

\begin{itemize}
  \item[110.] Regulations of the People’s Republic of China on the Prevention and Control of Vessel-Induced Marine Environment Pollution (promulgated by the Standing Comm. Nat’l People’s Cong., Sept. 9, 2009, effective Mar. 1, 2010), art. 56.
  \item[111.] Administrative Measures for the Collection and Use of Compensation Funds for Vessel-Induced Oil Pollution Damage (promulgated by the Ministry of Fin. and the Ministry of Transp. of the People’s Republic of China, May 11, 2012, effective July 1, 2012).
  \item[112.] Detailed Rules for the Implementation of the Administrative Measures for the Collection and Use of Compensation Funds for Vessel-Induced Oil Pollution Damage (promulgated by the Ministry of Fin. and the Ministry of Transp. of the People’s Republic of China, Apr. 16, 2014, effective Apr. 16, 2014).
  \item[113.] The Executive Committee is composed of the Ministry of Transport of the People’s Republic of China (MOC), Ministry of Finance of the PRC, Ministry of Agriculture of the PRC, Ministry of Environmental Protection of the PRC, State Oceanic Administration of the PRC, China National Tourism Administration, China National Petroleum Corporation (Sinopec Group), and China National Offshore Oil Corporation (CNOOC).
  \item[114.] Maritime Bureau, supra note 11.
  \item[116.] Administrative Measures for the Collection and Use of Compensation Funds for Vessel-Induced Oil Pollution Damage (promulgated by the Ministry of Fin. and the Ministry of Transp. of the People’s Republic of China, May 11, 2012, effective July 1, 2012), art. 17.
\end{itemize}
0.3 CNY (0.05 USD) per ton of persistent oil products from oil receivers or their agents. From July 1, 2012 to May 30, 2015, approximately 1,660 million CNY (25 million USD) was levied, which could compensate fourteen oil spill accidents, as estimated and calculated by the Chinese government. Because the domestic fund is in an early stage of operation, compensation associated with certain criteria is much lower than for the IOPC Funds; the highest compensation amount for each accident is only 30 million CNY (4.5 million USD). In July 2016, two Claims Guidelines were issued for claimants and specific claims work, respectively. By offering detailed procedures for claiming funds, the Guidelines may improve fairness and efficiency in compensating ship-source oil pollution damage; however, these Claims Guidelines are not considered to be the legal basis for claiming funds when a court hears specific cases.

D. Liability and Compensation for Offshore Oil Spill Accidents in China

In attempting to create working definitions for offshore installations, both the Chinese Maritime Code and 2011 Judicial Interpretation incorporate “offshore mobile units” into the definition of “ships.” This indicates that not only sea-going vessels, but also sea-mobile units such as floating drilling platforms, hovercrafts, and seaplanes may trigger application of the liability rules for ship-source oil pollution. However, major offshore accidents usually occur on fixed drilling platforms, but China lacks the relevant liability and compensation and the ship-source oil pollution regime cannot be applied.

Domestic legislation covering civil liability for offshore oil spill accidents is scarce. However, a fundamental Chinese regulation concerning pollution damage in the MEPL provides:

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119. See Maritime Bureau, supra note 11.


121. Claim Guidelines of Compensation Funds for Vessel-Induced Oil Pollution Damage (Trial Version) (promulgated by the Mar, Safety Admin. of the Ministry of Transp. of the People’s Republic of China, July 2016) (applied to accidents having occurred since the July 1, 2012).


123. See Maritime Code of the People’s Republic of China (promulgated by the 28th Meeting of the Standing Committee of the Seventh Nat’l People’s Congr., Nov. 7, 1992, effective July 1, 1993), art. 5; see also Provisions of the Supreme People’s Court on Several Issues Concerning the Trial of Cases of Disputes over Compensation for Vessel-induced Oil Pollution Damage (promulgated by the 1509th meeting of the Judicial Comm. of the Supr. People’s Ct., May 4, 2011, effective July 1, 2011), art. 31.1.
Any party that is directly responsible for a pollution damage to the marine environment shall relieve the damage and compensate for the losses; in case the pollution damage to the marine environment is entirely caused by an intentional act or a fault of a third party, that third party shall relieve the damage and be liable for the compensation.124

Accordingly, a polluter is subjected to fault-based liability for marine oil pollution, and there is no limitation of liability for the pollution damage. While the Tort Law establishes strict liability for environmental pollution “[w]here any harm is caused by environmental pollution for the fault of a third party, the victim may require a compensation from either the polluter or the third party. After making compensation, the polluter shall be entitled to be reimbursed by the third party.”125

This state of the law presumably creates a conflict in laws, i.e., that offshore oil spill damage could trigger either fault-based liability or strict liability. Moreover, the MEPL and the Tort Law do not specifically define “polluter” and “responsible party,” which leads to ambiguity regarding who is subject to liability for oil spills.

Like ship owners, each enterprise, institution, or operator of an offshore oil and gas installation registered in China is also required to carry insurance or other financial guaranties with respect to liabilities for pollution damage.126 However, under the Chinese regime, there is no funding mechanism to supplement compensation for pollution from offshore operations.127 The domestic Chinese oil pollution fund currently only provides compensation for ship-source oil spills, which, together with the IOPC Funds, cannot be applied to offshore oil spill damage.

Due to the lack of a unified liability and compensation criteria for offshore accidents, oil pollution from offshore operations in China is more likely to be compensated through administrative mediation, as opposed to civil litigation.128 According to the MEPL, the State Oceanic Administration of PRC (OSA) is responsible for “the supervision and control over the marine environment, organize survey, surveillance, supervision, assessment and scientific research of the marine environment” and “the nation-wide environment protection work in preventing and controlling marine pollution damages caused by marine construction projects and dumping of wastes in the sea.”129 The OSA is also in charge of claiming

entitlement to compensation, on behalf of the State of China, from polluters for oil spill damage.\textsuperscript{130} Further, the MEPL provides a maximum fine of 200,000 CNY (approximately 29,000 USD) per marine environmental accident,\textsuperscript{131} which is extremely inadequate for offshore oil spill accidents. In addition, the MEPL imposes criminal liability on responsible parties for “any accident that causes major marine environment pollution and results thus in grave consequences of heavy losses in public and private properties or in injury and death of persons.”\textsuperscript{132} Offenses such as “Negligently Causing Serious Accident Crime” and “Taking Risk Work Crime” in the Criminal Law of PRC\textsuperscript{133} can be charged against parties responsible for offshore oil spill damage.\textsuperscript{134} However, although responsible parties may face criminal punishment, criminal law only been implemented in a few instances to deal with oil pollution caused by offshore oil and gas operations.\textsuperscript{135}

**CONCLUSION**

The international regime on liability and compensation for oil pollution consists of a series of IMO Civil Liability and Fund conventions. The regime operates stably and effectively in compensating ship-source oil pollution, but does not address pollution damage caused by offshore operations. Some private laws and regional agreements have provided liability and compensation mechanisms for offshore pollution damage. However, different state regimes have different criteria concerning the definitions of offshore installations, limitation of liability, compulsory insurance, as well as additional funds. With offshore drilling activities on the rise worldwide and increasingly moving into deeper seas, it is increasingly necessary for the world community to establish a unified regime for assigning liability and providing compensation to injured parties as a result of offshore oil spill damage, especially for the countries lacking domestic compensation mechanisms for these accidents.

China is experiencing a transitional phase of improving liability and compensation for oil pollution. In the face of ship-source oil pollution, China has fully implemented the 1992 CLC and Bunker Convention, and established domestic liability and fund rules as a supplementary regime. The combined system provides two tiers of compensation for oil pollution. However, compensation under China’s domestic liability-fund regime is potentially much lower than the compensation available under international civil liability conventions. For oil pollution from offshore operations, Chinese law only offers general rules on liability and compensation that are fragmented and contain internal conflicts in terms of definitions and the scope of liability for oil and gas installation owners and

\begin{itemize}
  \item \textsuperscript{130} See id. art. 90.
  \item \textsuperscript{131} See id. art. 91.
  \item \textsuperscript{132} See id.
  \item \textsuperscript{133} Criminal Law of the People’s Republic of China (promulgated by the 12th Nat’l People’s Congr. of the People’s Republic of China, Aug. 29, 2015, effective Nov. 1, 2015), Amendment IX; The Criminal Law of the People’s Republic of China, promulgated by Standing Comm. of the 5th Nat’l People’s Congr., July 1, 1979, effective Jan. 1, 1980).
  \item \textsuperscript{134} Wang & Zhao, supra note 128, at 63.
  \item \textsuperscript{135} Id.
\end{itemize}
operators. Overall, a liability-fund regime for ship-source oil pollution with a higher ceiling of compensation is urgently needed in China. And such a fund should establish criteria for compensation not less than the criteria for the 1992 CLC–IOPC Funds.

As the financial capability of Chinese ship owners improves, China should endeavor to fully implement the 1992 IOPC Funds regime, which requires certain monetary contributions from any qualified oil receivers\textsuperscript{136} of member states, but offers more comprehensive compensation for serious oil spill accidents. In addition, the Chinese domestic liability-fund regime for oil pollution must be extended to the pollution damage caused by offshore accidents. Finally, a fully actualized, unified liability and compensation regime in China—that provides for compensation for offshore accidents—will also almost certainly include binding liability and compensation criteria, as well as safety regulations for offshore extractive activities worldwide.

\footnote{\textsuperscript{136} See discussion \textit{supra} Part III.B.}