



## MARINE POLLUTION CONTINGENCY PREPAREDNESS FOR SHIPS: A PRACTICAL STUDY WITH SPECIAL REFERENCE TO INDIAN LEGAL SYSTEM

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### ABSTRACT

*The occurrence of marine pollution incidents involving ships poses environmental pollution damage to waters of coastal states and may also pose a potential hazard to the safety of navigation, contamination of amenities like ports, terminals, beaches etc. The adventurous character of maritime transport presupposes the chance for occurrence of maritime accidents and the impossibility to avoid them completely. At the same time, it is possible to remain prepared to deal with such casualties. Marine Pollution Contingency Response Mechanism has been adopted as an application of the precautionary approach that set in after the Stockholm Declaration, 1972 to mandate contingency preparedness to deal with maritime casualties. This paper is an analysis of Marine Pollution Contingency scheme to deal with maritime casualties involving ships carrying hazardous substances. Considering the international nature of maritime transport, the study makes an in depth analysis of the international scheme adopted by the International Maritime Organization in this regard. An examination of the Indian legal framework assumes relevance due to the inadequacies implicit under them. A comparative reference to the regulatory standards in United States and United Kingdom helps to suggest improvements to our scheme and make it a robust one.*

**KEY WORDS** : Marine Pollution Preparedness, Contingency Mechanism, Maritime Casualty

## 1. INTRODUCTION

Many coastal states are located near to international sea routes through which carriage of hazardous substances take place. India is also geo-strategically located in the central part of the Indian Ocean through which many international sea routes lie. A good number of countries, are increasingly dependent on the Indian Ocean for carriage of oil, petroleum products from the Gulf, and other hazardous substances (Project Review and Monitoring Committee, 2003).<sup>1</sup> The connectivity offered by the Indian Ocean to international straits like Malacca, Hormuz, Red Sea and the major shipping routes for transport of crude oil and other petroleum products destined for Japan, America, Europe, and South Korea from the west Asia makes this area world's most important 'oil choke point'. A serious impact of increasing movement of oil and hazardous substances through sea in ships is the impending pollution of the coastline, and facilities there to bear the brunt of marine degradation. The UK and the US also have faced many such incidents along its shores and waters.<sup>2</sup>

The occurrence of such incidents poses environmental pollution damage to waters of coastal states and may also pose a potential hazard to the safety of navigation, contamination of amenities like ports, terminals, beaches etc. It is not possible to avoid accidents completely. But it is possible to remain prepared to deal with such casualties. Marine Pollution Contingency Response Mechanism have been evolved as an application of the precautionary principle that set in since 1970's (Benedict & Sage, 2006). The available literature in this area addressing the deficiencies of pollution contingency scheme is restricted to international scheme and there is a dearth of literature as far as Indian scheme is concerned. Hence this paper makes a critical analysis of the Indian scheme to deal with maritime casualties involving ships carrying hazardous substances and to examine how far it is in consonance with its international counterpart and is comparable with schemes adopted by US, and U.K. This study with special reference to India will help in refining the regulatory framework in this regard.

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<sup>1</sup> For details see Report of the Project Review and Monitoring Committee for oil spill Management, *Road Map for Oil Spill Management for India*, (2003).

<sup>2</sup> The UK have experienced several major oil spills like *The Brear* (1993), *The Sea Empress* (1996), *Torrey Canyon* (1967), *Rose bay* (1990) etc, the worst oil spills that the world have ever witnessed, along its coast. Similarly it was also was prey to *MS Napoli*(2007), *ECV*(2006) involving HNS substances. It was actually following *Exxon Valdez*, the US adopted Oil Pollution Act,1990 which implements the OPRC scheme in the US.

## Evolution of the Scheme of Marine Pollution Contingency Planning

The obligation of ships to plan and prepare for contingencies in order to prevent resulting pollution has evolved through several measures before an attempt to consolidate such duty was made under the International Convention on Oil Pollution Preparedness, Response and Co-operation, Convention in 1990.<sup>3</sup> With increasing incidents involving ships carrying hazardous substances and the need for contingency planning as a tool to reduce marine pollution became a specific duty, at international level, under the International Convention for Prevention of Pollution from Ships, 1973.<sup>4</sup> But the scope of the responsive mechanism was limited to measures for ensuring reporting of pollution contingencies by coastal states to other states likely to be affected by such pollution incidents and the duty of the master of the ship or other person in charge of the ship to report the particulars of such incident without delay to the Coastal states.<sup>5</sup> But the UNCLOS, 1982 that followed, created a positive duty on the part of states to contribute towards contingency planning. It in addition to reiterating the duty of states becoming aware of existing or imminent pollution likely to cause damage, to immediately notify other states as well as competent international organizations and insists that the affected states initiate measures in eliminating the effects of pollution and preventing or minimizing the damage.<sup>6</sup> But the UNCLOS provisions, once again reiterating its umbrella nature, lacked details of contingency planning. The *Exxon Valdez* oil spill of 1989 that occurred in the waters of the U.S. brought to the limelight the absence of sound and clear principles establishing a uniform legal duty for contingency planning on the part of coastal states and other interests at international level.

After the *Santa Barbara Channel Oil Spill (1969)* efforts have been underway in the U.S. for prevention of oil spill into its waters from shipping casualties (George Burns et. al., 2002) [1]. The US Coast Guard had evolved Oil Spill Prevention, Preparedness and Response measures to prevent pollution of its seas from maritime casualties. The Oil Pollution Act, 1990 adopted in US, also has expanded the scope of Coast guard's role in this regard.

The Contingency scheme in existence in Britain is rooted on well established norms mainly developed in the context of merchant shipping and supplemented by National

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<sup>3</sup> Herein after called "the OPRC Convention". For text see 30 I.L.M 733 (1991).

<sup>4</sup> Herein after called "the MARPOL Convention", London, 2 November 1973, as amended by the Protocol signed at London, 1 June 1978. For text see 12 I.L.M 1319 (1973).

<sup>5</sup> *Ibid*, Art.8.

<sup>6</sup> The United Nations Convention on the Law of the Sea, 1982. The text of Convention reprinted at 12 I.L.M (1982) 1261. Art.199,

Contingency Plan and other administrative measures evolved by the Maritime and Coast Guard Agency.<sup>7</sup> The Great Britain is a party to both UNCLOS and the OPRC Convention that lays down the legal obligation to protect and preserve the marine environment by planning for maritime casualties that may result in pollution.<sup>8</sup> Even though Hazardous and Noxious Substances Protocol to OPRC Convention was formally adopted by the U.K., it did not ratify the protocol.<sup>9</sup> In the U.K., the Merchant Shipping rules implementing OPRC came in to force in 1998. In these rules there is requirement for ports, harbours, and offshore installations to prepare oil spill response contingency plans approved by the Maritime and Coast Guard Agency to maintain preparedness as specified by the plan. There is also a sound scheme of regulatory control prescribing duty on harbour authorities to hold contingency plans to prevent marine pollution of the harbour environment from dangerous vessels<sup>10</sup> and dangerous substances<sup>11</sup> inside harbour areas. The implementation of these duties is co-ordinated through the Port Marine Safety Code in addition to supervision by the Maritime and Coast Guard Agency through the National Contingency Plan. Since most pollution casualties inside UK controlled waters have resulted in shoreline contamination, much emphasis is placed on local contingency planning and improvement of preparedness through local action groups.<sup>12</sup> The U.K. has also extended its co-operation in this respect by becoming part of several regional contingency plans.<sup>13</sup>

Even though OPRC Convention was adopted by the IMO in 1990, the Government of India ratified it only in 1997. After that no efforts were made by the Indian legislature to provide legal basis for the OPRC convention.<sup>14</sup> But in accordance with the provisions of OPRC, a National Oil Spill Disaster Contingency Plan was prepared by the Coast Guard, the

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<sup>7</sup> The Merchant Shipping Act, 1995, s. 293as amended by Merchant Shipping and Maritime security Act,1997 gives the secretary of State for the Environment ,Transport and the Regions the general power to initiate measures to prevent, reduce and minimize the effects of marine pollution including pollution response mechanism .

<sup>8</sup> Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations ,1998

<sup>9</sup> Report on progress made by the U.K. in developing a methodology for implementation of new Planning and response requirements for HNS submitted by the UK to the IMO dtd 14 May 2007. See also Policy and Operational Capacity for HNS Marine Pollution: UK issued by European Maritime Safety Agency available at [http://www.emsa.europa.eu/docs/opr/ppr\\_hns\\_inventory\\_20-08-08.pdf](http://www.emsa.europa.eu/docs/opr/ppr_hns_inventory_20-08-08.pdf).

<sup>10</sup> See Dangerous Vessels Act, 1985

<sup>11</sup> Dangerous Substances in Harbour Areas Regulations ,1982

<sup>12</sup> Local Government Act, 1972, s.138.

<sup>13</sup> The UK is a party to Bonn Agreement ,Anglo French Joint Maritime Contingency Plan (MANCHEPLAN), Norway – UK Contingency Plan ,(NORBIT),n, The Anglo/Isle of Man Operating Agreement etc.

<sup>14</sup> The Merchant Shipping Act, 1958, Part 10 B, Part 11 A dealing with prevention of oil pollution from ships Could have been amended to introduce pollution Emergency plan. But no efforts were taken.

enforcement authority for prevention of pollution within the Maritime zones of India, in 1996. But no measures were taken to amend the provisions of the Merchant shipping Act dealing with prevention and containment of oil pollution from ships to adopt rules under the said Act in order to provide compliance with the OPRC Convention. There have been enough studies made addressing the issue of lack of legal basis for marine pollution contingency mechanism under Indian legal frame work.<sup>15</sup> Even then, for more than two decades of adopting the convention Indian legislature maintained apathetic attitude towards implementing marine pollution contingency planning. Finally in 2010 Ship board pollution emergency plan was made mandatory for ships carrying hazardous substances like oil, Noxious liquid substances in bulk by adopting the Merchant Shipping (Prevention of Pollution by Oil from Ships) Rules, 2010.<sup>16</sup>

### **Restricted Scope of Marine Pollution Contingency Planning**

The concept of Marine pollution contingency planning implies remaining prepared and planned for a maritime contingency<sup>21</sup>. It presupposes the existence of a Contingency plan containing the details of measures to be adopted to check the pollution of the seas in the event of a maritime casualty involving ships carrying hazardous substances. A maritime casualty may necessitate measures to be taken depending on the location of the ship, inside ports, terminals, offshore installations or near to shoreline etc. During casualties it is essential to be determined as to who is to respond to such measures and what kind of action is required, based on nature of casualty and kind and amount of hazardous cargo involved. This will help to speed up response actions and minimise the amount of pollution. The plan should also consider the availability and resources, equipments and funding to deal with response and counter pollution measures and have local, national and regional arrangements among adjacent states and pooling of resources.

Since coastal states are immediately available and exercise control over waters within its jurisdiction, the OPRC convention which lays down the scheme mean to impose extensive legal obligations and responsibility on the coastal states for showing preparedness

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<sup>15</sup> In view of the above and related aspects, the office of the Principal Scientific Adviser to the Government of India and the Oil and Natural Gas Corporation Limited brought together all the stakeholders in the Government and the industry to discuss the way to an adequate system for oil spill management for India. It was concluded that an "Entity", with autonomous powers, is required to be formed as per declaration of the Goa Workshop on Oil Spill Management during July 19 and 20, 2002. Accordingly a Project Review and Monitoring Committee (PRMC), having representatives from the Government and Public and Private sector oil companies was constituted to prepare a Road Map for Oil Spill Management for India.

<sup>16</sup> See Merchant Shipping Act, 1958 universal Publications, New Delhi,(2011) at p.413.

and responding to pollution incidents through proper planning.<sup>17</sup> The marine pollution contingency preparedness scheme requires coastal states to develop and maintain a National Contingency Plan to form the basis for showing preparedness and response capabilities towards incidents occurring inside waters within its jurisdiction (Paul Nelson, 2000) [2]. Coastal states should also ensure that facilities within its jurisdiction like ports, terminals, offshore installations and ships plying its waters develop and maintain plans in conformity with national Plans.

Accordingly contingency plans in national jurisdictions tend to provide guidance about reporting of a contingency in the first instance. In the case of pollution incidents occurring on board ships, facilities, ports, guidelines suggest the person who should report, and to whom to report. On receipt of information the next step involves establishing level of response- national, regional or international making use of resources. After that nature of counter pollution measures will be determined. Such measures can take the form of counter pollution measures like use of dispersants or other methods of dealing with the hazardous substances spilled for averting the pollution. The plan is expected to have details of authorities and procedures to address these issues.

In laying down the scope and meaning of the MPCP, the OPRC convention appears to be vague in prescribing legal duties towards preparedness and the nature of responsiveness.<sup>18</sup> Shipping casualties necessitates exercise of extraordinary powers suited to prevent the pollution of the seas like intervention, salvage etc. But neither International scheme under the OPRC Convention nor Indian Merchant Shipping Act, 1958 and its Rules tend to include them.

### **Lack of Concern for Salvage and Refuge Measures : A major Lacunae**

Salvage operations and refuge measures play a crucial role in prevention of marine pollution from ships during maritime casualties. But the existing marine pollution contingency mechanism has turned a blind eye towards these aspects. Several incidents involving oil tanker ships occurred where prompt intervention of salvors had averted massive pollution of the seas (Brian Makins, 1987)[3]. Services of salvors not only help in reducing the pollution damage caused by shipping casualties but also serve the interests of the owners and their underwriters by protecting them from liability for pollution damage.<sup>19</sup> But marine

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<sup>17</sup> Road Map on Oil Spill Management In India,(January 2003)

<sup>18</sup> *Supra.* n. 4, Art.3.

<sup>19</sup> *Ibid.*

pollution contingency planning does not mention any thing about planning for salvage operations that is to be undertaken in the event of a maritime casualty. The arrangements made by entering in to agreements with salvors in relation to salvage operations that may be undertaken in the event of casualties that may be encountered during the carriage of hazardous substances will necessarily help in prevention of marine pollution from ships carrying hazardous substances. The adoption of speedy measures to arrest pollution will be easy if there is a plan and an existing agreement for availing salvage services between ship owner and salvor depending on the kind of cargo carried in the ship.

The environmental awareness saga that gained international support since 1970's and the changes that occurred in the UNCLOS, and adoption of specific international measures like the Intervention Convention, 1969, the Civil Liability convention, and the limitation of liability Conventions etc., have brought to the mainstream the need for protection of marine environment in global scenario. A significant reflection of this was seen in the salvage norms for protection of the environment. The traditional salvage norms put much limitations for protection of marine environment due to prevalence of 'no cure – no pay' principle under the 1972 and 1910 Salvage Conventions (Peter Coulthard) [4].<sup>20</sup> But the new Salvage Convention, 1989 has introduced innovative provisions to encourage salvors undertaking salvage operations to receive full compensation in respect of their efforts to protect the marine environment. Due to these aspects and concern of international community for protection of marine environment, and the boost given to the salvage industry, there is a dilution of the No-cure No- pay Principle (George Tsavlis, 2001)[5]. This part focus on the necessity to include planning requirements for salvage operations as part of pollution contingency planning.

The significance of Salvage measures for preventing pollution from shipping casualties does not make any reflections under the Indian law. Merchant Shipping Act, 1958 refer to salvage for saving cargo and wreck and does not specifically deal with salvage or salvage remuneration for preventing pollution damage.<sup>21</sup> Even though in 2010, Ship Board Emergency Plan has been made mandatory for ships carrying hazardous substances like oil, hazardous and other Noxious Substances, it is not clear whether Salvage arrangements need

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<sup>20</sup> Two graphic examples of the inequitable results promoted by this approach are The Atlantic express and The Aegean Empress incidents where salvors, even though, could by their efforts prevent pollution damage, could not gain remuneration as ships were lost by explosion due to the strict application of 'no cure – no pay' principle to pollution damage cases.

<sup>21</sup> See The Merchant Shipping (prevention of Pollution by Oil from Ships) Rules, 2010, r.37. It imposes duty to carry Ship Board Emergency Plan for oil and HNS on board ships.

to be made. The Rules merely refer to the “procedures” and does not convey any idea as to what are the different types of procedures for prevention of pollution.

### **Mechanism to deal with Ships in distress**

Another important facility vital to mitigation of pollution from casualties let out of contingency planning mechanism is planning for “Place of Refuge”<sup>22</sup> for ships carrying hazardous substances. The availability of a place of refuge for ships in distress often enhances the options for pollution control. In cases where the ship involved in the causality is loaded with hazardous cargo, as it happened with pollution casualties like *The Castor*, the cargo need to be discharged first to prevent pollution. In such circumstances and place or port of refuge often may serve as a better option in the attempt to prevent pollution. For instance in the case of *The Castor*, the Tanker involved in the accident was fully laden with gasoline at the time of the casualty (Aldo Chirop, 2002)[6]. But the ship was refused refuge to safe waters and unload the cargo to undergo repairs, by seven coastal states. Hence the stricken ship had to navigate with the hazardous cargo as a “leper ship” posing the threat of pollution for 30 days. Similarly, *The Erika* sank in bad weather in the Bay of Biscay and causing catastrophic damage to French coastlines after its call for refuge was refused by port authorities in France.<sup>23</sup> In all those instances a timely refuge offered to the ship might have saved the cargo and averted pollution of the seas.

The issue of place of refuge for ships carrying hazardous substances has not received a positive nod from coastal states, because of the environmental risk attached to them in giving such refuge. So what is needed is a different attitude by coastal states that reflects a more genuine balance between coastal and marine security interests and the need to assist such ships, in distress. Coastal states should assume more responsibility to assist such vessels as part of their integrated ocean management responsibilities in their maritime zones, rather than passing on the problem. The OPRC convention should also make it obligatory for coastal states to plan for places of refuge in its waters where ships carrying hazardous substances may be sheltered, unload cargoes and repaired if they are in distress. In fact, this policy has been followed by the U.K. The National Contingency Plan in the U.K. also refer to its obligation to arrange for Place of refuge for ships.

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22 Place of Refuge or Safe haven implies facilities in coastal waters notified by states to accommodate ships in distress to meet repairs

23 *Ibid.*

## Conclusion

No doubt, the marine pollution contingency planning mechanism can contribute immensely towards prevention of pollution from ships. But the scheme needs modification to serve the purpose. It has proved to be effective and successful in dealing with oil spills. But in the case of other hazardous substances the scheme has not evoked universal acceptance. This points to the need for more initiatives at the level of IMO to prompt states to ratify the OPRC-HNS Protocol. There needs to be more exchange of information, training, and studies into the nature of hazardous substances and ways of dealing with them. Another aspect to be given thrust is the need to make the scheme address all aspects of pollution preparedness and response including preparedness for salvage, intervention and place of refuge in aiding prevention of pollution from maritime casualties. Indian merchant shipping law should incorporate marine pollution Contingency planning scheme.

The scheme places much reliance on coastal states in offering the framework and facilities for the Marine pollution Contingency scheme. Its role is pivotal in formulation of a national response system like national contingency Plan, designation of national authorities, identifying national operational focal points and showing response capacity to deal with pollution incidents. Moreover methods to enforce them are limited to mere reporting of information to the IMO.

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