

Reinforcing the Legal Framework for the Environmentally Friendly Recycling of Ships: A Brief Look at the Hong Kong Convention

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Abstract. The recycling of ships is a topical, contemporary, and controversial subject. While the ship recycling industry is worth billions of dollars in revenue for a few developing countries and is considered as a safe and green solution for disposing of end-of-life ships, it is ironically often associated with environmental and health hazards. The Hong Kong Convention was adopted in 2009 to reinforce the international legal framework for the global regulation of ship recycling activities. This paper examines the Convention's strengths and weaknesses within the context of its goal of addressing safety, environmental and human health issues involved in ship recycling in an efficient and effective manner.

Keywords: Ship recycling, Ship breaking, Hong Kong Convention.

1. Introduction

Each year, close to a thousand ships come to the end of their service lives and condemned to special yards where they are broken down for their steel and for the purpose of recycling and putting serviceable parts of ships to further use [1].

In spite of the noble earth-friendly and environmentally-sound motivations and intentions, it is widely accepted that the breaking, dismantling, or recycling of “ships is one of the least environmental friendly activities” in the maritime industry [2]. Not only are the vast majority of ship recycling yards at great risk of contamination from oil sludge, oils, paints, PVC, and asbestos, they are also notorious for their lack of adequate waste reception, containment, and treatment facilities. [3]. Neither is the industry known for the health and safety records of its employees. The recycling of ships is an extremely dangerous activity that has a fatal accident rate more than six times higher than in the mining industry [3]. It is a billion-dollar industry concentrated in Bangladesh, India, and Pakistan [4] where yards benefit from cheap unskilled labor working under allegedly relaxed environment and safety regimes [1], edging out the “greener” but more expensive facilities in Europe and China [3].

In view of these “growing concerns about safety, health, the environment and welfare matters in the ship recycling industry,” [5] the international maritime community, through the International Maritime Organization (IMO) adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (Hong Kong Convention).

2. The Hong Kong Convention

The Hong Kong Convention is designed to provide a comprehensive legal framework to regulate global ship recycling activities. Its ultimate goal is to address the safety, environmental and human health issues involved in ship recycling in an efficient and effective manner. To that end, the Convention aims to regulate, *inter alia*, first, the design, construction, operation and preparation of ships to facilitate their recycling in a safe and environmentally sound manner, without compromising the safety and operational efficiency of the ships; second, the operation of ship recycling facilities to ensure their compliance with the safety and environmental protection requirements set out in the Convention; and third, the establishment of satisfactory control and enforcement measures for recycling activities [6].

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2.1. Overview

The Hong Kong Convention is a tailor-made international treaty instrument for ship recycling. Its features are distinctive by virtue of their regulatory functions in relation to the subject matter.

First, the scope of application of the Convention is two-fold covering the ship and the ship recycling facility. In terms of the former, the definition of “ship” in the Convention is considered to be sufficiently broad to make “any type of vessel whatsoever operating or having operated in the marine environment” subject to the application of the Convention. This is with the aim of securing the smooth withdrawal of any such “ship” that has come to the end of its operational life. As for the ship recycling facility, which is defined as “site, yard or facility used for the recycling of ships” under the Convention, requirements are provided for their qualification, control and operational management so as to make sure that they are operating in a safe and eco-friendly manner under the jurisdiction of respective state parties.

Secondly, the Convention takes a “cradle to grave” approach regarding the ship destined for recycling. It is recognized that ship-generated hazardous materials, such as heavy metals, asbestos, hydrocarbons and ozone-depleting substances constitute the primary source of risks to work safety and the environment during the ship recycling operation. To deal with this problem, the Convention sets out control measures on ship design, construction, maintenance and operation with the purpose of minimizing the level of hazards of materials used on board the ship or seeking substitutes for those hazardous materials. In addition, the Convention requires an “Inventory of Hazardous Materials” to be developed and carried on board every ship over its entire lifetime.

The third feature is the unique control and enforcement mechanism established by the Convention, under which the flag state, port state and recycling state are all assigned different roles to play with regard to their respective obligations in relation to the ship destined for recycling. The primary intention is to exert these triple effects to create a robust enforcement mechanism for the Convention; however, criticisms also arise regarding the enforcement effectiveness of this mechanism due to the lack of a reasonable level of compliance monitoring measures, in particular those on recycling states, given the fact that the authorization and control of ship recycling facilities is essentially a land-based matter, and recycling states have the autonomy and authority to make their own decisions, in most cases, mainly predominated by economic considerations.

2.2. Critique

It is alleged that, as a regulatory convention substantially aiming at marine environmental protection, the Hong Kong Convention has deviated from the “polluter pays principle” [7] that has long been firmly entrenched in the international environmental law. This principle is well embedded in other IMO conventions addressing marine pollution from oil, bunkers as well as hazardous and noxious substances carried by ships [8]. According to this principle, the party who produces the pollutant is obliged to remove the pollution and should be financially liable for any damage arising from that pollution. In the case of ship recycling, it is the inescapable obligation of the shipowner, who is the polluter, to remove the hazardous materials on board before a ship heads for recycling and bear the ensuing costs. This removal operation is known as “pre-cleaning or prior decontamination.” Regrettably, however, the Hong Kong Convention does not recognize the shipowner’s responsibility of pre-cleaning or prior decontamination with respect to ships ready for delivery to scrap yards.

Further to the “polluter pays principle,” the Hong Kong Convention also fails to provide a viable solution for pollution incidents as a result of ship recycling operations. This solution would be best achieved by setting up a “Recycling Fund” with contribution from shipowners/flag states, because, under the notion of extended polluter responsibility, shipowners are financially obliged to carry out safe and environmentally sound management of their ships [9, p. 227].

Admittedly, the scope of application of the Convention is reasonably broad as far as merchant ships are concerned, but the exclusion of warships, non-commercial government ships and domestic ships may be considered a deficiency handicapping the Convention from meeting its object of regulating safe and environmentally-sound ship recycling.

Skeptical views can be expressed as well with regard to the effectiveness of the enforcement mechanism established under the Hong Kong Convention. There are practical difficulties with respect to satisfactorily fulfilling the enforcement requirements. With respect to flag state enforcement, the Convention requires flag states to control their ships by issuing the International Certificate on Inventory of Hazardous Materials and Certificate on Ready for Recycling. Admittedly, flag states are able to refuse the issuance of these Certificates if not satisfied that the ship in question is in all aspects compliant with the requirements provided in the Convention, particularly those concerning the development of a hazardous materials list and use of authorized recycling facilities, but shipowners can easily escape this control by changing flag to a state with less strict control on certification.

The port state control inspection regime suffers from its own limitation. Under the Convention, port states have an obligation to inspect ships; however, the level of stringency of the inspection as framed in the Convention is less than ideal. Since the visiting ship is already earmarked for recycling, no more than a cursory inspection is to be expected.

What is more worrisome is on the side of enforcement by the recycling state because the authorization and control of ship recycling facilities is completely subject to arbitrary decisions by such a recycling state. The Convention does require recycling states to establish controls on authorization, operation and monitoring of ship recycling facilities under their jurisdiction, but in numerous cases and mainly for economic reasons, recycling states may generously grant authorization to those recycling facilities which have difficulties in complying with the safe and environmentally sound recycling standards [9, p. 225]. The intention of establishing a regime for recycling state enforcement is to ensure that recycling facilities are operating in a safe and environmentally sound manner. However, good intentions do not necessarily yield desired results, as recycling state enforcement is essentially a land-based and domestic matter. If there is no appropriate compliance monitoring scheme, the effectiveness of such enforcement will be far from what is envisaged and desirable.

Another major weakness of the Convention is its notification and reporting requirements. While the shipowner and the recycling facility are obliged to notify their respective states prior to and after the completion of recycling operations, there is no requirement on inter-state notification, that is, direct notification between the flag state and the recycling state. As a result, the express consent from the recycling state to accept the obsolete ships for recycling is not required under the Convention.

It is envisaged that this “private to public notification” system under the Convention would result in some problems in practice. Normally, the Authority of the recycling state will not be notified by the recycling facility until the ship to be recycled has already arrived in the waters of the recycling state. It is true that legally speaking, the recycling state is entitled to, if the condition of the ship in question turns out to be unacceptable, exercise its right as a port state under UNCLOS to reject the entry of the ship into its waters; or alternatively invoke the violation provision under the Convention to dismiss that ship. However, without prior knowledge of the impending entry of the ship, the recycling state will not have the necessary time and information at its disposal to be able to take appropriate action [10]. In a more practical sense, some environmentalists have expressed the worry that once an end-of-life ship manages to gain entry and beach itself for scrapping, the recycling operation may become a *fait accompli* [9, p. 224].

In view of the foregoing, it could be concluded that although the Hong Kong Convention has made remarkable progress with regard to the regulation of ship recycling, there is much room for further improvement. Be that as it may, the impact of the Hong Kong Convention, as the first regulatory framework specifically designed for the ship recycling industry, is no doubt a significant event.

2.3. Impact on the Ship Recycling Industry

The impact of the Hong Kong Convention on the global ship recycling industry can be gleaned from a number of observations. From a legal perspective, two major impacts are foreseeable. At the international level, this Convention is the first all-embracing regulatory regime on ship recycling. It provides uniform standards for the regulation of ships in terms of their design, maintenance and operation with the aim of controlling the use of hazardous materials that could be harmful for work safety and the environment during scrapping. At the same time, the Convention regulates ship recycling facilities in terms of their operation

and management for the safe and environmentally sound recycling of ships. However, over the past years, grave concerns have been expressed regarding the ship recycling industry. Despite the existence of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and several international guidelines on different aspects of ship recycling, a “legal vacuum” has been perceived in relation to the regulation of this activity. The timely adoption of the Hong Kong Convention satisfies the dire need for uniform international regulatory measures on this important subject. What is more significant is that the Convention manages to strike the right balance among the various technical, safety, occupational health, environmental protection and socio-economic aspects that are relevant to the ship recycling industry [11]. This, it is anticipated, will attract wide interest from flag states and recycling states to become parties to the Convention.

The universally applicable standards will also facilitate the legislative process at the national level. Though end-of-life ship trading has been around for many years, there has been little proper law at the national level to control ships and ship scrap yards in respect of work safety and environmental protection. The Convention imposes obligations on both flag states and recycling states to exercise controls regarding ships to be recycled and ship recycling facilities conducting such operations. The Convention thus offers a good opportunity to flag states and recycling states to enact national legislation to implement the Convention to ensure that ships and ship recycling facilities are in compliance with the safety and environment regulations established under the Convention.

The Convention will also have considerable impact on technological research and advancement for environmental protection, as it is well-known that hazardous materials used on board ships constitute the primary source of risk to work safety and the environment during scrapping. The requirements on control and management of those hazardous materials as provided in the Convention will encourage new technologies and skills on the substitute use of hazardous materials on board ships and the safe and environmentally-sound management of hazardous materials by ship recycling facilities [12]. In addition, requirements on the Inventory of Hazardous Materials will also help ship recycling to be safer and greener. The identification and record of hazardous materials used on ships throughout their construction, maintenance and operation stages will be useful and helpful for ship recycling facilities to make specific recycling plans and ensure that ships are recycled in a manner without posing risks to work safety and the environment. With respect to ship recycling facilities, the Convention provides incentives to improve operation technologies to increase the proportion of recycled materials from ships, particularly with regard to materials and substance other than steel [12]. It is submitted that this will not only be beneficial to environmental protection, but also to the development of a sustainable economy.

3. Conclusion

In spite of its limitations, the Hong Kong Convention represents a big step in the right direction in terms of recognition of the problem of ship recycling as a matter of international concern and the provision of a regime, as imperfect as it may be, that states can appropriately apply. The Convention embodies a regime that is adequately regulatory in scope and at the same time provides ship recycling countries with the freedom and ability to be engaged in this activity for the advancement of their economies. On balance, it might be stated that although there is room for further improvement, the Convention does attempt to strike a reasonable balance between marine environmental protection together with concerns for the health of ship recycling workers on one hand; while allowing the pursuit of economic benefits of developing countries on the other.

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