



A LAW TO INCORPORATE THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004 INTO TO LAWS OF TUNISIA AND TO PROVIDE FOR THE EFFECTIVE IMPLEMENTATION THEREOF

A Legislation Drafting Project submitted in partial fulfillment of the requirements for the award of the Degree of Master of Humanities (M.Hum.) in International Maritime Legislation at the IMO International Maritime Law Institute

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DECLARATION

I certify the maritime legislation drafting project is my own personal work; that the greater portion of the work has been done after my registration for the Degree; and that I have not previously submitted such work or are not concurrently submitting such work in candidature for any other degree or diploma.

Rached BENMOHAMED 14 May 2019

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ABBREVIATIONS AND ACRONYMS

BWM Certificate	International Ballast Water Management Certificate	
BWM Convention	International Convention for the Control and Management of Ships'	
	Ballast Water and Sediments, 2004	
BWM Plan	Ballast Water Management Plan	
CBD	Convention on Biological Diversity	
Committee	Marine Environment Protection Committee of the Organization	
FPSO	Floating Production Storage and Offloading Units	
FSU	Floating Storage Units	
IMO	International Maritime Organization	
MARPOL	International Convention for the Prevention of Pollution from Ships	
MEPC	Marine Environment Protection Committee	
Organization	International Maritime Organization	
RSP	Regional Seas Programme	
UNEP	United Nations Environment Programme	

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PART 1: INTRODUCTION

The sea covers two thirds of the surface of our planet. It hosts a variety of ecosystems covering all climate zones in the Earth, and also has long facilitated connection between humans.

Since the 19th century, the maritime transport has undergone many changes including the replacement of solid ballast by water. Separate tanks located in the hull of the ship are filled with water to ballast in order to contribute to the stability of a ship when the ship is light without goods on board.¹

This water that contains a large number of life forms can then be rejected at the next port of call, releasing all surviving organisms.² The continued growth of maritime traffic between different parts of the world has repercussions on the environment as well as on human well-being. This includes the spread of species far beyond their native range. Ballast water is widely used to balance ships and ensure their stability as well as to control trim list draught or stress of the ship. However, they present risks for the environment in which they are introduced.³

Depending on the operating conditions of the ship, additional water may be charged in different tanks: the water contained in ballast may come from several sources. As in the case of solid ballast, the use of ballast water has been disastrous for the marine world. Ballast water can contain a wide variety of organisms such as viruses, bacteria, microscopic plankton⁴ and fish. Ballast water is one of the main vectors of invasion of aquatic species. It is estimated that on any given day more than 5,000 species of freshwater, brackish and marine organisms may be transported in the ballast water of ships around the world.⁵

The bottoms of reservoirs and the sediment layers are usually colonized on their walls by other living organisms. Although the conditions prevailing in ships tanks and at the time of ballasting are not ideal for many species, some others have however demonstrated an ability to survive.

¹ Tanzer Satir, 'Ballast water treatment systems: design, regulations, and selection under the choice varying priorities' (2014).

² Ibid.

 ³ Fabrizio Cadenaro, 'Ballast Water Management Convention and Regulations' (2017) accessed 25 January 2019.
⁴ Plankton is the diverse collection of organisms that live in large bodies of water and are unable to swim against a current. < https://www.britannica.com/science/plankton > accessed 29 January 2018.

⁵ University of California, 'Organisms Found in Ballast Water', (2019),

< http://ballast-outreach-ucsgep.ucdavis.edu/AIS_Info_and_Research/Organisms_Found_in_Ballast_Water/ > accessed 24 March 2019.

In view of the very rapid development of intercontinental shipping, and following the late development of effective regulations for the control of these vectors of ballast water contamination, the fight against alien species seems to have no end. Without abandoning the essential prevention policies, Mediterranean societies should consider the assessment of these non-native species whose flow will certainly increase following the continuous enlargement of the Suez Canal.⁶

Due to its geographical location, with almost 1,300 kilometres of coast open to the Mediterranean Sea, Tunisia is exposed to the risks of invasion by alien species from ballast water, as each year Tunisian ports are visited by about 5,000 ships from abroad (5,080 ships entered to Tunisian Port in 2017).⁷ In view of this alarming situation, it is essential for Tunisia to ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (hereinafter, BWM Convention)⁸ in order to lay down specific rules and measures on the control and management of ballast water and to protect the environment, human health, property and resources. This drafting project introduces the background of the BWM Convention, discusses the main reasons for its integration in domestic law and explains the procedure of incorporation in to domestic law of the Republic of Tunisia.

PART 2: BALLAST WATER AS A VECTOR OF INVASIVE ALIEN SPECIES

In general, a ship is specifically designed and built to move in the safest way while carrying a cargo from port to port. However, it should take additional ballast onboard when the ship is either unloaded or partially loaded in order to maneuver effectively, safely, as well as to remain sufficiently immersed in the water to ensure that the propeller and rudder are effective.⁹

In the past, solid materials have been used for ballasts such as sand, dirt and stones. However, due to progress in the middle of the 19th century, water commenced to be used as ballast and since the 1950s the use of solid materials as ballasts has stopped and completely replaced by water ballast on heavy cargo ships.¹⁰

⁶ Jessica Edwards, 'A Patchwork Mediterranean', <

https://www.um.edu.mt/library/oar/bitstream/handle/123456789/6356/29-33.pdf?sequence=1&isAllowed=y> accessed 24 March 2019.

⁷ < http:// www.ommp.nat.tn/statistics-vessel/? lang=en > accessed 26 November 2018.

⁸ International Convention for the Control and Management of Ships' Ballast Water and Sediments (signed 13 February 2004, entry into force 08 September 2017) UNTS 55544.

⁹ National Academy Press, 'Stemming the Tide Controlling Introductions of Nonindigenous Species by Ships' Ballast Water' (1996) 24.

¹⁰ Ibid, 22.

Ballast water systems are now an integral part of ship design and contribute to the stability, balance and integrity of the hull structure. The use of seawater as ballast water is essential for maritime navigation. Sea water replaced on steel ships the solid ballast that was shipped on wooden ships. When the ship is light without goods on boards, the loading of ballast water allows:

- To ensure the navigability of the ship and its stability,
- To reach a sink and water lines compatible with safe navigation, and possibly dock accessibility under loading gantries.
- To adjust the attitude in order, in particular, to have a rear draft sufficient to obtain a good performance of the propeller in all weather conditions.
- To maintain hull constraints within acceptable limits.¹¹

The ballast water is pumped into specially designed tanks and distributed through the hull when the ships are unloaded, and the water is discharged again upon arrival at the port where the cargo is to be loaded.

Waters transported as ballast inevitably contain a large number of micro-organisms or living animal or plant species or organisms of different species at different stages of development which are pathogenic and often harmful. Therefore, the ballast water constitutes a potentially significant vector for diffusions of invasive alien species in the world.¹²

On the one hand, there is no doubt that many organisms which enter in the ballast water tanks die, for example, organisms can suffer physical damage, and photosynthetic species may not survive the absence of light. On the other hand, it is also certain that many organisms survive and can establish and reproduce at the time of discharge if the environmental conditions are favourable.

At destination, the ship discharges its ballast water into a totally different aquatic ecosystem containing other species that may not be able to survive with other organisms. These harmful alien species can colonize this new environment by eliminating native species. The rapid population growth of these species can colonize their new environment and result in

¹¹ Anish, 'A Guide To Ballast Tanks On Ships' (2018), < https://www.marineinsight.com/naval-architecture/a-

guide-to-ballast-tanks-on-ships/> accessed 06 March 2019.

¹² Gregory M. Ruiz and James T. Carlton, 'Invasive Species: Vectors and Management Strategies', African Journal of Aquatic Science (2004).

disturbances and major changes to ecosystems and their functioning. Disturbances and modifications can impact the environment, the economy and human health. The greatest threat to the marine environment arises from the introduction of harmful alien species into new environments through the discharge of ballast water from ships.¹³

It is estimated that 10 billion tons of ballast water are transferred each year globally and that 7,000 species are displaced around the world every day in ballast water.¹⁴

PART 3: IMPACTS OF INVASIVE ALIEN SPECIES¹⁵

The potential impacts of invasive alien species are multiple and can affect human health, infrastructure, trade and ecosystems.

1- Impacts on human health and well-being

The impacts on human health and well-being include decreased recreational marine opportunities, as well as parasites, toxicities, viruses and diseases, sometimes fatal, impacting humans through contact or ingestion. There are also effects on ecosystems which indirectly affect humans. In some cases, ecosystems altered by invasive alien species may be less able to provide important ecosystem services which support human activity. For example, the introduction of a strain of virulent cholera from Asia was implicated in a large-scale epidemic in Peru in 1991, affecting thousands of people. Cholera (Vibrio Cholera) is also known to mutate to new strains and to travel widely in ships' ballast water.¹⁶

2- Environmental impacts

The environment impacts can be measured by the loss of biodiversity due to predation or competition between species introduced through ballast water against native species. Invasive species may also take hold in the new environment when they are able to exploit a resource that native species cannot use. The disturbance is variable and may increase, but the standardization of habitats may then cause a decrease in biodiversity at the habitat level. Non-native species

¹³ Ibid..

¹⁴ Tanzer Satir, (n 1).

¹⁵ See Guide for assessing the risks of non-native species introduced by ballast waters: < https://www.ecologique-solidaire.gouv.fr/sites/default/files/Guide%20BWM_VF.pdf >

¹⁶ Am. J. Trop. Med. Hyg, 'New insights on the emergence of cholera in Latin America during 1991: the Peruvian experience' (2000) 513-517.

may result in hybridization with compatible native collections which contributes to the genetic diversity of species. ¹⁷

3- Economic impacts

From the economic side the impacts of invasive alien species may result from the interference between biological resources on which fisheries and mariculture depend,¹⁸ the interference with fisheries, tourism disruptions, infrastructure damages and costs of treatment, cleaning and control. It is important to estimate and assess the costs of the impacts of introducing a species on the one hand, to manage the incursions of invasive alien species and, on the other hand, to support preventive action to avoid any negative effects. However, assessing the economic impacts of an invasive alien species requires a structured process for assessing the specific attributes of the ecosystems, economies and cultures concerned.

The successful management of invasive alien species can bring long-term economic and environmental benefits, including the conservation of biodiversity and ecosystem health, and the maintenance of the services they provide. This reinforces the case for strategic investments for prevention rather than post-invasion damage control, including the ratification of the BWM Convention and the development of national strategies and necessary policy frameworks.

PART 4: STAGES OF INTERNATIONAL RESPONSE

The increasing knowledge of the extent of damage caused by invasive alien species has generated widespread reaction in this regard in the form of legal instruments or programs to develop practical technical solutions.

For example, the Convention on Biological Diversity (CBD)¹⁹ provided comprehensive baseline measures to protect the components of biodiversity from the impact of invasive species. Moreover, in 1995 the Parties to the CBD adopted the so-called 'Jakarta Mandate on Marine and Coastal Biological Diversity',²⁰ which addressed invasive species as the main issue. The objective of the programme under the Jakarta Mandate was to stop the introduction of

¹⁷ H. A. Mooney and E. E. Cleland, 'The evolutionary impact of invasive species' (2001),

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC33232/#B33 accessed 20 January 2019.

¹⁸ M. Phillips, 'Encyclopedia of Ocean Sciences (Second Edition)'(2009) 537-544,

¹⁹ Convention on Biological Diversity (signed 5 June 1992, entered into force on 29 December 1993) 1760 UNTS 30619.

²⁰ The Conference addresses the conservation and sustainable use of marine and coastal biological diversity, and urge Parties to initiate immediate action to implement the decisions adopted on this issue. http://charlie-gibbs.org/charlie/NEA_Website/Projects/Reports/jakmand.pdf.

invasive species into the marine and coastal environment and to dispose existing species as much as possible. The objective mentioned above was implemented through the Regional Seas Programme (RSP) of the United Nations Environment Programme (UNEP).²¹

Ballast initiatives have been on the agenda of international institutions for more than 30 years. Many of stakeholders, including maritime transport, port management, environmental groups, public health agencies, seafood producers and others at the individual level in their countries and territories or at the international level are working to solve this problem in international forums.²²

The International Maritime Organization (hereinafter, IMO), a specialized body of the United Nations responsible for international regulations on ship safety and security and prevention of sea pollution due to ships, leads an initiative which is at the forefront of international initiatives.

IMO has addressed the problem of ballast water across Member States since 1973, when it made known the issue of ballast water at the International Conference on the adoption of International Convention for the Prevention of Pollution from Ships (MARPOL)²³. The conference adopted a decision confirming that the water ballast may contain water contaminated by bacteria or epidemiological diseases that, if rejected, could spread the epidemic to other countries.

Subsequently, IMO established a ballast water working group under the Marine Environment Protection Committee (MEPC), which actively participated in the search for a solution to the problem of ballast water. Activities included:

- The development of an initial set of Guidelines in 1991, which was subsequently replaced by an updated version in 1997, 'Guidelines for the control and management of ships ballast water to minimize the transfer of harmful aquatic organisms and pathogens' (Resolution A.868-20);²⁴
- Development of an international legal instrument, the BWM Convention.

²¹ The United Nations Regional Seas Programme: General Guides and Principles.

< https://www.tandfonline.com/doi/pdf/10.4296/cwrj1402037 >

²² IMO, 'Guidelines for National Ballast Water Status Assessment' (2009)

< http://www.imo.org/en/OurWork/Environment/MajorProjects/Documents/Mono17_English.pdf > accessed 24 March 2019.

²³ International Convention for the Prevention of Pollution from Ships (signed 17 February 1978, entered into force on 26 November 1983) 1340 UNTS 22484.

²⁴ Resolution A.868-20, adopted on 27 November 1997.

< http://www.marinedocs.co.uk/wp-content/uploads/2014/10/RESOLUTION-A.868201.pdf >

• Development of Guidelines for the implementation of the BWM Convention.²⁵

The BWM Convention was adopted by consensus in London on Friday 13 February 2004. The BWM Convention entered into force twelve months after its ratification by 30 States, representing 35 percent of the gross tonnage of the world fleet of merchant ships.

Finland has ratified the BWM Convention on 8 September 2016, which led to the enter into force on 8 September 2017, which is now set to be a key date for shipowners, managers and equipment manufacturers around the world.

The BWM Convention gives the States Parties the right to take measures to prevent, minimize and eliminate the transfer of harmful aquatic organisms and pathogens.

PART 5: OVERVIEW OF THE BWM CONVENTION

The BWM Convention is intended to apply to all ships designed to carry ballast water without any conditions of measurement. ²⁶ The aim of the BWM Convention is to prevent the migration of harmful aquatic organisms and pathogens. The BWM Convention includes the following main provisions:

1- General Obligations

According to Article 2 of the BWM Convention, the Parties undertake to give full effect to the provisions of the Convention and its Annex in order to prevent, minimize and, as a last resort, eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments.

Parties have the right to take, individually or jointly with other parties, more stringent measures to prevent, reduce or eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediment, in accordance with international law.

²⁵ Guidelines and guidance documents related to the implementation of the international convention for the control and management of ships' ballast water and sediments, 2004.

http://www.imo.org/en/OurWork/Environment/BallastWaterManagement/Documents/Compilation%20of%20relev ant%20Guidelines%20and%20guidance%20documents%20-%20April%202017.pdf

²⁶ BWM Convention Article 3 paragraph 1 and 2.

Parties should ensure that ballast water management practices do not cause damage to the environment, human health, property or resources, or those of other States.

2- Sediment Reception Facilities

According to Article 5 of the BWM Convention, each Party undertakes to ensure that, in ports and terminals designated by that Party where cleaning or repair of ballast tanks occurs, adequate facilities are provided for the reception of sediments.

3- Scientific and Technical Research and Monitoring

Article 6 of the BWM Convention requests the Parties individually or collectively to promote and facilitate scientific and technical research on ballast water management and to monitor the effects of ballast water management in waters under their jurisdiction.

4- Survey, Certification and Inspection

In accordance with Article 7 of the BWM Convention, vessels flying the flag of a State Party and to which the BWM Convention applies should be subject to inspection and certification by the flag State. Furthermore, the certificates shall be issued or endorsed either by the Party or by any person or organization duly authorized by it. Tunisia Maritime Authority has delegated all conventions subject to prevention of pollution to a classification society. In this case, the classification society survey and issue the Ballast Water Certificate on behalf the Republic of Tunisia. As well, ships may be inspected by port State control officers, as provide in Article 9 of the BWM Convention. The inspection, carried out by port State control, may include verifying that there is onboard a valid International Ballast Water Management Certificate (BWM Certificate) and an approved Ballast Water Management Plan (BWM Plan); inspection of the Ballast Water Record Book; and/or sampling of the ship's ballast water. If there are problems, a detailed inspection may be carried out and the Party conducting the inspection shall take the necessary measures to prevent the ship from discharging ballast water until it can do so without pose a threat to the environment, human health, property or resources. Every effort should be made to prevent a ship from being unduly detained or delayed according to Article 12 of the **BWM** Convention.

The ships registered under a flag which has not ratified the BWM Convention may not be issued with the BWM Certificate. However, port States which are Parties will expect the ships to

comply with the requirements of the BWM Convention, so as to ensure no more favourable treatment is given to such ships.²⁷

The deficiencies that may be notified by the port State authority are: absence of the BWM Certificate, BWM Plan or Record Book; indication that the ship or its equipment does not correspond substantially with the particulars of the BWM Certificate and/or the BWM Plan; the designated personnel are not familiar with essential shipboard procedures relating to ballast water management; no designated officer has been nominated.²⁸

5- Technical Assistance, Co-operation and Regional Co-operation

According to Article 13 on technical assistance and cooperation and regional cooperation, the Parties undertake directly or through IMO and other international bodies to provide, under the control and management of ships' ballast water and sediment, support to parties requesting technical assistance: to train personnel; to ensure the availability of relevant technology, equipment and facilities; to initiate joint research and development programs; and to undertake other measures at the effective implementation of the BWM Convention and the related Guidelines elaborated by IMO.

SECTION A - GENERAL PROVISIONS

This section contains definitions, applicability and exceptions. According to general applicability of Regulation A-2: '*Except where expressly provided otherwise, the discharge of Ballast Water shall only be conducted through Ballast Water Management in accordance with the provisions of this Annex.*'

1-Exceptions²⁹

The BWM Convention provides exceptions:

• Absorption or discharge of ballast water and sediment necessary to ensure the safety of a ship in emergency situations or to save lives at sea.

 $^{^{\}rm 27}$ IMO, ' Implementing the Ballast Water Management Convention',<

http://www.imo.org/en/MediaCentre/HotTopics/Documents/FAQ%20-%20Implementing%20the%20Ballast%20 Water%20Management%20Convention.pdf > accessed 24 March 2019.

²⁸ DNVGL, 'Ballast water management and port state control – checklist for preparation of PSC inspections', (2018) accessed 24 March 2019.

²⁹ BWM Convention, Regulation A-3

• The accidental discharge or ingress of ballast water and sediments resulting from damage to a ship or its equipment.

• Ballast operations are carried out for the purpose of avoiding or minimizing pollution incidents from the ship.

• The uptake and subsequent discharge on the high seas of the same ballast water and sediments.

• The discharge of ballast water and sediments from a ship at the same location where the whole of that ballast water and those sediments originated and provided that no mixing with unmanaged ballast water and sediments from other areas has occurred.

2- Exemptions ³⁰

Article A.4 of the BWM Convention provides for the possibility of granting States Parties, in the waters under their jurisdiction, exemptions from any obligation to apply the regulations B-3 or C-1. An exemption may be granted to a ship or ships on a voyage or voyages between specified ports or locations; or to a ship which operates exclusively between specified ports or locations.

The exemption shall be effective for a period of no more than five years subject to intermediate review. An exemption may be granted to ships that do not mix ballast water or sediments other than between the ports or locations specified. The exemption can only be granted based on the Guidelines on risk assessment developed by the IMO.

The request for exemption shall be made by the owner of the vessel concerned for the Tunisian Maritime Authority. The application should contain the presentation of a risk assessment demonstrating the absence of any risks.

SECTION B - MANAGEMENT AND CONTROL REQUIREMENTS FOR SHIPS

Ships should have on board and implement a BWM Plan approved by the flag State as required by the Regulation B-1 of the BWM Convention. The BWM Plan is specific to each ship and includes a detailed description of the procedures to be followed and measures to be taken to implement the ballast water management requirements and the ballast water management complementary practices.

³⁰ BWM Convention , Regulation A-4

Ships should have on board a Ballast Water Record Book (Regulation B-2) to record when the ship is taking water; whenever water is circulated or treated; and when the ballast water is discharged into the sea. It should also report when the ballast water is discharged to a reception facility or in the event of an accidental or other exceptional uptake or discharges of ballast water.

The specific requirements of Ballast Water Management for Ships are explained in Regulation B-3 and summarized in the table 1 below.

Date of	Ballast Water Capacity (cubic	Standard
construction	metres)	
		Shall at least meet the Ballast
		Water Exchange Standard. After
Before 2009	between 1,500 and 5,000	2014 shall meet Ballast Water
		Performance Standard.
		Shall at least meet the Ballast
		Water Exchange Standard. After
Before 2009	less than 1,500 or greater than 5,000	2016 shall meet Ballast Water
		Performance Standard.
In or after 2009	less than 5,000	Shall meet Ballast Water
		Performance Standard.
In or after 2009		Shall at least meet the Ballast
before 2012	5,000 or more	Water Exchange Standard. After
		2016 shall meet Ballast Water
		Performance Standard.
In or after 2012	5,000 or more	Shall meet Ballast Water
		Performance Standard.

Table 1Requirements of Ballast Water Management for Ships

Other methods of ballast water management may also be accepted in lieu of ballast water renewal or quality standards, provided that such methods ensure at least the same level of protection to the environment, human health, property or resources, and are approved in principle by the MEPC.

According to Regulation B-4 on ballast water exchange, all ships carrying out ballast water exchange shall, as much as possible, exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth taking into account the Guidelines developed by IMO.³¹ In situations where the ship is unable to proceed with the ballast water exchange as described above, this exchange should be made as far as possible from the nearest land and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth.

Where these requirements cannot be met, areas may be designated where ships may conduct ballast water exchange. All ships shall remove and dispose of sediments from spaces designated to carry ballast water in accordance with the provisions of the ship's BWM Plan (Regulation B-5).

SECTION C - SPECIAL REQUIREMENTS IN CERTAIN AREAS

A Party, individually or in jointly with other Parties, may impose additional measures on ships to prevent, reduce, or eliminate the transfer of Harmful Aquatic Organisms and Pathogens through ships' ballast water and sediments.

In such situations, the Party or Parties shall consult with adjacent or other States that may be affected by such standards or requirements and shall inform the IMO of their intention to establish additional measures at least 6 months before the proposed date of implementation of measures, except in emergency or epidemic situations.³² Where necessary, the Parties shall obtain the approval of the IMO.

SECTION D - STANDARDS FOR BALLAST WATER MANAGEMENT

There is a ballast water exchange standard and a ballast water performance standard. The exchange of ballast waters could be used to meet the performance standard:

³¹ Resolution MEPC.163(56), adopted on 13 July 2007.

<http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-(MEPC)/Documents/MEPC.163(56).pdf>.

³² BWM Convention, Regulation C-1 Additional Measures, paragraph 3.

Ships renewing ballast water in accordance with this regulation shall achieve an effective volumetric renewal of not less than 95 percent of the ballast water.

In the case of ships exchanging ballast water by the pumping-through method, pumping through three times the volume of each ballast water tank shall be considered to meet the standard described in paragraph 1 of Regulation D-1. Pumping through less than three times the volume may be accepted provided the ship can demonstrate that at least 95 percent volumetric exchange is met.

2- Regulation D-2 Ballast Water Performance Standard

Ships conducting ballast water management in accordance with Regulation D-2, paragraph 1, shall discharge less than ten viable organisms per cubic metre greater than or equal to 50 micrometres in minimum dimension and less than ten viable organisms per millilitre less than 50 micrometres in minimum dimension and greater than or equal to 10 micrometres in minimum dimension; and discharge of the indicator microbes shall not exceed the specified concentrations described in paragraph 2, Regulation D-2.

According to Regulation D-2, paragraph 2, indicator microbes, as a human health standard, shall include:

- Toxicogenic Vibrio cholerae (O1 and O139) with less than 1 colony forming unit (cfu) per 100 millilitres or less than 1 cfu per 1 gram (wet weight) zooplankton samples;
- Escherichia coli less than 250 cfu per 100 millilitres;
- Intestinal Enterococci less than 100 cfu per 100 milliliters.

The IMO Assembly adopted on 4 December 2013 the Resolution A.1088 (28)³³ which introduces a flexible phase in the Ballast Water Performance Standard (Regulation D-2). The specific requirements of ballast water exchange standard (Regulation D-1) and ballast water Performance standard (Regulation D-1) are summarized in table 2.

³³ Resolution A.1088 (28), adopted on 4 December 2013 in the Assembly 28th session. 'Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004'

Keel laid date	Ballast Water Capacity (m3)	Applicable Regulation	Date of implementation of Regulation D-1	Date of implementation of Regulation D-2
before 2009	< 1,500 > 5,000	B-3.1.2 B-3.1.2	8 September 2017	e date
01/01/2009 to entry into force date	1,500 -5,000 < 5,000	B-3.1.1 B-3.3	8 September 2017	r entry into force
01/01/2009 to 31/12/2011	> 5,000	B-3.4	8 September 2017	newal afte
01/01/2012 to entry into force date	> 5,000	B-3.5	8 September 2017	1st IOPP Rei
After entry into force date	Any	N/A	N/A	Entry into force date

Table 2Schedule of compliance with Regulation D-1 and D-2

3- Prototype Ballast Water Treatment Technologies

Regulation D-4 covers the prototype of ballast water treatment technologies. This allows ships participating in an approved program to test and evaluate promising ballast water treatment technologies with a five-year margin before being required to meet the performance standard.

4- Review of Standards by the Organization

According to Regulation D-5 on standards review by the Organization, IMO should undertake a review of the quality standard taking into account a number of criteria including safety considerations; ecological acceptability, that is, technologies that do not have more environmental impacts than those that can be avoided; their practicality, that is compatibility with the design and operation of the ship; their cost-effectiveness; and biological effectiveness

in terms of removing, or otherwise rendering not viable, harmful aquatic organisms and pathogens in ballast water.³⁴

The review should determine whether there are technologies available to satisfy the standard, evaluate the criteria outlined above and analyse the socio-economic effects, particularly related to the needs of developing countries.

SECTION E - SURVEY AND CERTIFICATION REQUIREMENTS FOR BALLAST WATER MANAGEMENT

This section includes the requirements for initial, renewal, annual, intermediate and supplementary survey as well as the requirements for issuing certificates to ships of 400 gross tonnage and above to which the BWM Convention applies, excluding floating platforms, Floating Storage Units (FSUs) and Floating Production Storage and Offloading Units (FPSOs).

The Appendices provide a form of the BWM Certificate Model and a form of Ballast Water Record Book.

PART 6: REASONS TO INCORPORATE BWM CONVENTION INTO TUNISIAN DOMESTIC LAW

With the intensification of maritime traffic and the exponential evolution of trade volumes across the Mediterranean Sea, the world fleet is becoming increasingly important from a gauge point of view.

The Mediterranean represents the hub of commercial shipping lines and it is surrounded by major ports from different countries, the shipping connection between the ports represents the most cost effective means of transportation and needs to use ballast water for its safe activities. However, ballast water is the main vector for moving invasive alien species which cause serious marine environmental problems around the world.³⁵

The global maritime trade relations of Mediterranean ports support a widespread deployment of internal and external organisms.

³⁴ BWM Convention, Regulation D-5, paragraph 2.

³⁵ Maria Monia Flagella and Ameer A. Abdulla, 'Ship ballast water as a main vector of marine introductions in the Mediterranean Sea', <u>WMU Journal of Maritime Affairs</u> Volume 4, <u>Issue 1</u>, 95–104, (2005),

< https://link.springer.com/article/10.1007/BF03195066 > accessed 04 April 2019.

Due to its geographical location with almost 1,300 kilometres of coast open to the Mediterranean Sea, Tunisia is exposed to the risks of invasion by alien species from ballast water, as each year Tunisian ports are visited by about 5,000 ships from abroad.³⁶ The Tunisian coasts are not immune to this problem, with the risks of species introductions and proliferation.

Sea freight remains constrained to the use of ballast to stabilize navigation in the absence of cargo. This ballast is nothing other than large volumes of water, which may contain marine organisms, such as bacteria, plankton species, small invertebrates and spore eggs and larvae of large species. In the case that the organisms present in a ship's ballast tanks stay alive during the trip to the next destination, they may be released with the ballast water into waters in which they do not naturally occur. If these non-native organisms survive and multiply during their new environment, they may become invasive species. In this way, ballast water can inadvertently introduce harmful organisms into the environment.³⁷

According to Article 52 of Law n $^{\circ}$ 2009-48 of 8 July 2009,³⁸ promulgating the Tunisian Maritime Port Code (TMP Code), it is prohibited to discharge into the port the ballast water of the ship loaded in another port and it is forbidden to load and unload ships' ballast water inside the port without authorization from the port authority.

The Tunisian legislation relating to the ships' ballast water is not able to respond to current or potential threats from invasive alien species introduced into the fouling of ship hulls. The existence of a single law relating to ballast water does not ensure the conservation of biodiversity and the sustainable use of its components and does not adequately protect the environment from any threat according to the Article 52 of Law n $^{\circ}$ 2009-48 of 8 July 2009.

In view of this alarming situation, it is essential for Tunisia to ratify the BWM Convention in order to lay down specific rules and measures on the control and management of ballast water and to protect the environment, human health, property and resources.

³⁶ Office of Merchant Marine and Ports, 'Statistics Ships < http://www.ommp.nat.tn/statistics-vessel/?lang=en > accessed 26 November 2018.

 ³⁷ Florida Fish and Wildlife Conservation Commission, 'Ballast Water and the Transport of Harmful Algae' < https://myfwc.com/research/redtide/research/scientific-products/ballast-water/ > accessed 04 April 2019.
³⁸ Published in Tunisian Official Gazette Number 56 of 14 July 2009, 1900.

PART 7: THE PROCESS OF INCORPORATION OF A TREATY INTO THE TUNISIAN LEGISLATION

According to Tunisian Constitution 2014³⁹ the procedures for ratification and implementation of an international convention in the Tunisian legal system are, as follows:

Step I: The primary rules for the approval of a convention in the Council of Ministers

The Ministry of Foreign Affairs in collaboration with the Ministry responsible for a convention reviews the convention and prepares an explanatory note for the Council of Ministers. The explanatory note with the copy of the convention is transmitted to the Head of Government.

The Head of Government prepares a draft law and submits it to the Assembly of the Representatives of the People for approval. According to Article 62 of the Tunisian Constitution, the Head of Government is the only authority entitled to present draft laws related to the approval of treaties. Draft laws presented by the President or the Head of Government shall be given priority.

Step II: The approval of the draft law authorizing the President of the Republic to ratify a convention

The law relating to the approval of treaties is considered as draft organic laws according to Article 65 of the Tunisian Constitution. In this case, and according to Article 64 of the Tunisian Constitution, the Assembly of the Representatives of the People shall approve draft organic laws by an absolute majority of all members, provided that such a majority represents no less than one-third of the members of the Assembly. The draft organic law shall be presented for debate to the plenary session of the Assembly of the Representatives of the People after at least fifteen days have passed since its submission to the competent parliamentary committee.

According to Article 67 of the Tunisian Constitution, Treaties related to international organizations shall be submitted to the Assembly of the Representatives of the People for approval. Treaties enter into force only upon their ratification.

³⁹ The Tunisian Constitution of 2014 was adopted on 26 January 2014 by the Tunisian Constituent Assembly.

International agreements approved by the Assembly of the Representatives of the People and ratified have a status superior to that of laws and inferior to that of the Constitution in accordance with Article 20 of the Tunisian Constitution.

Step III: Ratification of a convention by the President of the Republic

In accordance with Article 77 of the Tunisian Constitution, the President of the Republic is responsible for representing the State. The President also has the power to ratify treaties and order their publication.

The President of the Republic shall sign law relating to the approval of a convention, after the approval of the draft law by the Assembly of the Representatives of the People, and ensures their publication in the Official Gazette of the Tunisian Republic within a period of no more than four days from the expiry of appeal periods in accordance with Article 81 of the Tunisian Constitution. Upon return, the ratification of draft organic laws requires the approval of three fifths of the members.

After the signature of law relating to the approval of convention, the preparation of the Presidential Decree of ratification takes place and shall be submitted to the President of the Republic for signature.

When the President of the Republic signs the Presidential Decree of ratification, he expresses the intention of Tunisia to be bound by the convention and requests the Ministry of Foreign Affairs and the Ministry responsible for the convention, each in that regard, the execution of this Presidential Decree which should be published in the Official Gazette of the Republic of Tunisia.

At the national level, the publication of the presidential decree of ratification in the Official Gazette of the Republic of Tunisia is the last step which the State expresses its consent at the international level to be bound by the convention.

This process of incorporation is applicable to the ratification of all international conventions, including the BWM Convention which will be incorporated into Tunisian legislation by a law and a decree signed by the President of the Republic of Tunisia.

The Tunisian Maritime Authority is empowered to deal with the survey and certification of ships flying the Tunisian flag or operating under its authority. As well, the officers duly

authorized by Tunisian Maritime Authority have to inspect, in Tunisian ports, the foreign ships to which the BWM Convention applies for the purposes of determining whether the ship is in compliance with the BWM Convention.



Flow Chart

THE DRAFT LAW

ON THE APPROVAL OF THE ACCESS TO INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004

Law number ...-... of ..., 2019 on the approval of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. (1)

On behalf of the people, The Assembly of the Representatives of the People has adopted, The President of the Republic promulgates the Law whose content follows:

Single Article: - Is approved, the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004.

This Organic Law will be published in the Official Gazette of the Republic of Tunisia and executed as State law.

Tunis, on2019.

The President of the Republic President full name Signature

(1) Preparatory work: Discussion and adoption by the Chamber of Representatives in its meeting of, 2019.

THE PROJECT OF DECREE

ON THE RATIFICATION OF THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS IN THE TUNISIAN OFFICIAL GAZETTE

Decree number of, 2019, ratification the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004.

The President of the Republic,

Having regard to the Constitution, and in particular Articles 67, 77,

Having regard to the Organic Law number ...-... of ..., 2019 on the Ratification of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004;

Having regard to the International Convention for the Control and Management of Ships' Ballast Water and Sediments adopted in London on Friday 13 February 2004,

Takes the presidential decree whose content follows:

Article I: - Is ratified, the International Convention for the Control and Management of Ships' Ballast Water and Sediments was adopted by consensus at a Diplomatic Conference held at International Maritime Organization Headquarters in London on 13 February 2004.

Article 2: - The Minister of Foreign Affairs and the Minister of Transport are responsible, each in that regard, for the execution of this Presidential Decree, which will be published in the Official Gazette of the Republic of Tunisia.

Tunis, on2019. The President of the Republic *President full name Signature*

A LAW FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS

Subject to this law, the Ballast Water Management Convention, the text of which is set out in the following, shall have the force of law in Tunisia.

Article 1 Definitions

For the purpose of this Law, unless expressly provided otherwise:

- 1 **"Ballast Water**" means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of the ship.
- 2 "**Ballast Water Management**" means mechanical, physical, chemical, and biological processes, either singularly or in combination, to remove, render harmless, or avoid the uptake or discharge of Harmful Aquatic Organisms and Pathogens within Ballast Water and Sediments.
- 3 "Certificate" means the International Ballast Water Management Certificate.
- 4 "**Committee**" means the Marine Environment Protection Committee of the Organization.
- ⁵ "**Company**" means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the International Safety Management Code.⁴⁰
- 6 "**Convention**" means the International Convention for the Control and Management of Ships' Ballast Water and Sediments.
- 7 "**FSU**" means Floating Storage Units.
- 8 "FPSO" means Floating Production Storage and Offloading Units.
- 9 "Gross tonnage" means the gross tonnage calculated in accordance with the tonnage measurement regulations contained in Annex I to the International Convention on Tonnage Measurement of Ships, 1969, which ratified by Tunisia on 13 April 1999, or any successor Convention.

⁴⁰ Refer to the ISM Code adopted by the Organization by Resolution A.741(18), as amended.

- 10 "Harmful Aquatic Organisms and Pathogens" means aquatic organisms or pathogens which, if introduced into the sea including estuaries, or into fresh water courses, may create hazards to the environment, human health, property or resources, impair biological diversity or interfere with other legitimate uses of such areas.
- 11 "**Organization**" means the International Maritime Organization.
- 12 "Parties" means States that are parties to the Ballast Water Management Convention.
- 13 "Secretary-General" means the Secretary-General of the Organization.
- 14 "Sediments" means matter settled out of Ballast Water within a ship.
- 15 "**Ship**" means a vessel of any type whatsoever operating in the aquatic environment and includes submersibles, floating craft, floating platforms, FSUs and FPSOs.
- 16 "**Tunisian Maritime Authority**" means the Tunisian Office of Merchant Marine and Ports.

Article 2 Application

- 1 Except as expressly provided otherwise in this Law, this Law shall apply to:
 - (a) ships entitled to fly the Tunisian flag; and
 - (b) ships not entitled to fly the Tunisia flag but which operate under the Tunisian Maritime Authority.
- 2 This Law shall not apply to:
 - (a) ships not designed or constructed to carry Ballast Water;
 - (b) Tunisian ships which only operate in waters under the jurisdiction of Tunisia, unless the Tunisian Maritime Authority determines that the discharge of Ballast Water from such ships would impair or damage their environment, human health, property or resources, or those of adjacent or foreign States;
 - (c) Tunisian ships which only operate in waters under the jurisdiction of a foreign State, subject to the authorization of the latter State for such exclusion. No State shall grant such authorization if doing so would impair or damage their environment, human health, property or resources, or those of adjacent or other States;

- (d) ships which only operate in waters under the jurisdiction of Tunisia and on the high seas, except for ships not granted an authorization pursuant to subparagraph (c), unless Tunisian Maritime Authority determines that the discharge of Ballast Water from such ships would impair or damage its environment, human health, property or resources, or those of adjacent of other States;
- (e) any warship, naval auxiliary or other ship owned or operated by Tunisia and used, for the time being, only on government non-commercial service. However, Tunisia shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with this Law; and
- (f) permanent Ballast Water in sealed tanks on ships, that is not subject to discharge.

Article 3 Control of the Transfer of Harmful Aquatic Organisms and Pathogens Through Ships' Ballast Water and Sediments

1 The Tunisian Maritime Authority shall require that ships to which this Law applies and which are entitled to fly Tunisian flag or operating in waters under the jurisdiction of Tunisia comply with the requirements set forth in this Law, including the applicable standards and requirements in the Annex, and shall take effective measures to ensure that those ships comply with those requirements.

2 The Tunisian Maritime Authority shall develop national policies, strategies or programmes for Ballast Water Management in its ports and waters under Tunisian jurisdiction that accord with, and promote the attainment of the objectives of this Law.

Article 4 Control and Management of Ship's Ballast Water

Except where expressly provided otherwise in this Law, the owner and master of a ship shall ensure the discharge of Ballast Water is only conducted through Ballast Water Management in accordance with the Annex.

Article 5 Sediment Reception Facilities

1 The Tunisian Maritime Authority undertakes to ensure that, in Tunisian ports and terminals designated where cleaning or repair of ballast tanks occurs, adequate facilities are provided for the reception of Sediments. Such reception facilities shall operate without causing undue delay to ships and shall provide for the safe disposal of such Sediments that does not impair or damage their environment, human health, property or resources or those of foreign States.

2 The Tunisian Maritime Authority shall notify the Organization for transmission to the other States concerned of all cases where the facilities provided under paragraph 1 are alleged to be inadequate.

Article 6 Survey and certification

1 The Tunisian Maritime Authority shall ensure that ships flying Tunisian flag or operating under its authority and subject to survey and certification are so surveyed and certified in accordance with the regulations in the Annex.

Article 7 Warning concerning Ballast Water Uptake in Certain Areas

The Tunisian Maritime Authority shall notify mariners of areas under Tunisian jurisdiction where ships should not uptake Ballast Water due to known conditions. Notice shall include the precise coordinates of the area or areas, and, where possible, the location of any alternative area or areas for the uptake of Ballast Water.

Article 8 Inspection of Ships

1 Each ship to which this Law applies may, in any port or offshore terminal, be subject to inspection by officers duly authorized by the Tunisian Maritime Authority for the purpose of determining whether the ship is in compliance with this Law. Except as provided in paragraph 2 of this Article, any such inspection is limited to:

(a) verifying that there is onboard a valid Certificate, which, if valid shall be accepted; and

- (b) inspection of the Ballast Water Record Book, and/or
- (c) a sampling of the ship's Ballast Water.

However, the time required to analyse the samples shall not be used as a basis for unduly delaying the operation, movement or departure of the ship.

2 Where a ship does not carry a valid Ballast Water Management Certificate or there are clear grounds for believing that:

- (a) the condition of the ship or its equipment does not correspond substantially with the particulars of the Certificate; or
- (b) the master or the crew are not familiar with essential shipboard procedures relating to Ballast Water Management, or have not implemented such procedures;
 a detailed inspection mere he corried out.

a detailed inspection may be carried out.

3 In the circumstances given in paragraph 2 of this Article, the Tunisian Maritime Authority carrying out the inspection shall take such steps as will ensure that the ship shall not discharge Ballast Water until it can do so without presenting a threat of harm to the environment, human health, property or resources.

Article 9 Detection of Violations and Control of Ships

1 If a ship operating in a Tunisian port or offshore terminalis found to have violated this Law, then, in addition to any sanctions described in this Law or any action described in Article 8, take steps to warn, detain, or exclude the ship.

2 The Tunisian Maritime Authority however, may grant such a ship permission to leave the port or offshore terminal for the purpose of discharging Ballast Water or proceeding to the nearest appropriate repair yard or reception facility available, provided doing so does not present a threat of harm to the environment, human health, property or resources.

3 If the sampling described in Article 8.1(c) leads to a result, or supports information

received from another port or offshore terminal, indicating that the ship poses a threat to the environment, human health, property or resources, the Tunisian Maritime Authority shall prohibit such ship from discharging Ballast Water until the threat is removed.

4 The Tunisian Maritime Authority may also inspect a ship when it enters the ports or offshore terminals, if a request for an investigation is received from any State Party, together with sufficient evidence that a ship is operating or has operated in violation of a provision in this Law. The report of such investigation shall be sent to the State requesting it and to the competent authority of the State of the ship concerned so that appropriate action may be taken.

Article 10 Notification of Control Actions

1 If an inspection conducted pursuant to Article 8 or 9 indicates a violation of this Law, the Tunisian Maritime Authority shall notify the ship and shall forward a report to the competent authority of the State of the ship concerned, including any evidence of the violation.

2 In the event that any action is taken pursuant to Article 8.3, 9.2 or 9.3, the officer carrying out such action shall forthwith inform, in writing, the competent authority of the State of the ship concerned, or if this is not possible, the consul or diplomatic representative of the ship concerned, of all the circumstances in which the action was deemed necessary. In addition, the recognized organization responsible for the issue of certificates shall be notified.

3 The Tunisian Maritime Authority shall, in addition to parties mentioned in paragraph 2, notify the next port of call of all relevant information about the violation, if it is unable to take action as specified in Article 8.3, 9.2 or 9.3 or if the ship has been allowed to proceed to the next port of call.

Article 11 Undue Delay to Ships

1 All possible efforts shall be made to avoid a ship being unduly detained or delayed under Article 6, 8 or 9.

2 When a ship is unduly detained or delayed under Article 6, 8 or 9, it shall be entitled to

compensation for any loss or damage suffered.

Article 12 Duty to ensure compliance

It shall be the duty of the owner, of the company which has assumed the operation of the ship and of the master to ensure that the ship is in compliance with the provisions and requirements of this Law and the applicable requirements of the Convention and such person, if in fault, shall be liable to a fine up to [XXX] Tunisian Dinars.

Article 13 Entry into force

This law shall be published in the Official Gazette of the Republic of Tunisia and executed as the law of the State.

ANNEX

REGULATIONS FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS

SECTION A - GENERAL PROVISIONS

Regulation A-1 Definitions

For the purpose of this Annex:

- 1 "Active Substance" means a substance or organism, including a virus or a fungus, that has a general or specific action on or against Harmful Aquatic Organisms and Pathogens.
- 2 "Anniversary date" means the day and the month of each year corresponding to the date of expiry of the Certificate.
- 3 **"Ballast Water Capacity**" means the total volumetric capacity of any tanks, spaces or compartments on a ship used for carrying, loading or discharging Ballast Water, including any multi-use tank, space or compartment designed to allow carriage of Ballast Water.
- 4 "**Company**" means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the International Safety Management Code.⁴¹
- 5 "**Constructed**" in respect of a ship means a stage of construction where:
 - .1 the keel is laid; or
 - .2 construction identifiable with the specific ship begins;
 - .3 assembly of the ship has commenced comprising at least 50 tonnes or 1 percent of the estimated mass of all structural material, whichever is less; or

⁴¹ Refer to the ISM Code adopted by the Organization by Resolution A.741(18), as amended.

- .4 the ship undergoes a major conversion.
- 6 "**From the nearest land**" means from the baseline from which the territorial sea of the territory in question is established in accordance with international law except that, for the purposes of the Convention.
- 7 "**Major conversion**" means a conversion of a ship:
 - .1 which changes its ballast water carrying capacity by 15 percent or greater, or
 - .2 which changes the ship type, or
 - .3 which, in the opinion of the Tunisian Maritime Authority, is projected to prolong its life by ten years or more, or
 - .4 which results in modifications to its ballast water system other than component replacement-in-kind. Conversion of a ship to meet the provisions of regulation D-1 shall not be deemed to constitute a major conversion for the purpose of this Annex.
- 8 "**Parties**" means States that are parties to the Ballast Water Management Convention.

Regulation A-2 General Applicability

Except where expressly provided otherwise, the discharge of Ballast Water shall only be conducted through Ballast Water Management in accordance with the provisions of this Annex.

Regulation A-3 Exceptions

The requirements of regulation B-3, or any measures adopted by the Tunisian Maritime Authority pursuant to Section C, shall not apply to:

- 1 the uptake or discharge of Ballast Water and Sediments necessary for the purpose of ensuring the safety of a ship in emergency situations or saving life at sea; or
- 2 the accidental discharge or ingress of Ballast Water and Sediments resulting from damage to a ship or its equipment:
 - .1 provided that all reasonable precautions have been taken before

and after the occurrence of the damage or discovery of the damage or discharge for the purpose of preventing or minimizing the discharge; and

- .2 unless the owner, Company or officer in charge wilfully or recklessly caused damage; or
- 3 the uptake and discharge of Ballast Water and Sediments when being used for the purpose of avoiding or minimizing pollution incidents from the ship; or
- 4 the uptake and subsequent discharge on the high seas of the same Ballast Water and Sediments; or
- 5 the discharge of Ballast Water and Sediments from a ship at the same location where the whole of that Ballast Water and those Sediments originated and provided that no mixing with unmanaged Ballast Water and Sediments from other areas has occurred. If mixing has occurred, the Ballast Water taken from other areas is subject to Ballast Water Management in accordance with this Annex.

Regulation A-4 *Exemptions*

1 The Tunisian Maritime Authority, in waters under its jurisdiction, may grant exemptions to any requirements to apply regulations B-3 or C-1, in addition to those exemptions contained elsewhere in this Law, but only when they are:

- .1 granted to a ship or ships on a voyage or voyages between specified ports or locations; or to a ship which operates exclusively between specified ports or locations;
- .2 effective for a period of no more than five years subject to intermediate review;
- .3 granted to ships that do not mix Ballast Water or Sediments other than between the ports or locations specified in paragraph 1.1; and

.4 granted based on the Guidelines on risk assessment developed by the Organization.

2 Exemptions granted pursuant to paragraph 1 shall not be effective until after communication to the Organization and circulation of relevant information to the Parties.

3 Any exemptions granted under this regulation shall not impair or damage the environment, human health, property or resources of adjacent or other States.

4 Any exemptions granted under this regulation shall be recorded in the Ballast Water record book.

Regulation A-5 Equivalent compliance

Equivalent compliance with this Annex for pleasure craft used solely for recreation or competition or craft used primarily for search and rescue, less than 50 metres in length overall, and with a maximum Ballast Water capacity of 8 cubic metres, shall be determined by the Tunisian Maritime Authority.

SECTION B - MANAGEMENT AND CONTROL REQUIREMENTS FOR SHIPS

Regulation B-1 Ballast Water Management Plan

Each ship shall have on board and implement a Ballast Water Management Plan. Such a plan shall be approved by the Tunisian Maritime Authority. The Ballast Water Management Plan shall be specific to each ship and shall at least:

- detail safety procedures for the ship and the crew associated with Ballast Water Management;
- 2 provide a detailed description of the actions to be taken to implement the Ballast Water Management requirements;
- 3 detail the procedures for the disposal of Sediments:

- .1 at sea; and
- .2 to shore;
- 4 include the procedures for coordinating shipboard Ballast Water Management that involves discharge to the sea;
- 5 designate the officer on board in charge of ensuring that the plan is properly implemented;
- 6 contain the reporting requirements for ships provided for under this Law; and
- 7 be written in the working language of the ship and include a translation into English language.

Regulation B-2 Ballast Water Record Book

1 Each ship shall have on board a Ballast Water record book that may be an electronic record system, or that may be integrated into another record book or system and, which shall at least contain the information specified in Appendix II.

2 Ballast Water record book entries shall be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter in the Company's control for a minimum period of three years.

3 In the event of the discharge of Ballast Water pursuant to regulations A-3, A-4 or B-3.6 or in the event of other accidental or exceptional discharge of Ballast Water not otherwise exempted by this Law, an entry shall be made in the Ballast Water record book describing the circumstances of, and the reason for, the discharge.

4 The Ballast Water record book shall be kept readily available for inspection at all reasonable times and, in the case of an unmanned ship under tow, may be kept on the towing ship.

5 Each operation concerning Ballast Water shall be fully recorded without delay in the

Ballast Water record book. Each entry shall be signed by the officer in charge of the operation concerned and each completed page shall be signed by the master. The entries in the Ballast Water record book shall be in a working language of the ship and include a translation into English language.

6 Officers duly authorized by the Tunisian Maritime Authority may inspect the Ballast Water record book on board any ship to which this regulation applies while the ship is in its port or offshore terminal, and may make a copy of any entry, and require the master to certify that the copy is a true copy. Any copy so certified shall be admissible in any judicial proceeding as evidence of the facts stated in the entry. The inspection of a Ballast Water record book and the taking of a certified copy shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

Regulation B-3 Ballast Water Management for Ships

- 1 A ship constructed before 2009:
 - .1 with a Ballast Water Capacity of between 1,500 and 5,000 cubic metres, inclusive, shall conduct Ballast Water Management that at least meets the standard described in regulation D-1 or regulation D-2 until 2014, after which time it shall at least meet the standard described in regulation D-2;
 - .2 with a Ballast Water Capacity of less than 1,500 or greater than 5,000 cubic metres shall conduct Ballast Water Management that at least meets the standard described in regulation D-1 or regulation D-2 until 2016, after which time it shall at least meet the standard described in regulation D-2.

2 A ship to which paragraph 1 applies shall comply with paragraph 1 not later than the first intermediate or renewal survey, whichever occurs first, after the anniversary date of delivery of the ship in the year of compliance with the standard applicable to the ship.

3 A ship constructed in or after 2009 with a Ballast Water Capacity of less than 5,000 cubic metres shall conduct Ballast Water Management that at least meets the standard described in regulation D-2.

4 A ship constructed in or after 2009, but before 2012, with a Ballast Water Capacity of

5,000 cubic metres or more shall conduct Ballast Water Management in accordance with paragraph 1.2.

5 A ship constructed in or after 2012 with a Ballast Water Capacity of 5000 cubic metres or more shall conduct Ballast Water Management that at least meets the standard described in regulation D-2.

Regulation B-4 Ballast Water Exchange

- 1 A ship conducting Ballast Water exchange to meet the standard in regulation D-1 shall:
 - .1 whenever possible, conduct such Ballast Water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth;
 - .2 in cases where the ship is unable to conduct Ballast Water exchange in accordance with paragraph 1.1, such Ballast Water exchange shall be conducted as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth.

2 In sea areas where the distance from the nearest land or the depth does not meet the parameters described in paragraph 1.1 or 1.2, the Tunisian Maritime Authority may designate areas, in consultation with States concerned, where a ship may conduct Ballast Water exchange.

3 A ship shall not be required to deviate from its intended voyage, or delay the voyage, in order to comply with any particular requirement of paragraph 1.

4 A ship conducting Ballast Water exchange shall not be required to comply with paragraphs 1 or 2, as appropriate, if the master reasonably decides that such exchange would threaten the safety or stability of the ship, its crew, or its passengers because of adverse weather, ship design or stress, equipment failure, or any other extraordinary condition.

5 When a ship is required to conduct Ballast Water exchange and does not do so in accordance with this regulation, the reasons shall be entered in the Ballast Water record

book.

Regulation B-5 Sediment Management for Ships

1 All ships shall remove and dispose of Sediments from spaces designated to carry Ballast Water in accordance with the provisions of the ship's Ballast Water Management Plan.

2 Ships described in regulation B-3.3 to B-3.5 should, without compromising safety or operational efficiency, be designed and constructed with a view to minimize the uptake and undesirable entrapment of Sediments, facilitate removal of Sediments, and provide safe access to allow for Sediment removal and sampling. Ships described in regulation B-3.1 should, to the extent practicable, comply with this paragraph.

Regulation B-6 Duties of Officers and Crew

Officers and crew shall be familiar with their duties in the implementation of Ballast Water Management particular to the ship on which they serve and shall, appropriate to their duties, be familiar with the ship's Ballast Water Management Plan.

SECTION C - SPECIAL REQUIREMENTS IN CERTAIN AREAS

Regulation C-1 Additional Measures

1 The Tunisian Maritime Authority may, individually or jointly with other Parties, establishes measures in addition to those in Section B in order to prevent, reduce, or eliminate the transfer of Harmful Aquatic Organisms and Pathogens through ships' Ballast Water and Sediments.

2 Prior to establishing standards or requirements under paragraph 1, the Tunisian Maritime Authority should consult with the competent authorities of adjacent or other States that may be affected by such standards or requirements.

3 Additional measures in accordance with paragraph 1 shall be communicated to the Organization at least 6 months, except in emergency or epidemic situations, prior to the projected date of implementation of the measure(s). Such communication shall include:

- .1 the precise co-ordinates where additional measure(s) is/are applicable;
- .2 the need and reasoning for the application of the additional measure(s), including, whenever possible, benefits;
- .3 a description of the additional measure(s); and
- .4 any arrangements that may be provided to facilitate ships' compliance with the additional measure(s).

4 Any additional measures adopted by the Tunisian Maritime Authority shall not compromise the safety and security of the ship and in any circumstances not conflict with any other convention with which the ship must comply.

5 The Tunisian Maritime Authority reserves the right to waive these additional measures for a period of time or in specific circumstances.

Regulation C-2 Warnings Concerning Ballast Water Uptake in Certain Areas and Related Flag State Measures

- 1 Warnings foreseen in Article 7 may be issued for areas:
 - .1 known to contain outbreaks, infestations, or populations of Harmful Aquatic Organisms and Pathogens (e.g., toxic algal blooms) which are likely to be of relevance to Ballast Water uptake or discharge;
 - .2 near sewage outfalls; or
 - .3 where tidal flushing is poor or times during which a tidal stream is known to be more turbid.

2 In addition to notifying mariners of areas in accordance with the provisions of Article 7, the Tunisian Maritime Authority shall notify the Organization and any potentially affected coastal States of any areas identified in paragraph 1 and the time period such warning is likely to be in effect.

SECTION D - STANDARDS FOR BALLAST WATER MANAGEMENT

Regulation D-1 Ballast Water Exchange Standard

1 Ships performing Ballast Water exchange in accordance with this regulation shall do so with an efficiency of at least 95 percent volumetric exchange of Ballast Water.

2 For ships exchanging Ballast Water by the pumping-through method, pumping through three times the volume of each Ballast Water tank shall be considered to meet the standard described in paragraph 1. Pumping through less than three times the volume may be accepted provided the ship can demonstrate that at least 95 percent volumetric exchange is met.

Regulation D-2 Ballast Water Performance Standard

1 Ships conducting Ballast Water Management in accordance with this regulation shall discharge less than 10 viable organisms per cubic metre greater than or equal to 50 micrometres in minimum dimension and less than 10 viable organisms per millilitre less than 50 micrometres in minimum dimension and greater than or equal to 10 micrometres in minimum dimension; and discharge of the indicator microbes shall not exceed the specified concentrations described in paragraph 2.

- 2 Indicator microbes, as a human health standard, shall include:
 - .1 Toxicogenic *Vibrio cholerae* (O1 and O139) with less than 1 colony forming unit (cfu) per 100 millilitres or less than 1 cfu per 1 gram (wet weight) zooplankton samples ;
 - .2 *Escherichia coli* less than 250 cfu per 100 millilitres;
 - .3 Intestinal Enterococci less than 100 cfu per 100 milliliters.

Regulation D-3 Approval requirements for Ballast Water Management systems

1 Except as specified in paragraph 2, Ballast Water Management systems used to comply with this Law must be approved by the Tunisian Maritime Authority.

2 Ballast Water Management systems which make use of Active Substances or preparations containing one or more Active Substances to comply with this Law shall be approved by the Organization. At withdrawal of approval, the use of the relevant Active Substance or Substances shall be prohibited within 1 year after the date of such withdrawal.

3 Ballast Water Management systems used to comply with this Law must be safe in terms of the ship, its equipment and the crew.

Regulation D-4 Prototype Ballast Water Treatment Technologies

1 For any ship that, prior to the date that the standard in regulation D-2 would otherwise become effective for it, participates in a programme approved by the Tunisian Maritime Authority to test and evaluate promising Ballast Water treatment technologies, the standard in regulation D-2 shall not apply to that ship until five years from the date on which the ship would otherwise be required to comply with such standard.

2 For any ship that, after the date on which the standard in regulation D-2 has become effective for it, participates in a programme approved by the Tunisian Maritime Authority to test and evaluate promising Ballast Water technologies with the potential to result in treatment technologies achieving a standard higher than that in regulation D-2, the standard in regulation D-2 shall cease to apply to that ship for five years from the date of installation of such technology.

3 In establishing and carrying out any programme to test and evaluate promising Ballast Water technologies, the Tunisian Maritime Authority shall:

- .1 take into account Guidelines developed by the Organization, and
- .2 allow participation only by the minimum number of ships necessary to effectively test such technologies.

4 Throughout the test and evaluation period, the treatment system must be operated consistently and as designed.

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SECTION E - SURVEY AND CERTIFICATION REQUIREMENTS FOR BALLAST WATER MANAGEMENT

Regulation E-1 Surveys

1 Tunisian Ships of 400 gross tonnage and above to which this Law applies, excluding floating platforms, FSUs and FPSOs, shall be subject to surveys specified below:

- .1 An initial survey before the ship is put in service or before the Certificate required under regulation E-2 or E-3 is issued for the first time. This survey shall verify that the Ballast Water Management Plan required by regulation B-1 and any associated structure, equipment, systems, fitting, arrangements and material or processes comply fully with the requirements of this Law.
- .2 A renewal survey at intervals specified by the Tunisian Maritime Authority, but not exceeding five years, except where regulation E-5.2, E-5.5, E-5.6, or E-5.7 is applicable. This survey shall verify that the Ballast Water Management Plan required by regulation B-1 and any associated structure, equipment, systems, fitting, arrangements and material or processes comply fully with the applicable requirements of this Law.
- .3 An intermediate survey within three months before or after the second Anniversary date or within three months before or after the third Anniversary date of the Certificate, which shall take the place of one of the annual surveys specified in paragraph 1.4. The intermediate surveys shall ensure that the equipment, associated systems and processes for Ballast Water Management fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under regulation E-2 or E-3.
- .4 An annual survey within three months before or after each Anniversary date, including a general inspection of the structure, any equipment, systems, fittings, arrangements and material or processes associated with the Ballast Water Management Plan required by regulation B-1 to ensure that they have been maintained in accordance with paragraph 9 and

remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation E-2 or E-3.

.5 An additional survey either general or partial, according to the circumstances, shall be made after a change, replacement, or significant repair of the structure, equipment, systems, fittings, arrangements and material necessary to achieve full compliance with this Law. The survey shall be such as to ensure that any such change, replacement, or significant repair has been effectively made, so that the ship complies with the requirements of this Law. Such surveys shall be endorsed on the Certificate issued under regulation E-2 or E-3.

2 The Tunisian Maritime Authority shall establish appropriate measures for ships that are not subject to the provisions of paragraph 1 in order to ensure that the applicable provisions of this Law are complied with.

3 Surveys of ships for the purpose of enforcement of the provisions of this Law shall be carried out by officers of the Tunisian Maritime Authority. The Tunisian Maritime Authority may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it.

4 The Tunisian Maritime Authority shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyors or recognized organizations, for circulation to Parties for the information of their officers.

5 When the Tunisian Maritime Authority, a nominated surveyor, or a recognized organization determines that the ship's Ballast Water Management does not conform to the particulars of the Certificate required under regulation E-2 or E-3 or is such that the ship is not fit to proceed to sea without presenting a threat of harm to the environment, human health, property or resources the Tunisian Maritime Authority, the nominated surveyor, or the recognized organization shall immediately ensure that corrective action is taken to bring the ship into compliance. A surveyor or recognized organization shall be notified immediately, and it shall ensure that the Certificate is not issued or is withdrawn as appropriate. If the ship is in the port of another Party, the appropriate authorities of the port State shall be notified immediately.

6 Whenever an accident occurs to a ship or a defect is discovered which substantially affects the ability of the ship to conduct Ballast Water Management in accordance with this Law, the owner, operator or other person in charge of the ship shall report at the earliest opportunity to the Tunisian Maritime Authority, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph 1 is necessary. If the ship is in a port of another Party, the owner, operator or other person in charge shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such report has been made.

7 In every case, the Tunisian Maritime Authority shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

8 The condition of the ship and its equipment, systems and processes shall be maintained to conform with the provisions of this Law to ensure that the ship in all respects will remain fit to proceed to sea without presenting a threat of harm to the environment, human health, property or resources.

9 After any survey of the ship under paragraph 1 has been completed, no change shall be made in the structure, any equipment, fittings, arrangements or material associated with the Ballast Water Management Plan required by regulation B-1 and covered by the survey without the sanction of the Tunisian Maritime Authority, except the direct replacement of such equipment or fittings.

Regulation E-2 *Issuance or Endorsement of a Certificate*

1 The Tunisian Maritime Authority shall ensure that a ship to which regulation E-1 applies is issued a Certificate after successful completion of a survey conducted in accordance with regulation E-1.

2 Certificates shall be issued or endorsed either by the Tunisian Maritime Authority or by any person or organization duly authorized by it. In every case, the Tunisian Maritime Authority assumes full responsibility for the Certificate.

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Regulation E-3 Form of the Certificate

The Certificate shall be drawn up in Arabic language. The text of the Certificate shall include a translation into English language.

Regulation E-4 Duration and Validity of the Certificate

- 1 A Certificate shall be issued for a period not exceeding five years.
- 2 For renewal surveys:
 - .1 Notwithstanding the requirements of paragraph 1, when the renewal survey is completed within three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.
 - .2 When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.
 - .3 When the renewal survey is completed more than three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

3 If a Certificate is issued for a period of less than five years, the Tunisian Maritime Authority may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph 1, provided that the surveys referred to in regulation E-1.1.3 applicable when a Certificate is issued for a period of five years are carried out as appropriate.

4 If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Tunisian Maritime Authority may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed five months from the expiry date.

5 If a ship at the time when the Certificate expires is not in a port in which it is to be surveyed, the Tunisian Maritime Authority may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than three months, and a ship to which such extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.

6 A Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this regulation may be extended by the Tunisian Maritime Authority for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.

7 In special circumstances, as determined by the Tunisian Maritime Authority, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph 2.2, 5 or 6 of this regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

8 If an annual survey is completed before the period specified in regulation E-1, then:

- .1 the Anniversary date shown on the Certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by regulation E-1 shall be completed at the intervals prescribed by that regulation using the new Anniversary date;

.3 the expiry date may remain unchanged provided one or more annual surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation E-1 are not exceeded.

9 A Certificate issued under regulation E-2 or E-3 shall cease to be valid in any of the following cases:

- .1 if the structure, equipment, systems, fittings, arrangements and material necessary to comply fully with this Law is changed, replaced or significantly repaired and the Certificate is not endorsed in accordance with this Annex;
- .2 upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Party issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulation E-1. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports;
- .3 if the relevant surveys are not completed within the periods specified under regulation E-1.1; or
- .4 if the Certificate is not endorsed in accordance with regulation E-1.1.

APPENDIX I

BALLAST WATER MANAGEMENT CERTIFICATE

Issued under the provisions of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (hereinafter referred to as "the Convention") under the authority of the Government of

(full designation of the country)
by (full designation of the competent person or organization authorized under the provisions of the Convention)
Particulars of ship ¹
Name of ship
Distinctive number or letters
Port of registry
Gross Tonnage
IMO number ²
Date of Construction
Ballast Water Capacity (in cubic metres)
Details of Ballast Water Management Method(s) Used
Method of Ballast Water Management used
Date installed (if applicable)
Name of manufacturer (if applicable)

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² IMO Ship Identification Number Scheme adopted by the Organization by Resolution A.600(15).

The principal Ballast Water Management method(s) employed on this ship

is/are: in accordance with regulation D-1
in accordance with regulation D-2 (describe)
the ship is subject to regulation D-4

THIS IS TO CERTIFY:

1 That the ship has been surveyed in accordance with regulation E-1 of the Annex to the Convention; and

2 That the survey shows that Ballast Water Management on the ship complies with the Annex to the Convention.

This certificate is valid until subject to surveys in accordance with regulation E-1 of the Annex to the Convention.

Completion date of the survey on which this certificate is based: dd/mm/yyyy

Issued at	 	
(Place of issue of certificate)		

(Date of issue)

Signature of authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEY(S)

THIS IS TO CERTIFY that a survey required by regulation E-1 of the Annex to the Convention the ship was found to comply with the relevant provisions of the Convention:

Annual survey:	Signed (Signature of duly authorized official)
	Place
	Date
(Seal or sta	mp of the authority, as appropriate)
Annual*/Intermediate survey*:	Signed (Signature of duly authorized official)
	Place
	Date
(Seal or sta	mp of the authority, as appropriate)
Annual*/Intermediate survey*:	Signed (Signature of duly authorized official)
	Place
	Date
(Seal or sta	mp of the authority, as appropriate)
Annual survey:	Signed (Signature of duly authorized official)
	Place
	Date
(Seal or sta	mp of the authority, as appropriate)

* Delete as appropriate.

ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION E-4.8.3

THIS IS TO CERTIFY that, at an annual/intermediate^{*} survey in accordance with regulation E-4.8.3 of the Annex to the Convention, the ship was found to comply with the relevant provisions of the Convention:

> Signed (Signature of authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF **VALID FOR LESS THAN 5 YEARS WHERE REGULATION E-4.3 APPLIES**

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation E-4.3 of the Annex to the Convention, be accepted as valid until.....

> Signed (Signature of authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN **COMPLETED AND REGULATION E-4.4 APPLIES**

The ship complies with the relevant provisions of the Convention and this Certificate shall, in accordance with regulation E-4.4 of the Annex to the Convention, be accepted as valid until

Signed (Signature of authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

^{*} Delete as appropriate

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION E-4.5 OR E-4.6 APPLIES

This Certificate shall, in accordance with regulation E-4.5 or $E-4.6^*$ of the Annex to the Convention, be accepted as valid until

Signed (Signature of authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION E-4.8 APPLIES

In accordance with regulation E-4.8 of the Annex to the Convention the new Anniversary date is

Signed (Signature of authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

In accordance with regulation E-4.8 of the Annex to the Convention the new Anniversary date is

.....

Signed (Signature of duly authorized official)

Place

Date.....

(Seal or stamp of the authority, as appropriate)

APPENDIX II

FORM OF BALLAST WATER RECORD BOOK

LAW FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS

Period From: To:
Name of Ship
IMO number
Gross tonnage
Flag
Total Ballast Water capacity (in cubic metres)
The ship is provided with a Ballast Water Management plan \Box
Diagram of ship indicating ballast tanks:

1 Introduction

In accordance with regulation B-2 of the Annex to the International Convention for the Control and Management of Ships' Ballast Water and Sediments, a record is to be kept of each Ballast Water operation. This includes discharges at sea and to reception facilities.

2 Ballast Water and Ballast Water Management

"Ballast Water" means water with its suspended matter taken on board a ship to control trim, list, draught, stability, or stresses of a ship. Management of Ballast Water shall be in accordance with an approved Ballast Water Management plan and taking into account Guidelines³ developed by the Organization.

3 Entries in the Ballast Water Record Book

Entries in the Ballast Water record book shall be made on each of the following occasions:

- 3.1 When Ballast Water is taken on board:
 - .1 Date, time and location port or facility of uptake (port or lat/long), depth if outside port

³ Refer to the Guidelines for the control and management of ships' ballast water to minimize the transfer of harmful aquatic organisms and pathogens adopted by the Organization by Resolution A.868(20).

- .2 Estimated volume of uptake in cubic metres
- .3 Signature of the officer in charge of the operation.
- 3.2 Whenever Ballast Water is circulated or treated for Ballast Water Management purposes:
 - .1 Date and time of operation
 - .2 Estimated volume circulated or treated (in cubic metres)
 - .3 Whether conducted in accordance with the Ballast Water Management plan
 - .4 Signature of the officer in charge of the operation
- 3.3 When Ballast Water is discharged into the sea:
 - .1 Date, time and location port or facility of discharge (port or lat/long)
 - .2 Estimated volume discharged in cubic metres plus remaining volume in cubic metres
 - .3 Whether approved Ballast Water Management plan had been implemented prior to discharge
 - .4 Signature of the officer in charge of the operation.
- 3.4 When Ballast Water is discharged to a reception facility:
 - .1 Date, time, and location of uptake
 - .2 Date, time, and location of discharge
 - .3 Port or facility
 - .4 Estimated volume discharged or taken up, in cubic metres
 - .5 Whether approved Ballast Water Management plan had been implemented prior to discharge
 - .6 Signature of officer in charge of the operation
- 3.5 Accidental or other exceptional uptake or discharges of Ballast Water:
 - .1 Date and time of occurrence
 - .2 Port or position of the ship at time of occurrence
 - .3 Estimated volume of Ballast Water discharged
 - .4 Circumstances of uptake, discharge, escape or loss, the reason therefore and general remarks.

- .5 Whether approved Ballast Water Management plan had been implemented prior to discharge
- .6 Signature of officer in charge of the operation
- 3.6 Additional operational procedure and general remarks

4 Volume of Ballast Water

The volume of Ballast Water onboard should be estimated in cubic metres. The Ballast Water record book contains many references to estimated volume of Ballast Water. It is recognized that the accuracy of estimating volumes of ballast is left to interpretation.

RECORD OF BALLAST WATER OPERATIONS

SAMPLE BALLAST WATER RECORD BOOK PAGE

Name of Ship:

Distinctive number or letters

Date	Item (number)	Record of operations/signature of officers in charge

Signature of master