MARINE ENVIRONMENT REGULATIONS ON CRUISE SHIPS:
A SPECIAL FOCUS ON THE INFLUENCE OF EU CANDIDACY OF TURKEY

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Innehåll

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Summary

This thesis explores and reflects on the regulations related to marine environment protection with a special focus on the cruise industry. The main provisions regulating the cruise ships activities are primarily addressed by looking at the international and regional conventions for afterwards narrowing down the interest on the impact of their adoption on the development of the Turkish legislation.

The country of Turkey is considered as unit of analysis in order to look at the process of legal and institutional convergence which is driving the harmonization of its legislation to the European one, and the way it might influence the marine policy. In this context, I tackle the importance of EU candidacy influence on the cruise ships’ industry at implementing the marine environment regulations and accept to give the priority to marine protection instead of condoning violations for the sake of economic benefits.

Keywords: Marine Environment Regulations, Cruise Ships, Pollution from Cruise Ships, Turkey, European Union.
Preface

I would like to thank to my family, my professors from both Lund University and World Maritime University, to my friends at my master programme and to everyone who supported my studies in Sweden for two years. Without their support, there will not be a master in maritime law today, thank you.
# Abbreviations

<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ECJ</td>
<td>The Court of Justice of the European Communities</td>
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<td>EEC</td>
<td>European Economic Community</td>
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<td>EU</td>
<td>European Union</td>
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<td>GRT</td>
<td>Gross Registered Tonnage</td>
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<td>IMO</td>
<td>International Maritime Organization</td>
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<td>MARPOL 73/78</td>
<td>International Convention for the Prevention of Pollution from Ships</td>
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<td>OILPOL</td>
<td>International Convention for the Prevention of Pollution of the Seas by Oil</td>
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<tr>
<td>OECD</td>
<td>Organization of Economic Cooperation and Development</td>
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<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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<td>USD</td>
<td>United States of America Dollar</td>
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1 Introduction

1.1 Background and Purpose

Oceans and seas cover seventy percent of the world. They have been the centre of many human activities for centuries. These activities mostly formed as economic activities that constitute backbones of the world economy; among them are; maritime commerce, exploitation of marine living resources, extraction of oil, gas and tourism.\(^1\) Scale of these activities can vary from time to time and region to region but the effects on marine environment are the same. Oil pollutions, loss of marine biological diversity, eutrophication, depleted fish stocks, introducing invasive species to different natural habitats and disposing wastes from land are the main impacts of these activities on marine environment. Many countries involved in these activities and protection of the marine environment was not in their interest for a long time. After big marine environment disasters begun\(^2\) and scientific studies showed that human’s affect on marine environment was not destroying only the semi-enclosed seas (such as Mediterranean, Baltic or Black Sea) but the ocean’s most biologically productive regions, so that international organizations and countries started to take action and adopt international conventions for marine environment. These conventions were dealing mostly with the visible pollutions in a sense when an oil spill took place the floating oil on the sea surface made the pollution visible to take measures. However, conventions disregarded the invisible pollutions, which are the outcomes of normal shipping activities, are not recognizable easily and they have the same harmful impacts as the visible ones.

These activities such as discharge of sewage and greywater, garbage disposal can occur in small amounts in every kinds of ship. Nevertheless, when many of these activities are concentrated in one ship kind and the

\(^1\) Birnie, Boyle, Redgwell, 2008, p. 379.
\(^2\) Torrey Canyon in 1969, Amoco Cadiz in 1978, Exxon Valdez in 1989, are the early examples of the marine environment disaster.
amount of the wastes reach to a considerable limit, discharge can be catastrophic. Cruise ship, which can host thousands of passengers on board, is a good example for producing different wastes and in huge amounts. They represent less than 1 percent of the global merchant fleet but they produce 25 percent of the all waste generated by merchant vessels. Although cruise ships are responsible from these invisible pollutions, they can visit many places such as Fjords, tropical islands or Venice without any restriction. Furthermore, their contributions to different sectors (such as tourism and shipping) in the economy lead countries to disregard the impacts of their pollution on marine environment. In this situation, I choose Turkey as an example to discuss about the marine environment regulations on cruise ships. Turkey is a country that has a great potential to get more benefit to her economy from cruise ships and at the same time trying to adopt and implement European Union’s legislation on marine environment since she is a candidate country. The dilemma would be to have and secure a position at cruise industry market over other countries but also adopt and implement regulations that are stringent than others’ which might cause losing the competitiveness in the market. Such dilemma encouraged me to make a research on the legislation of Turkey, the influence of the EU candidacy on regulations on marine environment with focusing on cruise ships.

1.2 Method and Delimitation

The method that I use in this thesis is the traditional legal dogmatic method. I review and analyze relevant documents such as international conventions, EU legislation, national legislations and preliminary work from the national legislation. These descriptive sections are collated with analytical sections where I examine and express my own views regarding the mentioned materials and present arguments. In the analysis of the cruise ships legislation I adopt Turkey as a case study and I support my arguments with the latest data available and analysis of the European region. The regulations that are applicable to cruise ships will be reviewed. The definition of cruise

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ships, cruise industry and its market will be stated at the related chapters and analyzes will be done according to the limitations.
2 Cruise Ships and Cruise Industry

2.1 International Shipping - Carrier of the World Trade

Shipping is the most important international transport infrastructure in the world that fuels the global economy and helps countries’ development. It connects the producers, manufacturers and markets. In today’s world, every country is dependent on other country’s natural resources, production facilities and markets. Therefore, shipping is open to market fluctuations and vulnerable to trends in economic conditions in the world. Current financial crises is having negative impact on seaborne trade and demand for shipping will be lower comparing with previous boom years. Lesser demand for seaborne trade caused the problem of oversupply of ships in the market, which also pulled down the freight rates and charters. However, economic crisis can only decelerate the demand for shipping for a certain period, before the financial crises annual growth rate for seaborne trade was 3.1 percent for three decades. Another factor that makes shipping more appealing for growth-oriented economies is that it is the only cost-effective method of bulk transport from one place to another and technological developments made shipping more efficient and swift method of transport.

4The theme for the World Maritime Day in 2005. It was proposed by the Secretary-General Mr. Efthimios Mitropoulos at 93rd session of The IMO Council in November 2004.
5In 2008 international seaborne trade at 8.17 billion tons of goods loaded. UNCTAD/RMT/2009, p.7. From the report; "Experts at Fearnleys, a leading shipbroker, expect world seaborne trade to fall by 1.4 per cent in 2009, before turning around and growing at a slower rate of 2.0 per cent in 2010.", UNCTAD/RMT/2009, p. 7.
6There are two reasons for the oversupply. First, in 2009, the world merchant fleet grew 6.7 per cent compared to 2008 because of the vessel orders given before the financial crisis, second the decrease in the demand for seaborne trade during the crisis.
2.2 Pollution From Shipping

Shipping which carries 80 per cent of the world trade\(^9\) generates marine pollution. Nevertheless, comparing with different pollution generating human activities, shipping has less contribution to marine pollution. For instance, according to UNEP’s “Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities”, in 2002 land-based activities hold accountable 80 per cent of the pollution in the world’s ocean whereas shipping was responsible from only 10 per cent of the pollution.\(^10\) Oil spills, ballast water, dumping of garbage, air pollution, ship recycling, hazardous and noxious substances spills are the main pollutions generated by shipping industry. Examples of pollution can be given by statistics; in 2008, 2000 tonnes of oil spilled\(^11\) into the world’s oceans and in 2007, 2.7 percent of the CO2 emission came from shipping\(^12\). Regulations, measures taken by IMO to prevent, cooperate and reduce the impacts of shipping and technical, operational improvements during years in the industry helped to reduce pollution significantly although world’s shipping industry kept growing during that time.

2.3 Cruise Ships

A cruise is defined as “to make a trip by sea in a liner for pleasure, usually calling at a number of ports”.\(^13\) Cruise ships classified as passenger ship\(^14\) together with ferries, passenger/ro-ro cargo carrier and inner city/inter city

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\(^9\)UNCTAD/RMT/2009, p.28.
\(^10\)UNEП’s “Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities”, For more details visit; [http://www.gpa.unep.org/](http://www.gpa.unep.org/) (last visited 23.03.2010)
\(^11\)Oil Tanker Spill Statistics 2008, the International Tanker Owners Pollution Federation, p. 4.
\(^13\)Dowling, K. Ross, 2006, p. 3.
\(^14\)International Convention for The Safety of Life At Sea (1974) defines it; “A passenger ship is a ship which carries more than twelve passengers.” regulation 2.f. Another definition is on the Convention on Facilitation of International Maritime Traffic 1956, Annex Section 1 defines; “Cruise ship. A ship on an international voyage carrying passengers participating in a group programme and accommodated aboard, for the purpose of making scheduled temporary tourist visits at one or more different ports, and which during the voyage does not normally: (a) embark or disembark any other passengers; (b) load or discharge any cargo.”
passenger ships since they all take passengers on board the ship. Distinction should be made between other passenger ship kinds and cruise ships. Ferries, which carry people and vehicles, are used for cheap and quick transport purposes between one place and another on regular routes so they are not considered as cruise ships in the paper. When first cruise ships were introduced to the market as transatlantic liners, they served as cargo carrier as well until early twentieth century. However, today’s cruise ships are focused on leisure travelling and most of them are not designed to carry cargo therefore passenger/ro-ro cargo carriers are also not included into cruise ships. Cruise ships are considered as floating hotels and their structure is designed for resort facilities (known as hotel operations) and accommodation for long sea voyages which comprises 75 per cent of the ship. The rest is for the technical operations and navigation of the ship\textsuperscript{15} but inner city/inter city passenger ships are designed for short sea voyages and transportation that’s why they are not considered as cruise ship in the paper. Therefore in this paper, only the ships for pleasure trips operated by cruise companies are considered as cruise ships

\subsection*{2.4 Cruise Industry and Cruise Industry Market in the World}

Cruise ships are in interest of two main industries; tourism industry and shipping industry. Cruise ships provide accommodation and entertainment venues for tourism industry and they have mobility. Cruise ships already in 2003 provided 0.6 per cent of the hotel beds offered worldwide.\textsuperscript{16} As cruise ship’s size gets bigger every year so does the capacity to provide more rooms for tourism industry. Cruise ships are also important for shipping industry; in 2009, passenger ships constitute 13 per cent of the world merchant fleet with 6839 ships\textsuperscript{17}, when ferries and other kinds are excluded from this number there are 507 cruise ships travelling in the world’s oceans. Cruise ship orders are becoming more important for shipyards, since their

\begin{itemize}
\item \textsuperscript{15} Lee-Ross, Darren, 2006, p. 46.
\item \textsuperscript{16} Dowling, K. Ross, 2006, p. 3.
\item \textsuperscript{17} UNCTAD/RMT/2009, p. 39.
\end{itemize}
construction generates higher income compared to a regular container ship or a tanker. During 2009 and 2012, there have been 38 cruise ships scheduled for delivery with total cost will be more than 16 billion Euros.\textsuperscript{18} As demand from cruise liners to have bigger ships\textsuperscript{19} remains in order to supply enough rooms for growing passenger numbers, the money they spend on cruise ships will also increase. Therefore, cruise ships and their industry become one of the vibrant sectors and a major force within shipping.

Cruise industry in broad terms includes several sectors; manufacturing, transportation, finance and service are some of them. Moreover, a tourism agency selling cruise vacations, a shipyard manufacturing the cruise ships, a port facility or a port service company and a cruise liner operating the cruise ships should be considered as parts of the industry. This paper on the other hand is focusing on the cruise liners who operate cruise ships. Therefore the cruise industry and the market will be considered as cruise liners and their ships but economic impact of cruise industry will be considered in broad terms. Cruise industry is one of the most lucrative sectors for tourism and has been growing steadily. During the last eighteen years, it kept its growing rate at 7.2 per cent annually.\textsuperscript{20} Only in 2009 the growth slowed down but total passenger number was still higher than 2008\textsuperscript{21}, for the next years cruise industry market is expected to grow and keeps its rate around 2 per cent

\textsuperscript{18} Contribution of Cruise Tourism to the Economies of Europe 2008, p. 4.
\textsuperscript{19} Cruise ships classified according to their size, number of passengers and state rooms. Sizes are; very small ship, which is under 10,000 GRT and under 200 passengers, small ship which is 10,000-20,000 GRT and 200-500 passengers, medium ship which is 20,000-50,000 GRT and 500-1200 passengers, large ship which is 50,000-70,000 GRT and 1200-2000 passengers and megaship which is 70,000 GRT or more and 2000 passengers or more. Mancini, Marc, 2000, p. 26.
\textsuperscript{20} "Cruise Lines International Association is created by approval of the U.S. Federal Maritime Commission on July 7, 1975 and it is the world’s largest cruise association composed of 25 of the major cruise lines serving North America and its mission is to promote the value and desirability of cruise vacations while supporting measures that foster a safe, secure and healthy cruise ship environment, it also serves as a non-governmental consultative organization to the International Maritime Organization." 2009 Cruise Market Overview, p. 2.
\textsuperscript{21} In 2009 cruise lines carried total 17,220,000 passenger and their revenues reached to 24.9 billion USD. Cruise Market Watch, \url{http://www.cruisemarketwatch.com/blog1/growth/} (last visited 23.03.2010)
every year.\(^{22}\) According to latest research, the total worldwide cruise industry will estimate at 26.78 billion USD in 2010.\(^{23}\) There are several brands in the market but three companies have dominated it for years; Carnival Corporations, Royal Caribbean Cruises and Star Cruises Group (which later changed its name to Genting Hong Kong Limited). Apart from these companies there are several cruise lines serving which are mainly local or having small share in the market.

Cruise Industry market is mostly dependant on weather so cruise lines relocate their ships according to seasons. North America is being the biggest market for cruise industry for its proximity to main cruise destinations such as Caribbean and Mexico. Europe is being the second biggest market as it owns two busy cruise destinations; Mediterranean Sea and Northern Europe. The third market is Southeast Asia and Far East where the cruise industry promises a bright future which might later lead a change at the market order. The following chapters will focus on the current situation of the industry and the market in the European Union and furthermore, detailed economic impact of the industry will be given. It is useful to look into the industry in the EU because Turkey which is the focus country, originating from her location is part of the EU market. Moreover, a future membership to the Union will help her to take more part in the industry and the market.

### 2.5 Cruise Industry and Cruise Industry Market in the European Union

Europe is the second biggest market for the cruise industry by fleet capacity and passenger numbers.\(^{24}\) In 2008, cruise ships operated by both European domiciled and Non-European domiciled cruise lines were 259 and they carried 4.3 million passengers during the year. European market divided

\(^{22}\) Lloyd’s Register Fairplay, [http://www.ihsfairplay.com/about/company_news/shipbuilding_market_forecast_passenger_vessels.html](http://www.ihsfairplay.com/about/company_news/shipbuilding_market_forecast_passenger_vessels.html) (last visited 23.03.2010)


\(^{24}\) In 2008, European cruise passengers represented 27 per cent of worldwide cruise passengers, *supra* n. 18, p. 4.
into two regions; The Mediterranean and Northern Europe. Division is not according to geographical locations but according to seasonal availability and destination-led situation of the region. Having a suitable climate for cruising for a longer period and having the major cruise ports, destinations inside the region gives the Mediterranean region bigger share in the market. Northern Europe on the other hand has shorter seasonal availability for cruising and fewer destinations thus it receives the smaller share from the market. As main cruise ports considered by passenger numbers Mediterranean ports are the leading ones in Europe. Ports can have three different functions for cruise industry; either being an embarking port where a cruise starts her voyage, being a disembarking port where a cruise ends her voyage or being a port-of-call port where cruise uses the port as an intermediate stop on its sailing itinerary and visits for a certain time. Leading ports mostly have those three functions, depending on the passenger numbers and having all the functions; Barcelona (Spain) is the first, Civitavecchia (Italy) is the second and Venice (Italy) is the third biggest cruise ports in the Mediterranean Region. Southampton (UK), Copenhagen (Denmark) and Lisbon (Portugal) are the biggest ports in Northern Europe region.

2.6 Economic Impact of Cruise Industry in European Union

It is important to state the benefits of cruise industry in European Union where the market is still growing and expanding to new destinations. Cruise industry contributes many industries; some of the industries directly related to cruise industry and some of them indirectly related to cruise industry.\(^{25}\) Therefore, total economic impact divided into three categories; direct, indirect and induced impacts.

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\(^{25}\)Agriculture, mining & construction, manufacturing, wholesale & retail trade, transportation & utilizes, hospitality, financial and business service, personal services & government services are the industries related to cruise industry.
• Direct impact is; “including the production, employment and compensation that were generated in those European businesses that supplied goods and services to the cruise lines and its passengers.”

• Indirect impact is; “The indirect impacts result from the spending by the directly impacted businesses for those goods and services they require to support the cruise industry. The indirect impacts primarily affect business to-business enterprises.”

• Induced impact is;’’ The induced impacts result from the spending by the impacted employees for household goods and services. The induced impacts primarily affect consumer businesses”

In 2008, only in European Union whole direct impact reached to 14.2 billion Euros, two thirds of this impact came from manufacturing, construction of cruise ships and goods, services bought by cruise lines for their operations. Direct impact on employment reached to 150.000 jobs in related business with cruise industry. As indirect and induced impacts added to total economic impact, whole cruise industry and other non-cruise industries generated 32.2 billion Euros of output and 311.512 jobs in total.

When the economic impact for each country is considered, it is related with the country’s participation in segments of cruise industry. Cruise industry has four main segments; a country can serve as major source and destination market for cruise passengers, maintain headquarters facilities and provide crew, provide shipbuilding and repair services and provisioning and fuelling of cruise ships. There are six countries in the Union where 85 per cent of the economic impact is concentrated; Italy, Germany and United Kingdom are the ones participated in four segments of the cruise industry and France, Spain, Finland are the ones participated in two or less segment. These

26 Contribution of Cruise Tourism to the Economies of Europe 2008, p. 3.
27 Contribution of Cruise Tourism to the Economies of Europe 2008, p. 3.
28 Contribution of Cruise Tourism to the Economies of Europe 2008, p. 3.
29 According to “Contribution of Cruise Tourism to the Economies of Europe 2008” report, each 1 million Euros of expenditure in cruise industry generated 2.27 million Euros in business output and 22 jobs paying an average of 32.000 Euros.
countries made 12.2 billion Euros of revenue from their cruise industries. However, many countries in the Mediterranean, which are participating as destination market, are trying to get bigger share from the market. That brings a fierce competition which also constitutes the origin of some of the problems on marine environment protection. The appetite for more revenue causes countries to loosen up their strict regulations on cruise ships and secure their place as a lax country on regulations. Turkey being in the same region is in this competition as well, the market in Europe is expanding to new destinations and Turkey has a big potential of becoming a major source and destination market. Therefore, it feels the pressure from both economic interest and environmental interest. The economic impact of cruise industry in Turkey will be mentioned under chapter 7.
3 Pollution From Cruise Ships

Cruise ships have been operating at seas for a long time but the authorities considered their pollution as a threat recently. Moreover, there has not been any comprehensive research regarding cruise ships pollution. The only research was prepared for the United States Congress in 2008\(^{30}\) and therefore there is a need for a research in this area to understand the pollution from cruise ships. Cruise ships pollute both water and air so we can classify the pollution as water pollution and air pollution. Marine diesel engine operations, incineration of wastes on board are main sources of the air pollution. However, this paper will not consider the air pollution; the pollution referred to in this paper is limited to water pollution.

A cruise ship produces several wastes during her voyage. The main wastes are; sewage, greywater, oily bilge water, solid and hazardous waste.

3.1 Sewage

MARPOL 73/78 Annex IV and its amendment in 2004 regulate prevention of pollution by sewage from ships. According to new revised Annex IV, "Sewage" means:\(^{31}\)

- drainage and other wastes from any form of toilets and urinals;
- drainage from medical premises (dispensary, sick bay, etc.) via wash basins, wash tubs and scuppers located in such premises;
- drainage from spaces containing living animals;
- Other waste waters when mixed with the drainages defined above.

\(^{30}\) Copeland Claudia, “Cruise Ship Pollution: Background, Laws and Regulations, and Key Issues”, 2008. The original report is “Cruise Ship Discharge Assessment Report”, prepared by United States Environmental Protection Agency and this report was used as reference. The researches in the report date back to 2000-2001, therefore there is a need for updated results. However, they are the last completed results of scientific researches with contributions from several cruise lines and governmental agencies.

\(^{31}\) MARPOL 73/78 Annex IV, Regulation 1.3.
The research\textsuperscript{32} shows that a cruise ship generates 21,000 gallons of sewage per day and 8.4 gallons of sewage per day per person on board and another result coming from the research is that the number of passenger and the sewage generation per capita are not related; therefore even cruise ships do not operate in their full capacity they can still produce considerable amount of sewage. Sewage contains harmful bacteria, pathogens, viruses, intestinal parasites, diseases and harmful nutrients. They can cause bacterial and viral contamination which can be dangerous for human life. Moreover, sewage is rich in nutrients such as nitrogen and phosphorus which help algal grow faster. Excessive algal growth reduces dissolved oxygen in the water and cause eutrophication which kills fishes and destroys the aquatic life at sea.\textsuperscript{33}

In the most case of enclosed or semi-enclosed seas where the water exchange rate is slow and the discharge amount of sewage is high, the eutrophication is faster and harmful to the marine life. Another effect is that sewage with its bacteria and viruses can be filtered by shellfishes and consumption of these shellfishes can increase the risk of diseases for humans. MARPOL Annex IV regulates the discharge of sewage and except the situations when the ship is at a minimum distance from the nearest land or has in operation an approved sewage treatment, discharge is prohibited.\textsuperscript{34}

In addition to that the discharge rule doesn’t apply when ships are under the jurisdiction of a state which has less stringent discharge requirements.\textsuperscript{35} It


\textsuperscript{33}Sewage discharge from passenger ships became a major concern in the Baltic Sea. Therefore, HELCOM made a proposal to IMO on sewage discharge. The Commission proposed to passenger ships collect their sewage water onboard and utilize port reception facilities or allow discharge if ships use a sewage treatment system which is approved by the HELCOM Administration and developed by the IMO. MEP 60/6/2.

\textsuperscript{34}MARPOL Annex IV, Regulation 11; “Subject to the provisions of regulation 3 of this Annex, the discharge of sewage into the sea is prohibited, except when: the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 9.1.2 of this Annex at a distance of more than 3 nautical miles from the nearest land, or sewage which is not comminuted or disinfected at a distance of more than 12 nautical miles from the nearest land, provided that in any case, the sewage that has been stored in holding tanks shall not be discharged instantaneously but at a moderate rate when the ship is en route and proceeding at not less than 4 knots; the rate of discharge shall be approved by the Administration based upon standards developed by the Organization; or the ship has in operation an approved sewage treatment plant which has been certified by the Administration to meet the operational requirements referred to in regulation 9.1.1 of this Annex.”

\textsuperscript{35} MARPOL Annex IV, Regulation 11.3.
should be noted that compare to discharge of oily bilge water there is no “special area” limitation for the discharge of sewage which creates a legal gap for the protection of the vulnerable semi-closed seas suffering from eutrophication.

3.2 Greywater

There is no definition of greywater at the MARPOL 73/78 Convention but there is a definition at the guidelines\textsuperscript{36} for the implementation of Annex V. According to that definition greywater is;

\begin{quote}
“Drainage from dishwasher, shower, laundry, bath and washbasin drains and does not include drainage from toilets, urinals, hospitals, and animal spaces, as defined in regulation 1(3) of Annex IV, as well as drainage from cargo spaces.”
\end{quote}

A cruise ship generates an average of 170,000 gallons of grey water per day and 67 gallons per day per person on board.\textsuperscript{37} The research gives the same result as the number of passenger and the sewage generations per capita are not related. Grey water contains different substances because of its mixed composition; detergents, oil and grease, metals, organics, petroleum hydrocarbons, food waste, nutrients, fecal coliform bacteria and medical, dental waste. It is the largest source of liquid waste generated by cruise ships by constituting 90 percent of the total liquid waste. Grey water is dangerous for human and marine life since it has higher level of fecal coliform bacteria and the oxygen-demanding materials and different nutrients inside can cause loss of marine organisms. MARPOL Annex V regulates the discharge of greywater and again there are different

\textsuperscript{36}“Guidelines for the implementation of Annex V of MARPOL”, 2\textsuperscript{nd} Edition, 2006, IMO Publication, p.3.
requirements for discharge outside “special areas” and inside “special areas”

3.3 Oily Bilge Water

MARPOL 73/78 Annex I defines oil bilge water as a form of oil. “Oil” means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products (other than petrochemicals which are subject to the provisions of Annex II of the present Convention) and, without limiting the generality of the foregoing, includes the substances listed in Appendix I to this Annex. Oily mixture means a mixture with any oil content. Oily bilge water is a mixture consists of water, oily fluids, cleaning fluids and can contain solid wastes, metal shavings, paint and various chemical substances. Bilge water gathers in the lowest part of the cruise ship and substances can come from auxiliary systems, auxiliary engines, pipes, seals and from related systems.

A cruise ship can produce 1,300 to 5,300 gallons of bilge water every 24 hours. Although there is a relation between the ship’s tonnage and the amount of bilge production, the machinery used on ship is also a decisive factor for bilge production. If a small cruise ship has old machinery, then the amount of bilge production will be higher compare to a big and a new ship. Oily bilge water can be dangerous to marine life because it has toxic compounds and effects can change according to local physical and

38 MARPOL Annex V, Regulation 3, 4, 5. Regulation 3; “Subject to the provisions of Regulations 4, 5 and 6 of this Annex: the disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags is prohibited; the disposal into the sea of the following garbage shall be made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than: 25 nautical miles for dunnage, lining and packing materials which will float; 12 nautical miles for food wastes and all other garbage including paper products, rags, glass, metal, bottles, crockery and similar refuse; disposal into the sea of garbage specified in subparagraph (b)(ii) of this Regulation may be permitted when it has passed through a comminuter or grinder and made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than 3 nautical miles. Such comminuted or ground garbage shall be capable of passing through a screen with openings no greater than 25 millimetres. When the garbage is mixed with other discharges having different disposal or discharge requirements the more stringent requirements shall apply.”

39 MARPOL 73/78 Annex I, Regulation 1.

biological ecosystem, weather conditions and surrounding environment. For instance, lighter petroleum products have higher toxicity but quicker evaporation so even small amount can be harmful for marine life. On the other hand, heavy and medium oils are less toxic but they do not evaporate quickly and require shoreline cleanup. MARPOL Annex I regulate the discharge of the oil or oily mixture\textsuperscript{41} according to discharge in “special areas” or outside “special areas”. Annex I recognized these areas as special areas; the Mediterranean Sea, Baltic Sea, Black Sea, Red Sea, Gulf of Aden, Antarctica, North West European Waters, Sea of Oman and Southern South Africa.\textsuperscript{42} The paper’s focus will be on the Mediterranean Sea since it surrounds the focus country, Turkey.

3.4 Solid Waste

Solid waste counts as a garbage kind therefore the definition of "Garbage" includes the definition of solid waste. MARPOL Annex V defines garbage; “\textit{all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in other Annexes to the present Convention.}”\textsuperscript{43}

Solid waste is the result of industrial, commercial and daily operations of the cruise ship. Packaging materials, food waste, transportation and storage

\textsuperscript{41}MARPOL Annex I, Regulation 15.2 regulates the discharge outside special areas; “Any discharge into the sea of oil or oily mixtures from ships of 400 gross tonnage and above shall be prohibited except when all the following conditions are satisfied: the ship is proceeding en route; the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14 of this Annex; the oil content of the effluent without dilution does not exceed 15 parts per million; the oily mixture does not originate from cargo pump room bilges on oil tankers; and the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.”

and Regulation 15.3 regulates the discharge in special areas; “Any discharge into the sea of oil or oily mixtures from ships of 400 gross tonnage and above shall be prohibited except when all of the following conditions are satisfied: the ship is proceeding en route; the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14.7 of this Annex; the oil content of the effluent without dilution does not exceed 15 parts per million; the oily mixture does not originate from cargo pump room bilges on oil tankers; and the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.”

\textsuperscript{42}MARPOL 73/78 Annex I, Regulation 1.11.1-1.11.8.

\textsuperscript{43}MARPOL 73/78 Annex V, Regulation 1.
products are the main examples of solid waste in a cruise ship. Some of the solid waste can be recyclable products such as glass, paper, bottles, cans, and packaging materials. However, some of the products are non-recyclable and can contain hazardous substances which constitute the hazardous waste in the cruise ship that requires separate dispose. Although the number of passenger and crew, the size of the ship and the consumption are related with the amount of solid waste generation, a cruise ship produces one ton of garbage in a day. The high amount of solid waste production makes cruise ships to be responsible from 25 percent of the total solid waste production by vessels.44

Solid wastes can be dangerous to marine life if they become marine debris. Marine debris is unnaturally occurred objects in the marine environment mainly from disposed or abandoned solid wastes. Another definition for marine debris is; “Any man-made object that enters the marine environment due to numerous processes, including careless handling or disposal, intentional or unintentional release of materials or as a result of national disasters and storms.”45 Marine debris includes several different objects and therefore the effect on marine environment is highly dangerous. Alterations in the composition of ecosystems, interference to gas exchange between overlying waters and benthos, degradation of quality at surface waters and beaches, physical injuries to humans, ingestion of particles by marine animals are several examples of marine debris’ effect. Under some circumstances, if solid waste contains mostly food waste, it can be an opportunity to increase the biological oxygen level, organic carbon and nutrient level in the water. However, keeping in mind that if the water exchange is not fast and several cruise ships keep following the same route, high amount of food waste dispose can cause changes on community species composition and perturbations to species behavioral patterns.

45 S.B. Sheavly, 2007, p. 15.
MARPOL Annex V regulates the discharge of solid waste and they share the same application with greywater.46

### 3.5 Hazardous Waste

Hazardous waste is a combination of wastes that shows hazardous characteristics of ignitability, corrosivity, reactivity and toxicity. The substances can be solid, semisolid, liquid or gas. They are the results of daily cruise ship activities such as dry cleaning, equipment cleaning and photo processing. Other hazardous waste can result from paint waste, crushing of aerosol can, incinerator ash, batteries, pharmaceuticals and used fluorescent and mercury vapour light bulbs. Hazardous wastes are not the main concern compared to solid wastes; they only constitute less than 1 percent of total waste disposal.47 The amount of hazardous waste generated on cruise ships can change according to usage of hazardous and non-hazardous chemicals on board but a cruise ship generates more than 1,000 litres of hazardous waste in a week.48

Lack of researches restraints to understand effects of hazardous wastes to marine environment. The quantities of hazardous waste production can be small but the effect can change depending on the chemical and toxicological characteristics of wastes. Another factor is the effect will be different if the waste is released to open seas or to a port area where dilution levels are different.

### 3.6 Violations of Cruise Ships

The lacks of regulations and lacks of enforcement give floor to violations by cruise lines. Cruise lines involve in accidental or deliberate discharges. Unfortunately, many of these violations are unknown or undiscovered cases; they become revealed when citizens who observe the discharge report or the cruise ship’s crew admits some of these discharges. There are several violations example but few of them imposed heavy fines. In 1999, Royal

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46 MARPOL Annex V, Regulation 3, 4, 5.
Caribbean Cruises paid 18 million USD fine and entered plea agreements with six US District Courts for dumping waste oil and hazardous chemicals and lying to the US Coast Guard. In the plea agreements company admitted that they dumped waste oil routinely and involved in deliberate discharges in US ports.49 In 1998, Holland American Line was fined to two million dollars for discharging oily bilge water in Alaska, the company also agreed to have a court-approved fleet wide compliance programme for the oily bilge water on all its vessels.50 However, the same company after four years in 2002 was fined to 1.5 million dollars again for discharging oily bilge water in Florida.51 The violations prove that cruise ships continue to pollute the marine environment even after fines, receive notice of violations or enter plea agreements. The latest violation was in 2010 when a cruise ship operated by Rockmore Company dumped raw sewage into Charles River in Boston from 1990 to 2006. The company got a fine of three hundred thousand dollars for the violation.52 In this situation, monitoring is important for coastal states to reveal the cruise ships pollution. However, it requires investment and well-trained workforce to have a proper monitoring. Many states would not prefer to have extensive monitoring systems because of the cost for having and maintaining it and their strict monitoring will change their status and might cause them to lose the market share to other countries. Moreover, if they do not have a high competitive position in the market they might be hesitant to fine cruise ships, which will provide an opportunity to cruise ships to violate the regulations.

4 International Regulations on Cruise Ships


Countries adopted several conventions concerning different types of marine pollution during the years but United Nations adopted the most comprehensive convention in 1982 by adopting United Nations Convention on the Law of the Sea (UNCLOS). Many countries signed and ratified it and the Convention reached to a universal participation. It became as customary law on all aspects of the Law of the Sea and became binding on courts, international organization and non-parties. The Convention considered both flag states’ and coastal states’ concern and created a global framework for international law of the sea. It recognized the importance of freedom of navigation and regulated the exploitation of the sea resources but also protected the marine environment. Further development from the previous conventions was, having the consensus of

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55Preamble of the Convention states that; “Recognizing the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.”
56Today the Convention has 157 signatory countries and 160 party states, status as at ; 23.03.2010, United Nations Treaty Collection, http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=UNTSONLINE&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en#1 , ( last visited 23.03.2010)
58Birnie, Boyle, Redgwell, 2008, p. 382, UNCLOS, Art. 193; “States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.”
59In 1958, the United Nations Conference on the Law of the Sea was held in Geneva. The Conference adopted four separate conventions, unlike UNCLOS they were not kept in one instrument so they did not reach the unity of UNCLOS. However, the Geneva Conventions were important for expressing the “traditional law of the sea”.

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states and a strong opinio juris expressed for having codified environmental provisions. Consequence of this agreed obligation is visible at the Convention where its protection extends not only to states and their marine environment, but also to the marine environment as a whole, including the high seas.61

4.1.1 Rules Regarding to Cruise Ships

This paper will study the international conventions on marine pollution. Nonetheless, not all the conventions but the conventions those are applicable to cruise ships with regard to their regulations. There are no specific rules referring to cruise ships at UNCLOS but parties to the Convention should fulfil their obligations regarding the protection and preservation of the marine environment. Cruise ships are not the primary obligor of the Convention. However, the country where they are registered or their flag states can be party to the Convention and therefore countries who are the primary obligor of the Convention should follow regulations of the Convention.

UNCLOS Part XII regulates the protection and preservation of the marine environment. General provisions regarding to protection of the marine environment give countries the obligations of taking measures to prevent, reduce and control pollution (Article 194), to have cooperation on a global or regional basis (Article 197), to monitor the risks or effects of pollution (Article 204), to assess the potential effects of activities (Article 206). Some articles give obligations to countries to adopt laws and regulations to prevent, reduce and control pollution of the marine environment; pollution by dumping (Article 210), pollution from vessels (Article 211). Nevertheless, previous obligations will be incomplete without the

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60 UNCLOS, Art. 192; “States have the obligation to protect and preserve the marine environment.”
61 Birnie, Boyle, Redgwell, 2008, p. 387, UNCLOS Art. 197; “States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.”
enforcement and therefore the Convention regulates the enforcement in articles 216 (pollution by dumping), article 217 (enforcement by flag states), article 218 (enforcement by port states), article 220 (enforcement by coastal states). These provisions are not tailored as closely as possible to the needs of the each seas of the world but countries would need to refer to international customary law while they are adopting any other international convention concerning the marine environment. The UNCLOS in that circumstance provides a legal basis for countries to call upon the others to protect and preserve the marine environment.

4.2 International Maritime Organization and International Convention For the Prevention of Pollution From Ships (MARPOL 73/78)

IMO is the most influential international organization which deals with the prevention and control of marine pollution62 through adopting international conventions, protocols, guidelines and recommendations. It adopted the MARPOL Convention and its annexes. IMO doesn’t have specific conventions on cruise ships’ pollution; however, it considers cruise ships as passenger ships and therefore regulations regarding ships at the MARPOL 73/78 are applicable to cruise ships. IMO has the Marine Environment Protection Committee, which is the technical body on marine pollution matters and works on the amendments and revisions of the Convention and its annexes. According to new regulations adopted by this committee, rules are open to change and be more stringent. Related regulations of the Convention on cruise ships will be mentioned on the following paragraphs.

Motor vessels took the stage in the early twentieth century and started to operate in the oceans. Their long voyages at sea required them to take

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62Until 1975, it was not among the purposes of IMO to prevent and control of marine pollution. The main purpose was to improve safety and efficiency of maritime transport. However, it developed technical, legal and administrative regimes for the marine pollution and devoted itself also to that purpose. Today its regimes are part of the international regulations, standards and procedures. Mensah T, 2007, p. 42.
ballast water to maintain their stability. Taking ballast water into cargo and bunker tanks where it mixed with oily residues and then discharging it to sea was a part of their routine operation. Lack of international conventions and lack of alternative discharge systems prevented countries from taking steps. First convention concerning the oil pollution was OILPOL (International Convention for the Prevention of Pollution of the Seas by Oil) in 1954. The Convention prohibited the discharge, established prohibition zones, required to keep oil record books for vessels and ships to be fitted with oily water separator, and for states to provide shore reception facilities. After amendments made in 1969, the final convention adopted in 1973 known as International Convention for the Prevention of Pollution from ships (MARPOL 73). The Convention brought five annexes and many technical requirements to eliminate intentional pollution from oil and other harmful substances. In 1978, a protocol, which was aiming to correct the deficiencies in MARPOL 73, was accepted. MARPOL 73/78 made changes by modifying the rules into conformity with modern practices and operations. It regulated not only oil pollution but also other types of ship-based pollution, required survey, certification and inspection, tankers (which are above of a certain dead weight tonnage) to be equipped with certain tanks and used a tank cleaning system.

4.2.1 Rules Regarding to Cruise Ships

Cruise ships are subject to many regulations of MARPOL 73/78 because of waste they produce. The Convention is applicable if the vessel complies

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63 United Kingdom organized a conference regarding the oil pollution and the conference adopted the OILPOL in 1954. IMO undertook the management of the Convention in 1958, after the Torrey Canyon accident in 1969 and afterwards the Convention had several amendments. The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) in 1973 incorporated much of the OILPOL and its amendments into Annex I so the OILPOL became a part of the Convention.


65 The Convention includes regulations aimed at preventing and minimizing pollution from accidental pollution and from routine operations and currently includes six technical Annexes: Annex I; Regulations for the Prevention of Pollution by Oil, Annex II; Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk, Annex III; Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form, Annex IV; Prevention of Pollution by Sewage from Ships, Annex V; Prevention of Pollution by Garbage from Ships, Annex VI; Prevention of Air Pollution from Ships. States Parties must accept Annexes I and II, but the other Annexes are voluntary.
with the definition of “ship” and fulfils the applicability. According to the Convention, “ship” means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms. Cruise ships comply with the definition yet they have to fulfil the applicability. The Convention is applicable to ships, which are entitled to fly the flag of a party to the convention and to ships, which are not entitled to fly the flag of a party but which, operate under the authority of a party. MARPOL 73/78 has the main convention and six annexes that are applicable to cruise ships. Moreover, parties to the Convention are also parties to Annex II and I which are an integral part of it. Annex III, IV, V and VI are optional annexes therefore countries can declare that they do not accept these annexes, in that case regulations regarding a pollution kind may not be applicable to cruise ships. MARPOL 73 article 4 regulates the violation where it obliges parties to prohibit violations and establishes sanctions under the law of that party or furnishes the administration of the ship. Furthermore, Article 5 gives the obligation of inspection of the ships that are party to the Convention and foreign ships and gives right to deny ships entry to its port or ensure not to leave the port until ships present no threat of harm to the marine environment. Detection of violations and enforcement obligations are in article 6 where parties shall co-operate and provide sufficient evidence to take actions under the Convention and proceedings accordance with their law.

4.2.2 Barcelona Convention

Barcelona Convention is the oldest regional-sea agreement, adopted in 1976, which is a framework treaty regulating the protection of marine environment in the Mediterranean. After the adoption of the UNCLOS, general provisions for the protection and preservation of the marine environment became a major concern for countries. However, need for a co-

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66 International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), Article 2.
67 International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), Article 3.
operation between countries and “a more conceptually sophisticated” focus which is introduced by Agenda 21 on marine protection, required regional-sea agreements where impacts of pollution on these seas differ from open seas. Additionally these agreements would provide cooperation among states that could lead to effective measures and higher environmental standards for regional seas.

In 1975, the European Community and the 16 countries in the Mediterranean adopted the first regional seas programme “Mediterranean Action Plan” (MAP) to control marine pollution in the region. Twenty years later, developments in the socio-economic trends required changes at the Action Plan and the Barcelona Convention. In 1995, parties adopted new “Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean” (MAP Phase II) and also adopted the new version of the Barcelona Convention renamed as “Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean.” The new convention has 22 parties and covers the marine environment protection, coastal zone management and sustainable management of marine and coastal resources. The importance of the Barcelona Convention for cruise ships is that it is trying to cover the marine pollution problem in a wider perspective.

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68Birnie, Boyle, Redgwell, 2008, p. 384.
69Agenda 21 was adopted by 178 countries at the UN Conference on Environment and Development (Rio Declaration) in 1992; it covers many subjects relating to protection of the oceans, climate changes, biological diversity and recognizes interconnections between economic, social, environmental and development issues and integration of these objectives. Although it is not legally binding it is effective to follow up other agreements and relevant to interpretation of treaties. United Nations Department of Economic and Social Affairs, The Division for Sustainable Development, http://www.un.org/esa/dsd/agenda21/index.shtml (last visited 23.03.2010)
70Countries party to the Barcelona Convention; Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, the European Community, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Morocco, Serbia and Montenegro, Slovenia, Spain, Syria, Tunisia, Turkey.
71The Convention has seven protocols regarding the marine environment protection; Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea, Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities, Protocol on Integrated Coastal Zone Management in the Mediterranean, Protocol on the Prevention of Pollution of the
addition to that the Convention is regulating the Mediterranean Sea where the cruise ship activities in Europe are concentrated. It is trying to create a balance between the sustainable development and effective marine environment protection on regional basis. Cruise ships are part of tourism industry which is accepted as one of the fields of action\textsuperscript{72} for sustainable development in the Mediterranean Sea Area. However, they are contributing to pollution at marine environment and without effective measures they will continue to pollute.

\subsection*{4.2.3 Rules Regarding to Cruise Ships}

Barcelona Convention does not have specific rules regarding cruise ships; it has several articles concerning marine environment protection, conservation and preservation of natural resources in the Mediterranean Sea Area\textsuperscript{73}. Moreover, it gives obligations to party states to work on a regional basis for that purpose.

Article 3 allows the contracting parties to have multilateral or bilateral agreements that are consistent with the Convention and international law. General obligations are in article 4 where the parties are obliged to take measures in order to eliminate pollution of the Mediterranean Sea Area. Countries are obliged to take the measures in accordance with their capabilities and for the cost of the pollution prevention “polluter pays

\textsuperscript{72}Tourism is accepted as one of the priority fields of action and as a leading sector by The Mediterranean Commission on Sustainable Development (MCSD) of the Barcelona Convention which formulated The Mediterranean Strategy for Sustainable Development in 2005. MCSD is made up members of the Contracting Parties to the Barcelona Convention; it dwells upon global and regional frameworks on sustainable development issues, makes proposals and recommendations to the parties and encourages cooperation and synergies between the countries. From the report of UNEP, Mediterranean Action Plan 2005; “The MSSD identifies priority fields of action: water; energy; transport; tourism; agriculture; urban development, and; sea and coastal management.” UNEP (DEC)/MED IG.16/7, p. 9

\textsuperscript{73}Barcelona Convention, Article 1; “The Mediterranean Sea area shall mean the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between the Mehmetcik and Kumkale lighthouses.”
principle”\textsuperscript{74} can be applied to polluter with due regard to the public interest. Same article also promotes countries to undertake impact assessment for activities that have adverse impact on marine environment. This article can provide a legal basis for a comprehensive research where there is a need to understand cruise ships effect on marine environment. Article 5 (Pollution caused by dumping from ships and aircraft or incineration at sea) and Article 6 (Pollution from ships) are directly applicable to cruise ships where parties are obliged to take measures in Mediterranean Sea Area. Countries should establish pollution monitoring systems at multilateral levels and designate their own national competent authority for this purpose according to Article 12. Cooperation among parties would be helpful to have an extensive monitoring in the area and coordination of the competent authorities would ensure uniformity to eliminate the pollution. Article 14 regulates environmental legislation obligation where parties shall adopt legislation implementing the Convention and can request the assistance of the Secretariat of the Barcelona Convention. Parties can cooperate to formulate and adopt rules for the determination of liability and compensate for damage resulting from pollution of the environment in the area, in article 16. This article together with the “polluter pays principle” in article 4 is another supporting instrument for pollution costs to be borne by the polluter.

\textsuperscript{74} For details; Supplement A.
5 Regulations in the United States of America

USA is the leading country in the cruise industry; both being the biggest market for the cruise ships and hosting the corporate headquarters of the cruise lines. The rules applicable to cruise ships are regulated both in federal and state laws. The comparison or applicability of the regulations in Turkey will be discussed in this chapter. Although USA is surrounded by oceans where the impact of pollution from cruise ships will be different from the Mediterranean Sea, it is crucial to understand how another legislation is dealing with the problem.

5.1 The Federal Water Pollution Control Act (Amended by the Clean Water Act of 1977)

The original act was the Federal Water Pollution Control Act of 1948 which was amended later in 1977 and made the discharge of any pollutant into navigable waters unlawful. Section 311 (33 U.S.C. 1321) of the Act regulates the discharge of oil and hazardous substances where it bans discharge of these substances into or upon the navigable waters of the US, shorelines, contiguous zones or natural resources under the authority of US. It also regulates the mechanisms and procedures for the management of these substances, limits of liability, penalties and fees, spill prevention plans and insurance. The discharge violation will be reported by any person who has knowledge of any discharge from onshore or offshore facility and in case of failing to notify they will be fined or imprisoned or both. Section 312 (33 U.S.C. 1322) regulates the sewage discharge and prohibits the

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55Section 502 (33 U.S.C. 1362) defined "navigable waters" as the waters of the United States, including the territorial seas. And definition of the “territorial sea” accepted as “the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.”

56The Act referred to the Convention on the Territorial Sea and the Contiguous Zone 1958 article 24 for the definition of the contiguous zone.
discharge in the navigable waters, the section also appoints the US Coast Guards for setting the standards of marine sanitation devices and gives states to declare no discharge zones if the water within that state needs greater protection. In the section 312 greywater is included in the sewage term for the Great Lakes, beside that there is no section regulates greywater. According to Section 405 (33 U.S.C. 1345) sewage sludge disposal is prohibited in the navigable waters and can only be discharged in accordance with the permit of the administrator in the states. The Federal Water Pollution Act provides the general regulations for the US and concerns not only the sea water but also the water in land. Therefore the regulations are not specifically dealing with pollution from cruise ships. Although it leaves some of the standard settings and decisions to the states most of the standards and rules are given by the federal institutions\textsuperscript{77} which make it unable for the local authorities to adopt stringer regulations. Similar case is valid for Turkey with the standards that are set by the Environment Code and not leaving local authorities to take stringer measures. Furthermore, it is important to discuss that the enforcement of the same rules would be difficult in Turkey because of the territorial water dispute in the Aegean Sea. It is very often for cruise ships to claim that their discharges take place outside of the countries’ territorial waters. It would be easy to prove the territorial waters with indisputable borders; however that is not the case in the region. The territorial waters of Turkey and Greece are still a discussion matter and there are many small islands or islets that cause border dispute. A case of a cruise ship discharge inside or outside of the territorial waters could easily end up in a political discussion and prevent Turkey to enforce its regulations. Any enforcement will be unresolved without having definite border lines.

\textbf{5.2 The Clean Cruise Ship Act of 2009}

In 2009, a bill was introduced to be amended to the Federal Water Pollution Control Act. The bill is still in the first step in the legislative process and it

\textsuperscript{77}The act gives the administration duty to the Administrator of the Environmental Protection Agency which is a federal institution for environmental protection.
has been referred to the committees of House Transportation and Infrastructure and Water Resources and Environment. The bill makes the definition of “cruise vessel”\textsuperscript{78} to distinguish them from other vessel types and brings new regulations for discharging, monitoring and inspecting. The bill’s first contribution is that it only establishes standards and prohibitions for cruise ships. Moreover, by defining and distinguishing cruise ships, authorities can enforce specific regulations on cruise ships which are not enforceable to other vessel types. For the discharge regulations, the first change is that all the waste discharges are prohibited in navigable waters, including exclusive economic zone which eliminate different discharge exercises.\textsuperscript{79} The second change is that the responsibility of sampling, testing and providing real-time data to the Administrator\textsuperscript{80} are given to cruise ships owner, operator, master or the person in charge of it. Data will be related to the discharge of wastes, pollutants emitted in these wastes, location and time of discharge, content and volumes of the discharge.\textsuperscript{81} Another requirement on discharge is that it needs to be supported with a further documentation; the shoreside disposal receipts. When a cruise ship disposes its wastes to an approved shoreside disposal facility, a receipt will be established for the disposal, these receipts will be sent electronically to the Administrator and maintained in an onboard record book; receipt should be signed and dated by the owner, operator, master or the person in charge of the ship and by the representative of the receiving facility.\textsuperscript{82} The bill introduces new regulations for the inspection; the Administrator will establish regular announced and unannounced inspections on cruise ships operations, equipments and discharges. Furthermore, each cruise ship that calls on a port of US will be subject to an unannounced inspection at least once a year.\textsuperscript{83}One of the requirements under inspection is to ensure that all the crew members to be

\textsuperscript{78}Section 3.1.C defines cruise ships; “term ‘cruise vessel’ means a passenger vessel that is authorized to carry at least 250 passengers; and has onboard sleeping facilities for each passenger.” Clean Cruise Ship Act of 2009, 111\textsuperscript{th} Congress, 1\textsuperscript{st} Session, H.R. 3888.

\textsuperscript{79}Section 3, 2, A (i), Clean Cruise Ship Act of 2009.

\textsuperscript{80}The bill gives the Administrator duty to the Environmental Protection Agency as in the Federal Water Pollution Control Act.

\textsuperscript{81}Section 3, 3, D, Clean Cruise Ship Act of 2009.

\textsuperscript{82}Section 3, 3, D, Clean Cruise Ship Act of 2009.

\textsuperscript{83}Section 3, 4, Clean Cruise Ship Act of 2009.
informed and understand the pollution control obligations in their native language. The importance of this regulation is to avoid the language barrier on cruise ships which employ crews from different nationalities. Monitoring will be done under cruise observer program which will be carried by the US Coast Guard no later than 18 months after the enactment of the regulation. Under the new program each cruise ships will have an observer onboard and their operations, equipments and discharges will be monitored. These trained and independent observers will have the right to interview, query crew member of cruise ships, access to all data, and information of the ship and submit the inspections record to the authorities on a semiannual basis.

The last establishment of the bill is the cruise vessel pollution control fund. The fund will be used to carry out the inspections and cruise observer program. Penalties, payments collected for violations and fees that will be collected for each passenger on cruise ship will generate the fund. Moreover, while authorities are setting the fee, cruise ship routes, frequency of stops at ports of call and other considerations will be taken into account.

The bill is the latest legal document introduced to the Congress and it presents new regulations that are stringent than the previous act and provides durable monitoring, inspection and funding. Although the bill hasn’t been introduced to the federal legislation in 2009, some states adopted similar regulations into their legislations even before. Alaska is one of these states taking regulations on the cruise ship pollution one step forward and its regulations will be discussed as an example in the following chapter.

5.3 Alaska State Law

Every state in USA has their regulations for cruise ships; some states that suffer from cruise ship’s pollution have more stringent rules than other states. Alaska is the leading state in USA with its legislation and implementation. The rules applicable to cruise ships are regulated in 2001 at Alaska Statutes, under title 46; water, air, energy and environmental conservation, chapter 46.03; environmental conservation, article 7;
commercial passenger vessel environmental compliance program. The rules are the most advanced ones in the country and they have solid implementations, which are tiered for the cruise ships. Section 46.03.461 requires the owner or operator of the cruise ship to register its ship before it enters to the marine waters of the state. Registration requires an agreement to comply with discharge conditions and a database about the owner or operator of the ship. The agreement, which is regulated in section 46.03.462, prohibits discharge of untreated sewage, treated sewage, greywater, or other wastewaters into the marine waters of the state. The operator or the owner is required to maintain records, report the discharge and allow the department to access to these records, samples and reports. This obligation gives the burden of monitoring to cruise ships and provides concrete evidences if there is a discrepancy with the ship’s operation and its records. For the database, they have to give their postal address, email address, telephone numbers, their designated agent’s name and address and the name or call sign of and Port of Registry for each ship is required. The owner or operator shall execute registration under the oath, which requires them to make a legally binding statement to the authorities. To sum up the registration process can be considered as the first tier for the pollution prevention.

In section 46.03.463, discharge conditions are regulated; discharge is prohibited into marine waters of state except for the purpose of securing the

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85 Agent must be an individual resident of Alaska, a domestic corporation, or a foreign corporation having a place of business in and authorized to do business in the state.

86 The Alaska State Legislature, 22nd Legislature (2001), Section 46.03.463; “A person may not discharge greywater, sewage or other wastewater from a commercial passenger vessel into the marine waters of the state that has suspended solids greater than 150 milligrams per liter or a fecal coliform count greater than 200 colonies per 100 milliliters except that the department may by regulation adopt a protocol for retesting for fecal coliform, if this
safety of the cruise ship or saving life at sea. The regulation gives a clear statement to cruise ships about what are the conditions for discharge and which acts will cause a violation for them. The distinguishing regulations are the requirements to have an “Ocean Ranger” onboard and an environmental compliance fee. Ocean Ranger is “a marine engineer licensed by the United States Coast Guard or a person who holds a degree in marine safety and environmental protection, or an equivalent course of study approved by the department, from an accredited maritime educational institution.”87 The duty of the Ocean Ranger is to act as an independent observer to monitor cruise ships operations on discharge and share his records with the authorities. This implementation of an independent observer would constitute the second tier which would strengthen the monitoring. The environmental compliance fee is the last tier which takes the protection expenditure from authorities and put it on cruise liners shoulder. Every cruise ship operating in the marine waters of Alaska is obliged to pay the fee which is calculated per berth of the ship and an additional fee again calculated per berth for the Ocean Ranger programme.88 The collected fees will generate a fund for the department’s operational costs.

In conclusion, State of Alaska took the initiative for marine environment protection on step forward and adopted advanced rules. The responsibilities are shared between the state and the cruise ships where monitoring, financial burden are given to the cruise ships and providing the observers, to find economically feasible methods of pollution prevention are given to state. However, it is important to discuss the possibility of implementing the same rules in Turkey. First, Alaska is in a unique position in the US market where there is no other location that can provide similar destinations with its nature and climate in the region. The state received 28.5 percent of the total cruise

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87 The Alaska State Legislature, 22nd Legislature (2001), Sec. 46.03.476.
88 The Alaska State Legislature, 22nd Legislature (2001), Sec. 46.03.480.
ship visits and about 3.9 million of passengers. 89 Turkey on the other hand, which receives less than half of these passengers and visits to its ports, has to compete with other destination countries that have the similar nature and already having a bigger share in the Mediterranean Region. Imposing an extra fee on cruise ships will make Turkey an expensive destination for cruise lines and thus it will impede the competitiveness of the country, additionally the lack of technical capacity for the independent observer’s programme is another handicap for the monitoring. A similar training of relevant personnel for waste control regulation under 2000/59/EC directive has publication date for 2009-2011 under the National Programmes for the Adoption of the Acquis 2008 90, which proves that there is not enough capacity for the monitoring personnel at present. Third, the only applicable measure could be the registration where the discharge conditions can be imposed on cruise ships by the agreement after they are regulated clearly for an efficient implementation and databases from cruise ships shall be collected to keep their records and to have a representative of the company in the country.

6 European Union Marine Environment Regulations

European Union’s legislation has the main regulations and directives for Turkey to adopt on marine environment protection during its candidacy. Moreover, EU regulations should be mentioned to make their influence on Turkish legislation more understandable. Therefore, this chapter will state the EU’s marine environment regulations. Directorate General for Maritime Affairs and Fisheries is the authority which creates the Integrated Maritime Policy in the European Union. It is one of the main policy makers which coordinate the maritime policy with other policy areas to have consistency within EU policies. The other policy maker is the Committee on Safe Seas and the Prevention of Pollution from Ships. The Committee was established after regulation 2099/2002; the aim of the regulation is to have a single committee to centralize tasks and assist to the Commission. The maritime policy brings several maritime activities together such as fisheries, tourism, the environment and shipping. Therefore the policy’s one of the main goals is; “Maximizing sustainable use of the oceans and seas while enabling growth of the maritime economy and coastal regions.” In 2005, the European Commission pointed the need for an all-embracing maritime policy and decided to prepare a Green Paper on a future European Union Maritime Policy. The paper constitute a first step for the establishment of

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91 A unique economic and political partnership between 27 democratic European countries; Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. http://europa.eu/about-eu/basic-information/index_en.htm (last visited 23.03.2010)


that policy and it combine all other policies which have developed separately before so there would be one comprehensive maritime policy. The aim of the Green Paper was to open a debate on future maritime policy\textsuperscript{95}; to keep the growth and the competitiveness in maritime economy but also a sustainable maritime development with regulatory frameworks. The other topics were: to maximize the quality of life in coastal regions where marine activities and land-based activities can mutually reinforce each other. Moreover, provide data, network and integrate the existing information to create tools to manage the EU’s relation with the oceans, coordination and cooperation among members of the EU on governance and also EU’s responsibility at international level for an effective governance, to encourage the maritime heritage and to link it to enhance the performance of maritime sectors.

In 2007, The Commission prepared an Action Plan named as “Blue Paper” in the light of the Green Paper. The instruments for creating common maritime policy were discussed at the plan. Cruise Industry was mentioned one of the strong growth markets but a need to establish a high level of maritime safety and security which also ensures marine environment protection was pointed. A European network for maritime surveillance, an integrated coastal zone management and a roadmap, complete and accessible source of data and information on natural and human activity on the oceans to facilitate strategic decision-making on maritime policy were the instruments introduced by the paper. The next framework was the “Guidelines for an Integrated Approach to Maritime Policy: Towards best practice in integrated maritime governance and stakeholder consultation”\textsuperscript{96} in 2008 which supported the establishment of national integrated maritime policies. Local decision-makers, government organizations and all maritime stakeholders should be allowed to participate in the policy-making process. The information share among member countries and cross-border


\textsuperscript{96} COM(2008)395.
coordination at regional sea level was also encouraged by the Commission; a report would be prepared by the Commission by the end of 2009 to share the progress towards the maritime policy.

The latest report was published in 2009 “Progress Report”\(^{97}\) which sum up the achievements during two years and implementations of the member countries. According to the report countries started to create their national integrated maritime strategy\(^{98}\), local decision makers started to work with their national government organizations and they organize The Conference of Peripheral Maritime Regions (CPMR) which follows the Action Plan, maritime stakeholders (such as the Maritime Industries Forum (MIF), which represents 25 maritime trade associations, and the European Network of Maritime Clusters) held their “The European Maritime Day Stakeholder Conference” as an annual event to participate in the integrated maritime policy. The European Council signed the Protocol on Integrated Coastal Zone Management under the Barcelona Convention in 2008, a practice to support the policy. The Commission launched two pilot projects\(^{99}\) for the maritime surveillance which aims to promote closer cooperation between authorities in the Mediterranean and the Northern Sea basin. The European Marine Observation and Data Network (EMODNET) were established for providing the knowledge of the seas and reducing the operational costs for marine data use. For coordination and cooperation of the member states the Commission put the “The Communication on the Mediterranean”, “the EU Strategy for the Baltic Sea Region” and “The European Union and the Arctic Region” as regional approaches. Progress Report stated the six important directions of the integrated maritime policy; enhancing the integrated maritime governance, cross-cutting policy tools, to define the boundaries of sustainability of human activities, establish sea-basin strategies, to take a leading role in improving global maritime governance and to implement the integrated maritime policy. The Commission would

\(^{97}\) COM (2009)540.


\(^{99}\) MARE/2008/13 and MARE 2009/04.
prepare a policy document in 2010 regarding the projects and developments in the policy.

6.1.1 Rules Regarding to Cruise Ships

The EU legislation introduced the regulations regarding to cruise ships by adopting directives or acceding the international conventions. Thus, this paper will study the directives and the conventions which are applicable to cruise ships. The Council of the European Communities adopted the Barcelona Convention and its protocols to the EU’s legislation. The Community acceded to the Convention and its protocols by the Council Decisions; 77/585/EEC, 81/420/EEC, 83/101/EEC, 84/132/EEC, 1999/800/EC, 1999/801/EC, 1999/802/EC and 2004/575/EC. Therefore all the regulations regarding cruise ships that can be applicable at the Barcelona Convention are also introduced into EU legislation. For another international convention; the EU countries have different participations to MARPOL 73/78 and its annexes; however, this paper will consider only the EU countries littoral to the Mediterranean Sea. Greece, France, Spain, Italy, Cyprus, Malta and Slovenia are the EU countries around the Mediterranean Sea. All these countries accepted the MARPOL Convention 73/78 and Annexes I, II, III, IV and V.

There are several directives concerning the cruise ships in the EU legislation; Council Directive 94/57/EC regulates the common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations. Member states are required to recognize their competent administrations that meet all the criteria set at the annexes of the directive and inform the Commission and other member states. One thing should be highlighted for the enforcement of the directive is that; member states shall ensure that ships flying a third State flag are not treated more favorably than ships entitled to fly the flag of a member

\[100\] "Study of the current status of ratification, implementation and compliance with maritime agreements and conventions applicable to the Mediterranean Sea Basin” With a specific focus on the ENPI South Partner Countries, Agreco Consortium, Contract Nº 2009/205461/1, December 2009, p. 58.
Directive 2000/59/EC regulates the port reception facilities for ship-generated waste and cargo residues. Directive refers to MARPOL Annex I, IV and V for the definition of the ship generated waste. Application of the directive is not only restricted with the member states’ vessel but to all ships irrespective of their flag, calling at, or operating within, a port of a member state and to all the ports of the member states visited by those ships. The important decision at the directive is that members are required to have an adequate port facility which means the focus is on the ship operations in EU ports rather than sea. A step forward progress is that directive implements “polluter pays” principle by delivering legal, financial and practical responsibilities of the parties who involved in delivery of the waste and residues. Directive gives the enforcement power to the member states and gives them the right to inspect and hold the ship until they deliver their waste and residues. Council Directive 95/21/EC regulates the port state control duties of the member states. Directive’s purpose is to set common criteria for port state control and harmonize procedures on inspection and detention. This directive gives empowerment to member states on inspection and detention of the member’s ships and also non-member states’. In 2002, Directive 2002/84/EC was adopted in order to improve the implementation of legislations on marine safety, prevention of pollution from ships and shipboard living and working conditions. The Directive made amendments to several previous directives.

102 2000/59/EC, Article 2, c.
103 2000/59/EC, Article 3.
104 2000/59/EC, Article 4(2); “…the reception facilities shall be capable of receiving the types and quantities of ship-generated waste and cargo residues from ships normally using that port, taking into account the operational needs of the users of the port, the size and the geographical location of the port, the type of ships calling at that port…”
105 2000/59/EC, Article 8.
106 Legal base for the inspection comes from a previous directive; 95/21/EC, Council Directive concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port State control), Article 9.
107 2000/59/EC, Article 11.
according to developments in the international instruments and supported establishment of the Committee. European Union legislation based on international conventions and resolutions; however, it has the scope to adopt more detailed, fast and effective legislation. This scope can be recognized at the Directive 2005/35/EC. The purpose of the directive is to incorporate international standards into community law and ensure adequate penalties for the responsible persons. Directive is applicable to all ships irrespective of its flag and applicable at internal waters, territorial seas, and exclusive economic zones of member members, high seas and straits. That regulation widens the application area and makes the directive more effective. Article 8 of the directive is a clear obligation for member states to give criminal and administrative penalties to any person who is found responsible, detailed circumstances are mentioned at annexes of the directive. Laws, regulations and administrative provisions of the member states are required to comply with the directive by the time set by it. The latest directive on the agenda is COD/2008/055, the new amendment to directive 2005/35/EC instead of annulled framework decision of 2005/667/JHA by The Court of Justice of the European Communities. The new directive supplements the directive 2005/35/EC and provides criminal-law measures following the judgment of ECJ. For the common marine environment strategy the European Parliament and The Council of The European Union prepared the Directive 2008/56/EC which established a framework for community action in the field of marine environmental policy in 2008. The purpose of the directive is to develop the marine strategy and member states are required to maintain “good environmental status” by the year 2020. The directive applies to all marine waters of the member states and also takes account of the

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109 Supra n. 91.
111 2005/35/EC, Article 16.
112 “The ECJ annulled the Framework Decision, ruling that its articles on the definition of the criminal offence and the nature of the penalties (Articles 2, 3 and 5) could have been adopted on the basis of Article 80(2) of the EC Treaty and that the Framework Decision therefore violated Article 47 of the EU Treaty by encroaching upon the powers of the Community”. From C-440/05; Commission v Conseil, published in the European Court Reports.
113 2008/56/EC, Article 3.5.
transboundary effects of the pollution to third states. The importance of this directive is that member states are obliged to establish their programme of measures and implementation by 2013 which puts time pressure on members to react and that will lead the pollution from cruise ships to be taken into consideration during that process.

Nevertheless, there are still problems concerning the marine environment policy in the European Union. Although its member adopted many IMO agreements, EU has never taken the initiative to create a policy for the whole union until 2005. Furthermore, the marine protection policy still exists generally at regional level where member states put forward regional practices. Even the 2008/56/EC directive requires national programme of measures from each member which degrades the problem to a “renationalized” level and would exclude centralized EU measures. In addition to that, the directive requires these programs without providing a general data available on the EU’s marine environment. Diversification on members’ interest to take measures also lacks to have a common policy; some countries could avoid taking measures which would have negative impacts on their economies. Moreover, many directives under the policy were adopted after the big accidents affected the EU countries. The policy was firstly aiming to prevent accidents and provide safe transportation; marine environment was not the primary concern. After the Green Paper and directive 2008/56/EC, marine environment protection became major objective of the marine policy. However, policy will be incomplete without

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114 2008/56/EC, Article 4 states the marine regions and subregions when implementing the obligations under the directive, the Mediterranean Sea and Black Sea are counted among these regions.
116 Helsinki Commission (HELCOM) and Ospar Commission (Oslo and Paris Commissions) are examples of the regional initiatives where some EU member countries try to handle the marine environment protection without EU’s involvement.
118 Krämer L, 2007, p. 75.
all members’ participation, integration with other EU policies\textsuperscript{121}, comprehensive measures for all and regional marine environments, strong enforcement and monitoring of the enforcements of the members by the EU’s institutions.\textsuperscript{122}

\textsuperscript{121}Policies relating to agriculture, energy, trade, foreign affairs and development are relevant and have indirect impact on marine environment. Salomon M, 2006, p. 1329.

\textsuperscript{122}Krämer L, 2007, p. 83.
7 Turkey’s Marine Environment Regulations

7.1 Turkey’s Candidacy to European Union

Turkey’s membership application dates back to 1959 when Turkey applied to the European Economic Community for associate membership. They signed the Ankara Association Agreement in 1963 which was aiming to bring Turkey into a Customs union with the EEC and to a membership. In 1970, the “Additional Protocol” was signed which prepared the ground for the establishment of the customs union. In 1987 Turkey applied for full EEC membership, during years Turkey tried to meet the Copenhagen Political Criteria for opening the accession negotiations until 2005. During that time in 1995 Turkey entered to customs union with the EU and in 1999 EU Helsinki Council recognized Turkey as a candidate country and open the way for the application to the union. In 2005 the EU considered that Turkey met the Copenhagen Political Criteria and decided to start accession negotiations. Thenceforth the negotiations are still going and there are 35 chapters of the acquis\(^\text{123}\) that Turkey has to adopt and implement.

\(^{123}\)Definition of the chapters of the acquis: “They form the basis of the accession negotiations for each candidate country. They correspond to the different areas of the acquis for which reforms are needed in order to meet the accession conditions. The candidate countries are required to adapt their administrative and institutional infrastructures and to bring their national legislation into line with Community legislation in these areas. The different chapters are reviewed during the screening of the acquis and are evaluated regularly up until the time each chapter is closed.” European Commission Glossary, [http://ec.europa.eu/enlargement/glossary/terms/acquis-chapters_en.htm](http://ec.europa.eu/enlargement/glossary/terms/acquis-chapters_en.htm) (last visited 23.03.2010). The chapters are; Free movement of goods, freedom of movement of workers, right of establishment and freedom to provide services, free movement of capital, public procurement, company law, intellectual property law, competition policy, financial services, information society and media, agriculture, food safety, veterinary and phytosanitary policy, fisheries, transport policy, energy, taxation, economic and monetary policy, statistics, social policy and employment, enterprise and industrial policy, trans-European Networks, regional policy and coordination of structural instruments, judiciary and fundamental rights, justice, freedom and security, science and research, environment, consumer and health protection, customs union, external relations, foreign, security, defense policy, financial control, financial and budgetary provisions, institutions and other issues.
The first chapter was science and research which opened and closed in 2006, so far free movement of capital, company law, intellectual property rights, information society and media, taxation, statistics, enterprise and industrial policy, trans-European networks, consumer and health protection, financial control and the latest environment chapters are open for negotiations. During the negotiation process, some key chapters might be postponed because of the political conflicts among countries. However, all chapters have to be closed by the candidate country in order to become a member. This paper will focus on marine protection policy of Turkey; the subject falls under the transport chapter which is not opened for the moment. The chapter is critical since it requires substantial adoption, large-scale investment and changes at the environment policy.

7.2 Cruise Industry and Its Economic Impact in Turkey

Turkey’s position in the cruise industry is related with its involvement. Turkey doesn’t serve as a major source for providing crew, passengers and it doesn’t host any cruise lines’ headquarters. Moreover, it doesn’t have shipbuilding and repair services and very limited provisioning and fuelling of cruise ships. However, it does serve as a growing destination market for cruise industry. The cruise industry in Turkey doesn’t show presence in shipping industry but it has a strong presence in tourism industry. In 2008, total 1,612 cruise ships visited Turkish ports and they brought total 1,605,372 passengers. Although it has a long seasonal availability and destination-led situation in the region; the lack of ports for cruise ships is a

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124The conflict is between Turkey and Cyprus. Turkey fails to apply the additional protocol to the Ankara Agreement to Cyprus. It has restrictions on Cyprus and closes her ports to Cypriot ships. The restrictions cause a failure to comply her obligation on free movements of goods and transport and that’s why no chapter will be provisionally closed until Turkey has fulfilled its commitment.

125Eight chapters (free movement of goods, right of establishment and freedom to provide services, financial services, agriculture and rural development, fisheries, transport policy, customs union and external relations) are closed by the conclusion of the Council (General Affairs and External Relations) on 11.12.2006 and it was endorsed by the European Council on 14/15.12.2006.

major problem. There are three major ports in Turkey; Istanbul, Kusadasi and Izmir, they constitute seventy percent of the whole port-of-calls. The other ports are considerably small and their infrastructures are not capable of serving to big cruise ships. Nevertheless, under inducement from law for the encouragement of tourism and tourism strategy plan,\textsuperscript{127} many ports will be enlarged and they will have the capable infrastructure to serve to cruise ships and already some Turkish ports are chosen as an embarking port by cruise lines.\textsuperscript{128} In conclusion, the number of cruise ships and passengers are expected to rise due to growing port capacities in the future.

7.2.1 Turkey’s Regulations on Marine Environment Protection

Turkey’s regulations on marine environment protection are shaped by international conventions and national legislation. In the first part, international conventions which mentioned before in the paper and Turkey’s participation to these conventions and the implementation of them will be discussed. In the second part, the national legislation regarding to the marine protection in the constitution, laws, statutory instruments, regulations and the possible changes under the EU membership’s negotiations will be studied.

7.2.2 International Conventions

As mentioned before, among the conventions, the UNCLOS is the most universally accepted one which Turkey is not a party and a persistent objector to that Convention. The regulations of the Convention are not binding for Turkey although they become customary law for many countries. Nevertheless, Turkey’s objection is not against the UNCLOS Part XII which regulates the protection and preservation of the marine environment but to regulations regarding to the limits of the territorial...

\textsuperscript{127} Ministry of Culture and Tourism, “Law for The Encouragement of Tourism” (Law No: 2634, Date of Official Gazette: 16/3/1982, Official Gazette No: 17635), Tourism Strategy of Turkey 2023, p. 37

\textsuperscript{128} Since 2005, Istanbul and Izmir have been serving as an embarking port to MSC Cruise Lines. \url{http://www.msccruiseturkiye.com/izm_ist_cikislitur.html} (last visited 23.03.2010)
waters and to settlement of disputes. Moreover, Turkey is following her obligation to protect marine environment by being party to many other conventions regulating the marine environment protection such as MARPOL 73/78 and Barcelona Convention. Turkey adopted the Barcelona Convention (the new version amended in 1995) in 2002 and its protocols except the Offshore and ICZM protocols. Under the Convention Turkey is obliged to implement the regulations on marine environment protection.

Turkey became a party state to MARPOL 73/78 and Annex I, II and V in 1990. Turkey is not a party state to Annex III and IV; however, according to National Programmes for the Adoption of the Acquis 2008, the law on the approval to become a party of Annex III and IV of MARPOL 73/78 will be adopted during the 2009-2010 legislative year. Under that circumstance, Turkey shall adopt the regulations of MARPOL 73/78 and Annex I, II and V to prevent pollution from greywater, oily bilge water and solid waste. The adoption and the implementation of these regulations will be discussed under national legislation chapter.

### 7.2.3 National Legislation

#### 7.2.3.1 The Constitution of the Republic of Turkey

The Constitution is the legal basis of the all laws, regulations and communiqués. It does regulate rights in a broad way and leaves the detailed regulations to the laws. Article 56 of the Constitution regulates the conservation of the environment. It says; “Everyone has the right to live in a

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130 Offshore Protocol (Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil) and ICZM Protocol (Protocol on Integrated Coastal Zone Management) are both not in force yet. The other protocols are accepted in different years with the latest acceptance is in 2004.
131 Regulations of the Barcelona Convention is discussed in the previous chapter 4, therefore further will not be given in this chapter.
133 Secretariat General for EU Affairs, National Programmes for the Adoption of the Acquis 2008, p. 151.
healthy, balanced environment. It is the duty of the state and citizens to improve the natural environment, and to prevent environmental pollution." The duty of conservation of the environment is carried out by the Environment Code and its regulations which are discussed under the following titles.

### 7.2.3.2 The Environment Code

The Environment Code is the main legislation on the environment protection. It regulates the general provisions on environment and administrative fines on violations. Although the Code does not have complete regulations for marine environment protection, it constitutes the legal basis for several regulations on marine environment protection. There are no specific legal definitions of wastes from cruise ships; sewage, greywater, oily bilge water, solid and hazardous waste. However, article 2 makes general definitions of wastewater, solid waste, and hazardous waste, which under broad interpretation can be applicable to cruise ship’s wastes. Article 8 regulates the prohibition on pollution; in potential pollution cases, authorities are responsible for preventing the pollution, on the other hand, in pollution occurrence case it gives the responsibility to the polluting parties and holds them responsible to prevent, eradicate the impact and take necessary precautions. Under article 11, ports are required to provide the infrastructure to receive, transport, store and dispose of oily bilge water, solid waste, and greywater.

One of the important regulations for the implementation of the Code is the cessation of activities; under article 15, polluter’s activities can be ceased by

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136 Article 8; “It is prohibited to diffuse, directly and indirectly, all kinds of waste and scraps into recipient environment, store, transport, avert, and conduct similar activities by violating the standards and methods determined by corresponding regulations, and causing damage to the environment. In cases of a potential pollution, concerning authorities are responsible for preventing the pollution, and in cases of pollution occurrence, the polluting parties are responsible to prevent the pollution, eradicate its impact or take necessary precautions.”
the Ministry or authorities for a period of time or indefinitely, partly or wholly if polluter violates the prohibitions or fails to fulfil its obligations in the Code. Article 20 regulates administrative fines on ships according to their gross tonnage; the fine is applicable to ships in territorial waters and in waters under the jurisdiction of Turkey. The discharge of oil, oily bilge water, solid waste, greywater and hazardous substances into waters under the jurisdiction constitute the violation of the Code. Article provides a reduction up to 1/3 of the whole administrative fine if the vessel eradicates the impact of the pollution by itself; however, if the vessel does not pay the fine or doesn’t provide a letter of guarantee then it can be banned from its operations. Furthermore, if the actions recur in three years after the first violation, administrative fine will apply the same and if the actions recur twice in three years then the fine will apply in double.\(^\text{137}\) Article 28 is regulating the responsibility of the polluting party; they will be held responsible from the pollution regardless of the existence of any misconduct but there is five years of time limit for the damage claim starting from the time when the polluter and the claimant learn about the damage.

### 7.2.3.3 Regulations

#### 7.2.3.3.1 Regulation on the Determination of the Violation And Penalizing And Collecting of Administrative Fines Inflicted From the Environment Code\(^\text{138}\)

The Environment Code doesn’t regulate all the issues regarding the marine environment protection; however, the Code regulates them via its regulations. The provisions of the regulation apply to the ships in sea areas under the jurisdiction of Turkey. Although the regulation does not specify the cruise ship in the definition part general definition of ship makes it applicable to them.\(^\text{139}\) It has been clearly stated\(^\text{140}\) that authorized

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\(^\text{137}\) Article 23.
\(^\text{139}\) The Regulation defines ‘Ship’ as; regardless of the intended use, boats of any structure or type such as all seacraft, air cushioned boats, hydrofoils, platforms and submersibles which can set off in the sea or inland waters with a device other than oars. Article 4.
government bodies are in charge of establishing inspection teams for the determination of the violation from ships. These bodies are the Coast Guard and the Undersecretariat for the Maritime Affairs; sampling, monitoring and inspections shall be done by their officers according to the determination procedure. Regulation requires from polluter ships to pay the fine immediately and all in once, if the polluter can’t make the payment the ship owner, operator, captain or authorized person, agency, P&I club or charterer are required to provide a bank guarantee or indemnity letter from their P&I club. The ships that do not provide guarantee and bails will be ceased from operation, if a foreign ship ceased from operation related port administration will notify the flag state or the state of registry. Regulation gives the capability of claiming the collection of the fine from polluter ships that sailed out of the jurisdiction after polluting by making official claims through Foreign Affairs to the flag state or registry state of that ship. For ships that pollutes during their innocent passage, if they do not want to wait until the determination of violation process completed they have to pay the fine immediately and all in once or provide a bank guarantee otherwise they will be ceased. Taking all the articles into account, the regulation draws the line where it is applicable, authorized bodies for implementation, effective penalizing and collection system, right to cease the ship. To sum up the regulation proves that rules to implement to the pollution from cruise ships exist in Turkish legislation.

7.2.3.3.2 Reception of Wastes From Ships and Waste Control Regulation

The purpose of the regulation is to prevent the release of wastes stemming from ships to the marine environment in sea areas under the jurisdiction of Turkey and the establishment and operation of waste reception facilities and

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140 Regulation on the Determination of the Violation And Penalizing And Collecting of Administrative Fines Inflicted From the Environment Code, Article 7.
141 Regulation on the Determination of the Violation And Penalizing And Collecting of Administrative Fines Inflicted From the Environment Code,, Article 22.
waste reception ships in ports. The regulation applies to the ships in sea areas under the jurisdiction of Turkey and to the ports in these areas. Regulation, among its legal basis, refers to MARPOL 73/78 and Directive 2000/59/EC of The European Parliament and The Council of The European Union which means international conventions and EU regulations are adopted and became part of the Turkish legislation. The definition of waste at article 4 is also referred to MARPOL 73/78 Annex I, IV and V, which covers solid and liquid wastes produced as a result of regular activities of ships. It is forbidden to directly or indirectly release ship-generated wastes to the sea environment in a manner to harm the environment and private and legal persons in charge are obliged to give the ship-generated wastes to facilities or to waste reception ships. An important obligation under the regulation is that port managers are obliged to establish waste reception facilities in their port with adequate capacity and technical equipment. It should be noted that big cruise lines do not only operate ships but they also operate the ports. Kusadasi which is the biggest cruise ship port in Turkey is operated by Ege Ports; a company whose biggest shareholder is Royal Caribbean Cruise Limited. For ships calling at ports within the sea areas of Turkey or waiting off, are obliged to deliver their wastes to waste reception facilities and waste reception ships. While calling at port the master of the ship shall notify to the port manager or port authority the type and amount of waste on board, whether the ship will deliver its waste or the fact that it will discharge wastes in the next port. On the other hand, port authorities are obliged not to allow ships, which are determined not to have enough storage volume in their existing waste tanks for the wastes that will be generated before reaching the next port, to set off until their wastes are received. Ships which have sufficient storage volume, but do not give their wastes shall be notified to the port authority of the next port of call of the ship. Regulation distributes the obligation of waste disposal between cruise ships and port authorities, providing dual precaution to prevent the illegal

143Reception of Wastes From Ships and Waste Control Regulation, Article 3.
144International Finance Corporation, http://www.ifc.org/ifcext/spiwebsite1.nsf/1ca07340e47a35ec2d01704c007000de/833F6C28E1842FBE852576C10080CC1E (last visited 23.03.2010)
discharges to take place later. It also obliges both sides to fill the “transfer form for ship-generated wastes” when waste disposal takes place, the form has to be kept by the port authority and presented in case of an inspection. A fee is introduced by the regulation for waste reception services which will be determined by the Ministry. Furthermore, the administrative and penal provisions of the Environment Code are applicable in case of breach of the provisions of the Regulation. This regulation is the latest legal document which was promulgated on the Official Gazette Issue 27525 of 18/3/2010 and came into effect on 1/4/2010. It can be interpreted as the legislation was harmonized with EU legislation and the EU directives are becoming part of the national legislation. It is important to mention that many cruise ships are coming from EU ports where the regulations are stringent than many other Mediterranean Countries. For cruise ships legal gaps and lax regulations provide suitable environment for illegal discharge. Therefore it is for the benefit of Turkey to adopt regulations that are detailed and enforce them strongly for the marine environment protection.

7.2.3.3.3 Port State Control Regulation\textsuperscript{145}

The purpose of the regulation is to maintain the standards set at the international conventions, national legislation, to ensure safety, prevention of pollution and improve shipboard living. The regulation applies to the ships that visit ports, sea and shore structures of Turkey or anchor in these areas. Regulation is drawn up on the basis of the provisions of Directive 95/21/EC of The European Parliament and The Council of The European Union which is another directive adopted into national legislation. The Undersecretariat for Maritime Affairs is the authorized institution for the port state control which is required to hire inspectors according to the standards set for inspectors. The number of inspections under port state control cannot be less than one quarter of the average number of ships visited ports of Turkey during last three years. The inspector is obliged to inform the authorities with the reasons if enough inspections do not take

\textsuperscript{145} The Undersecretariat for Maritime Affairs, Port State Control Regulation, Date of Official Gazette: 26/03/2006, Official Gazette No: 26120.
place which ensures the regulation to bound the authorities for implementation. There are three important measures in the regulation that can be taken by inspectors; stoppage of an operation, detention order and denying entry to port. However, the owner or the operator of a ship or his representative have a right of appeal against a detention decision taken by the authority but the appeal shall not cause the detention to be suspended and the appeal shall be done in one month starting from the detention day. The regulation gives the reimbursement of costs relating to the inspections to shipowner, the operator or the representative in Turkey, moreover, the detention shall continue until full payment has been made or a sufficient guarantee has been given for the costs. Port state control is an effective way for states to enforce international requirements and their regulations. Nevertheless, implementation can be ignored by the coastal states in order to guarantee a place in the market and continue to be an attractive destination for cruise ships. Another factor in the region is the diverse implementation of the international conventions. In countries where the awareness of marine environment protection is high the implementation is accomplished according to the conventions and sometimes can be even stricter. On the other hand, other countries where the awareness is low, economic interests can prevent proper implementation and put pressure on other countries to do the same. The situation will lead to a race to the bottom where the existing regulations will not be taken into consideration and functioning marine environment protection will fail. Turkey has its own share in the tourism sector but it tries to get a bigger share from the cruise industry market. Regulations that are already adapted to national legislation are adequate to ensure effective marine protection. However, there is no regulation to guarantee that country will be committed to its regulation and implement them properly.

7.2.3.3.4 Conclusion on Turkey’s Marine Environment Regulations

Turkey is changing its legislation and adopting new regulations that are in harmony with the EU’s. The motive for the change is coming from the
candidacy. Furthermore, Turkey also follows its obligations at international conventions and tries to become party to the conventions that it is not. All these changes can be seen at the legal basis of the new regulations that are adopted recently and at the National Programme. Nonetheless, it should not be only adopting the regulations but more important task should be to implement these regulations.
8 Conclusion

Cruise ships are relatively the new ship type in maritime field that is developing and improving every year. Cruise ships are getting bigger and more complicated because of the demand from cruise liners who are trying to satisfy the appetite of millions of cruisers in the world.\textsuperscript{146} Considering their contribution to tourism and shipping they have considerable benefits to countries’ economies. However, although they have pros for economy they have cons for the environment. They sometimes referred as floating hotels because they can take huge numbers of people on board.\textsuperscript{147} That might cause problems when it comes to discharge the wastes of these people. Their intended use makes them eligible to produce different kinds of waste in huge amounts everyday. Although there are some new technologies that are developed for reducing the amount and let them to handle the waste on board, they are relatively expensive and require high maintenance costs.

Cruise industry is naturally a part of the tourism industry where high costs are disadvantage and reduce the competitiveness. Cruise industry in that sense is sensitive to price and cruise liners are not eager to bear the costs. Putting the burden of costs on cruisers can be a solution but if players in the market are not following the same practice then there would be no interest for the solution. In that circumstances countries have the leading role to make sure that cruise ships are not polluting the marine environment. Incidents proved that if there is no strict regulation and monitoring, cruise ships are taking advantage of the situation and involve in violations.

Some countries, which are suffering from violations and failing initiatives of cruise liners, are taking the regulations one step forward. In USA, Alaska can be a good example for the rules, their implementation and funding of the implementation. In the closer region, EU is also trying to take the initiative and have common rules among its member. Turkey in that sense as a candidate country is trying to adopt its legislation to EU. It is also following

\textsuperscript{146} Dowling, K. Ross, 2006, p. 7.
\textsuperscript{147} Dowling, K. Ross, 2006, p. 3.
the international conventions and implements the principles and rules that are binding on every country. The new amendments to the Environment Code and references at the latest regulations to international conventions, EU directives show that the legislation is changing. Nevertheless, there are some factors that should be mentioned in that process. Uncertainty on the chapters related to transport, which many of the marine environment regulations are stated, during the membership negotiation can be an excuse to postpone the adoption and enforcement of the rules. The other reasons can be; the disputable territorial waters in the Aegean Sea which could hamper monitoring, lack of capacity for extensive monitoring, not following other legislations and international conventions, not implementing the “polluter pays” principle properly and change it into “payer pollutes”. The last but not the least one is the competition for more economic benefits. Turkey, which is a transition country in the EU candidacy, will feel the pressure between implementing the marine environment regulations and accept to give the priority to marine protection. On the other hand, as becoming a major destination country try to be more attractive to cruise liners and condone the violations. EU membership requires many adaptations of the regulations and more than this the enforcement which is proceeding in Turkey. Nevertheless, it will be the candidate country’s choice to become part of the race to the bottom or take part at the commitment on marine environment protection.
Supplement A

Polluter Pays Principle

OECD introduced the principle in 1972. The first definition was at the “Recommendation of the Council”\(^{148}\) for the member countries’ governments to adopt the new mechanism into their environmental control policies. The definition was; “the polluter should bear the expense of carrying out the measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment”. In 1975, the Council of the European Communities adopted the principle as recommendation for the cost allocation and action on environmental matters.\(^{149}\) The first international appearance of the principle was in 1992 Rio Declaration, article 16 defined it but it didn’t make the principle legally binding on countries. Although countries were not bound by this obligation in the international law, it appeared in some international conventions.\(^{150}\) Furthermore, the principle raised discussion on two subjects; responsibility and funding the compensation. The principle doesn’t indicate the polluter and the limit of the liability will change according to interpretation. Negligence has to be proven and it doesn’t put the loss on the polluter because the harm is unforeseeable and unavoidable, strict liability is close to the principle but many international conventions limit the compensation amount and exclude environmental losses.\(^{151}\) The damage should be paid by the polluter; nevertheless the big accidents might lead the polluter to bankruptcy. However, putting the burden on tax payer, the polluters will avoid taking measures to prevent accidents. Therefore, there could be different implementations on responsibility and compensation hence the practice of the principle is left to national laws rather international laws.\(^{152}\)

\(^{148}\)OECD Council Document, “Recommendation of the council on guiding principles concerning international economic aspects of environmental policies” [Ce. C/M(72)15(Final), Item 129(a), (b) and (c) - Doc. No. C(72)128].


\(^{151}\)Birnie, Boyle, Redgwell, 2008, p. 324.

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