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Legal Framework of Port State Control and Flag State Implementation regarding the Safe Management of Ballast Water

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Abstract

This study demonstrated the legal framework of Port State Control inspections and flag state duties related to the "Ballast Water Management Convention" to reduce the negative risk of the discharge of ship's ballast achieving "maritime safety" and "protection of the marine environment from pollution". The principal rule of "port state control" to inspect foreigner ships ensuring the compliance with legal requirements in accordance to the applicable "international convention for the Safety of Life at Sea (SOLAS)"; the "International Convention on Load Lines 1966 (LL 66)"; the "International Convention for the Prevention of Pollution From Ships(MARPOL 73/78)" and the "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW 1978)" is explored with some real case studies. "Port State Control inspections", and "flag state implementation" related to the "International Safety Management Code", also introduced in this study. This study explored also a legal regime of "port state control" provided in "Memorandum of understanding" to guarantee the implementation of regional agreements.

Keywords: *Legal Framework, Flag State Duties etc.*

1. Introduction

Although "Ballast water carried by ships is needed to provide trim, propulsion, and stability of vessels , but it a serious negative impacts deriving from the transfers of harmful marine "aquatic invasive species" causing damage to human health , and the marine environment".
The International Maritime Organization (IMO) "has characterized the transfer of marine aquatic invasive species into new environments as one of the four greatest threats to the world's Marine environment, causing the harmful impacts on the efficiency of commercial, the tourism industry, and human health through diseases"[1]

According to the "United Nations Convention on the Law of the Sea (UNCLOS)", article 196(1) of the 1982 which provides that "States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto"[2]

To reduce the risk of the discharge of ship's ballast, "the United Nations Conference, In 1992, on Environment and Development called on the IMO to address the transfer of organisms by ships"[3] .

In parallel with the international response the IMO adopted guidelines for "minimizing the transfer of harmful aquatic organisms in 1993, it was not until 1997 that the IMO Assembly adopted by resolution the Guidelines for the Control and Management of Ships' Ballast Water"[4]

The IMO adopted "The Ballast Water Management (BWM)" Convention in 2004 for the Management and Control of "Ships' Ballast Water".

The "BWM Convention" has two objectives: "Prevent, minimize and ultimately eliminate the risks emanating from the transfer of alien organisms, which can affect human and animal health, the environment and socio-economic activities; Avoid unwanted side-effects from

1 International Maritime Organization (IMO). Available at: http://www.imo.org/home.

2 The United Nations Convention on the Law of the Sea (UNCLOS)

3 Global Ballast Water Mgmt. Programme, Int'l Mar. Org., The International Response, http://globallast.imo.org/index.asp?page=internat_response.htm&menu=true (last visited July19, 2009) .

4 "IMO, Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens, IMO Assemb. Res. A. 868, IMO Doc. A20/Res.868 (Dec. 1, 1997)".

the control and management of ships' ballast water and sediments"[5]

"Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship" [6].

The BWM Convention will "enter into force 12 months after it has been signed by 30 States, representing 35% of world merchant shipping tonnage". Currently, more than ten years after its adoption, 43 States have ratified the Convention but representing only 32.54% of the world tonnage. It will apply to all vessels flagged to parties of the Convention and to vessels of non-parties that transit or operate in the waters of a Party of the Convention. After the Convention comes into the force shipowners will be required to install type approved ballast water treatment systems that will treat ballast water before discharge to meet the Convention's standards over a five-year period"[7].

The rest of this study is organized as follow: In **section 2**. The Port state control principals, inspection types, the "port state control" relevant with the international conventions, the "port state control" regarding The "International safety management code", and the "ballast water management" convention are introduced, **section 3**. The memorandum of understanding as a regime of port state control is explored, **section 4**. **"**Flag State Implementation" regarding the international conventions, the international safety management code, and the ballast water management conversion are demonstrated. *Finally* , some conclusions and recommendations are introduced in **section 5**.

2. Port State Control Principals

According to "the 19th Assembly of IMO in November 1995", "the amalgamated resolution (A.787(19)) relating to Port State inspection procedures was adopted. The amalgamated resolution includes all substantive provisions of A.466 (XII) as amended, A.542 (13), A.597 (15), MEPC.26 (23) and A.742 (18) and contains comprehensive guidance for the detention of ships, the qualification and training requirements of inspectors and procedural guidelines covering ship safety, pollution prevention and manning requirements. Consequently this resolution will play an increasingly important part in the implementation of Port State Control"[8].

Recently, The IMO published "guidance note including guidelines for the Control and Management of Ships' Ballast Water", the resolution A.868(20) of the assembly of the IMO, by adopted Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens"[9]. Under these new Guidelines, the Port State Authorities and the Flag Administrations are provided with "guidance on procedures which will minimize the risk of the transfer of harmful aquatic organisms via ships' ballast water and sediments"[10].

"Port State Control" (PSC) : "is the inspection of foreign ships in national ports to verify that the condition of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules, the inspection is done by officers representing the national Port State Authority in each country" [11].

2.1 Inspection Types

i. "Initial Inspection"

A PSC will examine ship's certificates and documents. In addition, "a general inspection of several areas on board (including the engine room and accommodation", and "including hygienic conditions) will be conducted to verify that the overall condition of the ship complies with what is required by the various certificates, PSC Officer (PSCO) will also check that outstanding deficiencies from previous PSC inspections have been dealt with"[12].

ii. "More Detailed Inspection"

"If valid certificates or documents are not on board, or if there are Clear Grounds to believe that the condition of a ship and equipment or on board operational procedures or crew does not substantially meet the requirements of a relevant Convention, a more in-depth examination will be carried out"[13].

iii. Case Study

This case shows the procedures of detailed inspection of port state control as follow:

[5] "International Convention for the Control and Management of Ships' Ballast Water and Sediments (the BWM Convention)"

[6] "United Nations Convention on the Law of the Sea III, UNCLOS III, UN, London, 1973, art 91, 92, 94 and 97".

[7] Supra note 5.

[8] "Procedures for Port State Control established by resolution A.787(19) adopted on 23 November 1995 PROCEDURES FOR PORT STATE CONTROL (ASSEMBLY 19th session Agenda item 12 /Res.787 -29 November 1995)".

[9] "published by IMO as publication number IMO661E, ISBN 92-801-1454-9".

[10] "Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens", Notice to Agents, Owners, Operators, Masters and Officers of Ships, Maritime and Coastguard Agency, August 1998. Available on Line at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/282331/mgn081.pdf. 27 th September 2015.

[11] "Resolution MEPC.252(67). Guidelines for Port State Control under the BWM Convention, Adopted on 17 October 2014".

[12] Lbid

[13] Lbid

"The M/v Sammarina 5is a General Cargo – Multi Purpose ship of 5983 Gross Tonnage, flaying Romanian Flag with IMO7906136 and classified by Romanian Naval register. On the 1st of April 2003, in the port of Oristano (Sardinia-Italy),a Port State Control was carried out on board of the ship abovementioned. A lot of detainable deficiencies were found. During the inspection a structure with a diesel generator inside was found on funnel deck. This apparatus was totally out of fire-fighting safety. No quick closing valve for bunker tank was found, no fire doors, no fixed fire extinguishing system inside, no ventilation stops and also the structure was not found on fire control plan.

Port and starboard lifeboats were found damaged with holes in several parts. The abandon ship drill was stopped in order to reestablish the safety for the crew and for operations in general. Embarkation ladders for both port and starboard side found too short and broken in several parts."[14]

2.2 The Applicable "International Conventions"

"The responsibility for ensuring that ships comply with the provisions of national and international rules rests upon the owners, masters and the flag States. Some flag States fail to fulfill their commitments contained in agreed international legal instruments and subsequently some ships are sailing in an unsafe condition, threatening the lives of the crew as well as the marine environment. Port State control is a system of harmonized inspection procedures designed to target sub-standards ships with the main objective being their eventual elimination"[15].

"A nation may enact its own laws, imposing requirements on foreign ships trading in its waters. Nations which are party to certain international conventions are empowered to verify that ships of other nations operating in their waters comply with the obligations set out in those conventions."[16]

The international conventions shall be implemented during PSC inspections are listed as follows:

_ "SOLAS 74/78/88 – Safety of Life at Sea"
_ "Load Lines 66/88"
_ "MARPOL 73/78 – Prevention of Pollution from Ships"
_ "STCW 78 – Standards of Training, Certification and Watch keeping for Seafarers"
_ "ILO 147 – Merchant Shipping (Minimum Standards) Convention"
_ "COLERG 72 – Preventing Collisions at Sea"
_ "Tonnage 69 – Tonnage Measurement of Ships"
_ "AFS 2001 – Antifouling System Convention"
_ "MLC 2006 – Maritime Labour Convention (from 2013-08-20)"

2.2.1 Case Study

This case is an application of "port state inspection" ensuring the compliance of the foreigner ship with the relevant international conventions mentioned above: "The M/v LAILA QUEEN, IMO No 7525865", "entered the port of Trieste (Italy) on the 5th of December 2002. The vessel is a bulk carrier of 13015 GT, built in 1976, flying the Cambodian flag and eligible for expanded inspection with a target factor of 45". "Flag Administration issued all statutory certificates except Safety Management Certificate and Document Of Compliance, both issued by the ship's Classification Society, Polski Rejestr Statkow (Poland)"[17].

"Deficiencies were found in STCW, load lines, SOLAS", as follow:

"STCW": "Chief Engineer Certificate of Competency and Flag endorsements were not found on board. Furthermore 2nd Mate was not able to provide proof of professional proficiency for the duty assigned".
"Load lines": "All hatch covers were found not weather tight with defective closing devices and arrangements and. substantial deterioration of reinforcements. Furthermore bulwarks, bulwarks plates, air pipes head of D.B. tanks No 3, 4, 5 on starboard side and masthouses handrails were found corroded/holed or missing".
"SOLAS": "The main fire line on main deck was found corroded/holed with heavy water leakage and six fire hoses in poor condition. Inspection i n the engine room showed insufficient cleanliness and excess amount of leakage from the three diesel generators and buster pumps. Substantial deterioration of fire dampers and absence of updated navigational charts and nautical publications for the intended voyage was noted".

2.3 PSC inspections related to the "International Safety Management (ISM) Code"

"The ISM Code was adopted by the IMO as Resolution A.741(18), in November 1993. It came into force on 1 July 1998 through SOLAS Chapter IX, ''Management for the Safe Operation of Ships''. The ISM Code provides an international standard for the safe management and operation of ships and for pollution prevention". [18]

"PSCO has the right to check the ISM system on board as per SOLAS Convention. The PSCO will not conduct an Audit on board; he/she will

(i) examine the ship's ISM certificates (SMC and DOC) and documentation and
(ii) ask Master and crew questions in order to determine that the Safety Management System (SMS) is satisfactorily implemented.

Several technical deficiencies may indicate possible failure of the Safety Management System and PSCO may

[14] Paris MoU, www.parismou.org
[15] "Paris Memorandum of Understanding, Paris MoU, www.parismou.org (accessed May 2012)"
[16] "Greenaway C, Port State Control – A guide for members, London, Thomas Miller and Co, 1998".
[17] "Paris MOU, www.parismou.org"
[18] "International Management Code for the Safe Operation of Ships and for Pollution Prevention (The ISM Code)"

request an audit to be conducted by the ISM certifying body"[19].

2.3.1 Case Study

Refer to case study described in section(2.2.1) , where the inspection of port state found some deficiencies in the area of International Safety Management as follow: "Failure about manning (Certificate Of Competency / endorsement), procedures, familiarization and general maintenance were considered major non-conformities to the ISM Code".

2.3.2 Case Study

"The m/v Binar 4 (ex Liao Yu Leng 4), IMO number 8831431 was inspected and detained in Las Palmas, Spain in March 2001. At that time the ship was under the flag of the People Republic of China and 41 deficiencies were detected. After rectifying the deficiencies the detention was lifted and the vessel was allowed to sail again. On the 9th of October 2003 the vessel arrived in Las Palmas again. This time the vessel is flying the flag of Belize. The vessel was inspected on 10 October. During this inspection 71 deficiencies were discovered by the Port State Control Officers. 21 of these deficiencies were considered ground for detention"[20].
Some deficiencies included are:
- "corrosion, cracks and deformations"
- "missing and expired nautical publications"
- "several ISM related issues"
- "malfunctioning radio equipment"
- "lifesaving appliances not properly maintained"
- "life boats missing"
- "malfunctioning navigation lights"
- "missing medical equipment"

The ship was "detained until 12 November 2003 in Las Palmas".

2.4 PSC inspections relate to the BWM Convention

The Convention, as structured, sets out general provisions and obligations, and encapsulates regulations of technical nature in an Annex, according to "article 2.2 of the Convention which provides that "the Annex forms an integral part" of the Convention, and a reference to the Convention constitutes at the same time a reference to the Annex", "including the Guidelines which were developed and adopted to facilitate the implementation of the requirements of the BWM Convention"[21].

Once "the BWM Convention enters into force, ships may be subject to inspections by port states to determine whether they comply with the BWM Convention's requirements. These inspections are limited to: verifying certification, inspecting the ballast water record book, and sampling ballast water in accordance with the IMO's guidelines. In 2014, the IMO adopted Guidelines for Port State Control under the BWM Convention (Resolution MEPC.252(67)). These provide basic guidance for conducting port state control inspections to verify compliance with the requirements of the BWM Convention. They are not intended to limit the rights the port state has in verifying compliance with the BWM Convention"[22].

1. "Port/coastal States are required to enact domestic laws to make the Convention applicable in areas under their jurisdiction, and including penalties and sanctions adequate in severity to discourage violations".
2. "Port/coastal states must establish a CME system, including procedures for the inspection of vessels entering their ports consistent with the Convention".
3. "Ports and terminals where ballast tanks are cleaned or repaired must have adequate facilities for sediment reception".
4. "States are required to notify IMO and other Parties of their national requirements and procedures for Ballast Water Management including the location of reception facilities and any requirements for ships unable to comply with the Convention (follow their BWM Plan)".
5. "Coastal States impose more stringent requirements in certain areas where they are warranted, provided that the IMO and other Parties are notified".

3. "Memorandums of Understanding" PSC Regimes

"The origins of port state control lie in the memorandum of understanding between eight North Sea States signed in Hague in 1978. The background of this memorandum is that in 1976 a maritime session of the International Labour Conference adopted the Merchant Shipping (Minimum Standards) Convention, more commonly known as ILO Convention No. 147. This Convention aimed to inspect vessels that entered the ports of member states. On March 2 1978 the Hague Memorandum was signed by the maritime authorities of eight countries1 which decided that this Convention deserved a proper follow up. The aim of the memorandum was to surveillance the seagoing ships generally in order to ensure that requirements stated under the ILO Convention No. 147, as well as in other Conventions, were met"[23].

The "Memorandum of understanding on Port State Control in Implementing Agreements on Maritime Safety and Protection of the marine Environment (MOU 1982)

[19] Supra note 10
[20] Supra note 17
[21] Ballast Water Management Convention and Guidelines.
[22] "Understanding ballast water management – guidance for shipowners and operators, www.lr.org/bwm"
[23] "Dr. Z Oya Özçayır". "The impact of Caspian oil and gas development on Turkey and challenges facing the Turkish straits. The Marmara Hotel, Istanbul, 9 November 2001".

provides in a co-ordinated check system on the conditions imposed by the most important international conventions (Load line convention 1966/88, SOLAS, MARPOL 73/78, STCW, Collision Rules)" [24] .

The PSC authority "will either resurvey by own inspectors or ask for a survey report from the classification surveyor to verify the rectification. In case of a detention the PSC authority has the right to present a bill about their inspection activities. Any detention has to be reported as soon as possible by the authority to the flag state, the classification society and IMO. The data about the inspection and the given timeframe for rectification are entered in a computer system used by all members of a regional PSC agreement."[25]

Recently, The IMO "adopted a resolution providing procedures for the uniform exercise of Port State Control, and regional agreements have been adopted by individual countries within Europe, the European Union, and various East Asian and Pacific nations. A number of North African Mediterranean nations have recently expressed their intention to set up a separate regional agreement in their own area of the world. In addition, some countries such as the United States of America have adopted a unilateral approach to the subject, which nevertheless has the same aims"[26].

3.1 "Paris MOU"

Participated Countries are: "Belgium, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland , Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovenia, Spain ,Sweden, United Kingdom of Great Britain and Northern Ireland"[27].

"The Paris MOU has been in operation since July 1982. With this memorandum, for the first time, a regular and systematic control of ships was exercised by a regional group of port states which are parties to the relevant Conventions. The Paris MOU is the model upon which other regions of the world base their agreements on port state control. Since its entry into force the number of states in the Paris MOU has grown. This has mainly been due to the increase in the number of member states of the EU. Now EC Directive 95/21/EC on port state control places a legal requirement on all EU member states to carry out port state control inspections"[28].

According to this MOU: "Member States have agreed to inspect 25% of the estimated number of individual foreign merchant ships which enter their ports during a 12 month period. This percentage - as well as the relevant instruments - is different in other MOU's. It is very important that these inspections do not cause any economic disadvantage and all possible efforts are made to avoid unnecessary delay of the ship"[29].

A PSCO "carries out port State control. The PSCO is a properly qualified person, authorized to carry out port State control inspections in accordance with the Paris MOU, by the Maritime Authority of the port State and acts under its responsibility. All PSCO' s carry an identity card, issued by their maritime authorities"[30]

3.2 "Tokyo MOU"

Participated Countries are: "Australia, Canada, Chile, China, Fiji, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, Russian Federation, Singapore, Solomon Islands, Thailand, Vanuatu"[31]

3.3 "Vina del Mar"

Participated Countries are: "Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Honduras, Mexico, Panama, Peru, Uruguay, Venezuela".[32]

3.4 "Mediterranean MOU"

Participated Countries are: "Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia, Turkey".[33]

3.5 "Indian Ocean MOU"

Participated Countries are: "Australia, Bangladesh, Comoros, Djibouti, Eritrea, India, Iran, Kenya, Maldives, Mauritius, Mozambique, Myanmar, Oman, Seychelles, South Africa, Sri Lanka, Sudan, Tanzania, Yemen". [34]

3.6 "Caribbean MOU"

Participated Countries are: "Antigua and Barbuda, Aruba, Barbados, Bahamas, Belize, Cayman Islands, Cuba, Curacao, Grenada, Guyana, Jamaica, Netherlands Antilles, St. Kitts and Nevis, Suriname, Trinidad and Tobago".[35]

3.7 "Black Sea MOU"

Participated Countries are: "Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine".[36]

3.8 "West & Central Africa (Abuja) MOU"

Participated Countries are: "Angola, Benin, Cameroon, Cape Verde, Congo, Cote d'Ivoire, Democratic Republic of

[24] "Somers E, Inleiding tot het internationaal zeerecht, Universiteit Antwerpen, 2004".
[25] "Germanisher Lloyd, GL, PSC Information manual, Germanisher Lloyd, 2009".
[26] "Port State Control Principal features at a glance. Available on Line at: http://www.dot.gov/dotinfo/uscg/hq/g-m/psc/psc.htm".
[27] "http://www.parismou.org"
[28] "Supra Note 19"
[29] "Supra Note 23"
[30] " Ibid"
[31] "http://www.tokyo-mou.org/"
[32] " http://www.acuerdolatino.int.ar/"
[33] "http://www.medmou.org/"
[34] "http://www.iomou.org/"
[35] "http://www.caribbeanmou.org/"
[36] "http://www.bsmou.org/"

Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Sierra Leone, Senegal, South Africa, Togo".[37]

3.9 "Riyadh MOU"

Participated Countries are: "Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE"[38]

4. Flag State Implementation

Historically, "national states have been ascribing nationality to ships in the same way they would ascribe nationality to citizens. This practice had a number of purposes. Firstly, ship owners felt the need for protection of their ships, whilst these were sailing on the high seas, exposed to a number of dangers, including piracy. The granting of nationality to the ship – and the consequent right to fly the flag of that country – allowed the ship to seek protection of that country against any individual or third state which threatened the interests of that ship. Secondly, the granting of nationality signified the jurisdiction of that state over the ship and therefore the relations amongst the members of the ship community were governed by a specific set of rules"[39].

Flag State defined as: "the authority under which a country exercises regulatory control over the commercial vessel which is registered under its flag. This involves the inspection, certification, and issuance of safety and pollution prevention documents"[40].

4.1 The Flag State responsibilities related to the international conventions

"The duties of a Flag State have been defined through various international conventions and regulations such as the following: the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), the International Convention for the Safety of Life at Sea (SOLAS), the International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW 78/95), the Convention on International Regulations for Preventing Collisions at Sea (COLREG) 1972, the International Convention on Load Lines (LL) 1966, and the 1982 United Nations Convention on the Law of the Sea (UNCLOS)"[41].

According to article 91 "Nationality of ships", UNCLOS establishes that "every State shall fix the conditions for the grant of its nationality to ships; that ships have the nationality of the State whose flag they are entitled to fly; and that every State shall issue to ships to which it has granted the right to fly its flag documents to that effect". Furthermore, in Article 94 "Duties of the Flag State": "Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag". According to SOLAS, Chapter I, Regulation 6 Inspection and survey, "the inspection and survey of ships shall be carried out by officers of the Administration, however the Administration may entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it"[42].

According to the IMO Resolution A.739, "Flag States should establish appropriate controls over organizations, such as classification societies, nominated to conduct statutory surveys of ships on their behalf". "The delegation of statutory survey work should be restricted to 'Recognized Organizations' that comply with IMO Resolution A.739"[43].

4.2 The Flag State responsibilities related to the ISM Code

Flag States "should have implemented the requirements of the ISM Code concerning the auditing of safety management systems (SMS), both on ships flying their flag and the shore based companies responsible for their safe operation. Flag States should also have established procedures for the issue and withdrawal of ships' Safety Management Certificates and companies' Documents of Compliance"[44]

4.3 "Flag State" obligations related to the BWM convention

"The primary responsibility for ensuring that the ships comply with applicable regulations and standards lies with the Flag State. Port State Control is not and can never substitute for the proper exercise of Flag State responsibility, but is regarded as measure complementary to the Flag State Control".

According to regulation C-2 "Warnings Concerning Ballast Water Uptake in Certain Areas and Related Flag State Measures" .

1. "To ensure that vessels flying their flag are in general compliant with the Convention".
2. "Flag States are required to enact domestic laws to make the Convention applicable to vessels under their jurisdiction, and including penalties and sanctions adequate in severity to discourage violations".
3. "Flag States are required to ensure that all vessels under their jurisdiction have a Ballast Water Management

[37] "http://www.abujamou.org/"
[38] "http://www.riyadhmou.org/"
[39] "Pamborides GP, International shipping law: legislation and enforcement, Springer, 1999".
[40] "International Association of Class Societies, IACS, Classification societies what, why and how? London, IACS, 2006".
[41] Supra note 5.
[42] De Lima Filho, Pedro, "Operational readiness of float-free arrangements for liferaft and EPIRB : analysis of implications on safety training standards and procedures" (2008). All Dissertations. Paper 169.
[43] International Association of Class Societies, IACS, Classification societies what, why and how? London, IACS, 2006
[44] Supra note 16

Record Book and Certificate, both of which must be made available to port authorities on request. Further, that on each vessel, an officer is designated to take responsibility for ensuring compliance with the BWM Plan and for reporting to port authorities".

4. "Flag States must ensure that crew members engaged in Ballast Water Management and Supplemental Ballast Water Management practices are adequately trained in implementing the BWM Plan and the procedures specific to that ship (generic and specific training)".

5. "The flag State must establish appropriate procedures for the issuing of the International Ballast Water Management Certificate. This requires a specific initial survey and interim surveys to ensure that the vessel is in compliance with the Convention requirements. The surveys may be carried out by the flag State or by a nominated organization (classification society)".

Conclusion

The "International Maritime Organization" has developed and regulated a set of guidelines for the inspection of "port state control", to reduce the risk of "Ballast Water discharge", named as the "Ballast Water Management Convention". There are additive challenges have been produced to maritime environment due to the delay of the ratification of this convention.

The implementation of provisions and guidelines set out by the IMO requires the development of a governing international legal framework enforcing national regulations to consider these guidelines in their national legislation , more effective regional agreements, more memorandum of understanding between regional coastal countries, and the "port state control" inspection should achieve the compliance with the "Ballast Water Management" Convention.

Further international efforts should be considered establishing binding guidelines to improve "Flag State" performance, and the "Flag States" that have signed up to this convention should consider the guidelines in their national legislation.

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[6]. United Nations Convention on the Law of the Sea III, UNCLOS III, UN, London, 1973, art 91, 92, 94 and 97.

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[22]. http://www.acuerdolatino.int.ar/

[23]. http://www.medmou.org/

[24]. http://www.iomou.org/

[25]. http://www.caribbeanmou.org/

[26]. http://www.bsmou.org/

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