

# Vietnam Law on Marine Environment Protection and the Implementation of Marpol Convention 73/78 in Current Period

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#### **Abstract**

With the development of the maritime, the Vietnam sea is facing marine pollution by maritime operations, the marine resources are diminished. Although there are many solutions but the real effect is not high. Law on pollution control in the marine operations is limited. Maritime law of 2005 only has 4 rules stipulate the prevention of environmental pollution. Environmental Protection law of 2005 only stipulates principle of the protection of the marine environment in general. Management state system of control marine pollution in Vietnam has many shortcomings. So, the signing, approving and implementing the treaties, international laws on maritime as well as apply appropriate international maritime law system has an important role in the completion of laws system on protection of the marine environment of Vietnam in maritime operations. Therefore, the past time, Vietnam has signed, approved treaties and international agreements on marine protection in general and the marine environment in particular. Within the scope of this paper, mainly refers to the need to modify the Law on the protection of the marine environment in Vietnam to ready for approving fully MARPOL Convention 73/78.

Keywords: Vietnam Law on Marine Environmental Protection, Oil Pollution.

## 1. Introduction

Since the implementation of the policies of international economic integration, law on the protection of the marine environment began to be focused, and we can overview as follow:

- System policies and laws on the protection of the marine environment have been developed and
  perfecting. The state management agencies system to protect the marine environment from the central
  to local levels has gradually been strengthened and operational stability. Funding for the protection of
  the marine environment has been enhanced. Has a lot of the content on the prevention and control of
  pollution and conservation has achieved encouraging results.
- Have done some of projects with high efficiency such as: exploitation and sustainable use of marine resources; statistics, classification, assessment of marine natural resources, response, prevent oil spills.
- Besides, actively promulgate legal documents on protection of the marine environment, Vietnam has
  gradually approve international treaties on the marine environment. Approving convention is an
  important prerequisite for the integration of the law of Vietnam with the standards and indicators of
  international law.

But, besides the achievements, there are a lot of limitations and shortcomings:

- The law on environmental protection and other legal documents on natural resource or regulate activity in the manufacturing process and the business was still have some overlap and contradiction makes the application of the law very difficulties. Besides, the rules on environmental protection in the legal documents also quite general, especially in the other specialty legal documents very faint and difficult to implement.
- Lack of law enforcement mechanism on the protection of the marine environment, a mechanism to ensure enforcement of national legislation as well as the implementation of international commitments, treaties on the environment is not high.
- The legal documents on the protection of the marine environment in adjust activities of human on the marine environment are issued slow and asynchronous in both of time and content.
- The law on the protection of the marine environment do not have the appropriate remedial measures for the offender, so difficult to apply in practice. Do not have enough legal documents to raise the participation and contributions of all organizations and individuals in the protection of the marine environment.
- Lacks many legal documents, mechanisms, policies for management and protection of the marine environment; management capacity natural resource and protecting the marine environment is limited; Equipment, facilities serve management integrated marine environmental and resources is lacking; Environmental pollution of coastal water is increasing, oil pollution has become widespread, heavy metal pollution has occurred in some places; Marine biodiversity is receding. The prevention of marine pollution and response to oil spills has been stipulated in the general laws and specialized laws, but just stop at some disjointed documents, inconsistency and legal nature is low. The laws system in protecting



the marine environment still scattered, lacks a lot of documents and guideline documents is limited; and responsibility of the organization and individuals engaged in maritime operation has not been stipulated specified, do not have separate mechanism on compensation for damage by oil pollution, the most of enforcement measures is administrative sanctions, fines is not enough to deter a large oil spills.

# 2. Marpol Convention 73/78

The MARPOL Convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and updated by amendments through the years.

# 2.1 Introduction and history

The International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted on 2 November 1973 at IMO and covered pollution by oil, chemicals, and harmful substances in packaged form, sewage and garbage. The Protocol of 1978 relating to the 1973 International Convention for the Prevention of Pollution from Ships (1978 MARPOL Protocol) was adopted at a Conference on Tanker Safety and Pollution Prevention in February 1978 held in response to a spate of tanker accidents in 1976-1977. (Measures relate to tanker design and operation were also incorporated into a Protocol of 1978 relating to the 1974 Convention on the Safety of Life at Sea, 1974).

As the 1973 MARPOL Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the parent Convention. The combined instrument is referred to as the International Convention for the Prevention of Marine Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), and it entered into force on 2 October 1983 (Annexes I and II).

Oil pollution of the seas was recognized as a problem in the first half of the 20<sup>th</sup> century and various countries introduced national regulations to control discharges of oil within their territorial waters. In 1954, the United Kingdom organized a conference on oil pollution which resulted in the adoption of the International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL), 1954. Following entry into force of the IMO Convention in 1958, the depository and Secretariat functions in relation to the Convention were transferred from the United Kingdom Government to IMO.

Torrey Canyon

In 1967, the tanker Torrey Canyon ran aground while entering the English Channel and spilled her entire cargo of 120,000 tons of crude oil into the sea. This resulted in the biggest oil pollution incident ever recorded up to that time. The incident raised questions about measures then in place to prevent oil pollution from ships and also exposed deficiencies in the existing system for providing compensation following accidents at sea.

First, IMO called an Extraordinary session of its Council, which drew up a plan of action on technical and legal aspects of the Torrey Canyon incident. Then, the IMO Assembly decided in 1969 to convene an international conference in 1973 to prepare a suitable international agreement for placing restraints on the contamination of the sea, land and air by ships.

In the meantime, in 1971, IMO adopted further amendments to OILPOL 1954 to afford additional protection to the Great Barrier Reef of Australia and also to limit the size of tanks on oil tankers, thereby minimizing the amount of oil which could escape in the event of a collision or stranding.

1973 Convention

Finally, an international Conference in 1973 adopted the International Convention for the Prevention of Pollution from Ships.

While it was recognized that accidental pollution was spectacular, the Conference considered that operational pollution was still the bigger threat. As a result, the 1973 Convention incorporated much of OILPOL 1954 and its amendments into Annex I, covering oil.

But the Convention was also intended to address other forms of pollution from ships and therefore other annexes covered chemicals, harmful substances carried in packaged form, sewage and garbage. The 1973 Convention also included two Protocols dealing with Reports on Incidents involving Harmful Substances and Arbitration.

The 1973 Convention required ratification by 15 States, with a combined merchant fleet of not less than 50 percent of world shipping by gross tonnage, to enter into force. By 1976, it had only received three ratifications - Jordan, Kenya and Tunisia - representing less than one percent of the world's merchant shipping fleet. This was despite the fact that States could become Party to the Convention by only ratifying Annexes I (oil) and II (chemicals). Annexes III to V, covering harmful goods in packaged form, sewage and garbage, were optional.

It began to look as though the 1973 Convention might never enter into force, despite its importance. 1978 Protocol



In 1978, in response to a spate of tanker accidents in 1976-1977, IMO held a Conference on Tanker Safety and Pollution Prevention in February 1978 (TSPP). The conference adopted measures affecting tanker design and operation, which were incorporated into both the Protocol of 1978 relating to the 1974 Convention on the Safety of Life at Sea (1978 SOLAS Protocol) and the Protocol of 1978 relating to the 1973 International Convention for the Prevention of Pollution from Ships (1978 MARPOL Protocol) - adopted on 17 February 1978.

More importantly in terms of achieving the entry into force of MARPOL, the 1978 MARPOL Protocol allowed States to become Party to the Convention by first implementing Annex I (oil), as it was decided that Annex II (chemicals) would not become binding until three years after the Protocol entered into force.

This gave States time to overcome technical problems in Annex II, which for some had been a major obstacle in ratifying the Convention.

As the 1973 Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the parent Convention. The combined instrument - the International Convention for the Prevention of Marine Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) - finally entered into force on 2 October 1983 (for Annexes I and II).

# 2.2 Basic content of Marpol Convention 73/78

The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and that from routine operations - and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes.

Annex I includes regulations for the prevention of pollution by oil, entered into force 2 October 1983; and have 7 chapters, 39 regulation, 5 appendix.

The 1973 Convention maintained the oil discharge criteria prescribed in the 1969 amendments to the 1954 Oil Pollution Convention, without substantial changes, namely, that operational discharges of oil from tankers are allowed only when all of the following conditions are met:

- The total quantity of oil which a tanker may discharge in any ballast voyage whilst under way must not exceed 1/15,000 of the total cargo carrying capacity of the vessel;
- The rate at which oil may be discharged must not exceed 60 liters per mile travelled by the ship; and
- No discharge of any oil whatsoever must be made from the cargo spaces of a tanker within 50 miles of the nearest land.
- An oil record book is required, in which is recorded the movement of cargo oil and its residues from loading to discharging on a tank-to-tank basis.

In addition, in the 1973 Convention, the maximum quantity of oil permitted to be discharged on a ballast voyage of new oil tankers was reduced from 1/15,000 of the cargo capacity to 1/30,000 of the amount of cargoes carried. These criteria applied equally both to persistent (black) and non-persistent (white) oils.

As with the 1969 OILPOL amendments, the 1973 Convention recognized the "load on top" (LOT) system which had been developed by the oil industry in the 1960s. On a ballast voyage the tanker takes on ballast water (departure ballast) in dirty cargo tanks. Other tanks are washed to take on clean ballast. The tank washings are pumped into a special slop tank. After a few days, the departure ballast settles and oil flows to the top. Clean water beneath is then decanted while new arrival ballast water is taken on. The upper layer of the departure ballast is transferred to the slop tanks. After further settling and decanting, the next cargo is loaded on top of the remaining oil in the slop tank, hence the term load on top.

A new and important feature of the 1973 Convention was the concept of special areas which are considered to be so vulnerable to pollution by oil that oil discharges within them have been completely prohibited, with minor and well-defined exceptions. The 1973 Convention identified the Mediterranean Sea, the Black Sea, and the Baltic Sea, the Red Sea and the Gulfs area as special areas. All oil-carrying ships are required to be capable of operating the method of retaining oily wastes on board through the "load on top" system or for discharge to shore reception facilities.

This involves the fitting of appropriate equipment, including an oil-discharge monitoring and control system, oily-water separating equipment and a filtering system, slop tanks, sludge tanks, piping and pumping arrangements.

New oil tankers (i.e. those for which the building contract was placed after 31 December 1975) of 70,000 tons deadweight and above, must be fitted with segregated ballast tanks large enough to provide adequate operating draught without the need to carry ballast water in cargo oil tanks.

Secondly, new oil tankers are required to meet certain subdivision and damage stability requirements so that, in any loading conditions, they can survive after damage by collision or stranding.



The Protocol of 1978 made a number of changes to Annex I of the parent convention. Segregated ballast tanks (SBT) are required on all new tankers of 20,000 dwt and above (in the parent convention SBTs were only required on new tankers of 70,000 dwt and above). The Protocol also required SBTs to be protectively located - that is, they must be positioned in such a way that they will help protect the cargo tanks in the event of a collision or grounding.

Another important innovation concerned crude oil washing (COW), which had been developed by the oil industry in the 1970s and offered major benefits. Under COW, tanks are washed not with water but with crude oil - the cargo itself. COW was accepted as an alternative to SBTs on existing tankers and is an additional requirement on new tankers.

For existing crude oil tankers (built before entry into force of the Protocol) a third alternative was permissible for a period of two to four years after entry into force of MARPOL 73/78. The dedicated clean ballast tanks (CBT) system meant that certain tanks are dedicated solely to the carriage of ballast water. This was cheaper than a full SBT system since it utilized existing pumping and piping, but when the period of grace has expired other systems must be used.

Drainage and discharge arrangements were also altered in the Protocol, regulations for improved stripping systems were introduced.

Some oil tankers operate solely in specific trades between ports which are provided with adequate reception facilities. Some others do not use water as ballast. The TSPP Conference recognized that such ships should not be subject to all MARPOL requirements and they were consequently exempted from the SBT, COW and CBT requirements. It is generally recognized that the effectiveness of international conventions depends upon the degree to which they are obeyed and this in turn depends largely upon the extent to which they are enforced. The 1978 Protocol to MARPOL therefore introduced stricter regulations for the survey and certification of ships.

The 1992 amendments to Annex I made it mandatory for new oil tankers to have double hulls – and it brought in a phase-in schedule for existing tankers to fit double hulls, which was subsequently revised in 2001 and 2003.

Appendix II includes regulations for control of pollution by noxious liquid substances in Bulk, entered into force 2 October 1983:

Noxious liquid substances risk harming the marine environment are divided into 4 categories: A, B, C, and D are specified in appendix II of Annex II.

Annex II prohibits discharge into the sea this substances mixture, except in compliance with the regulations specific for each type of waste discharges.

Annex II also provides requirements for the structural and equipment ensuring control and prevention of pollution by noxious liquid substances in Bulk.

Amending Annex II entered into force 1 January 2007, prescribed for noxious liquid substances are: X is a toxic and prohibited discharge; Y is toxic and restrictions discharge; The discharge of Z is less restrictive; and other non noxious substances is not apply in Annex II.

Annex III includes regulations for prevention of pollution by harmful substances carried by sea in packaged form, entered into force 1 July 1992:

The carriage of harmful substances is prohibited, except accordance with the provisions of this Annex. Contain general requirements for the issuing of detailed standards on packing, marking, labeling, documentation, stowage, quantity limitations, exceptions and notifications.

For the purpose of this Annex, "harmful substances" are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code) or which meet the criteria in the Appendix of Annex III.

Jettisoning of harmful substances carried in packaged form shall be prohibited, except where necessary for the purpose of securing the safety of the ship or saving life at sea.

Annex IV includes regulations for prevention of pollution by sewage from ships, entered into force 27 September 2003:

Contains requirements to control pollution of the sea by sewage; the discharge of sewage into the sea is prohibited, except when the ship has in operation an approved sewage treatment plant or when the ship is discharging comminuted and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land; sewage which is not comminuted or disinfected has to be discharged at distance of more than 12 nautical miles from the nearest land.

Annex V includes regulations for prevention of pollution by garbage from ships, entry into force 31 December 1988:

This deals with different types of garbage and specifies the distances from land and the manner in which they may be disposed of. The requirements are much stricter in a number of "special areas" but perhaps the most important feature of the Annex is the complete ban imposed on the dumping into the sea of all forms of plastic.



Annex VI includes regulations for prevention of air pollution from Ships, entered into force 19 May 2005: Sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances; designated emission control areas set more stringent standards for SOx, NOx and particulate matter. A chapter adopted in 2011 covers mandatory technical and operational energy efficiency measures aimed at reducing greenhouse gas emissions from ships.

# 3. Implementation of MARPOL convention 73/78 of Vietnam in current period

The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) is one of the main conventions of the International Maritime Organization (IMO), including regulations on prevention of pollution of the marine environment from ships. Currently, Vietnam has approved the Annex I and II of MARPOL 73/78 since 1991, but has not approved other annexes. Since approving Annexes I and II of the MARPOL Convention 73/78, Vietnam has improved tackling sea pollution through to strengthen Port State Control - PSC, construction, completion of legal documents, amendments and supplements many important laws related to marine environmental protection such as: Protection Environment Law in 2005, the Maritime Law in 2005, the Petroleum Law, the Fisheries Law in 2003... In particular, a number of offenses relating to the environment were first prescribed in the Criminal Law of Vietnam in 1999 such as crime air pollution (Article 182), crime water pollution (Article 183), and destruction of aquatic resources (Article 188). Besides, we also propagandize the regulations of the Convention; organize the conferences, seminars about implement and evaluate the implementation results; implement the regulations of the Convention in appropriate with the actual conditions of Vietnam. Also, review and test the ships, eliminate unqualified ships out of Vietnam; only registered ships under 15 years old, issued certificate of prevent environmental pollution, insurance certificates or financial security of civil liability for oil pollution damage; require ships have enough oil filtration systems, safety systems, etc.

Although have a lot of efforts and have certain results in the implementation of international conventions on prevention of pollution of the marine environment but Vietnam still has certain limitations, such as propagandize and implement the convention was slow and inefficient. Since approving annex I and II of the MARPOL Convention 73/78 to 2012 year Vietnam has only one legal documents guide implement some regulations of the convention; the ports have equipment to receive oil or oily mixture from the ships like the regulations of the convention is very limited. A number of bilateral treaties to which Vietnam has signed with other countries in the region are not really interested in the marine environmental pollution prevention. The legal for prevention, remedies of marine pollution have not been upgraded become a law, mostly promulgated the form of bylaws.

## 4. The need approve fully the MARPOL Convention 73/78

According to the Article 5(4) of the MARPOL Convention 73/8: With respect to the ships of non-Parties to the Convention, Parties shall apply requirements of the present Convention as may be necessary to ensure that no more favourable treatment is give to such ships. Because of the this regulation, when the Vietnam ships arrive the port of the other country has approved Annexes III, IV, V and VI of the MARPOL Convention 73/78 still have comply with the regulations of this Annexes. In addition, because Vietnam has not approved the Annexes III, IV, V and VI so, the port of Vietnam have not enough legal basis to inspect foreign ships while operating in ports of Vietnam according to regulations of this Annexes. Besides, with the development of the economy, the foreign ships arrive and leaving the ports of Vietnam on the increase, leading to high risk of environmental pollution at sea and port waters of Vietnam. So, we need to approve fully the MARPOL Convention 73/78. In addition, approving fully MARPOL Convention 73/78 also promote the laws system on protection of the marine environment of Vietnam.

# 5. Some solutions to facilitate the Vietnam approve full MARPOL Convention 73/78

First, develop and perfect the system of legal documents on the prevention of marine pollution with complete content, concrete, severe sanctions. The content of this legal documents should reflect fully factors causing pollution of the marine environment. Should consult the regulations related to marine environmental pollution in MARPOL Convention 73/78, and on that basis concrete in to the domestic legal documents to create a legal basis for the implementation of convention. Issuing legal documents serve for the evaluation, inspection and control of ships accordance with the regulations of the MARPOL Convention 73/78; have regulations on the abide the technical standards, environmental standards, have regulations on installing equipment to receive oil or oily mixture in a large number of ports as well as regulations on test and control the amount of oil discharged into the environment, issuing regulations on the technique standards for the controller, machines to cause oil pollution appropriate with the regulations of MARPOL Convention 73/78; need to improve the capacity of law enforcement and administrative capacity. Need to strengthen the classes, short-term training courses, long-term, seminars, through which to raise awareness of legal compliance as well as the qualifications of manager and crews to meet requirements international standards. Besides, researching, building the regulations system for



resolve maritime disputes involving marine environment appropriate with international law and international practice. Research to establish specialized courts of law resolve disputes related to the maritime field.

Second, to strengthen international cooperation on the protection of the marine environment. International cooperation should be conducted in the field of education and training, building law, signing and implementing international treaties, organizational structure of the management, oil spills, communication, science and technology.

Third, completing the marine environmental protection law of Vietnam

For the Environmental Protection Law:

Amend and supplementing the Environmental Protection law towards identifying marine environmental protection is a separate part, and prevention of marine pollution by oil are stiplated in a chapter with the basic content: concept of environmental sea, marine pollution, marine pollution by oil and other concepts related; the primary source can pollute the sea, marine pollution caused by oil pollution originating from land (operating in the industrial sector), from the operation of ships, from exploration and exploitation of oil and gas, fishing, etc; the main measures for the prevention, troubleshoot of marine pollution by oil; rights and fundamental obligation of organizations and individuals in the implementation of the regulations on the prevention, troubleshoot of marine pollution by oil, etc. In the troubleshooting pollution by oil will have basic contents include: Rights and obligations of organizations and individuals in response, troubleshoot of oil pollution, coordination with international organizations, foreign in troubleshoot of oil spills, as well as remedy the consequences caused by oil.

For specialized laws:

In the maritime field

Advantages of building and improve the law on prevention of marine pollution in the maritime field is the content of MARPOL Convention 73/78. Vietnam laws in this field less concerned is: Applying the regulations of the Convention, stricter enforcement, and conversion of these regulations of the Convention on the law of Vietnam. Must stipulate measures to verify thoroughly investigated for violations of the Convention, and stipulate stricter sanctions with violations. In addition, the regulations on civil liability of shipowners for environmental damage must also be consistent with the International Covenant and civil Vietnam laws. These regulations must be clear and concrete. Need to study the characteristics of Vietnam, determine fully of the relationship that the Convention has not mentioned to supplement in the Law. To resolve these requirements, should continue to promulgate additional documents on the prevention, treatment and remediation of oil pollution that the Maritime Law of 2005 is still missing - especial is the regulations on liability compensation for damage caused by oil pollution.

In the field of exploration, exploitation, storage and transport of oil and gas: Need to modify petroleum laws towards protecting the marine environment is a chapter. The content of this chapter concretize the regulations on environmental protection, especially protection of the marine environment is not polluted by oil. Need additions to the law regulations on the receiving oil system or oil mixture, sewage from ships in the oil port, the regulations on the handle violations caused environmental pollution, and compensation when have oil spills. In the field of fishing, river transport: Supplement specific regulations on the prevention of marine pollution by oil from the operations of fishing ships, have regulations prohibit the use of fishing gear adversely affecting the quality of the marine environment. Promulgate regulations to control discharge of oil or oil mixture, as well as leakage during operation of the ship. Have rules prohibiting the discharge of oil, oil mixture into rivers, the sea, especially is the port waters and stipulate measures strict punishments for violations; stipulate on compensation for damage to the oil discharge behavior into the river causing marine environment pollution.

For other related laws:

The Criminal Law: Research to complement the offense of polluting the marine environment, which have discharge sea oil offenses causing serious consequences.

The Civil Law: add the regualtion for compensation for damage caused by oil pollution in part 3, Chapter XVII, the Civil Law, for acts causing marine pollution by oil.

The procedures for dispute resolution: Need soon issue arrest ship ordinances serve for resolving maritime claims, including complaints about compensation for damage by oil pollution at sea. Currently, the procedure for resolving civil lawsuits for compensation for damage by oil pollution is still applied Civil Law. However, research characterized of the compensation for damage related to maritime operations to take toward building Maritime Procedure Law and establish specialized courts resolve disputes related to the sea. Also, need to study the regulations on the organization and operation of international courts, international arbitration on maritime law to resolve according to the procedures instead of resolve according to negotiation, diplomacy as current.

## 6. Conclusion

Pollution of the marine environment is a matter of concern not only in Vietnam but also in many other countries. With increasing pollution of the marine environment, marine environmental protection laws of Vietnam is facing



new challenges. The approval of full MARPOL convention 73/78 help Vietnam improve the system of marintime environmental protection laws. Also, Approving the international convention is needed to help ensure the rights and legitimate interests of Vietnam, is motivation to standardize domestic policy mechanisms and improving the position of Vietnam in the international area.

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